

Environment Protection Licence

Licence - 372



Environment,
Climate Change
& Water

Licence Details

Number:	372
Anniversary Date:	01-July
Review Due Date:	01-Jul-2015

Licensee

SYDNEY WATER CORPORATION
PO BOX 399
PARRAMATTA NSW 2124

Licence Type

Premises

Premises

SOUTHERN SUBURBS SEWAGE TREATMENT SYSTEM
INCLUDING THE MALABAR STP AT
FISHERMANS ROAD
MALABAR NSW 2036

Scheduled Activity

Sewage treatment

Fee Based Activity

Sewage treatment - processing by large plants (> 10000 ML per year)

Scale

> 30000 - ML discharged

Region

Metropolitan
Level 3, NSW Govt Offices, 84 Crown Street
WOLLONGONG NSW 2500
Phone: 02 4224 4100
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PO Box 513 WOLLONGONG EAST
NSW 2520

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Climate Change
& Water

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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); and
- 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).

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:

SYDNEY WATER CORPORATION
PO BOX 399
PARRAMATTA NSW 2124

subject to the conditions which follow.

1 Administrative conditions

A1 What the licence authorises and regulates

A1.1 Not applicable.

A1.2 This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation.

Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.

Scheduled Activity
Sewage treatment

Fee Based Activity	Scale
Sewage treatment - processing by large plants (> 10000 ML per year)	> 30000 - ML discharged

A1.3 Not applicable.

A2 Premises to which this licence applies

A2.1 The licence applies to the following premises:

Premises Details
SOUTHERN SUBURBS SEWAGE TREATMENT SYSTEM INCLUDING THE MALABAR STP AT FISHERMANS ROAD MALABAR NSW 2036 LOT 1 DP 222550 ALSO INCLUDES THE FOLLOWING STP'S: Fairfield Storm STP, Symons Street, Fairfield, LOTS 1-6 DP11959 LAND IN DP107139 Glenfield STP, Victoria Road, Macquarie Fields, LOT 1 DP960; Liverpool STP, Scrivener Street, Liverpool, all LOTS DP87962 LOTS 1-2 DP553288 LOT 1 DP536200;



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- A2.2 The premises also includes the reticulation system owned and operated by the licensee that is associated with the sewage treatment plant(s) identified in condition A2.1.

A3 Other activities

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

Chemical Storage Facilities
Composting and Related Reprocessing or Treatment
Electricity Generating Works

A4 Information supplied to the EPA

- 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.

- A4.2 Notwithstanding condition A4.1, works and activities carried out by the licensee must not be inconsistent with the EPA's Determining Authority Report for the Sewer Overflow Licensing Program, dated May 2000.

A5 Objectives of this licence

- A5.1 The objectives of this licence are to:

- (a) require practical measures to be taken to protect the environment and public health from sewage treatment plant effluent and sewer overflows;
- (b) require proper and efficient management of the sewage treatment system to minimise harm to the environment and public health;
- (c) require no deterioration and continuing improvement in the sewage treatment system environmental performance relative to existing conditions; and
- (d) minimise the frequency and volume of overflows and sewage treatment plant bypasses.

- A5.2 This licence is to be construed in a manner that will promote the objectives referred to in A5.1.

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 below are identified in this licence for the purposes of monitoring and/or the setting of limits for the emission of pollutants to the air from the point.

Air

EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Description of Location
1	Discharge to air		Air sampling outlet of the foul air scrubbers labelled "ID Point #1" on drawing titled "Malabar STP 2 Simplified Site Layout" submitted to the EPA 23 June 2005

P1.2 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.

P1.3 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	Description of location
2		Discharge to waters	Deep water ocean outfall on seabed approximately 4.1 kilometres east of cliff face at Malabar STP labelled "Deep Water Ocean Outfall" on "Map 24" submitted to the EPA 23 June 2005
3		Discharge to waters	Submerged shoreline ocean outfall labelled "ID Pts 3 & 4 SWSOOS 1 & 2 Submerged Shoreline Ocean Outfall" on "Map 74" submitted to the EPA 23 June 2005
4		Discharge to waters	Submerged shoreline ocean outfall labelled "ID Pts 3 & 4 SWSOOS 1 & 2 Submerged Shoreline Ocean Outfall" on "Map 74" submitted to the EPA 23 June 2005
5	Volume monitoring		Malabar STP effluent weirs labelled "ID Point #5" on drawing titled "Malabar STP 2 Simplified Site Layout" submitted to the EPA 23 June 2005
6	Effluent quality monitoring		Upstream of the bulkhead in the effluent channel leading to the deepwater ocean outfall labelled "ID Point #6" on the drawing titled "Malabar STP 2 Simplified Site Layout" submitted to the EPA 23 June 2005
7	Effluent quality monitoring		Upstream of inlet penstocks labelled "ID Point #7" on the drawing titled "Malabar STP 2 Simplified Site Layout" submitted to the EPA 23 June 2005
8	Effluent quality monitoring		Upstream of inlet penstocks labelled "ID Point #8" on the drawing titled "Malabar STP 2 Simplified Site Layout" submitted to the EPA 23 June 2005

EPA identification no.	Type of monitoring point	Type of discharge point	Description of location
9		Discharge to waters	Effluent diversion structure at Chipping Norton labelled "ID9 ID12 ID15" on drawing titled "Figure 2 - Georges River Effluent Transfer Scheme - Schematic" submitted to the EPA 23 June 2005
11	Volume monitoring		Downstream of SPS582, effluent flows from Liverpool STP to North Georges River submain labelled "ID11" on drawing titled "Liverpool STP Site Plan 02-07-2001" submitted to the EPA 21 June 2005
12	Volume monitoring		Effluent diversion structure at Chipping Norton labelled "ID9 ID12 ID15" on drawing titled "Figure 2 - Georges River Effluent Transfer Scheme - Schematic" submitted to the EPA 23 June 2005
15	Effluent quality monitoring		Effluent diversion structure at Chipping Norton labelled "ID9 ID12 ID15" on drawing titled "Figure 2 - Georges River Effluent Transfer Scheme - Schematic" submitted to the EPA 23 June 2005
17		Discharge to waters	Overflow from oxidation ponds at Glenfield STP to Georges River labelled "ID 17" on drawing titled "Glenfield STP 19/11/98" submitted to the EPA 23 June 2005
18	Volume monitoring		Overflow chamber at Glenfield STP labelled "ID18 ID20" on drawing titled "Glenfield STP 19/11/98" submitted to the EPA 23 June 2005
19	Volume monitoring		Downstream of SPS580, effluent flows to NGRS or Liverpool STP from Glenfield STP labelled "ID19" on drawing titled "Glenfield STP 19/11/98" submitted to the EPA 23 June 2005

EPA identification no.	Type of monitoring point	Type of discharge point	Description of location
20	Effluent quality monitoring		Overflow chamber at Glenfield STP labelled "ID18 ID20" on drawing titled "Glenfield STP 19/11/98" submitted to the EPA 23 June 2005
22		Discharge to waters	Overflow outlet from Fairfield STP to the Orphan School Creek labelled "ID22" on drawing titled "Fairfield SSTP Site Plan 03-05-2003" submitted to the EPA 21 June 2005
23	Volume monitoring		Downstream of the bar screens prior to the common grit tank at Fairfield STP labelled "ID23" on drawing titled "Fairfield SSTP Site Plan 03-05-2003" submitted to the EPA 21 June 2005
24	Effluent quality monitoring		Effluent channel at Fairfield STP labelled "ID24" on drawing titled "Fairfield SSTP Site Plan 03-05-2003" submitted to the EPA 21 June 2005
47	Discharge to utilisation area; Volume monitoring	Discharge to utilisation area; Volume monitoring	Outlet from Liverpool STP chlorine contact tank to Warwick Farm racecourse labelled "ID47" on drawing titled "Liverpool STP Site Plan 02-07-2001" submitted to the EPA June 2005
75	Volume monitoring; Discharge to utilisation area	Volume monitoring; Discharge to utilisation area	Outlet of chlorine contact tank to Liverpool Golf Course labelled "ID75" on drawing titled "Liverpool STP Site Plan 02-07-2001" submitted to the EPA 21 June 2005
76	Effluent quality monitoring		Chlorine contact tank adjacent to reuse pumps at Liverpool STP labelled "ID76" on drawing titled "Liverpool STP Site Plan 02-07-2001" submitted to the EPA 21 June 2005

