

# **Environmental Standards for Tasmanian Marine Finfish Farming 2023**

## **CONSULTATION DRAFT**

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# **This document is a Consultation Draft of the Environmental Standards for Tasmanian Marine Finfish Farming 2023.**

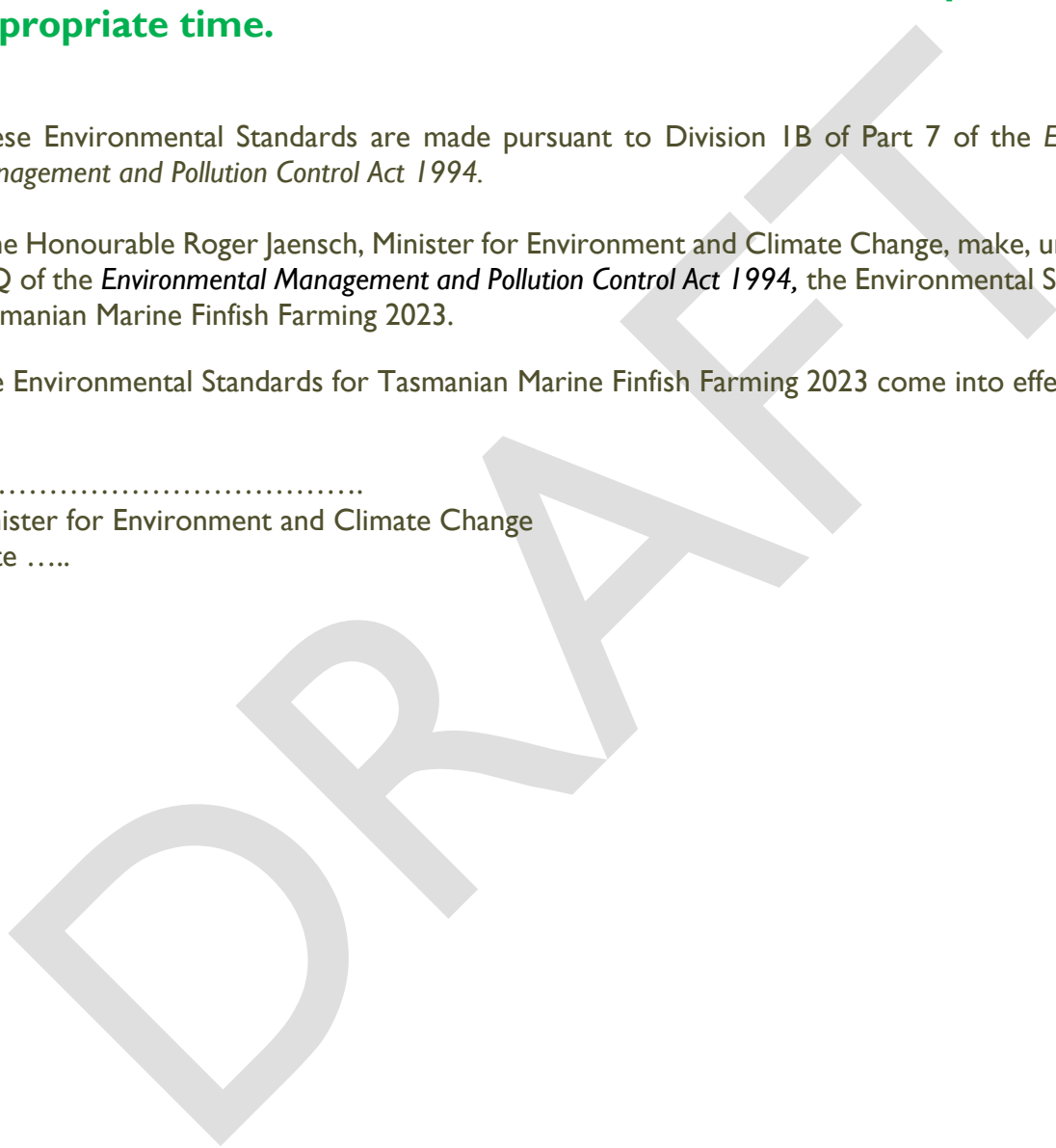
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These Environmental Standards are made pursuant to Division 1B of Part 7 of the *Environmental Management and Pollution Control Act 1994*.

I, the Honourable Roger Jaensch, Minister for Environment and Climate Change, make, under section 96Q of the *Environmental Management and Pollution Control Act 1994*, the Environmental Standards for Tasmanian Marine Finfish Farming 2023.

The Environmental Standards for Tasmanian Marine Finfish Farming 2023 come into effect on .....

.....  
Minister for Environment and Climate Change  
Date .....



# PART I – PRELIMINARY

## I. Purpose and Objectives

These Environmental Standards are made to support sustainable marine finfish farming in Tasmania by establishing environmental management requirements to be applied by the Environment Protection Authority.

The Environmental Standards include provisions the finfish farming industry must meet to be granted an environmental licence and for operating under an environmental licence under the *Environmental Management and Pollution Control Act 1994* (the Act). The Environmental Standards are designed to protect the Tasmanian marine and coastal environment by promoting sustainable use of Tasmania's marine waters for finfish farming. The Environmental Standards will further strengthen the current environmental regulatory system and provide for the regulation of potential nuisance impacts upon Tasmanian coastal communities.

Where necessary the Environmental Standards reference Technical Standards that describe specific requirements and acceptable methods regarding monitoring, evaluation and assessment, data management and other relevant processes.

These Environmental Standards include, in accordance with section 96O of the Act:

- (a) provisions to which the Board or Director must have regard in making certain determinations under the Act;
- (b) environmental standards conditions;
- (c) environmental standards offence provisions; and
- (d) provisions that are necessary or convenient for the effective operation of these Environmental Standards.

**Part 2** of these Environmental Standards contain provisions enabling the Director to determine or approve certain things for the purposes of these Environmental Standards.

**Part 3** of these Environmental Standards include, in accordance with section 96O(4)(a) of the Act, provisions to which the Board or Director must have regard in making certain determinations under the Act.

**Part 4** of these Environmental Standards include, in accordance with section 96O(4)(d) of the Act, environmental standards offence provisions. The Environmental Standards offence provisions apply to licence holders, or to lessees and sub-lessees, as specified in the provisions.

If a person to whom an environmental standards offence provision applies fails to comply with the provision, the person commits an offence against section 96U(4) of the Act.

**Part 5** of these Environmental Standards include, in accordance with section 96O(4)(c) of the Act, environmental standards conditions.

An environmental standards condition is set out in these Environmental Standards so that the condition may be imposed on an environmental licence, by a reference to the condition set out in these Environmental Standards. This enables such conditions to have standard wording, which enables a consistent approach to operation, assessment and monitoring protocols.

If a licence holder breaches an environmental standards condition that is imposed on the environmental licence, the licence holder commits an offence against section 42C(4) of the Act.

## 2. Interpretation

### I. In these Environmental Standards –

**Act** means the *Environmental Management and Pollution Control Act 1994*;

**actual nitrogen** means the dissolved nitrogen output derived from measured protein content in feed and is a term used to describe the amount of nitrogen released from different feed types used in contemporary aquacultural practices.

