

ESO-1

THIS IS THE DOCUMENT MARKED ESO-1 REFERRED TO IN THE AFFIDAVIT OF SWORN AT HOBART IN TASMANIA THIS 31st DAY OF July 2015 BEFORE ME:

JUSTICE OF THE PEACE NUMBER

G.R. McDOUGALL
.JP 4441 (TAS.)

Environment Protection Notice 9186/1 (r1)

1/22



ENVIRONMENT PROTECTION NOTICE No. 9186/1

Issued under the *Environmental Management and Pollution Control Act 1994*

Issued to: **TASMANIAN WATER & SEWERAGE CORPORATION PTY LTD**
ACN 162 220 653
163 - 169 MAIN RD
MOONAH TAS 7009

Environmentally Relevant Activity: **The operation of a wastewater treatment plant (ACTIVITY TYPE: Wastewater Treatment Works)**
SOMERSET WASTEWATER TREATMENT PLANT,
SOMERSET TAS 7325

GROUND

I, Wes Ford, Director, Environment Protection Authority, (the Director), being satisfied in accordance with section 44(1)(d) of the *Environmental Management and Pollution Control Act 1994* (the EMPCA) that in relation to the above-mentioned environmentally relevant activity that it is desirable to vary the conditions of a permit (see table below) hereby issue this environment protection notice to the above-mentioned person as the person responsible for the activity.

Permit No.	Date Granted	Granted By
3301	08 August 1988	Director of Environmental Control

PARTICULARS

The particulars of the grounds upon which this notice is issued are:

- 1 The permit refers to the *Environment Protection Act 1973* which has been repealed and replaced by the EMPCA. It is necessary to remove reference to the repealed Act.
- 2 A regulatory limit which sets the maximum scale or throughput of the activity is needed because any increase in scale or throughput may result in additional environmental impacts or emissions that were not considered at the time of granting of the permit.
- 3 Conditions are required to ensure that all persons responsible for the activity have access to and are familiar with the relevant documents associated with activities at the site and thereby promote compliance with the conditions
- 4 The permit did not include a condition requiring the person responsible to take action to minimise environmental harm if an incident occurs.
- 5 Conditions are needed to ensure the person responsible is aware of the development and planning requirements under the EMPCA and the Land Use and Planning Approvals Act, 1993 and to ensure there are no changes in the activity that may lead to the release of a pollutant without approval.

DIRECTOR, ENVIRONMENT PROTECTION AUTHORITY

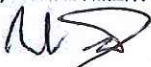
Date of Issue:

20 JUL 2015

- 6 A condition requiring notification of a change of ownership of the land is needed because this Environment Protection Notice may affect title to land and the new owner's interests may be affected by pollutants emitted or disturbed by the activity.
- 7 A condition is required to ensure a register of public complaints is maintained by the person responsible as this may give an indication of changing environmental performance over time.
- 8 Monitoring and reporting requirements set out in the permit conditions need to be varied to reflect current best practice environmental management and to require accurate measurement of emissions and their impact on the receiving environment and to consistently inform the Director of the results of monitoring.
- 9 The permit contains no requirements for ensuring that when decommissioning is undertaken, it is done in a manner to minimise environmental harm.
- 10 The permit does not contain any condition involving operational procedures or contingency management. The risk of environmental harm from the activity is reduced by having documented plans and procedures in place for operating conditions likely to be experienced by the activity and by having contingency plans developed for unplanned events that may occur.
- 11 Conditions are required to determine the impact of the discharge of effluent to water from the activity and determine the most appropriate and sustainable future end use or discharge option in accordance with the hierarchy of waste management as specified under 16.2 of the *State Policy on Water Quality Management 1997*.
- 12 An inflow and infiltration plan is needed to ensure that best practice environmental management is applied to inflow and infiltration issues that increase the risk of unauthorised sewage discharges to the environment.
- 13 The permit does not have specific and measureable effluent quality limits or noise limits. Conditions are needed to control the effluent discharge point and to impose effluent quality limits at this location and to place noise limits on the activity that are considered current best practice environmental management.
- 14 The permit does not have a condition that requires signage on land near the effluent discharge location. Signage giving notice of potential public health risks is considered current best practice environmental management.
- 15 The permit does not include conditions about dealing with hazardous substances. Hazardous substances are likely to be stored and handled at the activity and current best practice environmental management takes into account the storage and handling of hazardous substances.
- 16 The permit conditions need to be varied to reflect contemporary information management practices such as electronic submission of monitoring data.
- 17 Conditions are required regarding minimum design criteria and maintenance requirements for the treatment lagoons to minimise the risk of leakage causing environmental harm.
- 18 The permit does not include any fencing requirement. Fencing of the activity is required to discourage unauthorised persons from entering the site and coming into contact with sewage or any hazardous substance.



- 19 The permit does not include conditions relating to management of sewage sludge. The risk of environmental harm from the activity is reduced by having a sewage sludge management plan in place in accordance with current best practice environmental management.
- 20 The permit does not include conditions relating to controlled waste movement. Condition(s) are required to reflect current best practice environmental management and to bring the permit into accordance with the *Environmental Management and Pollution Control (Controlled Waste Tracking) Regulations 2010*.