EPA identification no.	Type of monitoring point	Type of discharge point	Description of location
80	Volume monitoring		In the pipe to the Western Branch Main Sewer, downstream of the LAP Pumping Station (SPS 368), labelled "ID80" on the drawing titled "Revised Liverpool STP Process Flow Chart", dated 26 June 2008, submitted to the EPA on 1 July 2008.
81	Effluent quality monitoring		Overflow chamber (Chamber 8302) downstream of the chlorine contact tank (CCT2) labelled "ID81" on the drawing titled "Revised Liverpool STP Process Flow Chart", dated 26 June 2008, submitted to the EPA on 1 July 2008.
82	Volume monitoring		Level Sensor located on the north wall of the inlet weir of chlorine contact tank (CCT2) labelled "ID82" on the drawing titled "Revised Liverpool STP Process Flow Chart", dated 26 June 2008, submitted to the EPA on 1 July 2008.
83		Discharge to waters	Discharge point located downstream of CCT2 at access chamber to channel connecting CCT2 to Georges river labelled "ID83" on the drawing titled "Revised Liverpool STP Process Flow Diagram" dated 9 November 2009, submitted to the EPA on 30 November 2009

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.

- L1.2 Not applicable.
- L1.3 Subject to the conditions of this licence, sewage must not be discharged from the components of the reticulation system except from those components identified on the system map.
- L1.4 Notwithstanding the provisions of the condition above, this licence does not permit the pollution of waters at any time during dry weather from:
- (a) (i) uncontrolled overflows, or
(ii) directed overflows other than from sewage pumping stations,
- if a cause of the pollution is failure to:
- (iii) operate any part of the reticulation system in a proper and efficient manner; or
(iv) maintain any part of the reticulation system in a proper and efficient condition,
- L1.5 This licence does not permit the pollution of water at any time during dry weather from any pumping station. This condition is effective from 1 July 2006.

L2 Load limits

- L2.1 The actual load of an assessable pollutant discharged from the premises during the reporting period must not exceed the load limit specified for the assessable pollutant in the table below.

Note: An assessable pollutant is a pollutant which affects the licence fee payable for the licence.

- L2.2 The actual load of an assessable pollutant must be calculated in accordance with the relevant load calculation protocol.

Assessable Pollutant	Load limit (kg)
BOD (Enclosed Waters)	
BOD (Open Coastal Waters)	58217500
Cadmium (Enclosed Waters)	
Cadmium (Open Coastal Waters)	301
Chromium (Enclosed Waters)	
Chromium (Open Coastal Waters)	10804
Copper (Enclosed Waters)	
Copper (Open Coastal Waters)	43610
Lead (Enclosed Waters)	
Lead (Open Coastal Waters)	5615

Assessable Pollutant	Load limit (kg)
Mercury (Enclosed Waters)	
Mercury (Open Coastal Waters)	103
Nitrogen (total) (Enclosed Waters)	
Nitrogen (total) (Open Coastal Waters)	13231250
Oil and Grease (Enclosed Waters)	
Oil and Grease (Open Coastal Waters)	9261875
Pesticides and PCBs (Enclosed Waters)	
Pesticides and PCBs (Open Coastal Waters)	340
Phosphorus (total) (Enclosed Waters)	
Phosphorus (total) (Open Coastal Waters)	2646250
Selenium (Enclosed Waters)	
Selenium (Open Coastal Waters)	3969
Total suspended solids (Enclosed Waters)	
Total suspended solids (Open Coastal Waters)	47632500
Zinc (Enclosed Waters)	
Zinc (Open Coastal Waters)	59761

L2.3 For the purposes of condition L2.1 only, premises means the sewage treatment plant(s) referred to in condition A2.1 of this licence.

L2.4 For the purposes of condition L2.2 and M1.1 the relevant load calculation protocol is the methodology detailed in the document titled "Development of Load Calculation Method and Trial Calculation" (June 2003) approved by the EPA in September 2003 and any subsequent amendments approved by the EPA in writing.

L3 Concentration limits

L3.1 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.

L3.2 Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.

L3.3 To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other

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than those specified in the table\.

*Water and Land***POINT 2**

Pollutant	Units of Measure	Average percentile concentration limit	50 percentile concentration limit	90 percentile concentration limit	100 percentile Concentration Limit
Aluminium	micrograms per litre	890	-	2400	-
Nonylphenol ethoxylates	micrograms per litre	2100	-	13200	-
Hydrogen sulfide (un-ionised)	micrograms per litre	3700	-	17300	-

POINTS 9,17,47,75

Pollutant	Units of Measure	Average percentile concentration limit	50 percentile concentration limit	90 percentile concentration limit	100 percentile Concentration Limit
Total suspended solids	milligrams per litre	-	-	-	100
Biochemical oxygen demand	milligrams per litre	-	-	-	100

POINT 22

Pollutant	Units of Measure	Average percentile concentration limit	50 percentile concentration limit	90 percentile concentration limit	100 percentile Concentration Limit
Total suspended solids	milligrams per litre	-	-	-	120
Biochemical oxygen demand	milligrams per litre	-	-	-	100

POINT 83

Pollutant	Units of Measure	Average percentile concentration limit	50 percentile concentration limit	90 percentile concentration limit	100 percentile Concentration Limit
Total suspended solids	milligrams per litre				100
Biochemical oxygen demand	milligrams per litre				100

POINT 2

Pollutant	Units of Measure	3DGM concentration limit	50 percentile concentration limit	90 percentile concentration limit	-
Oil and grease	mg/L	70	40	60	-
Total suspended solids	mg/L	350	250	300	-

- L3.4 When a wet weather sewage treatment plant overflow is occurring, exceedances of the 3DGM and the 100 percentile concentration limits in condition L3.3 are permitted at the following point(s) for the duration of the overflow where the overflow was the sole cause of the exceedance: 2,9,17,22 and 83.
- L3.5 For each monitoring/discharge point specified in the table(s) below (by a point number), the specified toxic effect of the effluent on the specified test organism must be greater than the corresponding limit listed for that organism in the table.

POINT 2

Toxicity	Units of Measure	50 percentile limit	90 percentile limit
Sea urchin sperm fertilization (EC50)	% effluent	0.19	0.1

L4 Volume and mass limits

- L4.1 For each discharge point or utilisation area specified below (by a point number), the volume/mass of:
- (a) liquids discharged to water; or;
- (b) solids or liquids applied to the area;
- must not exceed the volume/mass limit specified for that discharge point or area.

Point	Unit of measure	Volume/Mass Limit
2	megalitres per day	1199
3	megalitres per day	1199
4	megalitres per day	1199
22	megalitres per day	460
47	megalitres per day	5
75	megalitres per day	5

- L4.2 Notwithstanding the volume limits specified in condition L4.1, the combined volume discharged from point(s) 2, 3 and 4 must not exceed 1,199,100 kL/day.

