

Environment Protection Licence



Licence - 12904

Licence Details

Number:	12904
Anniversary Date:	20-October

Licensee

VEOLIA WATER OPERATIONS PTY LTD

PO BOX 2891

TAREN POINT BC NSW 2229

Premises

SYDNEY DESALINATION PLANT

SIR JOSEPH BANKS DRIVE

KURNELL NSW 2231

Scheduled Activity

N/A

Fee Based Activity

Scale

Miscellaneous licensed discharge to waters (at any time)

> 1000 ML discharged

Region

Metropolitan Infrastructure

Level 13, 10 Valentine Ave

PARRAMATTA NSW 2150

Phone: (02) 9995 5000

Fax: (02) 9995 6900

PO Box 668 PARRAMATTA

NSW 2124

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Information about this licence

Dictionary

A definition of terms used in the licence can be found in the dictionary at the end of this licence.

Responsibilities of licensee

Separate to the requirements of this licence, general obligations of licensees are set out in the Protection of the Environment Operations Act 1997 ("the Act") and the Regulations made under the Act. These include obligations to:

- ensure persons associated with you comply with this licence, as set out in section 64 of the Act;
- control the pollution of waters and the pollution of air (see for example sections 120 - 132 of the Act);
- report incidents causing or threatening material environmental harm to the environment, as set out in Part 5.7 of the Act.

Variation of licence conditions

The licence holder can apply to vary the conditions of this licence. An application form for this purpose is available from the EPA.

The EPA may also vary the conditions of the licence at any time by written notice without an application being made.

Where a licence has been granted in relation to development which was assessed under the Environmental Planning and Assessment Act 1979 in accordance with the procedures applying to integrated development, the EPA may not impose conditions which are inconsistent with the development consent conditions until the licence is first reviewed under Part 3.6 of the Act.

Duration of licence

This licence will remain in force until the licence is surrendered by the licence holder or until it is suspended or revoked by the EPA or the Minister. A licence may only be surrendered with the written approval of the EPA.

Licence review

The Act requires that the EPA review your licence at least every 5 years after the issue of the licence, as set out in Part 3.6 and Schedule 5 of the Act. You will receive advance notice of the licence review.

Fees and annual return to be sent to the EPA

For each licence fee period you must pay:

- an administrative fee; and
- a load-based fee (if applicable).

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The EPA publication “A Guide to Licensing” contains information about how to calculate your licence fees. The licence requires that an Annual Return, comprising a Statement of Compliance and a summary of any monitoring required by the licence (including the recording of complaints), be submitted to the EPA. The Annual Return must be submitted within 60 days after the end of each reporting period. See condition R1 regarding the Annual Return reporting requirements.

Usually the licence fee period is the same as the reporting period.

Transfer of licence

The licence holder can apply to transfer the licence to another person. An application form for this purpose is available from the EPA.

Public register and access to monitoring data

Part 9.5 of the Act requires the EPA to keep a public register of details and decisions of the EPA in relation to, for example:

- licence applications;
- licence conditions and variations;
- statements of compliance;
- load based licensing information; and
- load reduction agreements.

Under s320 of the Act application can be made to the EPA for access to monitoring data which has been submitted to the EPA by licensees.

This licence is issued to:

VEOLIA WATER OPERATIONS PTY LTD
PO BOX 2891
TAREN POINT BC NSW 2229

subject to the conditions which follow.

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1 Administrative Conditions

A1 What the licence authorises and regulates

A1.1 This licence regulates water pollution resulting from the activity/ies specified below carried out at the premises specified in A2.

<u>Fee Based Activity</u>	<u>Scale</u>
Miscellaneous licensed discharge to waters (at any time)	> 1000 ML discharged

A1.2 Except as expressly provided by another condition of this licence, this licence authorises the discharge of product water, discharge water and pipeline water from the desalination plant return flows chamber to the Tasman Sea under the following conditions:

- (a) when the maximum output capacity of the plant is no more than the Existing Unexpanded Plant; and
- (b) when discharging through Point 9 only.