DEFINITIONS

Unless the contrary appears, words and expressions used in this Notice have the meaning given to them in Schedule 1 of this Notice and in the EMPCA. If there is any inconsistency between a definition in the EMPCA and a definition in this Notice, the EMPCA prevails to the extent of the inconsistency.

REQUIREMENTS

The person responsible for the activity must comply with the varied permit conditions as set out in Schedule 2 of this Notice.

INFORMATION

Attention is drawn to **Schedule 3**, which contains important additional information.

PENALTIES

If a person bound by an environment protection notice contravenes a requirement of the notice, that person is guilty of an offence and is liable on summary conviction to a penalty not exceeding 1000 penalty units in the case of a body corporate or 500 penalty units in any other case (at the time of issuance of this Notice one penalty unit is equal to \$154.00).

NOTICE TAKES EFFECT

This notice takes effect on the date on which it is served upon you.

APPEAL RIGHTS

You may appeal to the Appeal Tribunal against this notice, or against any requirement contained in the notice, within 14 days from the date on which the notice is served, by writing to:

The Chairperson
Resource Management and Planning Appeal Tribunal
GPO Box 2036
Hobart TAS 7001

Signed: W. K.
DIRECTOR, ENVIRONMENT PROTECTION AUTHORITY

Date: 20 JUL 2015

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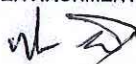
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Attachment 2: Table of Monitoring Requirements EPN 9186_1 (modified: 03/07/2015 09:04)....2 pages



Schedule 1: Definitions

Activity means any environmentally relevant activity (as defined in Section 3 of EMPCA) to which this document relates, and includes more than one such activity.

Authorized Officer means an authorized officer under section 20 of EMPCA.

Average Dry Weather Flow means the average of the daily flows to a wastewater treatment plant sustained during dry-weather periods with limited infiltration.

Bypass means the discharge of untreated or partially treated effluent most commonly as a result of WWTP component failure or increased inflows to the WWTP as a result of high rainfall.

Director means the Director, Environment Protection Authority holding office under Section 18 of EMPCA and includes a person authorised in writing by the Director to exercise a power or function on the Director's behalf.

DRP means Decommissioning and Rehabilitation Plan

Effluent means wastewater discharged from The Land.

EMPCA means the *Environmental Management and Pollution Control Act 1994*.

Environmental Harm and **Material Environmental Harm** and **Serious Environmental Harm** each have the meanings ascribed to them in Section 5 of EMPCA.

Environmental Nuisance and **Pollutant** each have the meanings ascribed to them in Section 3 of EMPCA.

Environmental Standards Applying To Liner Construction means the document of this title dated March 2006 available from the Department of Primary Industries, Parks, Water and Environment and includes any subsequent versions of the document.

Environmentally Hazardous Material means any substance or mixture of substances of a nature or held in quantities which present a reasonably foreseeable risk of causing serious or material environmental harm if released to the environment and includes fuels, oils, waste and chemicals but excludes sewage.

Minimum Construction Requirements For Water Bores In Australia means the document published under this title by The National Uniform Drillers Licensing Committee, February 2012, or any subsequent updates of this document.

Mixing Zone means a three dimensional area of the receiving waters around a point of discharge of pollutants within which it is recognised that the water quality objectives for the receiving waters may not be achieved.

Person Responsible is any person who is or was responsible for the environmentally relevant activity to which this document relates and includes the officers, employees, contractors, joint venture partners and agents of that person, and includes a body corporate.

Reporting Period means the 12 months ending on June 30 of each year'.

Sewerage System means a system of pipes, maintenance holes, pumps, treatment facilities and other items for handling wastewater.

SPWQM means the *State Policy on Water Quality Management 1997*, as amended from time to time.

Tasmanian Noise Measurement Procedures Manual means the Noise Measurement Procedures Manual referred to in regulation 4 of the *Environmental Management and Pollution Control (Miscellaneous Noise) Regulations 2014*.

The Land means the land on which the activity to which this document relates may be carried out, and includes: buildings and other structures permanently fixed to the land, any part of the land covered with water, and any water covering the land. The Land falls within the area defined by:

- 1 Certificate of Title Reference: 152622/1; and
- 2 as further delineated at Attachment 1.

Wastewater means spent or used water (whether from industrial or domestic sources) containing a pollutant and includes stormwater which becomes mixed with wastewater.

WWTP means the wastewater treatment plant located on the Land.



Schedule 2: Conditions**Maximum Quantities****Q1 Regulatory limits**

- 1 The activity must not exceed the following limits (annual fees are derived from these figures):
 - 1.1 1,200 kilolitres per day of design capacity to treat an average dry weather flow of sewage or wastewater

General**G1 Access to and awareness of conditions and associated documents**

A copy of these conditions and any associated documents referred to in these conditions must be held in a location that is known to and accessible to the person responsible for the activity. The person responsible for the activity must ensure that all persons who are responsible for undertaking work on The Land, including contractors and sub-contractors, are familiar with these conditions to the extent relevant to their work.