L5 Waste

L5.1 The licensee must not cause, permit or allow any waste to be received at the premises, except the wastes expressly referred to in the column titled "Waste" and meeting the definition, if any, in the column titled "Description" in the table below.

Any waste received at the premises must only be used for the activities referred to in relation to that waste in the column titled "Activity" in the table below.

Any waste received at the premises is subject to those limits or conditions, if any, referred to in relation to that waste contained in the column titled "Other Limits" in the table below.

Condition L5.1 does not limit any other conditions in this licence.

Code	Waste	Description	Activity	Other Limits
NA	General or Specific exempted waste	Waste that meets all the conditions of a resource recovery exemption under Clause 51A of the <i>Protection of the Environment Operations (Waste) Regulation 2005</i>	As specified in each particular resource recovery exemption.	NA
NA		Any waste received on site that is below licensing thresholds in Schedule 1 of the POEO Act, as in force from time to time		NA

L5.2 Not applicable.

L5.3 The licensee may receive and/or transfer sewage generated outside the premises for treatment, processing or reprocessing at the premises. The licensee must take reasonable steps to ensure that sewage received at the premises has been lawfully discharged in accordance with a trade waste agreement or customer contract (as applicable) in force between the licensee and the generator of the waste. The licensee must treat, process or reprocess the sewage in accordance with this licence prior to discharge from the premises.

L5.4 The licensee may receive, store, treat, process or reprocess and/or transfer at the premises sewage products generated or stored outside the premises by the licensee's other sewage treatment systems. Sewage products must be received, treated, processed or reprocessed in accordance with this licence.

L6 Noise Limits

L6.1 Not applicable.

L7 Hydraulic Sewer System Model

- L7.1 The licensee must maintain a hydraulic sewer system model which has no temporal or magnitude bias in either flow volume or water levels at the licence gauges as referenced in the document titled "PRP101.1 System Model Performance Indicators, September 2000" and subsequent modifications made by the Criteria Review Committee.
- L7.2 The licensee must undertake an annual Quality System audit of the hydraulic sewer system model to determine if the model used during that reporting period meets the standards set out in condition L7.1.
- L7.3 The licensee must prepare a written report on each Quality System audit of any model used to assess sewage system wet weather overflow performance for the purpose of determining compliance with this licence. The report must also include the Pearson's correlation coefficient for the model used during the reporting period.
- L7.4 The licensee must provide a written report with each Annual Return on any Quality System audit of the hydraulic sewer system model stating the methodology and results of the audit.
- L7.5 The licensee must convene an Independent Criteria Review Committee at least once every three Reporting Periods to review the methodology and findings of each of the Quality System audits.
- L7.6 The licensee must ensure that the Independent Criteria Review Committee prepares a written report on the review required by condition L7.5.
- L7.7 The licensee must submit to the EPA a copy of each Independent Criteria Review Committee report received by the licensee in a particular Reporting Period with the following Annual Sewage Treatment System Performance Report required by condition (s) at R5 of this licence.

L8 Wet weather overflow limits

- L8.1 Not applicable.

L9 Dry weather overflow limits

- L9.1 The total number of dry weather overflows reaching waters from the sewage treatment system subject to this licence must not exceed 122 in any reporting period.
- L9.2 The licensee must undertake investigations, works and activities as required to achieve or perform better than the annual dry weather overflow targets specified for each SCAMP in the table below for this licence:

SCAMP table

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SCAMP Name	Dry Weather Overflows Reaching Waters per Annum
S_ALEXANDRIA	1
S_AMBARVALE	1
S_ARNCLIFFE	2
S_ASHCROFT	3
S_ASHFIELD	2
S_BANKSIA	1
S_BANKSTOWN	2
S_BELMORE	3
S_BELMORE_SOUTH	1
S_BEVERLY_HILLS	1
S_BEXLEY	1
S_BLAKEHURST	1
S_BONNYRIGG	2
S_BOSSLEY_PARK	4
S_BOTANY	1
S_BRIGHTON	2
S_CABRAMATTA	1
S_CAMPBELLTOWN	1
S_CAMPSIE	3
S_CANTERBURY	3
S_CASULA	2
S_CHIFLEY	1
S_CHIPPING_NORTON	2
S_CONCORD_EAST	5
S_CONCORD_WEST	1
S_CONDELL_PARK	1
S_COOGEE	1
S_DRUMMOYNE	5
S_DULWICH_HILL	2
S_EAGLE_VALE	1
S_EARLWOOD	1
S_FAIRFIELD	2
S_FIVE_DOCK	3
S_GLENFIELD	1
S_GREENACRE	2
S_HOMEBUSH	4
S_HOXTON_PARK	5
S_HURSTVILLE	1
S_INGLEBURN	1
S_KENSINGTON	1
S_KINGSGROVE	1
S_KOGARAH	1

S_KOGARAH_BAY	1
S_LAKEMBA	1
S_LANSVALE	2
S_LEICHHARDT	4
S_LEUMEAH	1
S_LIVERPOOL	1
S_LUGARNO	2
S_MAROUBRA	1
S_MAROUBRA_BEACH	1
S_MARRICKVILLE	1
S_MASCOT	1
S_MINTO	1
S_MOOREBANK	1
S_MOUNT_PRITCHARD	1
S_PADSTOW	3
S_PANANIA	2
S_PEAKHURST	1
S_PENSHURST	2
S_RABY	1
S_RANDWICK	1
S_REVESBY	1
S_RIVERWOOD	2
S_RUSE	1
S_SMITHFIELD	1
S_SOUTH_SYDNEY	1
S_STRATHFIELD	1
S_SUMMER_HILL	1
S_SYDENHAM	2
S_VILLAWOOD	2
S_WAKELEY	2
S_WETHERILL_PARK	2
S_WOODBINE	1
S_YENNORA	2

L9.3 The licensee must notify the EPA's Environment Line on 131 555 when the number of dry weather overflows reaching waters in a SCAMP in any reporting period equals the target for that SCAMP specified in the SCAMP table.

The notification must be made as soon as possible after the licensee becomes aware of a dry weather overflow event in a SCAMP causing the target for that SCAMP specified in the SCAMP table to be equalled in any reporting period. The notification must include the following information:

- a) the date on which each dry weather overflow reaching waters has occurred during the reporting period;

- b) an assessment of the environmental impact of the overflow including an estimation of the volume of the discharge;
- c) the cause of each dry weather overflow reaching waters in the SCAMP during the reporting period;
- d) actions the licensee will take in the SCAMP to minimise the likelihood of additional dry weather overflows reaching waters from the SCAMP during the reporting period and the timeframe for those actions;
- e) actions the licensee will take in the SCAMP in subsequent reporting periods to minimise the likelihood of the target specified for that SCAMP in the SCAMP table being exceeded in any future reporting period, and the timeframe for those actions;
- f) the total number of dry weather overflows reaching waters in all SCAMPs for the sewage treatment system between the commencement of the reporting period and the time at which this notification is being made;
- g) actions the licensee will take in any SCAMPs in the sewage treatment system to ensure the total number of dry weather overflows reaching waters from the sewage treatment system does not exceed the limit specified in condition L9.1 and the timeframe for those actions.

L9.4 The licensee must notify the EPA of each separate dry weather overflow event reaching waters in any SCAMP in each reporting period which exceeds the target specified for that SCAMP in the SCAMP table. The notification must include the information requirements listed under condition L9.3.

4 Operating conditions

01 Activities must be carried out in a competent manner

01.1 Licensed activities must be carried out in a competent manner.

This includes:

- (a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and
- (b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

01.2 Biosolids at the premises must be stored, treated, processed, classified, transported and disposed in accordance with the Biosolids Guidelines, or as otherwise approved in writing by the EPA.