A2 Premises or plant to which this licence applies

A2.1 The licence applies to the following premises:

Premises Details
SYDNEY DESALINATION PLANT
SIR JOSEPH BANKS DRIVE
KURNELL
NSW 2231
LOT 2 DP 1077972, LOT 1 DP 1088703

A2.2 The premises also includes the offshore discharge and inlet structures located in the Tasman Sea and associated inlet and outlet tunnels operated by the licensee.

A3 Other activities

A3.1 This licence applies to all other activities carried on at the premises, including:

Ancillary Activity
Discharge of pipeline water
Operation and maintenance of desalination plant

A4 Information supplied to the EPA

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- A4.1 Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence.

In this condition the reference to "the licence application" includes a reference to:

- a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and
- b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.

2 Discharges to Air and Water and Applications to Land

P1 Location of monitoring/discharge points and areas

- P1.1 The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.
- P1.2 The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area.

Water and land

EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description
8	Water quality monitoring Volume monitoring		D3 - Return flows chamber prior to outfall tunnel; indicated in Figure 3 of the Application for Additional Discharge Point submitted to the EPA on 6 February 2009.
9		Discharge to waters	D4 - Offshore discharge point comprising the outlet tunnel, outlet Riser 3 (OR3) and Outlet Riser 4 (OR4). as shown in Figure 2 of the Application for Additional Discharge Point, submitted to the EPA on 6 February 2009.
10	Water quality monitoring		The seawater intake pumps discharge manifold.

3 Limit Conditions

L1 Pollution of waters

- L1.1 Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.

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L2 Concentration limits

- L2.1 For each monitoring/discharge point or utilisation area specified in the table below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.
- L2.2 Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.
- L2.3 To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table.
- L2.4 Water and/or Land Concentration Limits

POINT 9

Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
pH	pH		6.5 - 8.8		-
Salinity	-		72		-
Total residual chlorine	milligrams per litre		0.1		-
Total suspended solids	milligrams per litre		30		-

4 Operating Conditions

O1 Activities must be carried out in a competent manner

- O1.1 Licensed activities must be carried out in a competent manner.
This includes:
- the processing, handling, movement and storage of materials and substances used to carry out the activity; and
 - the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

O2 Maintenance of plant and equipment

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- O2.1 All plant and equipment installed at the premises or used in connection with the licensed activity:
- a) must be maintained in a proper and efficient condition; and
 - b) must be operated in a proper and efficient manner.

O3 Dust

- O3.1 The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.

O4 Waste management

- O4.1 The licensee must ensure that any waste generated and/or stored at the premises is assessed and classified for disposal or reuse in accordance with *Waste Classification Guidelines Part 1: Classifying Waste* (DECC, 2008)
- O4.2 The licensee must not discharge lime sludge or backwash solids produced as a by-product of the desalination processes to the Tasman Sea through discharge point 9.

O5 Other operating conditions

O5.1 Ocean discharge system

The licensee must operate the desalination plant and offshore discharge system so that at the edge of the near field mixing zone of the discharge plume the salinity of the seawater concentrate is within 1 part per thousand (ppt) of background salinity.

- O5.2 The dilution rate prescribed in condition O5.1 does not apply:

- (a) when the salinity of the seawater concentrate is less than or equal to the background salinity;
- (b) during the periods when the plant's production capacity is increasing or decreasing; or
- (c) when the plant has been shut down.

5 Monitoring and Recording Conditions

M1 Monitoring records

- M1.1 The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.
- M1.2 All records required to be kept by this licence must be:
- a) in a legible form, or in a form that can readily be reduced to a legible form;
 - b) kept for at least 4 years after the monitoring or event to which they relate took place; and
 - c) produced in a legible form to any authorised officer of the EPA who asks to see them.