G2 Incident response

If an incident causing or threatening environmental nuisance, serious environmental harm or material environmental harm from pollution occurs in the course of the activity, then the person responsible for the activity must immediately take all reasonable and practicable action to minimise any adverse environmental effects from the incident.

G3 No changes without approval

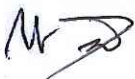
- 1 The following changes, if they may cause or increase the emission of a pollutant which may cause material or serious environmental harm or environmental nuisance, must only take place in relation to the activity if such changes have been approved in writing by the EPA Board following its assessment of an application for a permit under the *Land Use Planning and Approvals Act 1993*, or approved in writing by the Director:
 - 1.1 a change to a process used in the course of carrying out the activity; or
 - 1.2 the construction, installation, alteration or removal of any structure or equipment used in the course of carrying out the activity; or
 - 1.3 a change in the quantity or characteristics of materials used in the course of carrying out the activity.

G4 Change of responsibility

If the person responsible for the activity ceases or intends to cease to be responsible for the activity, he or she must notify the Director in writing of the full particulars of any person succeeding him or her as the person responsible for the activity.

G5 Complaints register

- 1 A public complaints register must be maintained and made available for inspection by an Authorized Officer upon request. The public complaints register must, as a minimum, record the following detail in relation to each complaint received in which it is alleged that environmental harm (including an environmental nuisance) has been caused by the activity:
 - 1.1 the time at which the complaint was received;
 - 1.2 contact details for the complainant (where provided);
 - 1.3 the subject-matter of the complaint;



- 1.4 any investigations undertaken with regard to the complaint; and
 - 1.5 the manner in which the complaint was resolved, including any mitigation measures implemented.
- 2 Complaint records must be maintained for a period of at least 3 years.

G6 Annual Environmental Review

Unless otherwise approved by the Director a publicly available Annual Environmental Review must be submitted each year within 3 months of the end of the Reporting Period. The Annual Environmental Review must be prepared to the satisfaction of the Director using the latest version of the Annual Environmental Review Template which is available on request from the Director.

Atmospheric**A1 Odour management**

The person responsible must institute such odour management measures as are necessary to prevent odours causing environmental nuisance beyond the boundary of The Land.

Decommissioning And Rehabilitation**DC1 Notification of cessation**

Within 30 days of becoming aware of any event or decision which is likely to give rise to the permanent cessation of the activity, the person responsible for the activity must notify the Director in writing of that event or decision. The notice must specify the date upon which the activity is expected to cease or has ceased.

DC2 DRP requirements

Unless otherwise approved in writing by the Director, a Decommissioning and Rehabilitation Plan (DRP) for the activity must be submitted for approval to the Director within 30 days of the Director being notified of the planned cessation of the activity or by a date specified in writing by the Director. The DRP must be prepared in accordance with any guidelines provided by the Director.

DC3 Rehabilitation following cessation

- 1 Following permanent cessation of the activity, and unless otherwise approved in writing by the Director, The Land must be rehabilitated including:
 - 1.1 stabilisation of any land surfaces that may be subject to erosion;
 - 1.2 removal or mitigation of all environmental hazards or land contamination, that might pose an on-going risk of causing environmental harm; and
 - 1.3 decommissioning of any equipment that has not been removed.
- 2 Where a Decommissioning and Rehabilitation Plan (DRP) has been approved by the Director, decommissioning and rehabilitation must be carried out in accordance with that plan, as may be amended from time to time with written approval of the Director.

Effluent**EF1 Effluent discharge locations**

- 1 Effluent from the activity must only be discharged at the following discharge location:
 - 1.1 Discharge to water: discharge to the Bass Strait at grid reference [GDA94] coordinate E399709, N5457768 as depicted on the plan at Attachment 1.

EF2 Effluent quality limits for discharge to the Bass Strait

- 1 Effluent discharged to the Bass Strait must comply with the effluent quality limits set out in Table 1 below, at the Effluent Quality monitoring location specified in Attachment 2.
- 2 **Table 1 - Table of Effluent Quality Limits for discharge to the Bass Strait**

Column 1	Column 2	Column 3	Column 6
Substance or measure	Unit of measurement	Minimum limit	Maximum limit
Biochemical Oxygen Demand	mg/L	-	80
Suspended Solids	mg/L	-	60
Ammonia Nitrogen	mg/L	-	11
Total Nitrogen	mg/L	-	19
Total Phosphorus	mg/L	-	6
Oil and Grease	mg/L	-	3
pH		6.5	8.5

EF3 Installation and Commissioning of Disinfection Equipment and Bacteriological Effluent Quality Limit

- 1 Unless otherwise approved by the Director in writing, the person responsible must by 30 June 2016 either:
 - 1.1 Provide an ambient monitoring report which satisfactorily demonstrates that recreational areas at which persons are likely to come into primary contact with receiving waters in the vicinity of the discharge location are not adversely affected by the discharge; or
 - 1.2 Provide an implementation plan for the installation and commissioning of effluent disinfection equipment prior to 1 December 2016. In which case, from 1 December 2016 the additional maximum Effluent Quality Limit specified below must be achieved at the Effluent Quality monitoring location specified in Attachment 2:
 - 1.2.1 Not more than 1,000 cfu/100mL Thermotolerant Coliforms.

