

THIS IS THE DOCUMENT MARKED ESO-1
REFERRED TO IN THE AFFIDAVIT OF
SWORN AT HOBART IN TASMANIA THIS
14TH DAY OF JUNE 2013 BEFORE ME:

JUSTICE OF THE PEACE
NUMBER 49

ESO-1

1/26



ENVIRONMENT PROTECTION NOTICE No. 8102/1

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

Issued to: **TASMANIAN WATER AND SEWERAGE CORPORATION (NORTHERN REGION) PTY LIMITED trading as BEN LOMOND WATER**
ACN 133 655 062
36 - 42 CHARLES ST
LAUNCESTON TAS 7250

Environmentally Relevant Activity: **The operation of a wastewater treatment plant (ACTIVITY TYPE: Wastewater Treatment Works)**
TI-TREE BEND WASTEWATER TREATMENT PLANT, TI-TREE BEND LAUNCESTON TAS 7250

GROUNDS

I, Alex Schaap, Director, Environment Protection Authority, being satisfied in accordance with section 44(1)(d) of the *Environmental Management and Pollution Control Act 1994* (the EMPCA) and 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
3322	17 December 1991	Director of Environmental Control

PARTICULARS

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

- 1 Because the permit conditions need to be varied to reflect current or updated terminology and/or to clarify the meaning of the conditions.
- 2 Because the permit conditions need to be varied to reflect current regulatory practice.
- 3 Because the permit conditions need to be varied to reflect continuous improvement consistent with the objectives of EMPCA.
- 4 Because the permit conditions need to be varied to ensure that there are adequate safeguards against environmental harm or nuisance being caused by the activity.
- 5 Because it is necessary to give effect to the State Policy on Water Quality Management 1997.

Further details of the particulars are contained in Schedule 4 of this notice.

DIRECTOR, ENVIRONMENT PROTECTION AUTHORITY

Date of issue:

11 JUN 2013

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

In accordance with s.44(3) of the EMPCA, the person responsible for the activity is required to comply with the conditions contained in Schedule 2 of this Notice. These conditions prevail over the terms of the permit to the extent of any inconsistency.

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 \$130.00).

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:



DIRECTOR, ENVIRONMENT PROTECTION AUTHORITY

11 JUN 2013

Date:



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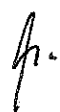
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Attachment 2: Table of Monitoring Requirements (modified: 24/05/2013 10:59).....2 pages



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.

Approved Management Method For Biosolids Reuse means the document of this title first gazetted by the Director in June 2006 as amended by the Director from time to time.

Australian Guidelines For Water Quality Monitoring And Reporting means the document of this title published as part of the *National Water Quality Management Strategy* in 2000, or any subsequent updates.

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.

Biosolids means sewage sludge that has been extracted from a wastewater treatment plant and stabilised for beneficial reuse.

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.

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.

Minimum Construction Requirements For Water Bores In Australia means the document published under this title by The National Uniform Driller 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.



Noise Sensitive Premises means residences and residential zones (whether occupied or not), schools, hospitals, caravan parks and similar land uses involving the presence of individual people for extended periods, except in the course of their employment or for recreation.

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.

Protected Environmental Value means a value or use for which it has been determined that a given area of the environment should be protected. There can, and often will be, more than one protected environmental value for a given area. A list of potential protected environmental values is provided in clause 7.1 of the *State Policy on Water Quality Management 1997*.

Reporting Period means the financial year ending on 30 June of each calendar year.

Sewage Sludge means concentrated solids separated from wastewater during the wastewater treatment process.

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

Tasmanian Biosolids Reuse Guidelines means the document of this title published by the Department of Primary Industries, Water and Environment in August 1999, and includes any subsequent versions of this document.

Tasmanian Noise Measurement Procedures Manual means the Noise Measurement Procedures Manual dated July 2004 issued by the Director of Environmental Management in accordance with regulation 25 of the *Environmental Management and Pollution Control (Miscellaneous Noise) Regulations 2004* and includes any subsequent versions of the document.

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 Certificates of Title 238251/1, 238237/1, 84750/2, 84750/1 and 5030/2; and
- 2 The plan shown 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 25,000 kilolitres per day of design capacity to treat sewage or wastewater (average dry weather flow).