- M1.3 The following records must be kept in respect of any samples required to be collected for the purposes of

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this licence:

- the date(s) on which the sample was taken;
- the time(s) at which the sample was collected;
- the point at which the sample was taken; and
- the name of the person who collected the sample.

Note: If the person who collects the sample is different to the person who conducts analysis of the sample, the names of both individuals must be recorded.

M2 Requirement to monitor concentration of pollutants discharged

M2.1 For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:

M2.2 Water and/ or Land Monitoring Requirements

POINT 8

Pollutant	Units of measure	Frequency	Sampling Method
Oxidation Reduction Potential	millivolts	Continuous during discharge	Probe
pH	pH	Continuous during discharge	Probe
Salinity	-	Continuous during discharge	Special Method 1
Temperature	Celsius	Continuous during discharge	Probe
Total dissolved solids	milligrams per litre	Weekly during any discharge	Grab sample
Total residual chlorine	milligrams per litre	Daily during any discharge	Grab sample
Total suspended solids	milligrams per litre	Weekly during any discharge	Grab sample
Turbidity	nephelometric turbidity units	Daily during any discharge	Grab sample

POINT 10

Pollutant	Units of measure	Frequency	Sampling Method
Salinity	-	Daily during any discharge	Special Method 1
Temperature	Celsius	Daily during any discharge	Probe

M2.3 For the purpose of the table at Condition M2.2, Special Method 1 means the monitoring of salinity using

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the Practical Salinity Scale 1978 and reported as 'practical salinity units' with standard conditions of 1 atmosphere and 15 degrees Celsius.

M2.4 The monitoring results collected in accordance with Condition M2.1 for Point 8 can be used to determine compliance with the limits prescribed in Condition L2.1 for Point 9.

M3 Testing methods - concentration limits

M3.1 Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.

M4 Recording of pollution complaints

M4.1 The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.

M4.2 The record must include details of the following:

- a) the date and time of the complaint;
- b) the method by which the complaint was made;
- c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
- d) the nature of the complaint;
- e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and
- f) if no action was taken by the licensee, the reasons why no action was taken.

M4.3 The record of a complaint must be kept for at least 4 years after the complaint was made.

M4.4 The record must be produced to any authorised officer of the EPA who asks to see them.

M5 Telephone complaints line

M5.1 The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.

M5.2 The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.

M5.3 The preceding two conditions do not apply until 3 months after:

- a) the date of the issue of this licence or
- b) if this licence is a replacement licence within the meaning of the Protection of the Environment Operations (Savings and Transitional) Regulation 1998, the date on which a copy of the licence was served on the licensee under clause 10 of that regulation.

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M6 Requirement to monitor volume or mass

- M6.1 For each discharge point or utilisation area specified below, the licensee must monitor:
- the volume of liquids discharged to water or applied to the area;
 - the mass of solids applied to the area;
 - the mass of pollutants emitted to the air;
- at the frequency and using the method and units of measure, specified below.

POINT 8

Frequency	Unit of Measure	Sampling Method
Daily during any discharge	megalitres	Estimate

6 Reporting Conditions

R1 Annual return documents

- R1.1 The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:
- a Statement of Compliance; and
 - a Monitoring and Complaints Summary.
- At the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.

- R1.2 An Annual Return must be prepared in respect of each reporting period, except as provided below.

Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.

- R1.3 Where this licence is transferred from the licensee to a new licensee:
- the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and
 - the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.

Note: An application to transfer a licence must be made in the approved form for this purpose.

- R1.4 Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on:
- in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or
 - in relation to the revocation of the licence - the date from which notice revoking the licence operates.

- R1.5 The Annual Return for the reporting period must be supplied to the EPA by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60

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days after the date the transfer was granted (the 'due date').

- R1.6 The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.
- R1.7 Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:
- a) the licence holder; or
 - b) by a person approved in writing by the EPA to sign on behalf of the licence holder.

R2 Notification of environmental harm

Note: The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.

- R2.1 Notifications must be made by telephoning the Environment Line service on 131 555.
- R2.2 The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.