EF4 Signage of discharge location

Signage must be installed and maintained on land near to outfalls to discourage recreational activities within waters immediately around the outfall. Signage is to alert the public as to the proximity and nature of the discharge.

Effluent Management**EM1 Effluent Management**

- 1 The person responsible must:
 - 1.1 submit to the Director within 18 months of the date on which these conditions take effect, or by a date otherwise specified in writing by the Director, a written undertaking to implement full effluent reuse; or
 - 1.2 submit a Discharge Management Plan to the Director for approval within 24 months of the date on which these conditions take effect, or by a date otherwise specified in writing by the Director.



EM2 Effluent reuse feasibility study

- 1 A feasibility study for reuse of effluent from the activity must be submitted to the Director within 18 months of the date on which these conditions take effect, or a date otherwise specified in writing by the Director. The study must be to the satisfaction of the Director and must include:
 - 1.1 a strategic evaluation of the potential for the establishment of an effluent reuse scheme;
 - 1.2 details of investigations undertaken to maximise the reuse of treated effluent discharged from the activity including identification of potential land areas and uses suitable for reuse and a summary of discussions undertaken with potential end users to enable reuse; and
 - 1.3 where reuse is feasible, a written commitment from the person responsible to implement a reuse scheme including an action plan with timelines for completion of significant actions.

EM3 Discharge Management Plan

- 1 For the purposes of these conditions a Discharge Management Plan must be prepared to the satisfaction of the Director and must include the following:
 - 1.1 an assessment of the available options for improved effluent management in accordance with the hierarchy set out in Division 2: 'Management of Point Sources of Pollution' of the SPWQM;
 - 1.2 a description of the volume and quality of effluent likely to be discharged to the receiving waters with consideration of effluent loads discharged to any approved reuse schemes;
 - 1.3 an assessment of the current impact of effluent discharges from the activity on the receiving environment. The assessment must incorporate and analyse the findings of an Ambient Monitoring Report submitted to the Director in accordance with these conditions;
 - 1.4 measures to ensure that the discharge of effluent to the receiving waters does not prejudice the achievement of the recommended water quality objectives at the discharge point including:
 - 1.4.1 recommended emission limits determined in accordance with the SPWQM;
 - 1.4.2 proposed effluent management measures including alternate discharge point options, seasonal discharge management and / or the establishment of a mixing zone, where necessary; and
 - 1.4.3 details of any upgrades of wastewater treatment infrastructure necessary to achieve the recommended emission limits and implement the discharge management measures.
 - 1.5 a table containing all of the major commitments made in the plan;
 - 1.6 an implementation timetable for key aspects of the plan; and
 - 1.7 a reporting schedule to regularly advise the Director of progress with implementation of the plan.
- 2 The person responsible must implement and act in accordance with the approved Discharge Management Plan.
- 3 In the event that the Director, by notice in writing to the person responsible, either approves a minor variation to the approved Discharge Management Plan or approves a new Discharge Management Plan in substitution for the plan originally approved, the person responsible must implement and act in accordance with the varied plan or the new plan, as the case may be.

EM4 Ambient monitoring of receiving waters

- 1 Where an Ambient Monitoring Report is required by these conditions, an ambient monitoring plan for receiving waters must be submitted by the person responsible to the Director for approval.
- 2 The ambient monitoring plan for receiving waters must:
 - 2.1 be consistent with the Australian Guidelines for Water Quality Monitoring and Reporting;
 - 2.2 outline the program scope, methods, locations, parameters, frequency and duration of the proposed monitoring program, including the rationale for design features of the program such as any modelling undertaken;
 - 2.3 be designed to characterise the ambient water quality and biological conditions and to assess the impact of effluent discharged from the activity, taking into account seasonal effects and other variation in the receiving environment;
 - 2.4 be designed to take into account the Protected Environmental Values and identify sensitive receptors within the receiving environment; and
 - 2.5 incorporate an effluent plume dilution study which identifies the behaviour and dimensions of the mixing zone at the authorised discharge point;
 - 2.6 be designed to identify the location and extent of the mixing zone, taking into account seasonal effects and other variation in the receiving environment;
 - 2.7 include an implementation timetable for the plan.
- 3 Unless otherwise approved in writing by the Director, the approved ambient monitoring plan for receiving waters must be implemented within 3 months of the plan being approved in writing by the Director.
- 4 Within 4 months of the completion of ambient monitoring as stipulated in the ambient monitoring plan for receiving waters, an Ambient Monitoring Report must be submitted to the Director which must include the following information:
 - 4.1 a description of the quality of the receiving waters environment, both in areas impacted by the discharge and in areas that are not impacted by the discharge, including graphical presentation of monitoring results collected in accordance with these conditions and an analysis of seasonal effects and other variation;
 - 4.2 observations regarding the dilution and dispersion of effluent into the receiving waters in comparison to predictions or findings of previous studies (e.g. plume dilution studies);
 - 4.3 an assessment of the dilution and dispersion patterns achieved in the receiving waters and recommendations regarding the location and extent of the mixing zone;
 - 4.4 an evaluation of the environmental impacts with consideration of Protected Environmental Values and relevant sensitive receptors, based on the monitoring results and knowledge of seasonal effects and other variation.