**ADCP** means Acoustic Doppler Current Profiler;

**ambient noise** means the all-encompassing sound at a point, being the composite of sound from near and far. Ambient noise is described using the  $L_{Aeq,T}$  descriptor;

**authorised officer** means an authorised officer under section 20 of the Act;

**A-weighted sound pressure level** has the same meaning as in the Australian Standard AS1055.12-1997 *Acoustics -Description and measurement of environmental noise – General Procedures*;

**background noise** means the A-weighted sound pressure level obtained by using time-weighting 'F' that is equal to or exceeded for 90% of the time interval considered in the absence of the sound under investigation. Background noise is described using the  $L_{A90,T}$  descriptor;

**bacterial mats** means a visible multi-layer of microorganisms, mainly comprised of bacteria, that can form on the seabed;

**baseline environmental assessment**, in relation to a lease, means a baseline environmental assessment that is carried out in accordance the requirements of the Director under Division 1 of Part 4 of these Environmental Standards;

**baseline environmental assessment report**, in relation to a lease, means an interim baseline environmental assessment report, or a final baseline environmental assessment report, that is approved in relation to the lease under Division 1 of Part 4 of these Environmental Standards;

**bathymetry** means the study and measurement of the water depth to the seabed and presentation of the results in a form analogous to topographical maps;

**biota** means animals and plants living in a particular place, time, or habitat;

**BEMP** means Broadscale Environmental Monitoring Program;

**benthic ecosystem** means that part of the seabed, including the seabed surface and sub-surface, that interfaces with the water column and in which significant biological activity occurs;

**biomass** means the weight of farmed finfish held in a given location;

**blackwater** means wastewater from toilets containing faeces and urine whether or not mixed with any other wastewater;

**bloodwater** means that part of the wastewater stream that contains blood from the harvesting and processing of fish;

**Board** means the Board of the Environment Protection Authority established under section 13 of the Act;

**Broadscale Environmental Monitoring Program**, in relation to a lease area, means the Broadscale Environmental Monitoring Program specified by the Director under Division 3 of Part 4, in relation to the lease area;

**compliance point** means a location selected to detect impacts of finfish farming activities at which certain parameters are measured which can be compared against compliance benchmarks for such parameters, including corresponding reference values;

**controlled waste** means controlled waste as defined under section 3 of the Act;

**dB(A)** means decibel when stating the A-weighted sound pressure level;

**Director** means the Director, Environment Protection Authority appointed under section 18 of the Act;

**depositional zone**, in relation to a lease, means the area extending from the boundary of the Farm Zone in relation to the lease to 35 metres beyond the lease boundary, within which environmental effects from particulate waste dispersed beyond the edges of fish farming pens situated in the lease area is likely to be measurable;

**dispersal zone**, in relation to a lease, means the area that extends 100 metres from the outer boundary of the Depositional Zone for that lease, or a distance otherwise specified by the Director, within which environmental responses from dissolved nutrients discharged from within the Farm Zone are likely to be measurable;

**dissolved nitrogen output** means the portion of nitrogen contained in feed inputs to marine finfish farms which is predicted to be released to the receiving environment in soluble form. Dissolved nitrogen output is a calculated value, using standardised methods to reflect nitrogen content in feed and science-based assumptions on the fate of nitrogen. Dissolved nitrogen is taken to be discharged in inorganic form;

**electronic map** means a map supplied in a Geographic Information System (GIS) transferable format to a defined datum using an agreed GIS platform, e.g. ArcGIS, QGIS or Mapinfo;

**environmental licence** means an environmental licence, granted under Part 3, Division 8 of the Act, in relation to finfish farming;

**environmental monitoring** means collection of data through observations, measurements or collection of samples for further analysis to characterise environmental conditions;

**environmental nuisance** means environmental nuisance as defined under section 3 of the Act;

**farm zone**, in relation to a lease, means the area, within the lease boundary of the lease area, that is contained within a pen bay grid or a collection of pen bays, being the expected area of maximum measurable environmental effect from finfish farming;

**finfish farming** means finfish farming as defined under section 5C of the Act;

**greywater** means wastewater that is generated from domestic processes such as dishwashing, laundry and bathing, but does not include blackwater;

**holder of a lease** means –

- (a) a person to whom a lease has been granted; or
- (b) if there is a sub-lessee in relation to the lease, the sublessee;

**$L_{A90,T}$**  for a specified time interval T, means the A-weighted sound pressure level that is equalled or exceeded for 90% of that time interval;

**$L_{Aeq,T}$**  for a specified time interval T, means the time average A-weighted sound pressure level, within the meaning given by Australian Standard AS1055.1, for that time interval;

**lease** means a lease granted under Part 4 of the *Marine Farming Planning Act 1995*;

**lease area** means the area which is the subject of a lease;

**lease boundary**, in relation to a lease, means the perimeter of the lease area;

**licence holder** means the person to whom an environmental licence has been granted under Part 3, Division 8 of the Act;

**management zones** means Farm Zones, Depositional Zones, Dispersal Zones and Regional Zones;

**marine farming development plan area** means the area to which a Marine Farming Development plan, approved under section 31(3)(a) or section 42(4) of the *Marine Farming Planning Act 1995*, relates;

**new lease** means a lease in relation to a lease area or part thereof within which there has not previously been any finfish farming carried out;

**noise sensitive premises** means residences and residential zones (whether occupied or not), schools, hospitals, caravan parks or similar land uses at which people are present for extended periods other than in the course of their employment or recreation;

**normal ambient noise** means ambient noise excluding the sound under investigation. Normal ambient noise is described using the  $L_{Aeq,T}$  descriptor;

**NSP** means noise sensitive premises;

**opportunistic algae** means fast growing and reproducing algal species that are adapted to exploit available nutrients and transient habitats;

**pen** (also “fish pen”) means the physical structure in which fish are kept, consisting of a floating collar and attached net or nets;

**pen bay** refers to a defined location within a pen bay grid where a pen may be placed;

**pen bay grid** means the area bounded by an imaginary line encasing a row, or rows, of pen bays placed next to each other;

**permit** means a permit granted under section 13(1) *the Living Marine Resource Management Act*;

**primary production** in ecology, means the conversion of energy into organic substances by photosynthetic producers (photoautotrophs), which obtain energy by harnessing sunlight, and chemosynthetic producers (chemoautotrophs), which obtain energy through chemical oxidation;

**production cycle**, in relation to a lease, means the period of time from stocking a lease with finfish to the time of harvest or removal of those fish or other time period agreed by the Director;

**raw data** means data collected from source that has not been processed, as distinct from information in reports that is the end result of data processing;

**reference values**, in relation to a lease, means the measurements of environmental parameters at a reference site in relation to the lease determined by the Director under item 3 of Division 1 of Part 2 of these Environmental Standards;

**reference site**, in relation to a lease, means a reference site determined in relation to the lease by the Director under item 1 of Division 1 of Part 2 of these Environmental Standards;

**regional area** means an area determined by the Director under item 1 of Division 2 of Part 2 of these Environmental Standards;

**regional zone**, in relation to a lease, means the area that extends from the outer boundary of the Dispersal Zone in relation to the lease to the outer boundary of the regional area in which the lease area of the lease is situated;

**spontaneous gas bubbling** means the release of gas bubbles from the seabed without disturbance of the seabed;

**sub-lessee**, in relation to a lease, means the person to whom the lease has been sub-leased, in accordance with the grant, by the Minister responsible for the *Marine Farming Planning Act 1995*, of an application for approval of the sub-lease under section 74 of that Act;

**therapeutants** means chemical substances used on veterinary advice that has a remedial effect and is used for the purpose of combating animal diseases;



**TPDNO** means the Total Permissible Dissolved Nitrogen Output, as calculated from feed input using calculation methods determined by the Director.

2. A word or phrase, that is used in these Environmental Standards, that is not defined in item 1 and is defined in the Act, has the same meaning as in the Act.

## **PART 2 – DETERMINATIONS BY THE DIRECTOR**

### **DIVISION 1. REFERENCE SITES AND REFERENCE VALUES**

#### **Purpose**

To assist in determining if changes to the condition of the marine environment, may be attributed to finfish farming a number of reference sites may be chosen for comparison in relation to a lease.