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 ownership

If the person responsible for the activity is not the owner of The Land upon which the activity is carried out and the owner of The Land changes or is to change, then, as soon as reasonably practicable but no later than 30 days after becoming aware of the change, the person responsible must notify the Director in writing of the change of ownership.

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.

G7 Availability of agreements

A copy of any relevant Trade Waste Agreement must be provided to an Authorised Officer upon request.

Atmospheric**A1 Odorous gases**

The person responsible must institute such odour management measures as are necessary to prevent odorous gases 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 draft Decommissioning and Rehabilitation Plan (DRP) for the activity must be submitted for approval to the Director within 3 months 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.

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 Tamar River approximately located at grid reference E510289 N5415020 as depicted on the plan at Attachment 1.

EF2 Effluent quality limits for discharge to the Tamar River

1 Effluent discharged to the Tamar River must comply with the effluent quality limits set out in Table 1: Table of Effluent Quality Limits for discharge to the Tamar River, at the effluent monitoring location specified in Attachments 1 and 2.

2 **Table 1: Table of Effluent Quality Limits for discharge to the Tamar River**

Column 1	Column 2	Column 3	Column 6
Substance or measure	Unit of measurement	Minimum limit	Maximum limit
Biochemical Oxygen Demand	mg/L	-	40
Suspended Solids	mg/L	-	60
Ammonia Nitrogen	mg/L	-	5
Total Nitrogen	mg/L	-	40
Total Phosphorus	mg/L	-	10
Oil and Grease	mg/L	-	10
Thermotolerant Coliforms	cfu/100mL	-	1,000
Total Residual Chlorine	mg/L		1.5
pH	pH unit	6.5	8.5

EF3 Signage of outfall locations

Signage must be installed and maintained near to outfalls to discourage contact with waters near the outfall. This signage must describe the location of the outfall and nature of the discharge.

Effluent Management

EM1 Effluent Management

1 The person responsible must:

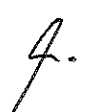
1.1 submit to the Director within 6 months of the date on which these conditions take effect, or by a date otherwise specified in writing by the Director, a written undertaking to implement full effluent reuse; or

1.2 submit a Discharge Management Plan to the Director for approval within 2 years and 6 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 6 months of the date on which these conditions take effect, or by 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 within 6 months of these conditions taking effect, or by a date otherwise specified in writing by the Director.
- 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 in accordance with 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

Unless otherwise approved in writing by the Director, environmentally hazardous material held on The Land, including chemicals, fuels and oils, must be located within impervious bunded areas or spill trays which are designed to contain at least 110% of the total volume of material.

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 Requirements 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 estimated or measured average daily flow to the wastewater treatment plant for the previous monthly period; and
 - 1.2 for each sampling location or site test location:
 - 1.2.1 a location name which allows the location to be clearly identifiable;
 - 1.2.2 the date and where relevant time at which each sample was taken or site test conducted;
 - 1.2.3 the indicators for which analyses or tests were carried out and the units in which the results are reported; and
 - 1.2.4 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 The influent and effluent flow meters must be calibrated within 6 months of the date on which these conditions take effect, or by a date otherwise specified in writing by the Director.
- 2 Flow monitoring equipment must be calibrated as frequently as recommended by the manufacturer or at least once every 12 months, whichever is the more frequent.
- 3 The dates on which flow monitoring equipment has been calibrated must be recorded and records kept for a minimum of 3 years.

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 Installation of Automated Treated Effluent Composite Sampling Equipment

Unless otherwise approved in writing by the Director, the person responsible must install within 6 months of the date on which these conditions take effect, automated and refrigerated composite sampling equipment at the WWTP outlet which ensures a flow weighted 24 hour composite sample of treated effluent is collected to meet the monitoring requirements of Attachment 2.

M7 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.

M8 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 12 months of these conditions taking 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 6 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 6 months of these conditions taking 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; and
 - 1.3 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. As far as is reasonable and practicable, the Contingency Management Plan must include contact details for all downstream water users that may be impacted by an unplanned event and must be kept up to date by the person responsible.