Hazardous Substances**H1 Storage and handling of hazardous materials**

- 1 Unless otherwise approved in writing by the Director, environmentally hazardous materials held on The Land must be:
 - 1.1 located within impervious bunded areas, spill trays or other containment systems; and
 - 1.2 managed to prevent unauthorised discharge, emission or deposition of pollutants:

- 1.2.1 to soils within the boundary of The Land in a manner that is likely to cause serious environmental harm;
- 1.2.2 to groundwater;
- 1.2.3 to waterways; or
- 1.2.4 beyond the boundary of The Land.

Monitoring

M1 Dealing with samples obtained for monitoring

- 1 Any sample or measurement required to be obtained under these conditions must be taken and processed in accordance with the following:
 - 1.1 Australian Standards, NATA approved methods, the American Public Health Association Standard Methods for the Analysis of Water and Waste Water or other standard(s) approved in writing by the Director;
 - 1.2 measurement equipment must be maintained and operated in accordance with the manufacturer's specifications;
 - 1.3 samples must be tested in a laboratory accredited by the National Association of Testing Authorities (NATA), or a laboratory approved in writing by the Director, for the specified test;
 - 1.4 results of measurements and analysis of samples and details of methods employed in taking measurements and samples must be retained for at least three years after the date of collection; and
 - 1.5 noise measurements must be undertaken in accordance with the Tasmanian Noise Measurement Procedures Manual.

M2 Monitoring requirements

- 1 Unless otherwise specified in writing by the Director, monitoring must be undertaken in accordance with the Table of Monitoring at Attachment 2, as follows:
 - 1.1 the items listed in Column 1 must be sampled or tested at the locations listed in Column 2 for the parameters listed in Column 3 at the frequencies listed in Column 5 using the techniques listed in Column 6; and
 - 1.2 resultant monitoring data must be reported to the Director in accordance with the requirements set out in Column 7 and in the units listed in Column 4.

M3 Monitoring reporting and record keeping

- 1 Unless otherwise specified in writing by the Director, a Monthly Monitoring Report, in an electronic format approved by the Director, must be submitted to the Director within 21 days of receipt of laboratory analyses of samples collected for the previous monthly period. As a minimum, the Monthly Monitoring Report must include the following information:
 - 1.1 the laboratories at which sample analyses were carried out;
 - 1.2 contact details for a person responsible for managing monitoring programs;
 - 1.3 the estimated or measured average daily flow to the wastewater treatment plant for the previous monthly period; and
 - 1.4 for each sampling location or site test location:
 - 1.4.1 a location name which allows the location to be clearly identifiable;
 - 1.4.2 the date and time at which each sample was taken or site test conducted;
 - 1.4.3 the indicators for which analyses or tests were carried out and the units in which the results are reported; and

1.4.4 the results for all sample analyses and site tests.

- 2 A record of all monthly monitoring reports submitted to the Director must be maintained and copies of all laboratory analysis reports referenced to the relevant Monthly Monitoring Reports kept for a minimum period of three years.

M4 Flow monitoring equipment

- 1 Flow monitoring equipment must be maintained in accurate working order in accordance with the manufacturer's specifications and, unless otherwise approved in writing by the Director, must be validated at least once every 12 months.
- 2 The dates on which flow monitoring equipment has been validated must be recorded and validation records kept for a minimum of 3 years.
- 3 For the purposes of this condition:
 - 3.1 'validate' means to undertake a set of actions including inspecting the flow monitoring equipment to check that it is installed in compliance with any relevant standards and is maintained to an acceptable state of repair, which provides an acceptable level of confidence that the flow monitoring equipment operates within an acceptable range of error under normal operating conditions.
 - 3.2 'Flow monitoring equipment' means an instrument, including a flow meter, that measures and may record a flow or level of liquid and includes any ancillary device attached to or incorporated into the instrument.

M5 Signage of monitoring points

With the exception of open water sampling, all monitoring points must be clearly marked to indicate the location and name of the monitoring point.

M6 Event Recorder for Bypass

The person responsible must install, within 12 months of the date on which these conditions take effect, an event recorder at a location which ensures that the date, time and duration of any bypass is recorded.