02 Maintenance of plant and equipment

02.1 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 Appropriate treatment processes

O3.1 Sewage or effluent must be processed in accordance with the requirements of the table below.

Inflows to or Effluent from	Flow range	Required process	Discharge point
Inflow to Malabar sewage treatment plant	Less than 9,260 L/s	Screening, degritting and primary sedimentation	Point 2
Inflow to Malabar sewage treatment plant	9,260 L/s or more	Screening	Points 3 and 4
Effluent from Liverpool sewage treatment plant	Less than 2600L/s	Screening, degritting, primary sedimentation, ponding and chlorination	Point 9
Effluent from Liverpool sewage treatment plant	Greater than 2600L/s and less than 5300L/s	Screening, storm tank, ponding and chlorination	Point 83
Effluent from Glenfield sewage treatment plant	All flows	Screening, storm tank or primary sedimentation, ponding and chlorination	Point 17
Effluent from Fairfield sewage treatment plant	All flows	Chemically assisted sedimentation	Point 22

O3.2 Sewage or effluent must not be discharged from the following:

Point 17 unless:

- a) the pumping capacity of SPS580 is exceeded; and
- b) the oxidation pond and storm tanks at Glenfield STP are full.

Point 9 unless:

- a) the oxidation pond at Liverpool STP is full; and
- b) the pumping capacity of SPS406 is exceeded; or
- c) there is insufficient available capacity in the Northern Georges River Submain.

Point 22 unless:

- a) there is insufficient capacity in the Northern Georges River Submain; and/or
- b) when the pumping capacity of SPS384 and/or SPS419 are exceeded; and
- c) tanks storage at Fairfield STP is full.

Point 83 unless:

- a) the pumping capacity of SPS582 is exceeded; and
- b) the oxidation pond at Liverpool STP is full.

O4 Prohibition on acceptance of pesticides

O4.1 The licensee must not consent to any discharge of organophosphate pesticides (including chlorpyrifos, diazinon, malathion) or organochlorine pesticides (including dieldrin, heptachlor and chlordane) into the sewage treatment system.

O5 Level of reticulation system management, operations and maintenance activities

- O5.1 The reticulation system must be managed, operated and maintained such that the operational and maintenance works and activities result in ongoing improvement in the system environmental performance, when compared with existing system environmental performance. The system environmental performance must not at any time fall below existing system environmental performance.
- O5.2 For the purposes of determining whether the system environmental performance has fallen below existing system environmental performance:
- (a) in relation to chokes, the licensee is to compare the average number of chokes per year per 100km of pipe in the reticulation system of all of the licensee's sewage treatment systems averaged over the period 1 July 1995 to 30 June 2000 to the average annual number of chokes averaged over all of the licensee's sewage treatment systems over the reporting period and the preceding four twelve month periods;
 - (b) in relation to odour complaints, the licensee is to compare the number of odour complaints from the reticulation system per year averaged over the period 1 July 1995 to 30 June 2000 to the average annual number of odour complaints over the reporting period and the preceding four twelve month periods; and
 - (c) in relation to wet weather overflows, the licensee is to compare the number of wet weather overflows per 10 years as predicted by the hydraulic sewer system model for 1994 to the number of wet weather overflows per 10 years as predicted by the hydraulic sewer system model for the reporting period. This comparison must use the 10 year rainfall time series data in each model.

O6 Wet weather partial treatment discharges

- O6.1 The sewage treatment system must be managed, operated and maintained such that the operational and maintenance works and activities must not at any time increase the frequency of wet weather partial treatment discharges above the existing wet weather partial treatment discharge frequency.
- O6.2 For the purposes of determining compliance with condition O6.1, the licensee is to compare the number of wet weather partial treatment discharges per 10 years as predicted by the hydraulic sewer system model for 1994 to the number of wet weather partial treatment discharges per 10 years as predicted by the hydraulic sewer system model for the reporting period. This comparison must use the 10 year rainfall time series data in each model.
- O6.3 A wet weather partial treatment discharge occurs when the inflow rate of sewage to the sewage treatment plant equals or exceeds:
- (a) 11,600 L/s at the Malabar sewage treatment plant;
 - (b) 5300L/s at the Liverpool sewage treatment plant;
 - (c) any discharge to the Georges River from the Glenfield sewage treatment plant; or
 - (d) any discharge to Orphan School Creek from the Fairfield sewage treatment plant.

08 Transportation of Biosolids

- 08.1. Transportation of biosolids from the Malabar sewage treatment plant must be carried out in the following manner:
- (a) The entry of heavy vehicles must occur only between the hours of 5:00 am and 6:00 pm on Mondays to Fridays and 5:00 am and 1:00 pm on Saturdays. Departure of heavy vehicles must occur only between the hours of 7:00am and 6:00pm on Mondays to Fridays and 7:00am and 1:00pm on Saturdays. Biosolids vehicle movements must not occur on Sundays or public holidays unless prior written consent is obtained from the EPA.
 - (b) All trucks removing biosolids from the plant must be loaded in a hard stand area draining to a sump, from which the effluent must be returned to the head of the works.

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 this licence:
- (a) the date(s) on which the sample was taken;
 - (b) the time(s) at which the sample was collected;
 - (c) the point at which the sample was taken; and
 - (d) the name of the person who collected the sample.

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:

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POINT 1

Pollutant	Units of measure	Frequency	Sampling Method
Chlorine	grams per cubic metre	Monthly	Special Method 1
Hydrogen Sulfide	grams per cubic metre	Special Frequency 3	Special Method 1

POINT 6

Pollutant	Units of measure	Frequency	Sampling Method
Aluminium	micrograms per litre	12 Times a year	Composite sample
Hydrogen sulfide (un-ionised)	micrograms per litre	12 Times a year	Grab sample
Nonylphenol ethoxylates	micrograms per litre	12 Times a year	Composite sample
Oil and Grease	milligrams per litre	Special Frequency 1	Composite sample
Total suspended solids	milligrams per litre	Special Frequency 1	Composite sample
Toxicity	percent effluent by volume	12 Times a year	Grab sample

POINT 7

Pollutant	Units of measure	Frequency	Sampling Method
Oil and Grease	milligrams per litre	Special Frequency 4	Method approved in writing by the Authority
Total suspended solids	milligrams per litre	Special Frequency 4	Method approved in writing by the Authority

POINT 8

Pollutant	Units of measure	Frequency	Sampling Method
Oil and Grease	milligrams per litre	Special Frequency 4	Method approved in writing by the Authority
Total suspended solids	milligrams per litre	Special Frequency 4	Method approved in writing by the Authority

POINT 15

Pollutant	Units of measure	Frequency	Sampling Method
Biochemical oxygen demand	milligrams per litre	Special Frequency 2	Grab sample
Faecal Coliforms	colony forming units per 100 millilitres	Special Frequency 2	Grab sample
Total suspended solids	milligrams per litre	Special Frequency 2	Grab sample

POINT 20

Pollutant	Units of measure	Frequency	Sampling Method
Biochemical oxygen demand	milligrams per litre	Special Frequency 2	Grab sample
Faecal Coliforms	colony forming units per 100 millilitres	Special Frequency 2	Grab sample
Total suspended solids	milligrams per litre	Special Frequency 2	Grab sample

POINT 24

Pollutant	Units of measure	Frequency	Sampling Method
Biochemical oxygen demand	milligrams per litre	Special Frequency 2	Grab sample
Faecal Coliforms	colony forming units per 100 millilitres	Special Frequency 2	Grab sample
Total suspended solids	milligrams per litre	Special Frequency 2	Grab sample

POINT 76

Pollutant	Units of measure	Frequency	Sampling Method
Biochemical oxygen demand	milligrams per litre	Monthly	Grab sample
Total suspended solids	milligrams per litre	Monthly	Grab sample

POINT 81

Pollutant	Units of measure	Frequency	Sampling Method
Biochemical oxygen demand	milligrams per litre	Special Frequency 2	Grab sample
Faecal Coliforms	colony forming units per 100 millilitres	Special Frequency 2	Grab sample
Total suspended solids	milligrams per litre	Special Frequency 2	Grab sample

M2.2 For the purposes of the table(s) above Special Frequency 1 means:

For the purposes of determining compliance with the average and percentile limits sampling must be undertaken every 6 days. For the purposes of determining compliance with the “3DGM limits” sampling must be undertaken every month over three consecutive days commencing on the day a sample is taken to determine compliance with the average and percentile limits.