R3 Written report

- R3.1 Where an authorised officer of the EPA suspects on reasonable grounds that:
- a) where this licence applies to premises, an event has occurred at the premises; or
 - b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence, and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.
- R3.2 The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.
- R3.3 The request may require a report which includes any or all of the following information:
- a) the cause, time and duration of the event;
 - b) the type, volume and concentration of every pollutant discharged as a result of the event;
 - c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event;
 - d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;
 - e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants;
 - f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and
 - g) any other relevant matters.

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R3.4 The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.

R4 Annual system performance report

R4.1 The licensee must submit to the EPA an Annual Desalination Plant Performance Report not later than 60 days after the end of each reporting period.

R4.2 The Annual Desalination Plant Performance Report is to supplement the Annual Return and must include but not be limited to the following components:

R4.2.1 Seawater concentrate discharged

(1) A statistical summary of the monitoring data for each pollutant which has corresponding limits, including the minimum, 10 percentile, median, average, 90 percentile and maximum values.

(2) An analysis of the plant performance against the concentration limits specified in the licence.

(3) The configuration of the discharge outlet during the reporting period including the number of risers, nozzles per riser, internal nozzle diameter, orientation around riser and nozzle angle to the horizontal plane.

(4) The daily production capacity of the plant during the reporting period, expressed in ML, including a record of significant events or changes in production rates.

(5) The total volumes of discharge water and seawater concentrate from the plant, expressed in the following formats –

- (i) Annual distribution functions; and
- (ii) Line graphs showing average daily values.

(6) The salinity, temperature and calculated density of the ambient seawater measured at Monitoring Point 10, expressed in the following formats –

- (i) Annual distribution functions; and
- (ii) Line graphs showing average daily values.

(7) The following parameters of the discharge plume, calculated from daily statistics generated using the empirical model for the offshore discharge system –

- (i) the salinity of discharge water discharged from the plant at the edge of the near field mixing zone expressed in parts per thousand (ppt);
- (ii) the distance from the discharge point to the edge of the near field mixing zone;
- (iii) the dilution rate of the discharge water at the edge of the near field mixing zone;
- (iv) the salinity of the discharge water at the plume impact point on the sea bed expressed in parts per thousand (ppt);
- (v) the distance from the discharge point to the plume impact point on the sea bed;

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- (vi) the dilution rate of the discharge water at the plume impact point on the sea bed;
- (vii) the difference between the salinity of the discharge water at the plume impact point on the seabed and background salinity;

expressed in the following formats –

- (viii) Annual distribution functions; and
- (ix) Line graphs showing average daily values.

R4.2.2 Complaints and reports

A summary of the total number of complaints and reports received by the licensee in relation to water pollution. A brief description of any significant unresolved issues arising out of the complaints and reports must be provided.

R4.2.3 Membrane preservation solution discharged

For periods where the desalination plant is shut down, the following components are to be included in the Annual System Performance Report -

- (1) The monitoring data for each pollutant specified in Condition E2.7.
- (2) An analysis of compliance with the concentration limits specified in Condition E2.5.
- (3) Details of each batch of membrane preservation solution discharged from Point 9, including -
 - (i) the number of batches discharged;
 - (ii) the frequency and duration of discharges; and
 - (iii) the volume of each batch discharged.

R4.2.4 Plant Shutdown

During plant shutdown, all requirements of R4.2.1 must be met excluding the following -

- (i) R4.2.1 (4);
- (ii) R4.2.1 (5) applicable to seawater concentrate only;
- (iii) R4.2.1 (6); and
- (iv) R4.2.1 (7)

R5 Other reporting conditions

R5.1 Treatment chemicals

The licensee must notify the EPA of any intention to change the treatment chemicals used in the desalination plant from those outlined in the report "Toxicity Assessment of Various Discharge Streams Comprising Desalination Plant Treatment Products" (Ecotox Services Australia, 2009).

R5.2 The notification must be made 60 days prior to the intended use of new treatment chemicals.