M7 Groundwater Monitoring Bore Planning and Construction

- 1 A groundwater monitoring bore plan must be submitted by the person responsible to the Director for approval within 6 months of the date on which these conditions take effect, or by a date otherwise specified in writing by the Director.
- 2 The groundwater monitoring bore plan must be prepared by a suitably qualified person.
- 3 The groundwater monitoring bore plan must:
 - 3.1 describe the location and design of groundwater monitoring bores to be constructed or which have all ready been constructed to detect groundwater contamination caused by the activity;
 - 3.2 include a map of the Land on which the location of existing and proposed bores are marked;
 - 3.3 provide reasons as to why the location and design of proposed bores is appropriate for the purpose of detecting groundwater contamination caused by the activity;
 - 3.4 provide reasons as to why the location and design of existing bores are appropriate for the purpose of detecting groundwater contamination caused by the activity.
- 4 Where the groundwater monitoring bore plan requires the construction of bores, those bores must be constructed within 12 months of the date on which the Director approves the groundwater monitoring bore plan.

- 5 At the time of construction of any bore required by the groundwater monitoring bore plan, the following information must be recorded and compiled into a Bore Installation and Development Record:
 - 5.1 a description of the materials used for construction;
 - 5.2 initial field measurements of the groundwater for conductivity, total dissolved solids, pH and temperature;
 - 5.3 details of slot screens installed, and the depth to which they were installed;
 - 5.4 depth of gravel packing;
 - 5.5 depth of the bentonite cap;
 - 5.6 details of bore development during pumping (removal of drilling contamination);
 - 5.7 results of pump tests;
 - 5.8 aquifer levels; and
 - 5.9 a detailed geological log.
- 6 The Director must be notified of construction of the bores required by the groundwater monitoring bore plan within 1 month of their construction. The Bore Installation and Development Record for each newly constructed bore must be provided with the notification.
- 7 The groundwater bores required by this condition must be established by a suitably qualified person in accordance with the Minimum Construction Requirements for Water Bores in Australia.

Noise Control

N1 Noise emission limits

- 1 Noise emissions from the activity when measured at any noise sensitive premises in other ownership and expressed as the equivalent continuous A-weighted sound pressure level must not exceed:
 - 1.1 50 dB(A) between 0800 hours and 1800 hours (Day time); and
 - 1.2 45 dB(A) between 1800 hours and 2200 hours (Evening time); and
 - 1.3 40 dB(A) between 2200 hours and 0800 hours (Night time).
- 2 Where the combined level of noise from the activity and the normal ambient noise exceeds the noise levels stated above, this condition will not be considered to be breached unless the noise emissions from the activity are audible and exceed the ambient noise levels by at least 5 dB(A).
- 3 The time interval over which noise levels are averaged must be 10 minutes or an alternative time interval specified in writing by the Director.
- 4 Measured noise levels must be adjusted for tonality, impulsiveness, modulation and low frequency in accordance with the Tasmanian Noise Measurement Procedures Manual.
- 5 All methods of measurement must be in accordance with the Tasmanian Noise Measurement Procedures Manual.

Operations

OP1 Contingency management

- 1 Unless otherwise approved in writing by the Director, a Contingency Management Plan must be submitted by the person responsible to the Director within 3 months of the date on which these conditions take effect. The plan must detail measures to prevent and mitigate environmental harm if an unplanned event occurs. Unplanned events that must be addressed by the plan include:

- 1.1 incidents, accidents, power failures and malfunctions with the potential to cause the release of effluent that does not comply with these conditions;
 - 1.2 pipe ruptures leading to discharge of wastewater;
 - 1.3 development of blue green algae (cyanobacteria) concentrations that have the potential to cause environmental harm; and
 - 1.4 fire and flooding.
- 2 The Contingency Management Plan must include communication procedures for ensuring that water users that may be adversely impacted, the general public and relevant government agencies are informed of any unplanned event to the extent necessary to allow them to take precautions against adverse impacts upon the environment, human health and livestock health.
 - 3 As far as is reasonable and practicable, the Contingency Management Plan must include contact details for all water users that may be impacted by an unplanned event and must be kept up to date by the person responsible.
 - 4 The person responsible must ensure that all personnel are aware of the Contingency Management Plan and their responsibilities in relation to unplanned events and have access at all times to the Contingency Management Plan.
 - 5 The Contingency Management Plan must be implemented if an unplanned event occurs.

OP2 Operational Procedures Manual

- 1 An Operational Procedures Manual ('the Manual') must be developed within 12 months of the date on which these conditions take effect or by a date specified in writing by the Director. The Manual must provide detailed information relating to the activity and must detail operational procedures as required to ensure compliance with these conditions.
- 2 The person responsible must take all reasonable and practicable measures to ensure that personnel, including contractors, carry out their duties in accordance with the manual.

OP3 Inflow and Infiltration (I&I) Management Plan

- 1 An Inflow and Infiltration (I&I) Management Plan must be submitted by the person responsible to the Director for approval within 12 months of the date on which these conditions take effect or by a date otherwise specified in writing by the Director.
- 2 The I&I Management Plan must contain the following:
 - 2.1 Details of surveys or investigations previously undertaken to identify I&I points within the sewerage system including:
 - 2.1.1 summaries of results;
 - 2.1.2 descriptions of the methods used;
 - 2.1.3 identification of sub-catchment I&I rates; and
 - 2.1.4 I&I sources identified.
 - 2.2 An outline of future surveys or investigations to be undertaken to identify I&I points within the sewerage system;
 - 2.3 A strategy for the reduction of I&I into the sewerage system including:
 - 2.3.1 specific reduction targets;
 - 2.3.2 a table containing all of the commitments made in the strategy; and
 - 2.3.3 an implementation timetable for the strategy;
- 3 The person responsible must implement and act in accordance with the approved I&I Management Plan.