For the purposes of the tables above Special Frequency 2 means sampling must occur as follows:

- (i) After 3 hours of continuous discharge, an effluent sample must be taken within the next hour;
- (ii) If the discharge is still occurring at 1400 hours on the same day as the sample taken in (i) was taken, another effluent sample must be taken between 1400-1500 hours; and
- (iii) After the sample in (ii) has been taken, and if the discharge is continuous into the following day and/or subsequent days, a further effluent sample must be taken between 1400-1500 hours on these days. This sampling regime must remain in place as long as the discharge is continuous.

After the initial 3 hours of discharge, intermittent starts and stops of 2 hours or less are regarded as continuous for the purpose of this condition.

For the purposes of the table(s) above Special Frequency 3 means the collection of samples every 30 minutes during discharge.

For the purposes of the table(s) above Special Frequency 4 means the collection of samples daily during discharge to points 3 and 4.

For the purposes of the table(s) above Special Method 1 means a composite sample consisting of individual samples collected from each of the operating foul air scrubbers..

M2.3 The monitoring results collected in accordance with condition M2.1 for point(s) 6 can be used to determine compliance with the limits in condition L3.3 for point(s)2.

M2.4 The monitoring results collected in accordance with condition M2.1 for point(s) 76 can be used to determine compliance with the limits in condition L3.3 for point(s)47 and 75.

- M2.5 The monitoring results collected in accordance with condition M2.1 for point(s) 15 and 81 can be used to determine compliance with the limits in condition L3.3 for point(s)9 and 83.
- M2.6 The monitoring results collected in accordance with condition M2.1 for point(s) 20 can be used to determine compliance with the limits in condition L3.3 for point(s)17.
- M2.7 The monitoring results collected in accordance with condition M2.1 for point(s) 24 can be used to determine compliance with the limits in condition L3.3 for point(s)22.
- M2.8 The following conditions apply to the monitoring requirements in condition M2.1:
- (a) where a monitoring frequency is specified as 2 times a year, monitoring must be undertaken at a minimum of 160 day intervals;
 - (b) where a monitoring frequency is specified as 4 times a year, monitoring must be undertaken at a minimum of 80 day intervals;
 - (c) where a monitoring frequency is specified as 6 times a year, monitoring must be undertaken at a minimum of 50 day intervals; and
 - (d) where a monitoring frequency is specified as 12 times a year, monitoring must be undertaken at a minimum of 25 day intervals.

M3 Testing methods - concentration limits

- M3.1 Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence must be done in accordance with:
- (a) any methodology which is required by or under the Act to be used for the testing of the concentration of the pollutant; or
 - (b) if no such requirement is imposed by or under the Act, any methodology which a condition of this licence requires to be used for that testing; or
 - (c) if no such requirement is imposed by or under the Act or by a condition of this licence, any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place.

Note: The Protection of the Environment Operations (Clean Air) Regulation 2002 requires testing for certain purposes to be conducted in accordance with test methods contained in the publication "Approved Methods for the Sampling and Analysis of Air Pollutants in NSW".

- M3.2 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.

Note: Testing methods - load limit

Note: Clause 18 (1), (1A) and (2) of the Protection of the Environment Operations (General) Regulation



1998 requires that monitoring of actual loads of assessable pollutants listed in L2.1 must be carried out in accordance with the testing method set out in the relevant load calculation protocol for the fee-based activity classification listed in condition A1.2.

M3.3 The requirements of condition M3.2 also apply to the monitoring of the concentration of pollutants in waters.

M3.4 Monitoring for effluent toxicity must be conducted in accordance with the relevant testing methods listed below:

Simon, J. & Laginestra, E. (1997), 'Bioassay for testing sublethal toxicity in effluents, using gametes of the sea urchin *Heliocidaris tuberculata*', National Pulp Mills Research Program, Technical Report No. 20 CSIRO, Canberra. ; and

Doyle, C.J., Pablo, R., Lim, R.P. & Hyne, R.V. (2003), 'Assessment of metal toxicity in sediment pore water from Lake Macquarie, Australia', Archives of Environmental Contamination and Toxicology, 44: 343-350.

Any proposed deviation from the methods listed above must be approved in writing by the EPA prior to the use of any other method.

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 Conditions M5.1 and M5.2 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.

M6 Requirement to monitor volume or mass

M6.1 For each discharge point or utilisation area specified below, the licensee must monitor:

- (a) the volume of liquids discharged to water or applied to the area;
- (b) the mass of solids applied to the area;
- (c) the mass of pollutants emitted to the air;

at the frequency and using the method and units of measure, specified below.

POINT 5

Frequency	Unit Of Measure	Sampling Method
Continuous	kilolitres per day	Weir structure and level sensor

POINT 11

Frequency	Unit Of Measure	Sampling Method
Continuous during discharge	kilolitres per day	Magnetic flow meter

POINT 12

Frequency	Unit Of Measure	Sampling Method
Continuous during discharge	kilolitres per day	Weir structure and level sensor

POINT 18

Frequency	Unit Of Measure	Sampling Method
Continuous during discharge	kilolitres per day	Weir structure and level sensor

POINT 19

Frequency	Unit Of Measure	Sampling Method
Daily	kilolitres per day	Magnetic flow meter

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POINT 23

Frequency	Unit Of Measure	Sampling Method
Continuous during discharge	kilolitres per day	Estimate

POINT 47

Frequency	Unit Of Measure	Sampling Method
Continuous during discharge	kilolitres per day	Magnetic flow meter

POINT 75

Frequency	Unit Of Measure	Sampling Method
Continuous during discharge	kilolitres per day	Magnetic flow meter

POINT 80

Frequency	Unit Of Measure	Sampling Method
Continuous during discharge	kilolitres per day	Magnetic flow meter

POINT 82

Frequency	Unit Of Measure	Sampling Method
Continuous during discharge	kilolitres per day	Weir structure and level sensor

- M6.2 The monitoring results collected in accordance with condition M6.1 for point(s) 5 can be used to determine compliance with the limits in condition L4.1 for point(s) 2.
- M6.3 The monitoring results collected in accordance with condition M6.1 for point(s) 12 can be used to determine compliance with the limits in condition L4.1 for point(s) 9.
- M6.4 The monitoring results collected in accordance with condition M6.1 for point(s) 18 can be used to determine compliance with the limits in condition L4.1 for point(s) 17.
- M6.5 The monitoring results collected in accordance with condition M6.1 for point(s) 23 can be used to determine compliance with the limits in condition L4.1 for point(s) 22.
- M6.6 Not applicable.
- M6.7 The monitoring results collected in accordance with condition M6.1 for point(s) 47 and 75 can be used to determine compliance with the limits in condition L4.1 for point(s) 76.