- 3 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.
- 4 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 submitted within 6 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 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.

OP4 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*.

OP5 Site security

The WWTP must be fenced and suitable vehicle barriers or gates must be installed to prevent entry by unauthorised persons or vehicles. This infrastructure 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 within 12 months of the date these conditions take effect, or by a date otherwise specified in writing by the Director.
- 2 The Sewage Sludge Management Plan must be prepared with reference to the Tasmanian Biosolids Reuse Guidelines and must include:
 - 2.1 a monitoring program to ensure the correct testing and classification of sewage sludge; and
 - 2.2 a proposal for the appropriate end use or disposal of sewage sludge.
- 3 The Sewage Sludge Management Plan must contain a description of any onsite containment facility for sewage sludge at the WWTP including measures to prevent environmental nuisance.
- 4 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 EMPCA

The activity must be conducted in accordance with the requirements of the *Environmental Management and Pollution Control Act 1994* and Regulations thereunder. The conditions of this document must not be construed as an exemption from any of those requirements.

LO2 Change of responsibility

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

LO3 Storage and handling of Dangerous Goods, Explosives and dangerous substances

- 1 The storage, handling and transport of dangerous goods, explosives and dangerous substances must comply with the requirements of relevant State Acts and any regulations thereunder, including:
 - 1.1 *Work Health and Safety Act 2012* and subordinate regulations;
 - 1.2 *Explosives Act 2012* and subordinate regulations; and
 - 1.3 *Dangerous Goods (Road and Rail Transport) Act 2010* and subordinate regulations.

Other Information

OI1 Waste management hierarchy

- 1 Wastes should be managed in accordance with the following hierarchy of waste management:
 - 1.1 waste should be minimised, that is, the generation of waste must be reduced to the maximum extent that is reasonable and practicable, having regard to best practice environmental management;
 - 1.2 waste should be re-used or recycled to the maximum extent that is practicable; and
 - 1.3 waste that cannot be re-used or recycled must be disposed of at a waste depot site or treatment facility that has been approved in writing by the relevant planning authority or the Director to receive such waste, or otherwise in a manner approved in writing by the Director.

OI2 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).

Policy Requirements

PR1 Policy Objectives

- 1 Wastewater Treatment Plants (WWTP) in Tasmania must comply with the requirements for best practice environmental management (BPEM) and move toward implementing accepted modern technology (AMT) under the Environmental Management and Pollution Control Act 1994 (EMPCA) and the State Policy on Water Quality Management 1997 (SPWQM). The management of pollutant discharge from point sources is governed by the principles defined in clause 16.2 of SPWQM, namely:

- 1.1 pollutant discharges must not prejudice water quality objectives (WQO) defined for the receiving waters; and
- 1.2 pollutant discharges must be reduced to the maximum extent that is reasonable and practical having regard to Best Practice Environmental Management and in accordance with the hierarchy of waste management.

PR2 Policy Framework

- 1 The policy framework and guidelines relevant to implementation of policy are as follows:
 - 1.1 State Policy on Water Quality Management (SPWQM);
 - 1.2 Approved Management Method For Biosolids Reuse, June 2006;
 - 1.3 Tasmanian Biosolids Reuse Guidelines, August 1999; and
 - 1.4 Environmental Guidelines for the Use of Recycled Water in Tasmania, December 2002.



Schedule 4 Grounds Matrix

EPN 8102/1

Legal entity name:

Tasmanian Water and Sewerage Corporation (Northern Region) Pty Ltd

Trading name:

