

ESO-1



This is the document marked ESO-1 referred to in the affidavit of _____ sworn at Hobart in Tasmania this... day of December 2011, before me

JUSTICE OF THE PEACE
Number: 1373

ENVIRONMENT PROTECTION NOTICE No. 7829/1

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

Issued to: **TASMANIAN WATER AND SEWERAGE CORPORATION (SOUTHERN REGION) PTY LIMITED trading as SOUTHERN WATER**
ACN 133 654 976
163 - 169 MAIN RD
MOONAH TAS 7009

Environmentally Relevant Activity: **The operation of a wastewater treatment plant (ACTIVITY TYPE: Wastewater Treatment Works)**
ROKEBY WASTEWATER TREATMENT PLANT, 91 DROUGHTY POINT RD
ROKEBY TAS 7019

GROUNDS

I, Alexander Schaap, Director, Environment Protection Authority, being satisfied in accordance with section 44(1)(a), (c) and (d) of the *Environmental Management and Pollution Control Act 1994* (the EMPCA) and in relation to the above-mentioned environmentally relevant activity that:-
 environmental harm is being or is likely to be caused; and
 it is necessary to do so in order to give effect to a State Policy or an environment protection policy; and
 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
96/0528	05 April 1997	Director of Environmental Management

PARTICULARS

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

- 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 ensure that there are adequate safeguards against environmental harm or nuisance being caused by the activity.
- 4 Because the permit conditions need to be varied to reflect continuous improvement consistent with the objectives of EMPCA.
- 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.




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

Date:

2 - DEC 2011



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Schedule 1: Definitions

90th Percentile means the value at which the relevant parameter is exceeded by no more than 10 percent of all sample results over a twelve month period.

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

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 authorised 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.

Controlled Waste has the meaning described in Section 3(1) of EMPCA.

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.

Emission Limit Guidelines means the *Emission Limit Guidelines for Sewage Treatment Plants that Discharge Pollutants into Fresh and Marine Waters 2001* published by the Department of Primary industries, Water and Environment, dated June 2001, and includes subsequent versions of this document.

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 and chemicals.

Mass Load means the mass of a pollutant discharged over a given period of time calculated in accordance with the method outlined in the Annual Environmental Review Template referred to in these conditions.

Median means the value at which the relevant parameter is exceeded by no more than 50 percent of all sample results over a 12 month period

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.

Peak wet weather flow is the sum of the average dry weather flow plus rain dependant inflow and infiltration.

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 30th June of each calendar year.

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

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.

Stormwater means water traversing the surface of the land as a result of rainfall.

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 is described by Certificate of Title Volume 86722 Folio 1.

Waste has the meaning ascribed to it in Section 3 of EMPCA.

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

Wastewater Reuse EMP means the document entitled "Coal River Valley Water Recycling Project, Development Proposal and Environmental Management Plan", dated February 2003, written by GHD (Document No 32/10658/22971) and includes an addendum entitled "Coal River Valley Water Recycling Project, Development Proposal and Environmental Management Plan Addendum", dated April 2003, written by GHD (Document No 32/10658/24213).

Wastewater Reuse Scheme means the Coal River Valley Water Recycling Scheme as described in the Wastewater Reuse EMP

WWTP means waste water treatment plant

A handwritten signature in black ink, appearing to be 'A. C. G.', is located at the bottom center of the page.

Schedule 2: Conditions

Maximum Quantities

Q1 Regulatory limits

- 1 The activity must not exceed the following limits:
 - 1.1 4,000 kilolitres/day of design capacity to treat sewage or wastewater (average dry weather flow). (Annual fees are derived from this figure.)
 - 1.2 16,000 kilolitres/day of of maximum throughput (peak wet weather flow) 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 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;
 - 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.

G3 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.

G4 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.

G5 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.

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 Wastewater reuse scheme annual report

- 1 Unless otherwise approved by the Director a publicly available wastewater reuse scheme report must be submitted each year within 3 months of the end of the Reporting Period. The report must include the following information:
 - 1.1 a list of all supplier-user agreements;
 - 1.2 the volume of treated wastewater discharged to the wastewater reuse scheme during each calendar month of the reporting period and the reuse rate as a proportion of total wastewater discharged from the WWTP;
 - 1.3 a summary of reuse activities including water and nutrient budgets;
 - 1.4 results of monitoring undertaken in accordance with the Wastewater Reuse EMP and an assessment of those results. This information should be presented in graphical form where possible and should include comparison with the results of previous reporting periods;
 - 1.5 discussion of any significant trends observable in the monitoring results over time, including comparison with previous monitoring periods, must be provided;
 - 1.6 verification that the wastewater is only being used in the manner and on crops described in the Wastewater Reuse EMP and how this has been verified; and
 - 1.7 details of any proposed variations to the operation of the reuse scheme from those described in the Wastewater Reuse EMP.
- 2 Where the Director is of the opinion that the Wastewater Reuse EMP needs updating to reflect the current practices and potential environmental impacts associated with the reuse scheme the Director may direct the person responsible to cause a new Wastewater Reuse EMP to be prepared and submitted for approval and the responsible person must comply with the direction or cease the discharge to the wastewater reuse scheme.

G8 Bypass Review

- 1 Within 14 months of the date on which these conditions take effect, a review of bypass arrangements ('the Bypass Review') on the land must be completed.
- 2 The Bypass Review must include the development of documents that show the locations where effluent is most likely to bypass treatment processes and set out the likely scenarios for when these bypasses may occur. For each bypass location, proposed actions that are designed to reduce the frequency of bypasses occurring must be developed and documented.
- 3 The Bypass Review must include a documented plan to manage Lagoons 1 and 2. This plan must specify how effluent in Lagoon 1 and 2 is to be treated and disposed of.