Reference sites will be selected, to the extent practicable, to have similar characteristics to a corresponding compliance point but unimpacted by finfish farming activity.

If measurements of certain environmental parameters (reference values) are made at reference sites, those measurements can then be compared with measurements of those same parameters measured at compliance points in the relevant management zone, in relation to the lease.

To allow an assessment of change over time, reference values may also be established through monitoring undertaken at compliance points during the baseline environmental assessment.

Establishing reference sites and reference values provides environmental benchmarks for leases to ensure the assimilative capacity of the marine environment is maintained within the Farm Zone, that healthy functioning soft sediment habitats are maintained within the Dispersal Zone, and that reef and seagrass ecosystem biodiversity and function is maintained within the Regional Zone.

#### **Determination of reference sites and reference values**

- 1) The Director is to determine reference sites and reference values in relation to a lease in accordance with any technical standard made for the purpose of this environmental standard. The determination is to take into account:
  - a) any baseline environmental assessment report in relation to the lease, if a baseline environmental assessment has been undertaken;
  - b) the results of environmental monitoring undertaken under a BEMP that is relevant to the lease, in particular any reference sites and reference values established under that BEMP; and
  - c) any other information that is relevant to the Director's determination.
- 2) A reference site in relation to a lease is to be a site that the Director considers is suitable to act as a comparison site to a compliance point in relation to the lease.
- 3) The reference values in relation to a lease are to be environmental conditions that, if measured:
  - a) at the reference sites in relation to the lease and at a compliance point in relation to a lease;  
or

- b) at a compliance point before and after commencement of finfish farming activities in relation to a lease; and
  - c) that are likely to indicate whether environmental changes in or in the proximity of the lease area are attributable to finfish farming.
- 4) In the event that the Director is unable to determine suitable reference sites, in relation to a lease, the Director may appoint two or more persons to form a scientific panel to provide advice to support the Director's determination of reference values in relation to that lease. Reference values determined by the Director on the advice of such scientific panel are taken to be reference values measured at a reference site for the purposes of this environmental standard.

## **DIVISION 2. REGIONAL AREAS**

### **Purpose**

This Division enables the Director to determine regional areas within which marine leases are located so that each may have appropriate regional requirements imposed.

Regional areas are recognised geographical areas within which leases are located and within which minimal marine finfish farming related impacts are expected to be measurable.

### **Determination of Regional Areas**

- 1) The Director may determine a regional area.
- 2) The Director is to notify each licence holder who holds a lease in relation to a lease area that is situated in the newly determined regional area of the determination of that regional area.

## **PART 3 - PROVISION TO WHICH THE DIRECTOR AND THE BOARD MUST HAVE REGARD**

### **DIVISION 1. BASELINE ENVIRONMENTAL ASSESSMENT**

#### **Purpose**

This Part provides for the EPA Board to have regard to baseline environmental assessments before environmental licences are granted to the holders of the leases.

#### **Baseline Environmental Assessment**

In making a decision as to whether to grant or vary an environmental licence that relates to a new, or changed lease or permit or an existing lease, the Board or the Director must have regard to:

- 1) whether a baseline environmental assessment has been undertaken and
- 2) whether there is an interim baseline environmental assessment report, or a final baseline environmental assessment report, in relation to the lease.

# **PART 4 - ENVIRONMENTAL STANDARDS OFFENCE PROVISIONS**

## **DIVISION I. BASELINE ENVIRONMENTAL ASSESSMENT**

### **Purpose**

This Division mandates the undertaking of baseline environmental assessments for new or changed leases or permits that include areas not previously farmed before the commencement or recommencement of finfish farming operations. A repeat Baseline Environmental Assessment must be undertaken, if finfish farming operations have not occurred within the lease for a period of five years or more, prior to the recommencement of finfish farming operations.

The purpose of baseline environmental assessments is to determine the state of the environment in and around a proposed finfish farm before finfish farming begins. This includes the collection of information that will enable the Director to determine the reference sites and reference values and to provide the basis for assessment of change over time and space. In this way, the assessment may be used as a comparative measure to assess the impact on the marine environment of future finfish farming.

This Division enables the Director to approve baseline environmental assessment reports that contain the required information and to refuse to approve such reports until the Director is satisfied that they contain adequate information.

### **Baseline Environmental Assessment**

- 1) The holder of a lease that is a new lease or the holder of permit must not deploy finfish farming infrastructure, including moorings, pen bay grids and pens into the lease or permit area, to which the lease relates, until-
  - a) the holder of the lease has undertaken a baseline environmental assessment in accordance with –
    - i) any technical standard, made for the purpose of this Division; and
    - ii) the written requirements of the Director; and
  - b) an interim baseline environmental assessment report has been provided to, and approved by, the Director.
- 2) The holder of a lease that is a new lease must not cause or permit finfish to be placed on the lease area until –
  - a) the holder of the lease has undertaken a baseline environmental assessment in accordance with:
    - i) any technical standard, made for the purpose of this Division; and
    - ii) the written requirements of the Director; and
  - b) a final baseline environmental assessment report has been provided to, and approved by, the Director.

- 3) The holder of a lease that is a new lease or a permit must ensure that all raw data, video footage, and other supporting information arising from a baseline environmental assessment in relation to the lease or permit is maintained in a database and made available to the Director in an agreed format, and time period, as specified in a notice in writing by the Director given to the holder of the lease.
- 4) This Division does not apply in relation to a lease if there is an emergency application under regulation 4 of the *Environmental Management and Pollution Control (Environmental Licences) Regulations 2019* in relation to the lease area.
- 5) A lessee who does not comply with item 1, 2 or 3 will be guilty of an offence against section 96U(4) of the Act.

## **DIVISION 2. MAPPING AND MONITORING STATIONS**

### **Purpose**

This Division mandates the provision of accurate maps in relation to the lease, showing key elements such as seabed bathymetry, relevant management zone boundaries, location of monitoring stations and the location of pen bay grids and associated pen bays.

This Division also allows for the Director to be provided with the results of modelling of the deposition of particles and the dispersal of dissolved nutrients in water to be used as a resource by the Director and the holders of licences to facilitate and manage environmental monitoring.

### **Selection of Monitoring Stations**

- 1) A holder of a new lease must –
  - a) undertake particulate depositional modelling and nutrient dispersal modelling; and
  - b) provide to the Director results of the modelling, in a form acceptable to the Director, together with the lease holder's recommendations for the location of monitoring stations.
- 2) If a biogeochemical model is available, the holder of a lease must comply with any requirement of the Director to provide outputs from that model, to assist the Director to determine where monitoring stations are to be located.
- 3) The holder of a lease must ensure that the particulate depositional modelling and nutrient dispersal modelling meets the following criteria:
  - a) modelling tools must consist of modern acceptable techniques and practices;
  - b) up-to-date, site-specific hydrodynamic and habitat/bathymetry data must be used;
  - c) input data to the models must be either accepted values from scientific literature or actual measured values;
  - d) models must be calibrated to the local environment in which the model is being applied;
  - e) models must use at least 6 weeks of ADCP data collected in the local environment to which the model is being applied, and must address seasonal variation;
  - f) modelling scenarios are to consider unusual climatic conditions such as storm events and other conditions likely to result in sediment disturbance and transport off site;
  - g) a range of realistic production scenarios must be modelled.

- 4) The holder of a lease must maintain a list showing the location of all monitoring stations specified by the Director by notice in writing to the holder of the lease.
- 5) A holder of a lease who does not comply with item 1, 2, 3 or 4 will be guilty of an offence against section 96U(4) of the Act.