M6.8 In the event that the licensee cannot comply with a volume monitoring method as required by this licence solely due to the failure or malfunction of essential monitoring equipment, volume may be calculated using another agreed method approved in writing by the EPA. This provision only applies for the duration of the failure or malfunction and the licensee is to rectify the failure or malfunction as soon as practical.

M7 Requirement to record dry and wet weather bypasses

M7.1 The licensee must record the following details in relation to each bypass from the premises:

- (a) the EPA point identification number through which the bypass discharged;
- (b) the start time, date and duration of the bypass;
- (c) the estimated volume of the bypass;
- (d) the level of treatment at the sewage treatment plant prior to discharge;
- (e) classification as a dry or wet weather bypass;
- (f) the most likely cause of the bypass; and
- (g) the name or names of the treatment process or processes bypassed.

M7.2 A dry weather bypass is a bypass that occurs when the inflow rate of sewage to the sewage treatment plant does not exceed 8,100 L/s at the Malabar sewage treatment plant; 650 L/s at the Liverpool sewage treatment plant; 1,000 L/s at the Glenfield sewage treatment plant; and all flows to the Fairfield sewage treatment plant. and a wet weather bypass occurs when this flow is equalled or exceeded.

M8 Registers

M8.1 The licensee must maintain and make available for inspection by the public, at licensee's head office, registers recording the following information, for the sewage treatment system:

- (a) a map or maps of the sewage treatment system showing:
 - (i) the location of the sewage treatment plant or plants, sewage pumping stations, directed overflow structures, pipes and access chambers in the sewage treatment system, referenced by the licensee's identifier and the EPA point identification number, as applicable;
 - (ii) the catchments, sub-catchments and sensitive areas relevant to the sewage treatment system;
- (b) the number of chokes within the system reported to the licensee during each reporting period. This information is also to be included in the licensee's Annual Environment Report required under clause 14(1)(d) of the Sydney Water Act, in addition to the corresponding information from the preceding three years;
- (c) a schedule of proposed works to be carried out in relation to the premises during each reporting period;
- (d) the works completed in relation to the premises during each reporting period; and
- (e) the complaints by type of overflow recorded under M5 during each reporting period.

M8.2 Changes to the system map must be recorded by reference to the date of the change, description of the change and the name of the person authorising the change.

M9 Continuation of Monitoring Programs

M9.1 The licensee must conduct the following monitoring:

- (a) continuation of all sewage treatment system and environmental monitoring programs related to sewer overflows that are underway as of 30 June 1999; and
- (b) that monitoring identified at 2.2.4 in the Sydney Water document "Licensing Sewerage Overflows: Methods" dated June 1998 (a copy of which may be inspected at the EPA's Library), unless varied with the prior written approval of the EPA.

M10 Environmental monitoring

M10.1 The licensee must undertake the monitoring programs detailed in the Sydney Water publication "Sewerage Treatment System Impact Monitoring Program, July 08", or in any replacement document approved in writing by the EPA.

M10.2 The licensee must maintain a database of the results obtained in undertaking monitoring programs specified in the document cited above. Information from the database must be made available to any authorised officer of the EPA on request.

M10.3 The licensee must provide to the EPA the reports specified in the document cited above.

M10.4 The "Receiving Water Annual Report" specified in the document cited above must be submitted not later than 31 October in each year where the "Interpretive Report" is not required.

M10.5 The "Interpretive Report" specified in the document cited above must be submitted not later than 31 December every third year.

M10.6 For the purposes of conditions M10.4 and M10.5 above, the first "Receiving Water Annual Report" must be submitted not later than 31 October 2009, and the first "Interpretive Report" must be submitted not later than 31 October 2011.

Note: A copy of the "Sewerage Treatment System Impact Monitoring Program, July 08" can be found at www.sydneywater.com.au/Publications/Reports.cfm.

M11 Biosolids monitoring

M11.1 Biosolids at the premises must be recorded, monitored and classified in accordance with the Biosolids Guidelines, or as otherwise approved in writing by the EPA.

M12 Dry weather leakage monitoring program

M12.1 The licensee must monitor (using results obtained by sampling and analysis) the concentration of faecal coliforms in samples collected from each sampling point identified on the map titled "Figure A 2: Map showing SCAMP boundaries and site locations for the SWOOS, Cronulla and Bondi systems" of the document titled "PRP 200 Dry Weather Leakage Pollution Reduction Program" submitted to the EPA on 16 June 2006. The licensee must undertake the monitoring at a frequency approved in writing by the EPA for each sampling point, using sampling method grab sample, units of measure of cfu/100mL.

M13 Investigations and remedial action for dry weather leakage

M13.1 The licensee must investigate the cause of faecal coliform presence in any of the samples collected where the analysis results for any sample collected indicates an exceedance in the threshold of 5000 cfu/100mL ("the threshold"). The investigation must be commenced as soon as the licensee becomes aware of the threshold for faecal coliform being exceeded.

M13.2 The licensee must take remedial action where any investigation undertaken identifies the reticulation system as the cause of the exceedance of the threshold for faecal coliform specified in condition M13.1.

M13.3 The licensee must record:

- a) the method, results and conclusions of investigations undertaken in accordance with condition M13.1, and
- b) actions taken by the licensee as a result of the conclusions of the investigations.

M13.4 The licensee must undertake the following actions, in addition to the actions set out in conditions M13.1, M13.2 and M13.3, when analysis results of three consecutive samples collected at the same location indicate that the threshold for faecal coliform specified in condition M13.1 has been exceeded:

- a) notify the EPA in writing as soon as possible, providing the three sample analysis results, and identifying the relevant SCAMP;
- b) commission an environmental auditor certified by an independent certification body accredited by the Joint Accreditation System of Australia and New Zealand (JASANZ) to review the three investigations specified in condition M13.1. The licensee must commission this review within fourteen days of the completion of the investigation into the third consecutive exceedance of the threshold, unless otherwise approved in writing by the EPA;
- c) submit the results of the independent review to the EPA within 42 days of the commissioning of the independent review;
- d) implement the recommendations of the independent review unless otherwise directed in writing by the EPA; and
- e) commence sampling at the relevant sampling location on a quarterly basis, unless otherwise approved in writing by the EPA. Sampling must be undertaken at quarterly intervals until three consecutive samples are below the threshold, at which time the frequency of sampling at the location can revert to the frequency specified in condition M12.1.

- M13.5 The independent review required by condition M13.4 must examine the three investigations undertaken by the licensee into the relevant exceedances of the threshold and determine:
- if the investigations and any actions undertaken as a result of the investigations were appropriate to prevent further exceedances of the relevant threshold; and
 - if any additional investigations or actions must be undertaken to prevent further exceedances of the threshold.
- M13.6 The licensee must notify the EPA in writing if any sample analysis result obtained from monitoring required by condition M12.1 indicates that the levels of faecal coliform have exceeded 10,000cfu/100mL. The notification must be made as soon as possible after the licensee has obtained the sample result indicating the exceedance. The notification must include the sample results and identify the relevant SCAMP.

M14 Monitoring of Deepwater Ocean Outfall

- M14.1 The licensee must collect the following information on the operating characteristics of the deepwater ocean outfall as necessary and in a manner approved by the EPA:
- tide height at the end of the outfall;
 - head loss through the outfall; and
 - flow rate over time through the outfall.
- M14.2 The licensee must undertake an underwater inspection of the following components of the outfall as necessary:
- each individual diffuser nozzle, while discharge is occurring;
 - external components of the riser and those parts of the diffuser not covered by (a) above; and
 - the sacrificial anodes.

6 Reporting conditions

R1 Annual return documents

What documents must an Annual Return contain?