- 4 In the event that the Director, by notice in writing to the person responsible, either approves a minor variation to the approved I&I Management Plan or approves a new I&I Management Plan in substitution for the plan originally approved, the person responsible must implement and act in accordance with the varied plan or the new plan, as the case may be.

OP4 Lagoon maintenance

- 1 Floating matter including grass, weeds and rubbish must not be allowed to accumulate on the surface of any ponds or lagoons.
- 2 All lagoon and pond embankments must be kept in good repair and free of woody vegetation and rubbish.

OP5 Lagoon liner

Wastewater treatment lagoon liners, storage lagoon liners, dam liners and sludge storage pond liners must be designed, installed and maintained in compliance with the relevant standards detailed in the document *Environmental Standards Applying to Liner Construction*.

OP6 Site security

The WWTP must be fenced to prevent entry by unauthorised persons and these fences must be adequately maintained for this purpose.

Waste Management**WM1 Sewage Sludge Management Plan**

- 1 A Sewage Sludge Management Plan must be submitted to the Director for approval within 12 months of the date on which these conditions take effect, or by a date specified in writing by the Director.
- 2 The Sewage Sludge Management Plan must be prepared in accordance with the EPA *Sewage Sludge Management Plan Guidelines* and the *Tasmanian Biosolids Reuse Guidelines*.
- 3 Unless otherwise approved in writing by the Director, sewage sludge must be managed in accordance with the Sewage Sludge Management Plan approved in writing by the Director.

WM2 Controlled Waste Register

- 1 A Controlled Waste Register, to document storage and movement of sewage screenings, grit material, sewage sludge and biosolids, must be maintained and made available for inspection by an Authorized Officer upon request.
- 2 The Controlled Waste Register must:
 - 2.1 keep an accurate record of type and quantity of Controlled Wastes stored on The Land, with the exception of sewage sludge contained within lagoons; and
 - 2.2 record the following detail in relation to Controlled Waste removed from The Land:
 - 2.2.1 the type of Controlled Waste;
 - 2.2.2 the quantity of Controlled Waste;
 - 2.2.3 the Controlled Waste Transporter who moved the Controlled Waste;
 - 2.2.4 the date the Controlled Waste was moved;
 - 2.2.5 the recipient of the Controlled Waste; and
 - 2.2.6 The destination address of the Controlled Waste.
- 3 Controlled Waste records must be maintained for a period of at least 3 years.



Schedule 3: Information

Legal Obligations


LO1 Change of responsibility

If the person responsible for the activity ceases to be responsible for the activity, they must notify the Director in accordance with Section 45 of the EMPCA.

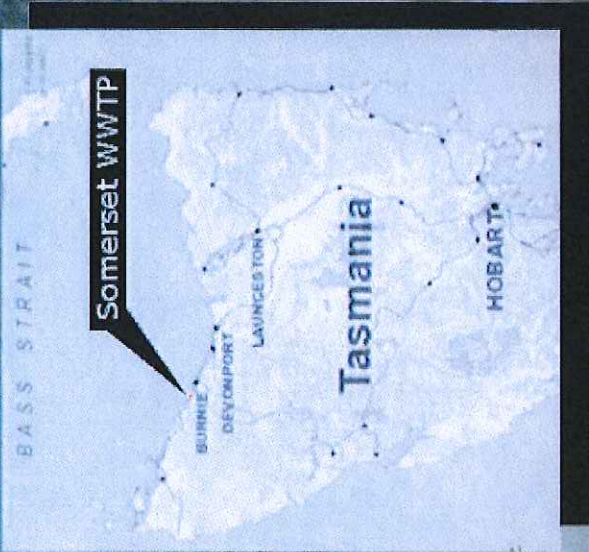
Other Information

OI1 Notification of incidents under section 32 of EMPCA

Where a person is required by section 32 of EMPCA to notify the Director of the release of a pollutant, the Director can be notified by telephoning 1800 005 171 (a 24-hour emergency telephone number).



PERMIT 3301
Attachment 1: Site Plan
Somerset Wastewater Treatment Plant



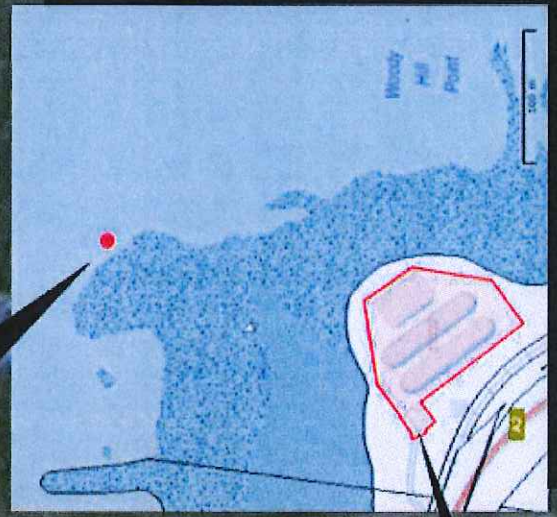
Effluent quality monitoring location
North channel: 399623mE, 5457570mN