## **Management Zone Maps**

- 1) Where required by the Director in writing, the holder of a lease must within 60 days, or by a date otherwise specified by the Director in writing, provide to the Director accurate electronic maps of the lease area and surrounds prepared using GDA 94, Zone 55 or a newer coordinate reference system specified by the Director; and that:
  - a) outline the Farm Zone in relation to the lease and show depth contours across the Farm Zone, with locations of pen bay grids and centroids of pen bays identified on the electronic map and ascribe a unique identifier to each pen bay within the lease area;
  - b) outline the Depositional Zone in relation to the lease and show depth contours, depict all monitoring stations at the Depositional Zone boundary; and
  - c) outline the Dispersal Zone in relation to the lease and show depth contours, and depict all monitoring stations within the Dispersal Zone; and
  - d) outline the Regional Zone in relation to the lease and show depth contours across the region and depict all monitoring stations within the Regional Zone.
- 2) The holder of a lease must make available to the Director updated electronic maps when the lease boundary is modified, when the location of pen bay grids, and pens, within the lease area are moved and when compliance monitoring stations are moved.
- 3) A holder of a lease who does not comply with item 1 or 2 will be guilty of an offence against section 96U(4) of the Act.

## **DIVISION 3. BROADSCALE ENVIRONMENTAL MONITORING PROGRAM (BEMP)**

### **Purpose**

This Division provides the Director with powers to require environmental monitoring of the broader area which may have incurred impact from finfish farming activities.

BEMPs are designed to monitor potential impacts during the operational phase of the finfish farming activities and may relate to individual leases or groups of leases within a defined regional area.

BEMPs are to take into account the findings of baseline environmental assessments and best available scientific information, including modelling outputs.

To the extent that reference sites and reference values have been determined by the Director under Division 1 of Part 2 of these Environmental Standards, they will be incorporated into the BEMP.

BEMP monitoring may also provide information used in the Director's determination of additional or revised reference sites and reference values, if required.

BEMPs are to be reviewed every 5 years, and findings from ongoing monitoring are to be considered in such reviews.

## **Broadscale Environmental Monitoring Program**

- 1) The Director may give to a licence holder a notice specifying the Broadscale Environmental Monitoring Program (a 'BEMP') that is to apply in relation to the licence holder. Such notice may apply to multiple licences within a regional area.
- 2) A BEMP:
  - a) is to be developed in accordance with any technical standard in relation to broadscale environmental monitoring programs made for the purpose of this Division;
  - b) is to be environmentally relevant to the regional area in which finfish farming is being undertaken and is to include, where present, monitoring of the following habitats:
    - i) water column;
    - ii) soft sediments;
    - iii) rocky reefs;
    - iv) seagrass beds;
    - v) any other habitat type specified by the Director;
  - c) is to include a list of environmental parameters to be measured or sampled and analysed in each of the habitats included in the BEMP;
  - d) is to set out the number and location of monitoring stations, taking into account the following:
    - i) bathymetry;
    - ii) hydrodynamics;
    - iii) depositional hotspots;
    - iv) dispersal, depositional, and, where available, biogeochemical modelling;
    - v) substrate types;
    - vi) habitats;
    - vii) any other relevant scientific information;
  - e) is to set out the duration, frequency and timing of environmental monitoring;
  - f) is to include a list of investigative trigger values determined in accordance with any technical standard made for the purposes of this environmental standard;
  - g) is to set out details of further investigative environmental surveys to be undertaken when the investigative trigger values referred to in paragraph (f) have been exceeded;
  - h) is to include monitoring required by the Director, to support the Director's determination of reference sites and reference values and ongoing monitoring of reference sites and compliance sites as specified by the Director;
  - i) is to be designed to capture potential cumulative environmental effects;
  - j) is to begin by a date specified by the Director; and
  - k) is to be reviewed every five years by a recognised scientific research institution, approved by the Director, with expertise in temperate marine environments and the impacts of aquaculture.

- 3) If the Director forms the view, based on the best available scientific data, that a BEMP in relation to a licence holder requires updating, the Director may, by notice in writing to the licence holder, update the BEMP.
- 4) A licence holder must ensure that a BEMP that applies in relation to the licence holder is implemented.
- 5) A licence holder must ensure that the implementation of the licence holder's BEMP is undertaken by suitably qualified persons authorised by appropriate permits specific to the work, noting that:
  - a) pursuant to section 12 of the *Living Marine Resources Management Act 1995*, any person undertaking environmental monitoring in state waters may apply for a permit to do so, insofar as monitoring actions would contravene a provision of that Act; and
  - b) any person knowingly taking any specimen of a listed taxon of flora or fauna may do so only as authorised by a permit issued pursuant to section 51 of the *Threatened Species Protection Act 1995*.
- 6) The licence holder must ensure that all raw data, video footage, and other supporting information collected under a BEMP in relation to the lease is made available to the Director in an agreed format and time period, as specified in a notice in writing by the Director given to the holder of lease.
- 7) A licence holder who does not comply with item 4, 5 or 6 will be guilty of an offence against section 96U(4) of the Act.

## **DIVISION 4. SEABED**

### **Purpose**

This Division establishes contemporary environmental standards to minimise the environmental footprint of finfish farming on the seabed, including sensitive receptors such as reef or seagrass ecosystems.

Environmental standards within this Division that relate to the Farm Zone in relation to a lease area are intended to ensure that the level of finfish farming on the lease area does not exceed the capacity of the seabed environment to process particulate waste through natural break down and assimilation of organic material.

Environmental standards within this Division that relate to the Dispersal Zone, in relation to a lease area, are intended to ensure that particulate wastes do not significantly impact the health and biodiversity of the benthic ecosystem within the dispersal zone and that the environmental effects from dissolved nutrients discharged from within the Farm Zone remain within established benchmarks.

Environmental standards within this Division that relate to the Regional Zone, in relation to a lease area, are intended to protect reef communities and seagrass communities from being significantly altered due to release of dissolved nutrients from finfish farms which in turn drive increased primary production.

### **Farm Zone**

- 1) A licence holder must ensure there is no spontaneous gas bubbling from sediments within the Farm Zone of a lease held by the licence holder.
- 2) A licence holder must ensure there is no excessive feed spillage within the Farm Zone of a lease held by the licence holder.

- 3) If gas bubbling or extensive bacterial mats are observed at an individual pen bay, the licence holder must:
  - a) fallow the pen bay as soon as reasonably practicable; and
  - b) before restocking fish within the pen bay, repeat monitoring of the Farm Zone in accordance with Division 3 of Part 5 and any technical standard, made for the purposes of this Division;
  - c) not restock fish within the pen bay until the Director advises the licence holder in writing that sediments have satisfactorily recovered; and
  - d) implement one or more of the following mitigation measures:
    - i) reduce the total amount of feed delivered to the pen bay during future production;
    - ii) reduce the total biomass of fish grown within the pen bay during future production;
    - iii) extend fallowing time of the pen bay between consecutive future production cycles; or
    - iv) not restock the pen bay until determined by the Director.
- 4) If the median Benthic Condition Index for the Farm Zone in relation to a lease held by the holder of the licence, calculated in accordance with any technical standard made for the purpose of this Division, is less than zero, the licence holder must:
  - a) within 30 days, submit to the Director for approval a mitigation plan that sets out actions to be undertaken by the licence holder to:
    - i) achieve appropriate seabed recovery across the Farm Zone; and
    - ii) prevent future instances of median Benthic Condition Index at or below zero for the Farm Zone; and
  - b) implement the approved mitigation plan until written notification is received from the Director advising that appropriate seabed recovery has been demonstrated.
- 5) A licence holder who does not comply with item 1, 2, 3 or 4 will be guilty of an offence against section 96U(4) of the Act.