- 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.
- A copy of the form in which the Annual Return must be supplied to the EPA accompanies this licence. Before 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.

Period covered by Annual Return

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:

- (a) 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
- (b) 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:

- (a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or
- (b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.

Deadline for Annual Return

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

Notification where actual load can not be calculated

R1.6 Where the licensee is unable to complete a part of the Annual Return by the due date because the licensee was unable to calculate the actual load of a pollutant due to circumstances beyond the licensee's control, the licensee must notify the EPA in writing as soon as practicable, and in any event not later than the due date. The notification must specify:

- (a) the assessable pollutants for which the actual load could not be calculated; and
- (b) the relevant circumstances that were beyond the control of the licensee.

Licensee must retain copy of Annual Return

R1.7 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.

Certifying of Statement of Compliance and signing of Monitoring and Complaints Summary

R1.8 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.

R1.9 A person who has been given written approval to certify a certificate of compliance under a licence issued under the Pollution Control Act 1970 is taken to be approved for the purpose of this condition until the date of first review of this licence.

R2 Notification of environmental harm

Note: The licensee or its employees must notify the EPA of incidents causing or threatening material harm to the environment as soon as practicable 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.

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 Notification of bypasses or overflow incidents

R4.1 Where either:

- (i) a bypass of the Deep Ocean Outfall at the sewage treatment plant is discharged from the premises during either dry or wet weather conditions; or
- (ii) a wet weather partial treatment discharge occurs, which for the purpose of this condition is defined as being
 - (a) the inflow rate to the Malabar sewage treatment plant exceeds 11,660 L/s;
 - (b) there is any discharge to Georges River from the Liverpool sewage treatment plant;
 - (c) there is any discharge to Georges River from the Glenfield sewage treatment plant;
 - (d) there is any discharge to Orphan School Creek from the Fairfield sewage treatment plant; or
- (iii) an overflow has occurred from the reticulation system that has discharged to waters or could reasonably be expected to discharge to waters,

the licensee must give each of the notifications listed below. Notifications must be made to the following groups or organisations in the following manner:

- (a) the DECCW, as per the current Notification Protocols between that organisation, namely the DEC Protocol and the National Parks Protocol, and the licensee;
- (b) the Department of Health, as per the current Notification Protocol between that organisation and the licensee;
- (c) NSW Safe Food, as per the current Notification Protocol between that organisation and the licensee
- (d) the relevant local council, as per the licensee's current Notification Protocol for councils;
- (e) issuing a media release as per the Notification Protocols referred to in (a) to (d) above; and
- (f) placing a notification of the details of the overflow on Sydney Water's internet site as per the Notification Protocols referred to in (a) to (d) above.

For the purposes of this condition, "overflow" does not include leakage and "waters" do not include artificial watercourses that are dry at the commencement of the overflow, or water in underground pipes, channels or gutters used or designed to receive or pass rainwater.

Note: These reporting requirements do not affect any obligations of the licensee to report under Part 5.7 of the Act incidents that cause or threaten material harm to the environment.

R5 Annual Sewage Treatment System Performance Report

R5.1 The licensee must supply to the EPA an Annual Sewage Treatment System Performance Report not later than 60 days after the end of each reporting period.

R5.2 The Annual Sewage Treatment System Performance Report is to supplement the Annual Return and must report but not be limited to the following components:

R5.2.1 Effluent discharged

1. The percentile values calculated from the monitoring data for each pollutant which has corresponding limits.
2. The annual load of all assessable pollutants.
3. An analysis of the STP performance against the concentration, toxicity and load limits specified in the licence.
4. An assessment of the current year's performance against the previous five year's performance. The assessment must include but not be limited to an explanation of any observed trends in the plant performance, and the reason for such trends.
5. The load of oil and grease, and total suspended solids discharged from the sewage treatment plant expressed as a percentage of the total load of oil and grease, and total suspended solids directly discharged from all Sydney Water sewage treatment systems to ocean.
6. The total volume discharged from the plant, and the average volume discharged from the plant during dry weather.
7. The total volume and percentage volume of effluent recycled.
8. The total number of plant bypasses and the total volume discharged that did not receive full treatment.

R5.2.2 Biosolids

1. Reporting requirements in accordance with the Biosolids Guidelines

R5.2.3 Reticulation System

1. Dry weather leakages:
 - a) monitoring results from each SCAMP;
 - b) outcomes of any investigations; and
 - c) details of rectification action taken.
2. Dry weather overflows from chokes and sewage pumping stations:
 - a) including;
 - i) number of dry weather overflows to waters, for the whole system and for each SCAMP;
 - ii) total number of dry weather overflows, for the whole system and for each SCAMP;
 - iii) total number of dry weather overflows per 100km for whole system.
 - iv) the name of each SCAMP which failed to meet the dry weather overflow target specified in SCAMP table at condition L9.
 - b) comparison of the dry weather overflow performance against the previous four twelve month periods for dry weather overflows to waters and total dry weather overflows;
 - c) details of any investigations, works and activities that were scheduled to be undertaken during the reporting period and which were not undertaken or not completed; and
 - d) an assessment of whether the investigations, works and activities undertaken in the reporting period contributed to achieving the requirements of conditions at L9.

R5.2.4 Wet weather overflow abatement

1. Wet weather overflow performance relative to the long term wet weather overflow targets specified in PRP303.2.
2. A statement which provides:
 - i) a summary of actions undertaken towards the preparation and implementation of the strategic framework as required by PRP303; and
 - ii) the details of any investigations, works and activities that were undertaken and completed during the reporting period with the view to improving the wet weather overflow abatement performance of the system.

R5.2.5 Complaints and reports

1. A breakdown of the total number of complaints and reports received by the licensee in relation to the premises into categories of "odours", "water pollution – sewage treatment plant", "water pollution – reticulation system", and any other category indicated by the complaint/report. A brief description of any significant unresolved issues arising out of the complaints and reports must be provided.

R5.3 The Annual Sewage Treatment System Performance Report must be presented in a format approved in writing by the EPA.

General conditions

G1 Copy of licence kept at the premises

- 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.

G2 Signage

- G2.1 The location of EPA point number(s) listed in tables P1.1, P1.2 & P1.3 must be clearly marked by signs that indicate the point identification number used in this licence and be located as close as practical to the point.

G3 Contact number for incidents and responsible employees

- G3.1 The licensee must operate 24-hour telephone contact lines for the purpose of enabling the EPA to directly contact one or more representatives of the licensee who can:

- (a) respond at all times to incidents relating to the premises; and
- (b) contact the licensee's senior employees or agents authorised at all times to:
 - (i) speak on behalf of the licensee; and
 - (ii) provide any information or document required under this licence.

G3.2 The licensee is to inform the EPA in writing of the appointment of any contact persons, or changes to the person's contact details as soon as practicable and in any event within fourteen days of the appointment or change.

G4 Clean-up (Emergency Response)

G4.1 In the event of an overflow or bypass that harms or is likely to harm the environment, the licensee must use all practicable measures to minimise the impact of the overflow or bypass on the environment and public health.

Pollution studies and reduction programs

PRP 302 Wet weather overflow abatement pollution reduction program 2010-2015

PRP302.1 The objective of the wet weather overflow abatement pollution reduction program (PRP) 2010-2015 is to require investigations and planning to identify options for works and activities to reduce the number of wet weather overflows in the Southern Beaches wastewater catchment.

Southern Beaches Overflow Abatement

PRP302.2 By 30 June 2013 the licensee must provide a report to the EPA outlining the options for works and actions necessary to reduce the number of overflows in the Southern Beaches wastewater catchment area, which consists of the SCAMPS listed below, to no more than 20 overflows per 10 years.