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- R5.3 The notification referred to in Conditions R5.1 and R5.2 must be made by submitting written details of the intended change to the EPA.
- R5.4 The EPA may require the licensee to undertake toxicity testing to assess any treatment chemicals which have not been previously assessed.

7 General Conditions

G1 Copy of licence kept at the premises or plant

- G1.1 A copy of this licence must be kept at the premises to which the licence applies.
- G1.2 The licence must be produced to any authorised officer of the EPA who asks to see it.
- G1.3 The licence must be available for inspection by any employee or agent of the licensee working at the premises.

8 Special Conditions

E1 Requirements for the discharge of pipeline water

- E1.1 Pipeline water is to be discharged through Discharge Point 9.
- E1.2 Discharge of pipeline water may comprise of the following activities –
- (a) Pipeline flushing
 - (b) Treatment (disinfection and other treatment steps to meet licence conditions)
- E1.3 The licensee must notify the EPA at least 24 hours prior to the commencement of planned discharge of pipeline water and as soon as practicable following an unplanned discharge of pipeline water. The licensee must also notify the EPA as soon as practical at the completion of each of activity listed in E1.2.
- Notifications must be made by telephoning the EPA's Environment Line service on 131 555.
- E1.4 During the discharge of pipeline water, the concentration of a pollutant discharged at Discharge Point 9 must not exceed the concentration limits specified for that pollutant in the table below.

POINT 9

Pollutant	Units of measure	50 percentile concentration limit
pH	pH	6.5 - 9.0
Total chlorine residual	milligrams per litre	0.1

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Note: Concentration limits specified in Condition L2.4 for Discharge Point 9 do not apply during the discharge of pipeline water.

E1.5 During discharge of pipeline water the licensee must monitor at Monitoring Point 8 (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1 of the table below. The licensee must use the sampling method, units of measure and sample at the frequency specified opposite in the other columns.

POINT 8

Pollutant	Units of measure	Frequency	Sampling Method
pH	pH	Every 3 hours	Grab
Total chlorine residual	milligrams per litre	Every 3 hours	Grab

E1.6 Monitoring requirements specified in Conditions M2.1 and M6.1 for Monitoring Point 8 do not apply during discharge of pipeline water.

E1.7 The monitoring results collected for Point 8 can be used to determine compliance with the limits prescribed in Condition E1.4 for Point 9.

E1.8 The licensee is required to submit a report that contains the results of any water quality monitoring undertaken in accordance with Condition E1 to the EPA within 30 days of the end of the discharge of pipeline water. The report must include, but not necessarily be limited to –

- (a) a schedule of the activities referred to in Condition E1.2;
- (b) an assessment of whether the water quality monitoring was carried out in accordance with Condition E1.5; and
- (c) numerical representation of the monitoring results which includes a statistical summary of the water quality data and assessment against the concentration limits in Condition E1.4.

E2 Requirements for the discharge of water when the desalination plant is shutdown

E2.1 This condition applies to the discharge of water from the desalination plant when the desalination plant is shut down.

E2.2 Water from the desalination plant is to be discharged through Point 9.

E2.3 The licensee must notify the EPA at least 7 days prior to the plant being shut down and commencing operation after being shut down.

E2.4 The concentration limits specified in Condition L2.4 for Point 9 also apply when the desalination plant is shut down.

E2.5 Monitoring requirements specified in Condition M2 for Point 8 do not apply when the desalination plant is shut down.

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- E2.6 The licensee must monitor at Point 8 (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1 of the table below. The licensee must use the sampling method, units of measure and sample at the frequency specified opposite in the other columns.