## **Dispersal Zone**

- 1) A licence holder must ensure that, in the Dispersal Zone in relation to a lease held by the licence holder, there is no:
  - a) presence of fish feed pellets;
  - b) presence of gas bubbling from the sediment;
  - c) presence of numerous opportunistic polychaetes; or
  - d) significant reduction in the Median Benthic Condition Index compared to reference values in relation to the lease, when calculated in accordance with any technical standard made for the purpose of this Division.
- 2) A licence holder must, if required in writing by the Director to do so because of impacts described in item 1 above:
  - a) conduct, in accordance with any technical standard made for the purpose of this Division, a detailed benthic survey for the relevant area, so as to determine whether there is a significant impact on the health of benthic ecosystems compared to reference values in relation to the lease; and



- b) submit the findings of the benthic survey to the Director within 60 days of the Director's requirement under item 1 or by a date otherwise specified in writing by the Director.
- 3) A licence holder must ensure that there is no significant impact on the health of benthic ecosystems within the relevant area when measured under item 2, in relation to a lease held by the licence holder, compared to reference values in relation to the lease.
- 4) If a significant impact on the health of benthic ecosystems is measured in the relevant area in relation to a lease held by the licence holder, compared to established reference values in relation to the lease, the licence holder must:
  - a) within 30 days, submit to the Director for approval a mitigation plan that sets out actions to be undertaken by the licence holder to:
    - i) achieve appropriate seabed recovery; and
    - ii) prevent future significant impacts on the health of benthic ecosystems; and
  - b) implement the approved mitigation plan until the Director advises in writing that appropriate seabed recovery has been demonstrated.
- 5) A licence holder who does not comply with item 2, 3, 4 or 5 will be guilty of an offence against section 96U(4) of the Act.

## **Regional Zone**

- 1) The licence holder must undertake a biodiversity assessment in accordance with any technical standard made for the purposes of this environmental standard, if, at a rocky reef or seagrass compliance point within the Regional Zone either:
  - a) a significant and persistent increase in the presence of opportunistic algae; or
  - b) a significant decline in the abundance and composition of the ten most dominant biota on deep rocky reef ecosystems;is measured compared to reference values at reference sites in relation to the lease, when measured in accordance with any technical standard made for the purposes of this environmental standard.
- 2) A licence holder must ensure that there is no significant impact, on the health of rocky reef and seagrass ecosystems within the Regional Zone in relation to a lease held by the licence holder, when compared to reference values at reference sites in relation to the lease. Measurements are to be taken in accordance with any technical standard made for the purpose of this Division. For the purposes of this provision, a significant impact includes:
  - a) a significant change in habitat extent; or
  - b) a significant change in plant cover; or
  - c) a significant change in community composition.
- 3) If a significant impact on the health of rocky reef and seagrass ecosystems is measured within the Regional Zone, in relation to a lease held by the licence holder the licence holder must in accordance with any technical standard made for the purpose of this Division:
  - a) within 60 days or by a date otherwise specified by the Director, submit to the Director for approval a mitigation plan that sets out actions to be undertaken by the licence holder to:
    - i) achieve appropriate rocky reef or seagrass recovery; and
    - ii) prevent significant impacts on rocky reef and seagrass health in future; and

- b) implement the mitigation plan that is approved by the Director until appropriate rocky reef or seagrass recovery is demonstrated to the satisfaction of the Director.
- 4) A licence holder who does not comply with item 1, 2 or 3 will be guilty of an offence against section 96U(4) of the Act.

## **DIVISION 5. TOTAL PERMISSIBLE DISSOLVED NITROGEN OUTPUT (TPDNO)**

### **Purpose**

This Division provides for the setting of total permissible dissolved nitrogen output, which effectively limits the scale of finfish production within a given area. This Division also provides for sustainable operation of fish farms in Tasmanian waters through the setting of methods to assess and regulate the output of dissolved nitrogen attributable to finfish farms.

### **Total Permissible Dissolved Nitrogen Output**

- 1) The Director may determine a total permissible dissolved nitrogen output (a TPDNO) for finfish farms within a specified area and for specified time periods.
- 2) A specified area may include an entire Marine Farming Development Plan area or a portion of such an area, or a regional area.
- 3) For the purpose of assessing quantities of dissolved nitrogen output attributable to finfish farming, the Director may use a method outlined in any technical standard made for the purposes of this Division, or if there is no such technical standard the *TPDNO Explanatory Paper: Compliance Assessment Methodology*.
- 4) The Director may apportion the TPDNO between the holders of leases that relate to lease areas within the specified area, or, if a lease that relates to a lease area that is within the specified area is sub-leased, any sub-lessee in relation to the lease.
- 5) An individual apportionment:
  - a) may be nil;
  - b) may be made in respect of two or more holders of different leases or sub-leases, as if they were a single holder of a lease.
- 6) If the Director makes an apportionment in respect of a holder of a lease or a sub-lessee in relation to a lease, the Director is to give notice in writing of the apportionment to the holder of the lease or the sub-lessee.
- 7) A holder of a lease, or a sub-lessee in relation to a lease, to whom a notice of an apportionment has been given, under item 5, must ensure that the total dissolved nitrogen output for the area and time period specified under item 1 does not exceed the amount specified in the apportionment.
- 8) A holder of a lease, or a sub-lessee of a lease, who does not comply with item 7 will be guilty of an offence against section 96U(4) of the Act.

## **DIVISION 6. THERAPEUTANT MANAGEMENT**

### **Purpose**

Therapeutants are used to treat disease and are generally administered through medicated feed. This Division sets out a notification and monitoring framework in relation to therapeutant use in the marine environment. Monitoring protocols are applied to allow an assessment of therapeutant residues in the environment.

### **Prior Notification of Planned Therapeutant Use**

- 1) A licence holder must give to the Director a notice of the proposed treatment before any fish, placed on a lease area held by the licence holder, are treated with therapeutants. This must be accompanied by a copy of the Medication Authority (MA) or Veterinary Authority (VA) issued by the prescribing veterinary surgeon in relation to the proposed therapeutant medication event. The MA or VA must contain at a minimum:
  - a) date of issue of the MA or VA;
  - b) marine finfish farm - lease name and number;
  - c) fish species to be treated;
  - d) type of disease diagnosed or suspected;
  - e) number of pens to be medicated, including pen bay identification;
  - f) estimated number and biomass of fish to be treated;
  - g) treatment period: anticipated commencement date and duration;
  - h) name of therapeutant to be utilised;
  - i) dose rate (mg active ingredient per kg of biomass);
  - j) total amount of active ingredient to be utilised;
  - k) total amount of medicated feed to be utilised;
  - l) application method; and
  - m) notes regarding any off-label use of medication.

### **Monitoring and Reporting Requirements in relation to Therapeutant Use**

- 1) A licence holder must undertake therapeutant residue monitoring in accordance with:
  - a) any technical standard, made for the purposes of this Division; and
  - b) the written requirements of the Director.
- 2) As soon as reasonably practicable after a licence holder completes therapeutant residue monitoring and, when requested to do so by the Director in writing, during the carrying out of such monitoring by a licence holder, the licence holder must submit to the Director a therapeutant residue monitoring report which provides, as a minimum, the following information:
  - a) all sampling locations;
  - b) a summary of all monitoring results and corresponding laboratory reports;

- c) analysis and interpretation of results, in written and graphical form, to show trends over time and comparison against any relevant benchmarks which may have been established by the Director;
  - d) a short evaluation of the factors contributing to the need for medication, including potential seasonal/environmental factors, past lease history, any known issues with particular batches of fish involved in the medication event, including vaccination status with reference to the disease requiring medication.
- 3) A licence holder who does not comply with item 1 or 2 will be guilty of an offence against section 96U(4) of the Act.