- 4 The Bypass Review must include a documented assessment of the human health and ecosystem risks arising from potential leakage from Lagoon 1 and 2. A determination must be made on whether the level of risk is acceptable. This determination must be documented. If risk is unacceptable, then actions must be developed and implemented to reduce risk to acceptable levels. These actions must be documented.
- 5 The Bypass Review must identify and document the most likely scenarios that may result in effluent discharging to Ralphps Bay. Likely discharge points to Ralphps Bay must be identified and documented on a plan with eastings and northings (GDA94, Map Grid of Australia zone 55).
- 6 The Bypass Review must identify and document the most practicable solution or solutions to prevent discharges to Ralphps Bay and these actions must be implemented.
- 7 The Bypass Review must include a documented assessment of the ongoing need for the discharge pipeline into Ralphps Bay.
- 8 If the discharge pipeline into Ralphps Bay is still needed, then a pipeline condition assessment must be completed and documented. If the pipeline condition assessment determines that repairs to this pipeline are needed, then these repairs must be completed. All repair work must be documented.
- 9 If the discharge pipeline to Ralphps Bay is to remain in use, then a plan for the routine inspection and maintenance of the pipeline must be developed and documented.
- 10 Within 14 months of the date on which these conditions take effect a written report (the Bypass Review report) including the all documented material required by this condition must be submitted to the Director, EPA.

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 30 days of the Director being notified of the planned cessation of operations or by a date specified in writing by the Director. The DRP must be prepared in accordance with 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 are likely be subject to erosion;
 - 1.2 removal or mitigation of all environmental hazards or land contamination, that are / is likely to cause environmental harm; and
 - 1.3 decommissioning of any equipment that has not been sold.
- 2 Where a Decommissioning and Rehabilitation Plan (DRP) has been approved by the Director, 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 points:
 - 1.1 Discharge to water: discharge to The River Derwent at Map Grid of Australia zone 55 G (GDA94), 533067.00 metres east and 5247760.00 metres south as shown on the plan at Attachment 1C.
 - 1.2 Discharge to a wastewater reuse scheme: discharge to the Coal River Valley reuse scheme as defined in the Wastewater Reuse EMP.
 - 1.2.1 Effluent must not be discharged to the Coal River Valley reuse scheme unless the effluent is managed in accordance with the Wastewater Reuse EMP.
 - 1.3 Discharge to the emergency outfall in the northern end of Ralphs Bay approximately 50 metres from the southern boundary of The Land at Map Grid of Australia zone 55 G (GDA94), 535907.00 metres east, and 5249296.00 metres south.
 - 1.3.1 All reasonable and practical efforts must be made to avoid discharge to the emergency outfall described in 1.3;
 - 1.3.2 To maximise the potential storage capacity of Lagoons 1 and 2, water levels in these lagoons must be kept as low as reasonable and practical. This storage capacity must be exhausted before effluent is discharged from the outfall described in 1.3; and
 - 1.3.3 The authorisation to discharge effluent from the emergency outfall described in 1.3 expires 14 months from the date on which these conditions take effect.



EF2 Effluent quality limits for discharge to the River Derwent (Discharge Point 1.1)

Effluent discharged to the River Derwent (Discharge Point 1.1) must comply with the water quality limits set out in Table 1, Effluent Quality Limits for discharge to the River Derwent, at the Effluent Quality monitoring location specified in Attachment 2.

Table 1: Effluent Quality Limits for discharge to the River Derwent

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
Substance or measure	Unit of measurement	Minimum Limit	Median limit	90th Percentile limit	Maximum limit
Biochemical Oxygen Demand	mg/L	-	10	15	30
Suspended Solids	mg/L	-	10	20	30
Ammonia Nitrogen	mg/L	-	1	3	5
Total Nitrogen	mg/L	-	5	10	15
Total Phosphorus	mg/L	-	1	2	5
Oil and Grease	mg/L	-	2	4	5
Thermotolerant Coliforms	cfu/100mL	-	200	500	750
pH		6.5			8.5

EF3 Effluent quality limits for discharge to Coal River Valley reuse scheme (Discharge Point 1.2)

Effluent discharged to the Coal River Valley Reuse Scheme must comply with the water quality limits set out in Table 2, "Reuse Effluent Quality Limits for discharge to Coal River Valley Reuse Scheme", at the Effluent Quality monitoring location specified in Attachment 2.

Table 2: Reuse Effluent Quality Limits for discharge to Coal River Valley reuse scheme

Column 1	Column 2	Column 3	Column 4	Column 5
Parameter	Unit of measurement	Minimum limit	Median limit	Maximum limit
pH		5.5	-	8.5
Biochemical Oxygen Demand	mg/L	-	-	50
Thermotolerant Coliforms	cfu/100mL	-	<1000	10,000

EF4 Mass load limits

- 1 From 1 July 2012, or a date otherwise specified in writing by the Director, the mass load of nitrogen and phosphorus discharged to water from the activity must not exceed the following limits:

- 1.1 13,140 kg per annum of total nitrogen; and

- 1.2 3,212 kg per annum of total phosphorus.

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 an Emission Limit Guidelines Compliance Plan 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; or
 - 1.3 submit a Discharge Management Plan to the Director for approval within 2 years of the date on which these conditions take effect, or by a date otherwise specified in writing by the Director.