Ben Lomond Water

EPN 8102/1 Condition	Corresponding Condition in Permit 3322	Further particulars of the grounds
Q1	Normal dry weather flow	The wording of the condition must be varied to reflect a change from defining the regulatory limit for the activity in terms of normal dry weather flow to average dry weather flow.
Nil	G1	Condition removed because the condition refers to the repealed <i>Environment Protection Act 1973</i> and therefore is no longer relevant.
G1	Nil	New condition requiring that any person responsible for the activity and any person responsible for undertaking work on The Land is aware of the requirements of these conditions.
G2	G3	The wording of the condition must be varied to incorporate current terminology for the responsible person to take action if an incident may have an adverse affect on the environment. Reporting requirements are now enclosed in Schedule 3.
G3	G2	The wording of the condition must be varied to incorporate current terminology and reference current legislation when requiring approval from the Director prior to any changes in the activity.
G4	Nil	New condition requiring notification to the Director of a change in ownership relating to the activity to ensure the Director has up to date information in relation to the activity.
G5	Nil	New condition requiring a complaints register to be maintained and detailing the actions taken to investigate and resolve the complaint, in order to facilitate the assessment of alleged incidents of nuisances and environmental harm under EMPCA and BPEM.
G6	Nil	New condition requiring submission of an Annual Environmental Review to provide the Director with an assessment of the recent performance of the WWTP.
G7	Nil	New condition requiring any relevant Trade Waste



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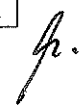
EPN 8102/1 Condition	Corresponding Condition in Permit 3322	Further particulars of the grounds
		Agreement to be provided to an Authorised Officer if requested to aid investigations into incidents of nuisance and environmental harm.
A1	Nil	New requirement to ensure the activity is conducted in compliance with EMPCA with respect to odour management.
DC1	Nil	New condition requiring notification to the Director prior to the cessation of the activity so that compliance with the other relevant conditions of this notice can be reviewed.
DC2	Nil	New condition requiring that an appropriate Decommissioning and Rehabilitation Plan is developed to mitigate the potential for environmental harm to be caused following cessation of the activity.
DC3	Nil	New condition requiring that the Land is rehabilitated in accordance with an appropriate Decommissioning and Rehabilitation Plan to mitigate the potential for environmental harm to be caused following cessation of the activity.
EF1	Nil	New condition specifying the location of authorised discharge points to enable accurate monitoring of receiving waters, as defined in section 45 SPWQM.
EF2	W2	The wording of the condition must be varied to reflect emission limits in accordance with Division 2B of the SPWQM and to remove any reference to the repealed <i>Environment Protection (Water Pollution) Regulations</i> .
EF3	Nil	New requirement to install and maintain signage near the effluent outfall to discourage human contact with waters near the outfall to mitigate against potential impacts on the health and safety of human beings
EM1	Nil	New requirement to ensure strategic planning of effluent management to satisfy the requirements of Division 2 SPWQM is undertaken with regards to the activity. Different options for improving effluent management can be selected by the responsible person.
EM2	Nil	New requirement to investigate feasibility and maximisation of wastewater reuse in accordance with section 15.1 of the SPWQM



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EPN 8102/1 Condition	Corresponding Condition in Permit 3322	Further particulars of the grounds
EM3	Nil	New requirement to develop a Discharge Management Plan to improve effluent management as required by the SPWQM. Only applicable where the relevant effluent management option is selected by the responsible person
EM4	Nil	New requirement to develop an ambient monitoring plan and undertake ambient monitoring in accordance with the plan to ensure monitoring requirements reflect the requirements of the SPWQM. Only applicable where the relevant effluent management option is selected by the responsible person.
H1	Nil	New requirement to ensure appropriate storage of hazardous materials to mitigate against environmental harm, consistent with BPEM and EMPCA.
M1	W1	The wording of the condition must be varied to ensure samples required by this EPN are collected and analysed in accordance with relevant acceptable standards.
M2 & Attachment 2	W3	The wording of the condition is varied to stipulate monitoring locations and requirements in relation to the Activity.
M3	W3	The wording of the condition must be varied to ensure reporting is undertaken in accordance with current standards to provide accurate information for assessment of the environmental impacts of the activity.
M4	Nil	New requirement for calibration of flow monitoring equipment to ensure accuracy of flow measurements.
M5	Nil	New condition requiring signposting and identification of monitoring points to ensure monitoring occurs consistently at identified locations so that results can be appropriately interpreted.
M6	Nil	New condition requiring installation of automated treated effluent composite sampling equipment, to ensure effluent sampling occurs in such a way as to suitably represent diurnal flow variations so that results can be appropriately interpreted.
M7	Nil	New condition requiring installation of an event recorder to record treatment bypass events.