## **DIVISION 7. WASTEWATER MANAGEMENT**

### **Purpose**

This Division provides for the protection of the marine environment from release of wastewater generated from marine farming operations including vessels in transit and structures adjacent to the marine environment.

Wastewater generation is part of the normal operations of marine fish farming.

### **Wastewater Management**

- 1) A licence holder must not release the following into the marine environment:
  - a) blackwater
  - b) greywater
  - c) bloodwater
- 2) A licence holder must not dispose or reuse types of wastewater referred to in item 1 except to a wastewater treatment plant or other facility approved to receive the type of wastewater.
- 3) A licence holder who does not comply with item 1 or 2 will be guilty of an offence against section 96U(4) of the Act.

## **DIVISION 8. LIGHT ATTENUATION**

### **Purpose**

This Division requires Management Plans to be prepared to mitigate the impact of obtrusive light on neighbouring coastal communities, while recognising the need for artificial lighting for the operation of the industry.

Marine finfish aquaculture infrastructure and vessels operating within and around a lease area use artificial outdoor lighting to enable operations to occur and to mitigate health and safety risks to workers.

Light spill and glow generated directly from operating artificial outdoor lighting, or indirectly from reflection, has the potential to become an environmental nuisance to coastal neighbours.

## Light Attenuation Management

- 1) A licence holder who receives a notice in writing from the Director stating that light emissions may be causing environmental nuisance must engage a person with expertise in light pollution to prepare a Light Attenuation Management Plan ('the plan').
- 2) The licence holder must ensure the plan, containing the matters specified in item 3, is provided to the Director for approval within 60 days after receiving the notice in writing from the Director or by a date specified in writing by the Director.
- 3) The plan must contain:
  - a) a description of all sources of light emissions over 1,000 lumens from the finfish farming activity, including temporary and permanent farming infrastructure and vessels operating at or near the activity, including:
    - i) luminous flux (light output) of each light source measured in lumens;
    - ii) predicted luminous flux per m<sup>2</sup> at likely sensitive receptors measured in lux;
  - b) a description of the purpose of each light source;
  - c) an assessment of the risk of light emissions causing environmental nuisance, referencing the following:
    - iii) environmental nuisance as defined in the Act;
    - iv) Australian Standard AS/NZ 4282:2019 Control of the obtrusive effects of outdoor lighting; and
    - v) proposed mitigation measures to reduce emissions of light toward sensitive receptors where a risk of environmental nuisance caused by light emissions is identified, which measures may include (but are not limited to) reducing light output, adjusting orientation of lights or installation of shrouding or restriction of operating hours;
  - d) a proposed methodology for monitoring light emissions from the activity and assessment of results; and
  - e) an implementation timetable for mitigation measures proposed in the plan and a reporting program, in accordance with which the licence holder is to regularly advise the Director of the results of the plan.
- 4) A licence holder must implement, and act in accordance with the plan, if the plan is approved by the Director, or if the Director approves a variation or substitution of the plan, with the plan as varied or substituted in accordance with the approval.
- 5) A licence holder who does not comply with item 1, 2 or 4 will be guilty of an offence against section 96U(4) of the Act.

## DIVISION 9. NOISE

### Purpose

The purpose of this Division is to require licence holders to investigate and, where appropriate, undertake measures to limit the effect of noise from vessel movements, to and from a marine farming lease. This provision is intended to apply to vessels some distance away (kilometres) from the lease, whereas vessels on or near the lease will be regulated via licence conditions.

If the Director forms the view that emissions from vessels moving outside the lease are causing environmental nuisance, the licence holder may be directed to undertake an investigation to assess and adequately manage such emissions.

## Nuisance Investigation (vessel traffic)

- 1) The licence holder must comply with any written direction issued by the Director to the licence holder requiring the licence holder to undertake a noise investigation and an assessment of noise impacts resulting from one or more vessels travelling to or from a lease area to which the licence relates.
- 2) A noise investigation in relation to a vessel must include:
  - a) a description of the vessel, including functions undertaken on or from the vessel and typical hours of operation of the vessel;
  - b) measurement of noise emissions from the vessel for a representative range of operating conditions;
  - c) typical transit routes taken by the vessel when travelling to and from the lease area and the proximity of the vessel to NSPs;
  - d) noise predictions or measurements to determine noise emissions from the vessel at relevant NSPs, representative of relevant periods of the day and operating conditions; and
  - e) if noise modelling is undertaken, findings that are supported by verification monitoring at NSPs likely to be impacted by noise from the vessel and observations regarding the movement and operations of the vessel during the survey period.
- 3) The licence holder must undertake an assessment of noise impacts to determine whether noise emissions from a vessel, at any noise sensitive premises owned by a person other than the licence holder, are likely to exceed the following noise levels (expressed as the equivalent continuous A-weighted sound pressure level):
  - a) 45 dB(A) between 0700 hours and 1800 hours (Day time)
  - b) 37 dB(A) between 1800 hours and 2200 hours (Evening time); and
  - c) 32 dB(A) between 2200 hours and 0700 hours (Night time).
    - i) These levels will not be considered to be exceeded unless noise emissions from the vessel are audible.
    - ii) If the combined level of noise from the vessel and the normal ambient noise exceeds a noise level specified under item a), the level will not be considered to be exceeded if the licence holder can demonstrate that noise emissions from the vessel exceed background noise levels by less than 5 dB(A).
    - iii) The time interval over which noise levels are averaged must be 10 minutes or an alternative time interval as specified in writing by the Director in a notice to the licence holder.
- 4) The licence holder must ensure the assessment of noise impacts includes investigation of mitigation measures to avoid exceedance of the specified noise levels, giving special consideration to measures to avoid or reduce dominant or intrusive noise characteristics impacting on NSPs.
- 5) The licence holder must prepare a Noise Impact Assessment Report ('Noise Impact Assessment Report – Vessels', being a report of the noise investigation and assessment of noise impacts, in accordance with written guidelines of the Director.
- 6) The 'Noise Impact Assessment Report – Vessels' must include:
  - a) the results and interpretation of the modelling and measurements required by this Division;
  - b) a map of typical vessel travel routes, with NSPs and noise measurement locations clearly marked on the map;

- c) any other information that will assist with interpreting the results and whether the activity is likely to cause environmental nuisance; and
  - d) recommendations by the licence holder of appropriate mitigation measures to manage any noise problems identified by the noise impact assessment.
- 7) The licence holder must submit the 'Noise Impact Assessment Report – Vessels' to the Director within 60 days from the direction under item 1 or by a date otherwise specified in writing by the Director.
  - 8) The licence holder must implement the mitigation measures set out in a Noise Impact Assessment Report that has been approved by the Director or, if the Director approves a variation or substitution of the mitigation measures, with the mitigation measures as varied or substituted in accordance with the approval.
  - 9) The licence holder who does not comply with items 1-8 will be guilty of an offence against section 96U(4) of the Act.

## **DIVISION 10. DECOMMISSIONING**

### **Purpose**

This Division provides for the preparation of decommissioning plans by licence holders and for the implementation of these plans when finfish farming permanently ceases on an area to which an environmental licence relates.

The requirement for decommissioning plans is to minimise environmental harm during and after the decommissioning phase and to provide for ongoing monitoring to demonstrate seabed recovery after decommissioning.