EM2 Emission Limit Guidelines Compliance Plan

- 1 For the purposes of these conditions an Emission Limit Guidelines Compliance Plan must, with reference to the *Emission Limit Guidelines*, include:
 - 1.1 confirmation that the volume of effluent discharged from the activity will be less than 500 kL/day average dry weather flow;
 - 1.2 a strategy to ensure that the flow rate of the receiving waters is equal to or greater than 80 times the flow rate of effluent discharged to water during low seasonal water flow conditions;
 - 1.3 a strategy to bring effluent quality into compliance with Accepted Modern Technology emission limits including details of any infrastructure upgrade requirements.
 - 1.4 a table containing all of the major commitments made in the Emission Limit Guidelines Compliance Plan;
 - 1.5 an implementation timetable for key aspects of the Emission Limit Guidelines Compliance Plan; and
 - 1.6 a reporting schedule to regularly advise the Director of progress with the implementation of the Emission Limit Guidelines Compliance Plan.
- 2 The person responsible must implement and act in accordance with the approved Emission Limit Guidelines Compliance Plan.
- 3 In the event that the Director, by notice in writing to the person responsible, either approves a minor variation to the approved Emission Limit Guidelines Compliance Plan or approves a new Emission Limit Guidelines Compliance 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.

EM3 Discharge Management Plan

- 1 For the purposes of these conditions a Discharge Management Plan must be 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 any 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 9 months of the date on which these conditions take 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 1 month of the plan being approved in writing by the Director.
- 4 Within 3 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 obtained in accordance with the following:
 - 1.1 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;
 - 1.2 measurements must be made and samples must be collected and analysed in accordance with relevant 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;
 - 1.3 noise measurements must be taken in accordance with the Tasmanian Noise Measurement Procedures Manual;
 - 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 samples and measurements must be obtained and transported by a person with appropriate training and experience.

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 Flow monitoring equipment

- 1 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.
- 2 The dates on which flow monitoring equipment has been calibrated must be recorded and records kept for a minimum of 3 years.

M4 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 completion 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.

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.

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 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 Site security

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

OP3 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.

OP4 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.

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 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 Authorised 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; 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

Other Information

OI1 Reporting and Notifications

- 1 If the condition in Schedule 2 entitled *Wastewater reuse scheme annual report* appears in other Environment Protection Notices held by the person responsible, and these conditions pertain to the same reuse scheme, then a single report may be submitted to the Director, EPA provided that it meets the requirements of all the relevant Environment Protection Notices.
- 2 See section 32 of the *Environmental Management and Pollution Control Act, 1994* for additional requirements relating to notification of environmental incidents.

Policy Requirements


PR1 Policy Framework

- 1 The policy framework and guidelines relevant to implementation of policy are as follows:
 - 1.1 *State Policy on Water Quality Management*, 1997;
 - 1.2 *Emission Limit Guidelines for Sewage Treatment Plants That Discharge Pollutants In To Fresh And Marine Waters*, June 2001;
 - 1.3 *Tasmanian Biosolids Reuse Guidelines*, August 1999; and
 - 1.4 *Environmental Guidelines for the Use of Recycled Water in Tasmania*, December 2002.



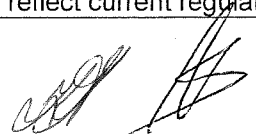
Schedule 4: Grounds Matrix, EPN 7829/1

Text or Condition of this Notice	Corresponding condition in permit no. 6086	Grounds
Ownership		
Preamble to permit conditions	Preamble to permit conditions	Varied to replace previous owner, Clarence City Council, with the current owner, Tasmanian Water and Sewerage Corporation (Southern Region) Pty Limited. Varied to clarify meaning.
The Land		
The land is defined in Schedule 1.	A grid reference to the land is provided in the preamble to permit conditions	"The land" is now defined in Schedule 1 of this notice. Varied to clarify meaning.
Definitions		
Schedule 1	D1 – D7	Definitions are provided in Schedule 1 Varied to reflect updated terminology. Varied to reflect current regulatory practice. Varied to clarify meaning.
Maximum Quantities		
Q1	Q1	<i>Regulatory Limits:</i> There is no change to the annual dry weather flow volume of wastewater allowed to be treated. Maximum throughput (peak wet weather flow) has been added. Varied to reflect current regulatory practice. Varied to clarify meaning.
General Conditions		
G1	G5	<i>Access to and awareness of conditions and associated documents:</i> Changed wording. Varied to clarify meaning.
G2	A1, N2	<i>Complaints register:</i> New condition with broader scope than A1, N2. Varied to reflect current regulatory practice. Varied to reflect continuous improvement consistent with EMPCA.
G3	G3	<i>Incident response:</i> Varied to reflect updated terminology. Varied to reflect current regulatory practice. Varied to clarify meaning.
G4	G2	<i>No change without approval:</i> Varied to reflect current regulatory practice. Varied to clarify meaning.
G5	-	<i>Change of Ownership.</i> New condition. Included to ensure there are adequate safeguards against environmental harm.
G6	G8	<i>Annual Environmental Review.</i> New condition. Trade waste and other reporting requirements now within the Annual Environmental Review.