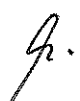


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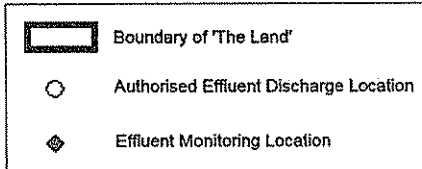
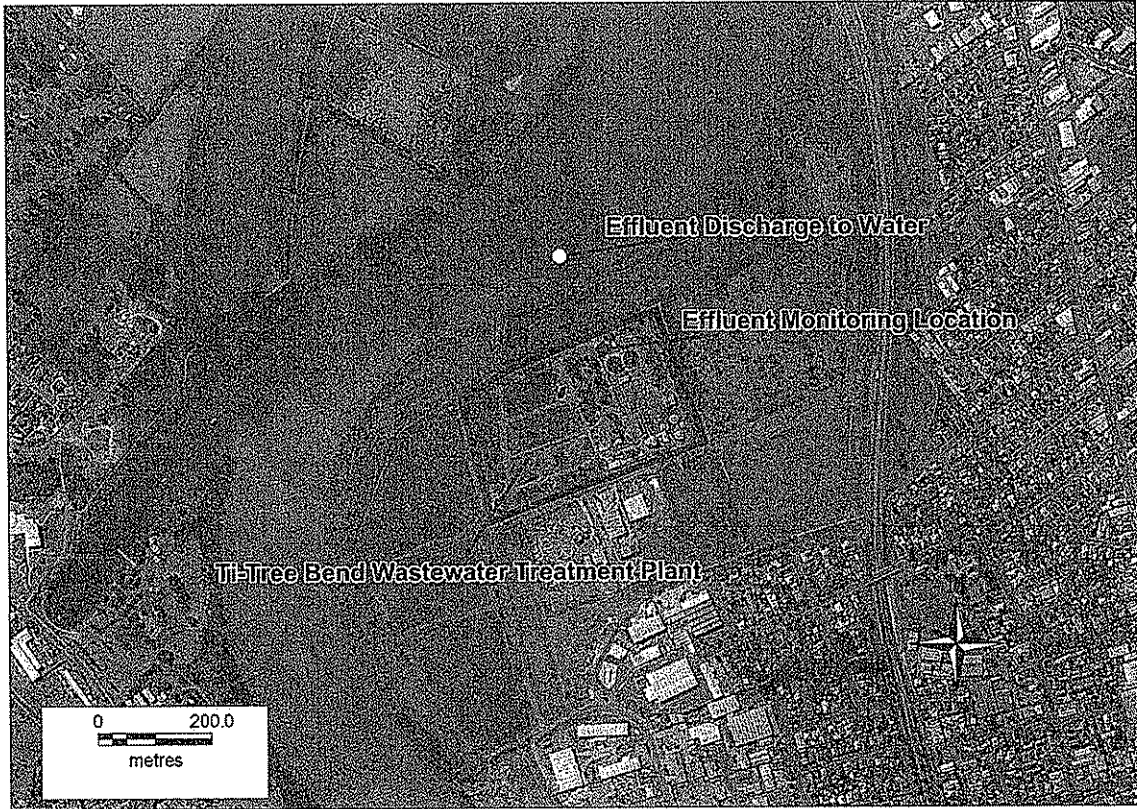
EPN 8102/1 Condition	Corresponding Condition in Permit 3322	Further particulars of the grounds
		Information on the frequency of bypass events is required to assess the need to implement measures to reduce these events to mitigate against the potential for environmental harm to occur as a result of discharge of partly treated wastewater.
M8	Nil	New requirements to install groundwater monitoring bores to ensure groundwater can be monitored for any potential contamination caused by the activity, consistent with section 24 SPWQM.
N1	Nil	New requirement specifying the emission limits and acceptable measurement methods for noise as required by EMPCA.
OP1	Nil	New condition to ensure contingency measures are in place to mitigate the potential for an incident to occur that may cause environmental harm, consistent with EMPCA.
OP2	Nil	New requirements requiring operational procedures to be documented and that all personnel operating at the activity are familiar with these procedures to ensure the activity is managed in a manner that does not cause environmental harm, consistent with EMPCA.
OP3	Nil	New requirement to ensure lagoon embankments are maintained and rubbish is not permitted to contaminate sludge and thereby mitigate the potential for the activity to cause environmental nuisance or environmental harm, consistent with EMPCA.
OP4	Nil	New requirement to ensure lagoon liners are installed and maintained in accordance with relevant standards to minimise the potential for the activity to cause environmental nuisance or environmental harm, consistent with EMPCA.
OP5	Nil	New requirement stipulating site security to discourage unauthorised personnel accessing the activity and potentially causing environmental harm.
WM1	S1	The wording of the condition must be varied to reflect current terminology and reference current guidelines so that sewage sludge generated on the land is managed in accordance with BPEM and EMPCA.
WM2	Nil	New requirement to maintain a controlled waste