### **Decommissioning Plans**

- 1) A licence holder must notify the Director within 30 days of becoming aware of any event or decision that is likely to give rise to finfish farming permanently ceasing to take place on an area to which an environmental licence relates.
- 2) A licence holder who gives to the Director notice under item 1 must within 60 days, or by a date specified in writing by the Director, submit for approval by the Director a decommissioning plan ('the plan') that is in accordance with item 3.
- 3) The plan must:
  - a) set out actions to ensure removal of all fish stock, equipment, vessels, infrastructure (e.g. pens and moorings) and debris together with a timeframe for completion of the removal;
  - b) propose strategies to mitigate potential environmental harm or nuisance arising from decommissioning activities including removal and reuse, recycling or disposal of waste materials including feed, chemicals, fuels and oils;
  - c) identify ongoing environmental monitoring and reporting of environmental condition during and after decommissioning to demonstrate recovery of the seabed; and
  - d) any other matter specified by the Director.
- 4) A licence holder must ensure that decommissioning is carried out in accordance with the plan if the plan is approved by the Director, or if the Director approves a variation or substitution of the plan, with the plan as varied or substituted in accordance with the approval.

- 5) The licence holder or former licence holder in relation to which an environmental licence relates must continue to carry out ongoing environmental monitoring and reporting of the environmental condition of the area during and after decommissioning to demonstrate recovery of the seabed, until the Director has provided to the licence holder or former licence holder a written statement that satisfactory recovery has been achieved.
- 6) A licence holder who does not comply with item 1, 2, 4 or 5 will be guilty of an offence against section 96U(4) of the Act.

## **PART 5 - ENVIRONMENTAL STANDARDS CONDITIONS**

### **Purpose**

This Part contains provisions that are environmental standards conditions. The purpose of this Part is to enable such conditions to be imposed on licences, to ensure that conditions with consistent wording and application can be applied on multiple licences. Environmental standards conditions may be imposed on a licence by reference to the name of the condition.

### **DIVISION 1. BASELINE ENVIRONMENTAL ASSESSMENT**

#### **Purpose**

Baseline environmental assessments are required for the purpose of collecting information that will enable the Director to determine the reference sites and reference values, to establish benchmarks in relation to a lease. Such assessments are to be carried out in accordance with baseline environmental assessment requirements, to ensure that the assessment will collect all the information necessary to make those determinations.

To ensure that the collected information adequately supports future decision-making, including determination of reference sites and reference values, baseline environmental assessments need to be undertaken in accordance with specifications provided by the Director.

#### **Requirement to undertake baseline environmental assessments**

- 1) A licence holder must undertake a baseline environmental assessment in accordance with:
  - a) any technical standard made for the purposes of this Division; and
  - b) any written requirements of the Director.
- 2) The baseline environmental assessment must be undertaken at specified:
  - a) monitoring stations; and
  - b) duration and frequency of monitoring
- 3) Use of environmental monitoring information from previous studies may be incorporated into the baseline environmental assessment as approved by the Director.
- 4) Unless otherwise approved in writing by the Director, the baseline environmental assessment must address the following components:
  - a) hydrodynamic profiles;



- b) bathymetric profiles;
  - c) dispersion and depositional modelling;
  - d) seabed characteristics or habitat types;
  - e) water quality;
  - f) sediment chemistry;
  - g) sediment benthic fauna;
  - h) video seabed observation;
  - i) threatened species surveys;
  - j) seagrass habitats;
  - k) reef habitats; and
  - l) any other habitat type.
- 5) The baseline environmental assessment report must provide any specified information to support the Director's determination of reference sites and reference vales
- 6) A person undertaking the baseline environmental assessment and preparing, on behalf of the licence holder, a report in relation to the assessment must be suitably qualified and covered by any relevant permit(s) or special permits pursuant to:
- a) the *Living Marine Resources Management Act 1995*; and
  - b) the *Threatened Species Protection Act 1995*.

## **DIVISION 2. FINFISH PENS**

### **Purpose**

This Division establishes a minimum distance which finfish pen nets must be kept above the seabed to:

- 1) allow water to flow underneath nets thus providing for movement of oxygenated water across the seabed which promotes breakdown and assimilation of organic waste;
- 2) ensure that nets do not cause physical disturbance of the seabed; and
- 3) prevent abrasion of nets that may lead to fish escapes.

### **Finfish Pens Condition**

The licence holder must ensure finfish pen nets are at least one metre clear of the seabed at low tide unless otherwise specified in writing by the Director.

## **DIVISION 3. SEABED MONITORING**

### **Purpose**

This Division provides for monitoring to be carried out during peak feed input, when fish pens on a lease area are stocked and fish are close to the size at which they will be harvested. The intent of conducting seabed monitoring during peak feed input is to ensure that monitoring is undertaken when environmental impacts on the seabed from finfish farming are at their greatest. Obtaining this

information during peak feed input enables active management of the lease area, such as by moving pens within the lease area, to ensure that the seabed ecosystem remains healthy and is able to process and assimilate organic waste.

## **Seabed Monitoring Conditions**

- 1) For the purposes of these conditions:
  - a) the peak feed input period is the 30-day period beginning when the licence holder has discharged into the lease area 80% of the feed that the licence holder planned to discharge during the production cycle; and
  - b) if more than one pen bay grid is present in a lease area, peak feed input is to be determined for each such pen bay grid.
- 2) The licence holder must ensure that, during the peak feed input period, monitoring of the seabed within the Farm Zone, in relation to the lease, is conducted and if there is any technical standard made for the purposes of this Division, is conducted in accordance with that technical standard.
- 3) The licence holder must ensure that, during the peak feed input period, monitoring of the seabed at the Depositional Zone boundary in relation to the lease is conducted and, if there is any technical standard made for the purposes of this Division, is conducted in accordance with that technical standard.
- 4) The licence holder must, before introducing fish into a lease area at the commencement of a production cycle, notify the Director:
  - a) of the amount of feed that the licence holder intends to discharge into that lease area during the production cycle; and
  - b) of the period during which the licence holder anticipates peak feed input to occur.
- 5) The licence holder must notify the Director if any changes occur during the production cycle that are likely to materially alter the period during which peak feed input is occurring or is to occur.

## **DIVISION 4. FEED AND CALCULATED NITROGEN OUTPUT REPORTING**

### **Purpose**

This Division requires a licence holder to establish recording and reporting procedures to provide accurate and timely feed and protein content information to the Director, so as to allow the Director to verify compliance with the TPDNO (total permissible dissolved nitrogen output) that has been apportioned to the licence holder under item 4 of Division 5 of Part 4.

### **Feed and Calculated Nitrogen Output Reporting Conditions**

- 1) The licence holder must accurately record the amount of feed discharged into each finfish farm to which the licence relates, for each day and each pen bay.
- 2) The licence holder must submit a report, to the Director, containing calculated nitrogen outputs for the activity to which the licence relates, for each calendar month. The report must be submitted within 14 days after the end of each calendar month in a format and to an email address specified in writing by the Director.

- 3) The report must specify feed input data, aggregated to monthly totals, along with the amount of each feed type utilised and its corresponding protein content and any other information which may be required by the Director to demonstrate the accuracy of the calculated monthly nitrogen outputs.
- 4) The information must be supported by a self-assessment report to facilitate assessment of compliance against the specified TPDNO. These reports are to contain the information that the Director sets out in guidelines for the purpose of this Division.
- 5) The licence holder must maintain a centralised database containing all raw data and other supporting information required to support TPDNO calculations and must make this information available to the Director upon request.
- 6) The licence holder must ensure that a representative sample from each feed type used in a production cycle is periodically analysed at an approved laboratory to determine the actual nitrogen content of feed and must provide this information to the Director on request.

## **DIVISION 5. WASTE MANAGEMENT PLAN**

### **Purpose**

This Division sets the requirement for a licence holder to develop a waste management plan to minimise the potential environmental effects of various wastes generated as a result of the licence holder's finfish farming operations. The requirements of the waste management plan contribute to operational transparency allowing for the regulation of waste management.