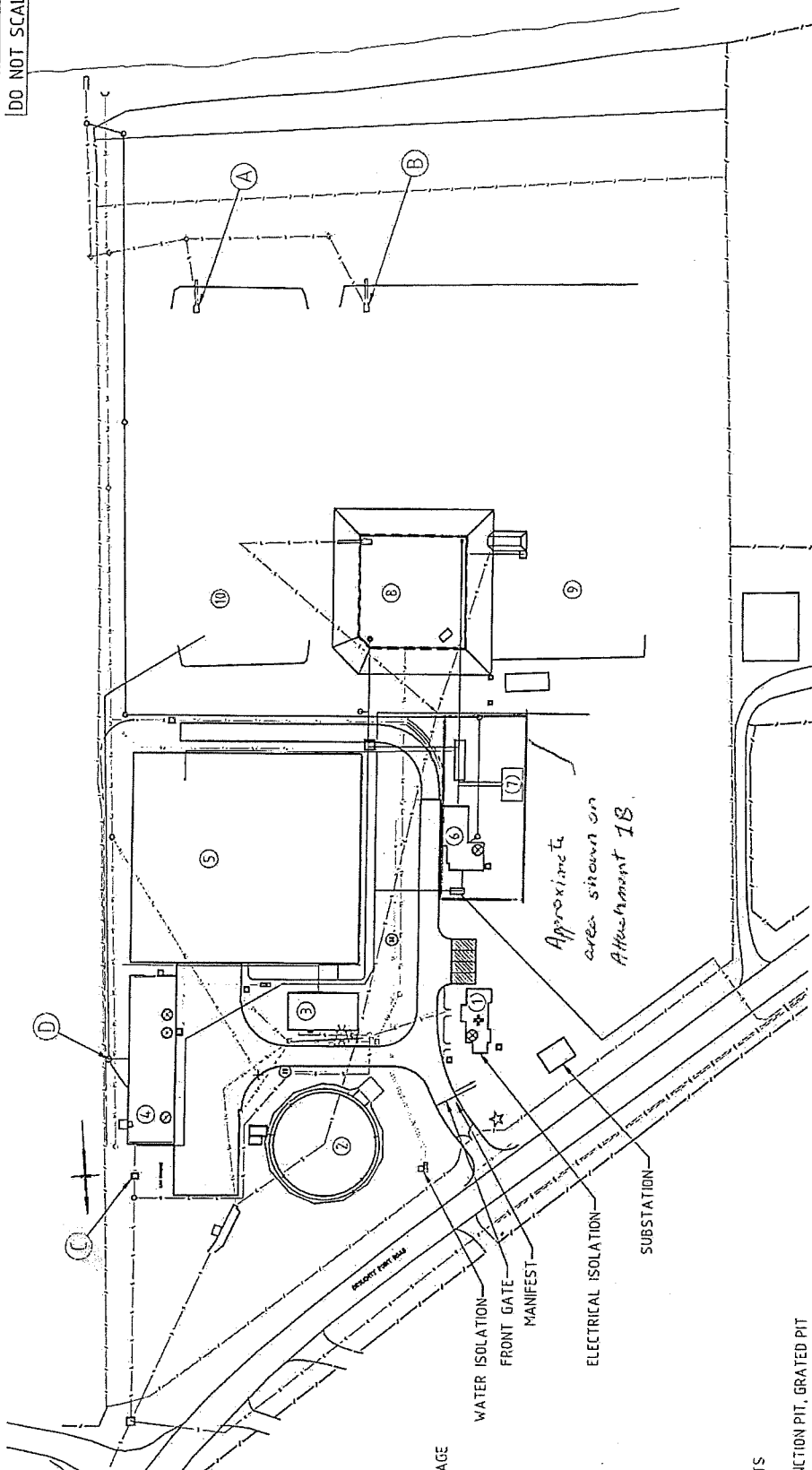
		Varied to reflect current regulatory practice.
G7	-	<i>Wastewater Reuse Scheme Annual Report.</i> Included to reflect current regulatory practice.
G8	-	<i>Bypass Review.</i> New condition. Included to ensure there are adequate safeguards to control and prevent environmental harm.
Decommissioning and Rehabilitation		
DC1	-	<i>Notification of cessation.</i> New condition. Included to ensure there are adequate safeguards against environmental harm.
DC2	-	<i>DRP requirements.</i> New condition. Included to ensure there are adequate safeguards against environmental harm.
DC3	-	<i>Rehabilitation following cessation.</i> New condition. Included to ensure there are adequate safeguards against environmental harm.
Effluent Disposal		
EF1	D3, D4, E6	<i>Effluent discharge locations.</i> Note that the Coal River Valley reuse scheme has been added as an approved discharge location. Included to reflect continuous improvement consistent with EMPCA. Included to reflect current regulatory practice. Included to give effect to the State Policy on Water Quality Management, 1997.
EF2	D3, D4, E2	<i>Effluent quality limits for discharge to the River Derwent.</i> Note effluent quality Limits discharge to the River Derwent remain unchanged. Varied to clarify meaning.
EF3	-	<i>Effluent quality limits for discharge to Coal River Valley reuse scheme:</i> new condition allowing discharge to the Coal River Valley reuse scheme Varied to reflect continuous improvement consistent with EMPCA. Varied to reflect current regulatory practice. Varied to clarify meaning.
EF4	-	<i>Mass load limits.</i> New condition Included to reflect continuous improvement consistent with EMPCA. Included to reflect current regulatory practice.