Pollutant	Units of measure	Frequency	Sampling Method
pH	pH	1 time each batch discharge	Grab sample
Salinity	practical salinity units	1 time each batch discharge	Grab sample
Total residual chlorine	mg/L	1 time each batch discharge	Grab sample
Total suspended solids	mg/L	1 time each batch discharge	Grab sample

- E2.7 Salinity monitored in accordance with Condition E2.7 is to be measured using the Practical Salinity Scale 1978 and reported as 'practical salinity units' with standard conditions of 1 atmosphere and 15 degrees Celsius.
- E2.8 The monitoring results collected for Point 8 in accordance with Condition E2.7 can be used to determine compliance with the limits prescribed in Condition E2.5 for Point 9.

E3 Special Dictionary

E3.1 Special Dictionary

Term	Definition
Approved	Means approved in writing by the EPA. The EPA's approval may be given unconditionally, or subject to conditions.
Desalination	The process of removing dissolved salts and minerals from seawater.
Desalination plant	Means the desalination plant built at the corner of Sir Joseph Banks Drive and Captain Cook Drive in Kurnell, as described in the Environmental Assessment of the Concept Plan for Sydney's Desalination Project (Sydney Water Corporation, 2005) and the Preferred Project Report for Sydney's Desalination Project (Sydney Water Corporation, 2006).
Desalinated water pipeline	A pipeline that transfers water from the desalination plant at Kurnell across Botany Bay to Kyeemagh, then to Erskineville to connect to the existing drinking water system.
Discharge	Has the same meaning as in Schedule 1, classification [71] of the Protection of the Environment Operations (General) Regulation 2009.
Discharged water	Means the concentrated seawater solution that is produced as a by-product of the desalination plant processes to be discharged from the plant through the Return Flows Chamber, and which is composed of neutralised membrane preservation and cleaning solutions, treated backwash water, product water, pipeline water, and make-up water.
Edge of the near field mixing zone	The point where the discharge plume no longer has the ability to mix by turbulent momentum; or the point of ultimate minimum dilution; theoretically located 3.5 times further from the diffuser than the distance of the observed point of plume impact on the sea bed.

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Existing Unexpanded Plant	Means the existing Desalination Plant having a nameplate capacity of 250 megalitres per day, but capable of producing up to an average of 275 megalitres per day over a year.
Make-up water	Screened seawater that makes up a portion of the Discharge water during periods of low plant production in order to meet velocity requirements at the outlet diffusers
Offshore discharge system	Means the outlet structure for discharge of desalination effluent, comprising the outlet tunnel, two vertical risers, diffuser heads and outlet ports located approximately 300m offshore of the Kurnell Peninsula in the Tasman Sea.
Pipeline water	Water from flushing and/or disinfecting the desalinated water pipeline following maintenance of the desalinated water pipeline or when bringing the plant online after being shut down.
Plume impact point	The physical location where the seawater concentrate discharge plume impacts on the sea bed.
Product water	Water produced as a result of the desalination processes.
Seawater concentrate	Concentrated brine produced as a by-product of the desalination process that makes up a portion of the discharge water.
Shut down	When desalination processes at the plant cease and the plant does not produce drinking water or discharge seawater concentrate for a continuous period of more than six months.

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Dictionary

General Dictionary

3DGM [in relation to a concentration limit]	Means the three day geometric mean, which is calculated by multiplying the results of the analysis of three samples collected on consecutive days and then taking the cubed root of that amount. Where one or more of the samples is zero or below the detection limit for the analysis, then 1 or the detection limit respectively should be used in place of those samples
Act	Means the Protection of the Environment Operations Act 1997
activity	Means a scheduled or non-scheduled activity within the meaning of the Protection of the Environment Operations Act 1997
actual load	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
AM	Together with a number, means an ambient air monitoring method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .
AMG	Australian Map Grid
anniversary date	The anniversary date is the anniversary each year of the date of issue of the licence. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
annual return	Is defined in R1.1
Approved Methods Publication	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
assessable pollutants	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
BOD	Means biochemical oxygen demand
CEM	Together with a number, means a continuous emission monitoring method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .
COD	Means chemical oxygen demand
composite sample	Unless otherwise specifically approved in writing by the EPA, a sample consisting of 24 individual samples collected at hourly intervals and each having an equivalent volume.
cond.	Means conductivity
environment	Has the same meaning as in the Protection of the Environment Operations Act 1997
environment protection legislation	Has the same meaning as in the Protection of the Environment Administration Act 1991
EPA	Means Environment Protection Authority of New South Wales.
fee-based activity classification	Means the numbered short descriptions in Schedule 1 of the Protection of the Environment Operations (General) Regulation 2009.
general solid waste (non-putrescible)	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997