### **Waste Management Plan Conditions**

- 1) The licence holder must, within 60 days of this condition coming into effect or by a date otherwise specified in writing by the Director, prepare for approval by the Director a waste management plan ('the Plan').
- 2) The Plan must describe management of wastes generated by the licence holder's marine farming activity.
- 3) The Plan must address the following waste types:
  - a) nets and other farm infrastructure waste;
  - b) feed related waste;
  - c) medicated feed waste;
  - d) fish mortalities within typical range;
  - e) potential mass fish mortalities significantly above typical range;
  - f) bloodwater;
  - g) biofouling removed from vessels or infrastructure;
  - h) blackwater and greywater;
  - i) fish bathing water;
  - j) vessel biosecurity washdown water containing disinfectant/chemicals; and
  - k) any other waste generated by marine finfish farming.
- 4) For each of the above waste types, the Plan must provide details of:
  - a) the source of the waste within the marine farming activity;

- b) the typical composition of the waste;
  - c) the estimated quantity of waste including a description of lower and higher periods of waste generation;
  - d) any treatment and handling within the lease area to which the licence relates;
  - e) environmental controls in place for any storage within the lease area to which the licence relates including, location, containment measures, spill management, odour management, vermin control, maximum storage volume and time;
  - f) intended destination of the waste and any relevant authorisations to receive and manage the waste at that destination;
  - g) record keeping for monthly quantities of wastes removed for reuse/recycling or disposal.
- 5) The licence holder must implement and act in accordance with the Plan if it is approved by the Director or, if the Director approves a variation or substitution of the plan, with the plan as varied or substituted in accordance with the approval.

## **DIVISION 6. NOISE**

### **Purpose**

This Division requires the assessment and management of any noise emissions from marine finfish farming activities that have the potential to cause nuisance at noise sensitive premises.

### **Noise Conditions**

#### **Noise Measurement**

- 1) The licence holder must ensure all noise measurements required under these conditions are conducted and analysed in accordance with any technical standard made for the purpose of this Division, or, if there is no such technical standard, the Tasmanian Noise Measurement Procedures Manual.
- 2) Measured noise levels must be adjusted for tonality, impulsiveness, modulation and low frequency in accordance with any technical standard made for the purpose of this Division, or, if there is no such technical standard, the Tasmanian Noise Measurement Procedures Manual.
- 3) The individual adjustments specified in section 6 of the Manual, or the equivalent section in any technical standard made for the purpose of this Division, are applicable to noise measurements made in accordance with the Manual or the technical standard, respectively.

#### **Noise limits**

- 1) Noise emissions (expressed as the equivalent continuous A-weighted sound pressure level) from the marine finfish farming activity when measured at any noise sensitive premises owned by a person other than the licence holder, must not exceed:
  - a) 45 dB(A) between 0700 hours and 1800 hours (Day time)
  - b) 37 dB(A) between 1800 hours and 2200 hours (Evening time); and
  - c) 32 dB(A) between 2200 hours and 0700 hours (Night time).
- 2) This condition will not be considered to be breached unless noise emissions from the marine finfish farming activity are audible.

- 3) If the combined level of noise from the marine finfish farming activity and the normal ambient noise exceeds a limit under item 1, the limit will not be considered to be breached if the licence holder can demonstrate that noise emissions from the activity exceed background noise levels by less than 5 dB(A).
- 4) If the combined level of noise from the marine finfish farming activity and one or more vessels travelling to and from the marine finfish farming activity exceeds a limit under item 1, the limit is taken to be breached.
- 5) The time interval over which noise levels are averaged must be 10 minutes or an alternative time interval as specified in writing by the Director in a notice to the Licence holder.

### **Noise impact assessment and mitigation plan**

- 1) The licence holder must submit to the Director a noise impact assessment report before implementing proposed changes to the finfish farming activity which may cause or increase the emission of noise, if the resulting noise emissions have the potential to cause environmental nuisance.
- 2) The noise impact assessment report must: contain an evaluation of the effects of noise emissions from the finfish farming activity on NSPs, assess compliance with the specified noise limits and provide the following information:
  - a) a description of noise sources, and the receiving environment, that is to include:
    - i) a description of the marine farming lease and relevant NSPs, including suitable maps;
    - ii) an inventory of all noise sources that may be operating, on a permanent or temporary basis, on the lease area; and
    - iii) a description of the expected sound power levels emitted by any machinery and equipment identified through the inventory.
  - b) an assessment of noise impacts that includes:
    - i) noise predictions or measurements that have been undertaken to determine noise emissions from the finfish farming activity, including the proposed changes, at relevant NSPs; and
    - ii) an evaluation of the effects of predicted or measured noise emissions from the activity on relevant NSPs, including compliance with specified noise limits; and
    - iii) consideration of key items of equipment as well as cumulative noise emissions. Noise emissions must be presented separately for daytime, evening and night-time.
- 3) If the noise impact assessment identifies that noise limits may be exceeded, the licence holder must prepare a noise mitigation plan that sets out feasible noise attenuation measures and/or improved operational practices and submit the noise mitigation plan to the Director for approval.
- 4) The licence holder must, in preparing a noise mitigation plan, give special consideration to measures to avoid or reduce dominant or intrusive noise characteristics impacting on NSPs.
- 5) A noise mitigation plan must specify implementation timeframes for measures contained in the plan, and recommendations regarding post-commissioning noise surveys to confirm effectiveness of the measures.
- 6) The licence holder must implement and comply with a noise mitigation plan that is approved by the Director or, if the Director approves a variation or substitution of the plan, with the plan as varied or substituted in accordance with the approval.

- 7) Unless otherwise approved by the Director, the Licence Holder must not implement the proposed change(s) under item 1 until the Director has accepted the noise impact assessment report and, where applicable, a noise mitigation plan in relation to the change(s).

### **Noise Surveys**

- 1) The licence holder must comply with any written direction issued by the Director to the licence holder requiring the licence holder to undertake a noise survey designed to measure cumulative noise emissions from all sources of noise within the area to which the licence relates and from vessels travelling to and from the area to which the licence relates at locations which are to be representative of NSP locations. Such noise survey must be conducted in accordance with the following:
  - a) noise measurements must be carried out during relevant periods of the day/night that are representative of typical and plausible worse-case operating conditions;
  - b) observations of noise generating activities during the survey period, including vessel movements to and from a lease are to be recorded;
  - c) the survey is to be conducted within the timeframe specified by the Director.
- 2) The licence holder must prepare a report (a “noise survey report”) in relation to the noise survey:
  - a) in accordance with the requirements specified in a notice in writing, if any, that is given to the licence holder by the Director; and
  - b) which includes an evaluation of the effects of noise emissions from the activity on NSPs and evaluates compliance with the specified noise limits.
- 3) The licence holder must submit the noise survey report to the Director within 30 days from the date of completion of the noise survey.

## **DIVISION 7. FINFISH MORTALITY**

### **Purpose**

This Division sets out requirements for a licence holder to remove dead fish and to undertake reporting and recording of fish mortalities. These procedures are intended to provide the Director with timely information on significant mortality events that may result in increased controlled waste that, due to the nature of the waste, poses an increased risk of causing environmental harm or environmental nuisance.

### **Finfish Mortality Conditions**

- 1) The licence holder must remove dead fish from pens as soon as reasonably practicable.
- 2) The licence holder must report to the Director of any mortality incident that affects, or is likely to have affected, in any individual pen, more than 0.25 percent of fish per day for three consecutive days or more than 0.5 percent of fish on one day. Such reports must be provided as soon as practicable and no later than 24 hours after becoming aware of the mortality incident.
- 3) The licence holder must keep records of the combined weight of dead fish arising from the finfish farming activity and must submit this information to the Director on a monthly basis.