Effluent Management		
EM1	-	<i>Effluent Management.</i> New condition. Included to reflect continuous improvement consistent with EMPCA. Included to reflect current regulatory practice. Included to give effect to the State Policy on Water Quality Management, 1997.
EM2	-	<i>Emission Limit Guidelines Compliance Plan.</i> New condition. Included to reflect continuous improvement consistent with EMPCA. Included to reflect current regulatory practice. Included to give effect to the State Policy on Water Quality Management, 1997.
EM3	E3, D5, D6	<i>Discharge Management Plan.</i> Varied to reflect continuous improvement consistent with EMPCA. Varied to reflect current regulatory practice. Varied to clarify meaning. Varied to give effect to the State Policy on Water Quality Management, 1997.
EM4	M3	<i>Ambient monitoring of receiving waters.</i> Varied to reflect continuous improvement consistent with EMPCA. Varied to reflect current regulatory practice. Varied to give effect to the State Policy on Water Quality Management, 1997.
Hazardous Substances		
H1	-	<i>Storage and handling of hazardous materials.</i> New condition. Included to ensure there are adequate safeguards against environmental harm
Monitoring		
M1	M1	<i>Dealing with samples obtained for monitoring.</i> Varied to reflect updated terminology and clarify meaning.
M2	M2	<i>Monitoring requirements.</i> Varied to reflect updated terminology and clarify meaning. Varied to reflect continuous improvement consistent with EMPCA. Varied to reflect current regulatory practice.
M3	-	<i>Flow monitoring equipment.</i> New condition. Included to reflect current regulatory practice.
M4	M4	<i>Monitoring reporting and record keeping.</i> Included to reflect current regulatory practice



M5	-	<i>Signage of monitoring points.</i> New condition. Included to reflect current regulatory practice
M6	-	<i>Event Recorder for Bypass.</i> New Condition. Included to reflect current regulatory practice.
Noise Control		
N1	N1	<i>Noise emission limits.</i> Varied to ensure there are adequate safeguards against environmental harm. Varied to reflect current regulatory practice. Varied to clarify meaning.
Operations		
OP1	-	<i>Contingency Management Plan.</i> New condition. Included to reflect current regulatory practice.
OP2	-	<i>Site Security.</i> New condition. Included to reflect current regulatory practice. Varied to clarify meaning.
OP3	-	<i>Operational Procedures Manual.</i> New condition. Included to reflect current regulatory practice.
OP4	-	<i>Inflow and Infiltration (I&I).</i> New condition. Included to reflect current regulatory practice.
Waste Management		
WM1	S2	<i>Sewage Sludge Management Plan.</i> Varied to reflect continuous improvement consistent with EMPCA. Varied to reflect current regulatory practice
WM2	-	<i>Controlled Waste Register.</i> New Condition. Included to reflect current regulatory practice.

DO NOT SCALE



SITE VIEW
 SCALE 1:1000 @ A3
 GDA 94 POSITION
 EASTING - 535940
 NORTHING - 5249550
 PROPERTY IDENTITY NUMBER
 5204889

- Ⓐ EFFLUENT MONITORING - RALPH'S BAY
- Ⓑ EFFLUENT MONITORING - RALPH'S BAY
- Ⓒ WWTW INFLOW - ELECTROMAGNETIC METER
- Ⓓ WWTW BYPASS TO LAGOON No.2

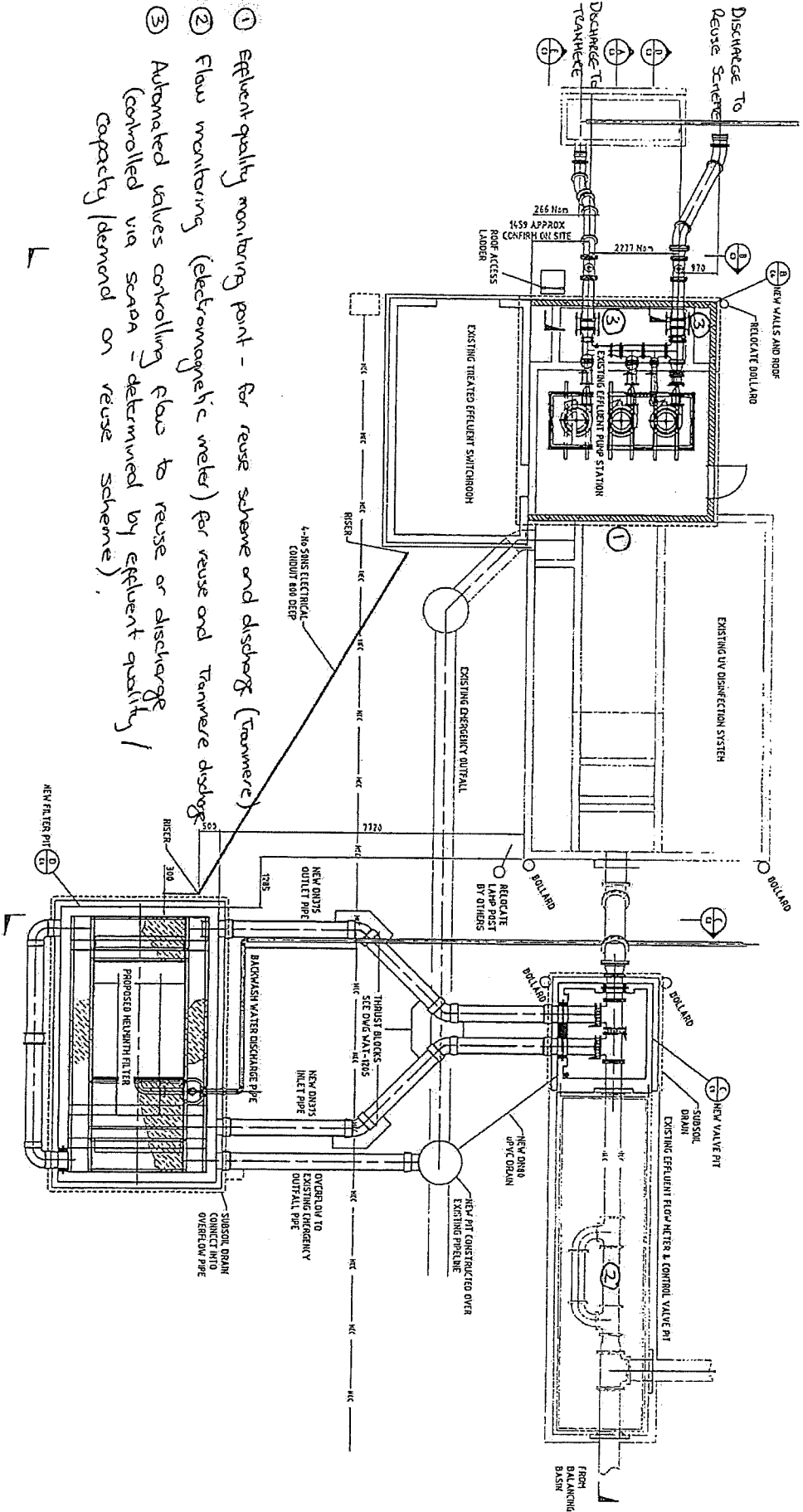
- LEGEND**
- ① OFFICE/CONTROL BUILDING
 - ② SOIL BED FILTER
 - ③ DOSING SYSTEM AND STORAGE
 - ④ SERVICES BUILDING
 - ⑤ AERATION TANK
 - ⑥ UV TANK AND TREATED
 - ⑦ EFFLUENT PUMP STATION
 - ⑧ FILTER
 - ⑨ BALANCING BASIN
 - ⑩ LAGOON No. 1
 - ⑪ LAGOON No. 2