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flow weighted composite sample	Means a sample whose composites are sized in proportion to the flow at each composites time of collection.
general solid waste (putrescible)	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
grab sample	Means a single sample taken at a point at a single time
hazardous waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
licensee	Means the licence holder described at the front of this licence
load calculation protocol	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
local authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
material harm	Has the same meaning as in section 147 Protection of the Environment Operations Act 1997
MBAS	Means methylene blue active substances
Minister	Means the Minister administering the Protection of the Environment Operations Act 1997
mobile plant	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
motor vehicle	Has the same meaning as in the Protection of the Environment Operations Act 1997
O&G	Means oil and grease
percentile [in relation to a concentration limit of a sample]	Means that percentage [eg.50%] of the number of samples taken that must meet the concentration limit specified in the licence for that pollutant over a specified period of time. In this licence, the specified period of time is the Reporting Period unless otherwise stated in this licence.
plant	Includes all plant within the meaning of the Protection of the Environment Operations Act 1997 as well as motor vehicles.
pollution of waters [or water pollution]	Has the same meaning as in the Protection of the Environment Operations Act 1997
premises	Means the premises described in condition A2.1
public authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
regional office	Means the relevant EPA office referred to in the Contacting the EPA document accompanying this licence
reporting period	For the purposes of this licence, the reporting period means the period of 12 months after the issue of the licence, and each subsequent period of 12 months. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
restricted solid waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
scheduled activity	Means an activity listed in Schedule 1 of the Protection of the Environment Operations Act 1997
special waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
TM	Together with a number, means a test method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .

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TSP	Means total suspended particles
TSS	Means total suspended solids
Type 1 substance	Means the elements antimony, arsenic, cadmium, lead or mercury or any compound containing one or more of those elements
Type 2 substance	Means the elements beryllium, chromium, cobalt, manganese, nickel, selenium, tin or vanadium or any compound containing one or more of those elements
utilisation area	Means any area shown as a utilisation area on a map submitted with the application for this licence
waste	Has the same meaning as in the Protection of the Environment Operations Act 1997
waste type	Means liquid, restricted solid waste, general solid waste (putrescible), general solid waste (non - putrescible), special waste or hazardous waste

Ms Gillian Reffell

Environment Protection Authority

(By Delegation)

Date of this edition: 20-October-2008

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End Notes

- 1 Condition A1.3 Not applicable varied by notice issued on <issue date> which came into effect on <effective date>
- 2 Licence varied by notice 1093664, issued on 20-Nov-2008, which came into effect on 20-Nov-2008.
- 3 Licence varied by notice 1097777, issued on 08-May-2009, which came into effect on 08-May-2009.
- 4 Licence varied by notice 1104212, issued on 03-Aug-2009, which came into effect on 03-Aug-2009.
- 5 Licence varied by notice 1108654, issued on 18-Dec-2009, which came into effect on 18-Dec-2009.
- 6 Licence transferred through application 146187, approved on 11-Jun-2010, which came into effect on 11-Jun-2010.
- 7 Licence varied by notice 1115263, issued on 11-Jun-2010, which came into effect on 11-Jun-2010.
- 8 Licence varied by notice 1118168, issued on 19-Aug-2010, which came into effect on 19-Aug-2010.
- 9 Licence varied by notice 1501226 issued on 02-May-2012
- 10 Licence varied by notice 1509378 issued on 19-Oct-2012
- 11 Licence format updated on 27-Feb-2014