1.1 JUN 2013

EPN 8102/1 Condition	Corresponding Condition in Permit 3322	Further particulars of the grounds
		register, in accordance with BPEM.
Nil	U1	This condition sets requirements for the use of treated effluent within the boundary of The Land. This condition is no longer considered necessary.



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Attachment 1: Plan of Activity



ATTACHMENT 2: TABLE OF MONITORING REQUIREMENTS

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 Effluent	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 	
	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 monitoring location at GDA coordinates E510363 N5414854	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	Monthly			
		Total Residual Chlorine	mg/L	Monthly		On-line or field test. Reading to be taken at time of grab sample collection	
		Thermotolerant Coliforms	cfu/100mL	Monthly		Grab sample	
		Enterococci	cfu/100mL	Monthly		24 hour flow weighted composite sample	
		Suspended Solids	mg/L				
		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	mg/L	Annually			
		Barium	mg/L				
		Boron	mg/L				
		Cadmium	mg/L				
		Chromium (total)	mg/L				
		Chromium VI	mg/L				
Cobalt	mg/L						
Copper	mg/L						
Lead	mg/L						
Manganese	mg/L						
Mercury	mg/L						
Molybdenum	mg/L						
Nickel	mg/L						
Potassium	mg/L						
Selenium	mg/L						
Silver	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
Wastewater bypass	At a location which complies with the requirements of condition M7	Date and time Duration of bypass Flow	Date and time Time (days, hours, minutes) Kilolitres	When bypass occurs When bypass occurs When bypass occurs	Automated event recorder that logs bypasses. Automated event recorder that logs duration of bypasses. Automated event recorder that allows the estimation or measurement of the volume of a bypass.	Report the following in the Annual Environmental Review: 1. Date, volume discharged, discharge location and level of treatment; 2. Total number of bypasses in the reporting period
Groundwater	Groundwater monitoring bores at locations on the Land to be approved by the Director in accordance with these conditions	Level of treatment prior to discharge pH Conductivity Biochemical Oxygen Demand Total Dissolved Solids Ammonia-Nitrogen Nitrate-Nitrogen Total Nitrogen Total Phosphorus Thermotolerant Coliforms Enterococci	Primary, Secondary or Tertiary - dS/m mg/L mg/L mg/L mg/L mg/L mg/L cfu/100mL	When bypass occurs Annually	Observation during the bypass Field Test Composite Grab	1. Results to be provided in the Annual Environmental Review
Sludge/ Biosolids	Sludge/ Biosolids located on The Land	In accordance with the Tasmanian Biosolids Reuse Guidelines 1999, or as otherwise approved by the Director.	In accordance with the Tasmanian Biosolids Reuse Guidelines 1999, or as otherwise approved by the Director.	In accordance with the Tasmanian Biosolids Reuse Guidelines 1999, or as otherwise approved by the Director.	In accordance with the Tasmanian Biosolids Reuse Guidelines 1999, or as otherwise approved by the Director.	1. As required in the Annual Environmental Review. 2. 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
- On-line means measurements or analyses are carried out automatically and the results electronically recorded for remote viewing and analysis
- 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
- Flow weighted 24 hour composite means a composite sample consisting of grab samples taken and mixed in such a way that the sample volume is proportional to the wastewater flow or a sample collected continuously over a 24 hour period at a rate proportional to wastewater flow.