- SERVICES LEGEND**
- + FIRST AID
 - ☆ EVACUATION POINTS
 - BOUNDARY FENCE
 - - - STORMWATER, JUNCTION PIT, GRATED PIT
 - SEWER, MANHOLE
 - WATER, STOP VALVE
 - FIRE HYDRANT
 - FIRE EXTINGUISHER DRY CHEMICAL / CO2
 - INTERNAL ROADWAY
 - ▨ CAR PARKING
 - ☼ EMERGENCY SHOWER

DRAWING CHECK:		DATE	
DESIGN CHECK:		DATE	
PROJECT APPROVAL:		DATE	
ASSET No.:			
DWG. STATUS:			
DRAWN BY: JTK		DESIGNED BY:	
SCALE @ A3		DRAWING No.	10006
AS SHOWN		SHEET No.	C01
PROJECT DATE: 08/11/2010		REV	

southern water
 SOUTHERN TASHMAN WATER AND SEWAGE CORPORATION
 Ph. 03 6233 6533 ABN. 65 133 654 976
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ATTACHMENT 1A



- 1 Effluent quality monitoring point - for reuse scheme and discharge (Transmet)
- 2 Flow monitoring (electromagnetic meter) for reuse and Transmet discharge
- 3 Automated valves controlling flow to reuse or discharge (controlled via SCADA - determined by effluent quality / capacity demand on reuse scheme)

PROJECT: PUMP STATION UPGRADE		DATE: 11/27/2013	SCALE: AS SHOWN (A1)	DRAWN BY: CLARENCE CITY COUNCIL	
DESIGNED BY: ROKEDY WASTE WATER TREATMENT PLANT		DATE: 11/27/2013	SCALE: AS SHOWN (A1)	DRAWN BY: ROKEDY WASTE WATER TREATMENT PLANT	
CHECKED BY: ROKEDY WASTE WATER TREATMENT PLANT		DATE: 11/27/2013	SCALE: AS SHOWN (A1)	DRAWN BY: ROKEDY WASTE WATER TREATMENT PLANT	
APPROVED BY: ROKEDY WASTE WATER TREATMENT PLANT		DATE: 11/27/2013	SCALE: AS SHOWN (A1)	DRAWN BY: ROKEDY WASTE WATER TREATMENT PLANT	
PROJECT NO: 110010		DATE: 11/27/2013	SCALE: AS SHOWN (A1)	DRAWN BY: ROKEDY WASTE WATER TREATMENT PLANT	
PROJECT NAME: ROKEDY WASTE WATER TREATMENT PLANT		DATE: 11/27/2013	SCALE: AS SHOWN (A1)	DRAWN BY: ROKEDY WASTE WATER TREATMENT PLANT	
PROJECT LOCATION: ROKEDY WASTE WATER TREATMENT PLANT		DATE: 11/27/2013	SCALE: AS SHOWN (A1)	DRAWN BY: ROKEDY WASTE WATER TREATMENT PLANT	
PROJECT DESCRIPTION: PUMP STATION UPGRADE		DATE: 11/27/2013	SCALE: AS SHOWN (A1)	DRAWN BY: ROKEDY WASTE WATER TREATMENT PLANT	
PROJECT STATUS: FOR CONSTRUCTION		DATE: 11/27/2013	SCALE: AS SHOWN (A1)	DRAWN BY: ROKEDY WASTE WATER TREATMENT PLANT	

REDUCED SCALE PLOT

CAUTION: THIS DRAWING IS A COPY OF THE ORIGINAL DRAWING. IT IS NOT TO BE USED FOR CONSTRUCTION OF ANY STRUCTURE OR EQUIPMENT WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER OF RECORD.