Effluent quality monitoring location
South channel: 399603mE, 5457555mN



The Land

Effluent discharge location, Bass Strait
399709mE, 5457768mN



MSD

20 JUL 2015

Attachment 2: TABLE OF MONITORING REQUIREMENTS EPN 9186/1

Column 1 Item	Column 2 Locations	Column 3 Parameter	Column 4 Unit of Measure	Column 5 Sampling or testing Frequency	Column 6 Sampling or testing technique	Column 7 Reporting requirements
Influent wastewater flow to the activity	WWTP inlet	Flow	ML/day	Continuous measurement	Flow meter	<ol style="list-style-type: none"> To be reported in the Monthly Monitoring Report as an average for the reporting period of daily flow. To be reported in the Annual Environmental Review as monthly averages of daily flow
Effluent	WWTP outlet	Flow	ML/day	Continuous or periodic measurement or estimate based on approved method	Flow meter or other approved technique	<ol style="list-style-type: none"> To be reported in the Annual Environmental Review as monthly flows for each calendar month, based on daily flows for that month. To be included in mass load calculations within the Annual Environmental Review; mass load calculations to be based on total daily flow on the day of sampling A summary of results including graphical presentation to be provided in the Annual Environmental Review.
	WWTP effluent quality monitoring locations at: (1) South pasveer channel (399603m E, 5457555m S); and, (2) North pasveer channel (399623m E, 5457570m S) approximate locations shown at Attachment 1.	pH	pH units	Monthly	Field Test	<ol style="list-style-type: none"> Results to be reported in the Monthly Monitoring Report A summary of results including graphical presentation to be provided in the Annual Environmental Review.
Temperature		°C				
Conductivity		dS/m				
Thermotolerant Coliforms		cfu/100mL	Monthly	Grab sample		
Enterococci		cfu/100mL				
Suspended Solids		mg/L	Monthly	24 hour time weighted composite sample		
Biochemical Oxygen Demand		mg/L				
Ammonia-Nitrogen		mg/L				
Nitrate-Nitrogen		mg/L				
Nitrite-Nitrogen		mg/L				
Total Nitrogen		mg/L				
Total Phosphorus		mg/L				
Oil and Grease		mg/L				
Arsenic (total)		mg/L	Annually			
Boron		mg/L				
Cadmium		mg/L				
Chromium (total)		mg/L				
Cobalt		mg/L				
Copper		mg/L				
Lead		mg/L				
Manganese	mg/L					
Mercury (inorganic)	mg/L					
Nickel	mg/L					
Selenium	mg/L					
Zinc	mg/L					



Column 1 Item	Column 2 Locations	Column 3 Parameter	Column 4 Unit of Measure	Column 5 Sampling or testing Frequency	Column 6 Sampling or testing technique	Column 7 Reporting requirements
Groundwater	At groundwater monitoring bores in accordance with the approved Groundwater Monitoring Bore Plan	pH	-	Annually	Field Test	<ol style="list-style-type: none"> Results to be submitted in form of a report prepared by a suitably qualified professional. The report must provide interpretation whether monitoring results indicate evidence of environmental harm caused by the activity. Results to be provided in the Annual Environmental Review
		Standing Water Level	mbgs		Composite Grab	
		Temperature	° Celsius			
		Conductivity	dS/m			
		Total Dissolved Solids	mg/L			
		Ammonia-Nitrogen	mg/L			
		Nitrate-Nitrogen	mg/L			
		Nitrite-Nitrogen	mg/L			
		Total Nitrogen	mg/L			
		Total Phosphorus	mg/L			
		Filterable Reactive Phosphate	mg/L			
		Thermotolerant Coliforms	cfu/100mL			
		Enterococci	cfu/100mL			
Sludge/ Biosolids	Sludge/ Biosolids located on The Land	In accordance with the <i>Tasmanian Biosolids Reuse Guidelines 1999</i> or as otherwise approved by the Director.	In accordance with the <i>Tasmanian Biosolids Reuse Guidelines 1999</i> , or as otherwise approved by the Director.	In accordance with the <i>Tasmanian Biosolids Reuse Guidelines 1999</i> or as otherwise approved by the Director.	<ol style="list-style-type: none"> As required in the Annual Environmental Review. As otherwise approved by the Director. 	

For the purposes of the Table of Monitoring Requirements the following definitions apply:

Flow meter means an instrument that measures and records a flow or level of liquid and includes any ancillary device attached to or incorporated into the instrument

Continuous measurement means automatic ongoing measurement at all times

Field test/ on-site test means either *in situ* testing or analysis of samples immediately with appropriate instrumentation

Grab sample means a discrete sample collected in a manner that ensures it is a representative sample

24 hour time weighted composite sample means a composite sample consisting of grab samples of equal volume taken at constant intervals during a 24 hour period.