PITT & SHERRY

FOR CONSTRUCTION

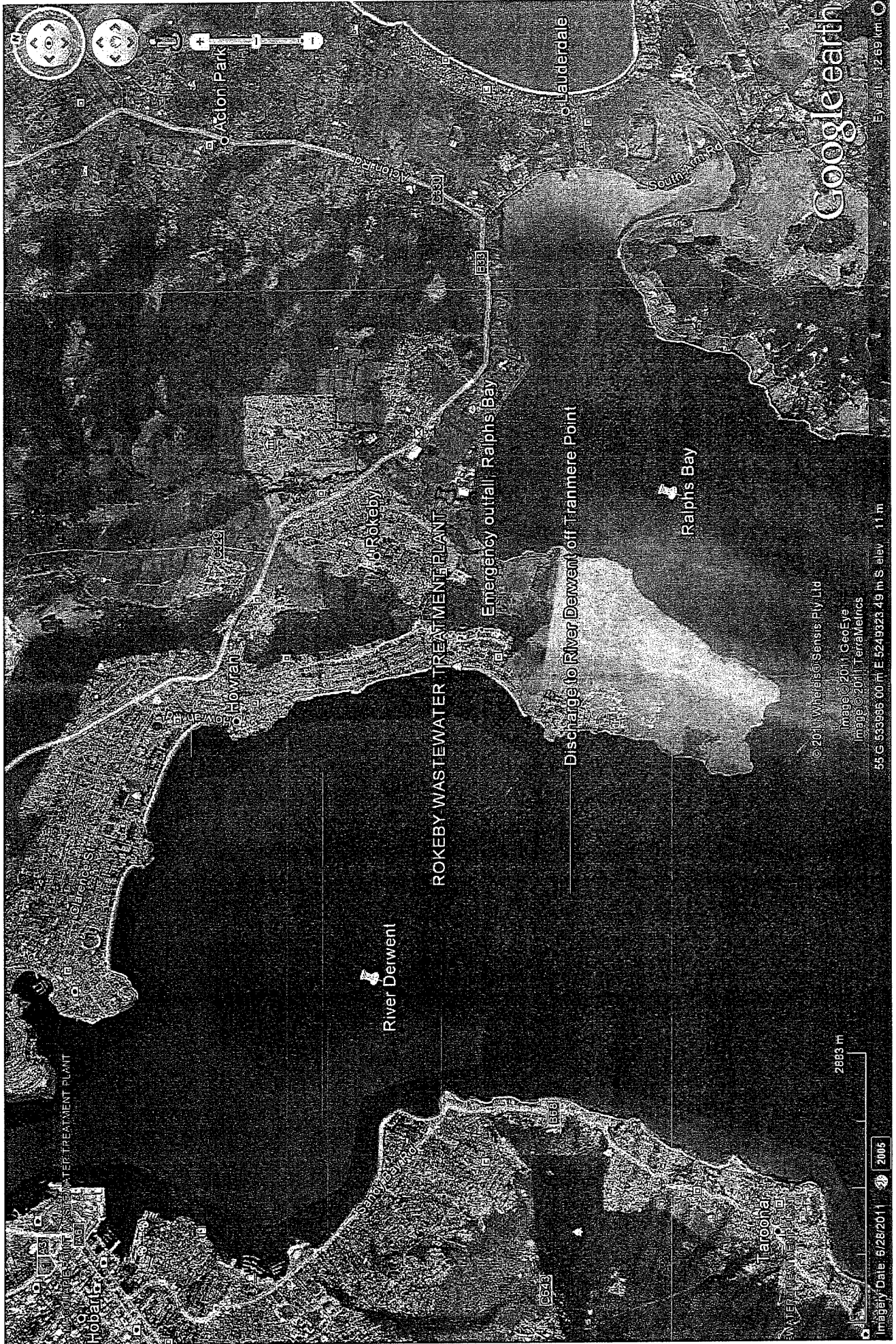
NEW HELMINTH FILTER AND TREATED EFFLUENT PUMP STATION UPGRADE GENERAL ARRANGEMENT PLAN

DATE: 11/27/2013

SCALE: AS SHOWN (A1)

150

LAYOUT PLAN

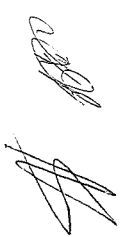


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Attachment 2:
TABLE OF MONITORING REQUIREMENTS

- The following definitions apply to this Table of Monitoring Requirements:
1. Continuous measurement means automatic ongoing measurement at all times
 2. In-line means measurement taken from instrumentation installed within the conduit of flow
 3. On-line means measurements or analyses are carried out automatically and the results electronically recorded for remote viewing and analysis
 4. Field test means either in situ testing or analysis of samples immediately with appropriate instrumentation
 5. Grab sample means a discrete sample collected in a manner that ensures it is a representative sample

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
Item	Locations	Parameter	Unit	Sampling or testing Frequency	Sampling or testing technique	Reporting requirements
Wastewater treatment plant inflow	Flow Monitoring Location description: Location "C" shown on Attachment 1A, described as WWTP inflow, electromagnetic meter Approximate MGA zone 55 coordinate: Easting: 535909.60 Northing: 5249563.40	Flow	KL/day	Continuous measurement	In-line flow rate measurement	1. Average daily flow for the month in the Monthly Monitoring Report required by the monitoring conditions. 2. Monthly flows for each calendar month, based on average daily flows for that month to be included in the Annual Environmental Review required by the environmental conditions.
Wastewater treatment plant outflow	Flow Monitoring Location description: Location "2" shown on Attachment 1B, described as Flow Monitoring (electromagnetic meter) for reuse and Trammere discharge. Approximate MGA zone 55 coordinate: Easting: 535831.00 Northing: 5249474.00	Flow	KL/day	Continuous measurement	In-line flow rate measurement	For Coal River Valley reuse scheme discharges: 1. To be reported in the Monthly Monitoring Report as an average for the reporting period of daily flow. 2. To be reported in the Annual Environmental Review as monthly volumes for each calendar month during the reporting period. 3. To be reported in the Wastewater Reuse Annual Report For River Derwent, off Trammere Point discharges: 1. To be reported in the Monthly Monitoring Report as an average for the reporting period of daily flow. 2. To be reported in the Annual Environmental Review as monthly flows for each calendar month. 3. To be used for mass load calculations (discharge to Trammere Point) based on total daily flow on the day of sampling.



Attachment 2:
TABLE OF MONITORING REQUIREMENTS

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
Item	Locations	Parameter	Unit	Sampling or testing Frequency	Sampling or testing technique	Reporting requirements
Effluent quality	Effluent Quality Monitoring Location description: Location "1" shown on Attachment 1B, described as Effluent monitoring point – for reuse scheme and discharge (Tranmere). Approximate MGA zone 55 coordinate: Easting: 535833.59 Northing: 5249492.90	pH	-	Continuous while discharge occurring to: Coal Valley Reuse Scheme or the River Derwent.	Field test / on-line	1. To be reported in the Monthly Monitoring Report. 2. To be reported in the Annual Environmental Review.
		Temperature	°C	Monthly when discharge has occurred to Coal Valley Reuse Scheme or the River Derwent.	Flow proportional composite sample / grab	1. To be reported in the Monthly Monitoring Report. 2. To be reported in the Annual Environmental Review.
		Conductivity	dS/m			
		Dissolved Oxygen	mg/L	Annually when discharge has occurred to the Coal Valley Reuse Scheme or the River Derwent.	Flow proportional composite sample / grab	1. To be reported in the Monthly Monitoring Report. 2. To be reported in the Annual Environmental Review.
		Biochemical Oxygen Demand	mg/L			
		Suspended Solids	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			
		Thermotolerant Coliforms	cfu/100mL			
		Enterococci	cfu/100mL	Annually when discharge has occurred to the Coal Valley Reuse Scheme or the River Derwent off the Tranmere Point during that reporting year.	Flow proportional composite sample / grab	1. To be reported in the Annual Environmental Review.
		Arsenic	mg/L			
		Barium	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	Annually when discharge to the Coal Valley Reuse Scheme has occurred during that reporting year.	Flow proportional composite sample / grab	1. To be reported in the Annual Environmental Review.
		Nickel	mg/L			
		Selenium	mg/L			
		Silver	mg/L			
Zinc	mg/L					
Alkalinity (as bicarbonate)	mg/L					
Boron	mg/L					
Calcium	mg/L					
Chloride	mg/L					
Magnesium	mg/L					
Molybdenum	mg/L					
Potassium	mg/L					
Sodium	mg/L					
Sulphate	mg/L					

Attachment 2:
TABLE OF MONITORING REQUIREMENTS

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
Item	Locations	Parameter	Unit	Sampling or testing Frequency	Sampling or testing technique	Reporting requirements
Wastewater treatment bypass	At a location which complies with the requirements of condition M6	Date and time	Date and time	When bypass occurs	Automated event recorder that logs bypasses.	Report the following in the Annual Environmental Review : 1. Date, volume discharged, discharge location and level of treatment; and 2. Total number of bypasses in the reporting period.
		Duration of bypass	Time (days, hours, minutes)	When bypass occurs	Automated event recorder that logs duration of bypasses.	
Sludge	Sludge / Biosolids generated on the land	Flow	Kilolitres	When bypass occurs	Automated event recorder that allows the estimation or measurement of the volume of a bypass.	1. To be reported in the Annual Environmental Review.
		Level of treatment prior to discharge	Primary, Secondary or Tertiary	When bypass occurs	Observation during the bypass	
		Moisture	%	Annually	Composite Grab Sample	
		Temperature	°C			
		Conductivity	ds/m			
		Organic matter	%dry			
		Ammonia Nitrogen	mg/kg			
		Nitrate Nitrogen	mg/kg			
		Nitrite Nitrogen	mg/kg			
		Total Nitrogen	mg/kg			
		Total Phosphorus	mg/kg			
		Total Potassium	mg/kg			
		Total Arsenic	mg/kg			
		Total Cadmium	mg/kg			
		Total Chromium	mg/kg			
		Total Copper	mg/kg			
		Total Lead	mg/kg			
		Total Mercury	mg/kg			
		Total Nickel	mg/kg			
		Total Selenium	mg/kg			
		Total Zinc	mg/kg			
		DDT	mg/kg			
		DDE	mg/kg			
		DDD	mg/kg			
		Aldrin	mg/kg			
		Dieldrin	mg/kg			
		Chlordane	mg/kg			
		Heptachlor	mg/kg			
		Lindane	mg/kg			
		HCB	mg/kg			
		BHC	mg/kg			
		PCB	mg/kg			


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