The report should include:

- i) the options for works and actions to achieve 20 overflows per 10 years in the Southern Beaches wastewater catchment area;
- ii) details of the preferred option, including the rationale for selecting these works and actions as the preferred option, and the proposed staging, costing and timeframes for implementation of the preferred option; and
- iii) an assessment of how the preferred option will impact on sewer overflow performance, expressed as:
 - a) the frequency of wet weather overflows per 10 years for the whole sewer treatment system;
 - b) the number of overflows in any 10 year period in 50 percent of directed overflow locations in the whole sewer treatment system; and
 - c) the number of overflows in any 10 year period in 90 percent of directed overflow locations in the whole sewer treatment system.

The SCAMPS which are the subject of this PRP are as follows:

- Coogee



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- Randwick
- Maroubra
- Maroubra Beach

Note: For the purposes of condition PRP302.2, the frequency of overflows for the reporting period is to be determined using the sewer system hydraulic model required by conditions at L7 with 10 year rainfall time series data.

PRP302.3 In addition to the reporting requirements of condition R5.2.4 and PRP303, the licensee must submit with each Annual System Performance Report:

- (i) a statement outlining the number of wet weather overflows from the area the subject of this PRP; and
- (ii) details of any investigations, works and activities undertaken during the reporting period and an outline of progress toward achieving the objective of this PRP.

PRP 303 Wet Weather Overflow Abatement Strategic Framework

PRP303.1 The objective of the wet weather overflow pollution reduction program (PRP) is to require improvements to progress toward the wet weather overflow goals expressed in the document titled "Licensing Sewerage overflows – Environmental Impact Statement, June 1998 Volume 3 Southern Suburbs".

PRP303.2 By 30 June 2013 the licensee must prepare and submit in writing to the EPA a strategic framework which will underpin the licensee's wet weather overflows abatement program to 2021. The framework must include proposed investigations, works and activities capable of achieving the long term 2021 targets of 5 - 44 wet weather overflows per 10 years.

PRP303.3 The licensee must submit with the Annual System Performance Report required by condition R5.2.4, a statement which provides:

- i) a summary of actions undertaken towards the preparation and implementation of the strategic framework as required by PRP303; and
- ii) the details of any investigations, works and activities that were undertaken and completed during the reporting period with the view to improving the wet weather overflow abatement performance of the system.

Note: The EPA intends to impose a further PRP on this licence to implement wet weather overflow abatement works identified in the strategic framework to ensure progress towards achieving the long term 2021 target of 5 - 44 wet weather overflows per 10 years.

U1 Completed Pollution Reduction Programs (PRPs)

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PRP No	Description	Specified Completion Date
102.2.5	Calculation of assessable loads for load based licensing.	31 December 2005
200.2	A dry weather leakage PRP that aimed to establish a framework for response to leakage from the sewage reticulation system. Maps were provided showing: <ul style="list-style-type: none"> i) the boundary of each SCAMP within the reticulation system associated with this licence, and SCAMP names; and ii) a proposed ambient water quality sampling point located in waters as close as practical to the lowest elevation of each SCAMP. 	30 August 2005
201.2	A dry weather overflow PRP that aimed to reduce the frequency of overflows reaching waters. All works and investigations were to be undertaken to meet the specified dry weather overflow targets.	30 June 2010
201.3	By 30 December 2005 and 30 September every year thereafter in each reporting period the licensee must submit in writing to the EPA a reticulation system dry weather overflow abatement plan. Including the progress toward the dry weather overflow targets specified in condition PRP201.2 .	From December 2005 until 30 June 2010
201.4	The details of any investigations, works and activities that were scheduled in the dry weather overflow abatement plan which were not undertaken or completed must be included in the Annual Environment Report required under clause 14(1)(d) of the Sydney Water Act 1995.	From December 2005 until 30 June 2010
300.2	A wet weather overflow PRP requiring the frequency of wet weather overflow events for specified SCAMP areas to achieve specified wet weather targets.	30 June 2010
300.3	The licensee must ensure that the frequency of wet weather overflows from the sewer treatment system does not exceed the specified number of overflows for both 50 percent and 90 percent of directed overflow locations.	30 June 2010
300.4	The licensee must submit in writing to the EPA a system wet weather overflow abatement plan.	30 December 2005
300.5	The licensee must submit with Annual System Performance Report a statement regarding uncompleted works and activities that were scheduled in the wet weather overflow abatement plan and an assessment of whether wet weather overflow abatement plan requires amendment to works and activities scheduled for the remaining reporting periods.	From December 2005 until 30 June 2010
300.6	The details of any investigations, works and activities that were scheduled in the wet weather overflow abatement plan which were not undertaken or completed must be included in the Annual Environment Report required under clause 14(1)(d) of the Sydney Water Act 1995.	From December 2005 until 30 June 2010
300.7	Wet weather overflow targets investigation report – The licensee must submit in writing an Investigations Report to assess the required level of investment in wet weather overflow abatement works from 2010 to 2021, and justify any changes from the long term targets specified in the document titled "Licensing Sewerage overflows – Environmental Impact Statement, June 1998 Volume 3 Southern Suburbs".	31 July 2007
300.8	The licensee must submit in writing to the EPA a Scoping Report that details the proposed steps and methodologies in preparing the Investigations Report required by PRP 300.7.	30 December 2005

Special conditions



E1 Revised Benthos Monitoring

The licensee must revise the Sewerage Treatment System Impact Monitoring Program (2008 – 2011) dated April 2008 to incorporate the changes to the Benthos Monitoring component of the program and update the document throughout.

A draft updated document must be provided to the Department of Environment , Climate Change and Water's (DECCW) Unit Head of Metropolitan Infrastructure (Water) by 31 August 2010 to be approved in writing by the EPA.

Note: Previously required under condition M15 Benthos Monitoring is a sediment monitoring program that monitors the effects of effluent discharges from the deep water ocean outfall sewage treatment plants on bottom dwelling biota (benthos) and sediment composition.

After ten years of data, sample collection and storage the EPA is satisfied that a reduction in the scale of the program is appropriate.

Dictionary

General Dictionary

In this licence, unless the contrary is indicated, the terms below have the following meanings:

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 1998
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 1998
assessable pollutants	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 1998
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>



	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 1998.
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 (non-putrescible)	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
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 1998
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



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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> .
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

Special Dictionary

approved	Means approved in writing by the EPA. The EPA's approval may be given unconditionally, or subject to conditions.
average concentration limit	Means the average of twelve monitoring test results undertaken during the reporting period.
average dry weather flow (ADWF)	Means the average flow at a point calculated or measured over a 24 hour period in dry weather
Biosolids	Has the same meaning as in Schedule 1, Part 3 of the <i>Protection of the Environment Operations Act 1997</i> .
Biosolids Guidelines	Means the "Environmental Guidelines: Use and disposal of biosolids products" published by the EPA November 1997, or any subsequently updated guidelines which replace this publication.
Bypass	Means circumstances where sewage has been received at the sewage treatment plant but is discharged from the plant without it being treated, processed or reprocessed by means of any or all of the designed treatment processes of the plant. A new bypass event is defined as a bypass that commences at least 24 hours after the end of the previous bypass.
catchment	Catchment boundaries are marked on the system map



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cfu	Means colony forming units.
choke	Means a full or partial blockage in a sewer pipe that results in sewage being discharged to the environment. A choke may be caused by structural collapse of the sewer pipes, tree roots, debris or siltation.
condition	Means a condition of this licence.
directed overflow	Means a directed overflow structure within the reticulation system.
directed overflow structure	Means a designed structure (excluding access chambers) in the reticulation system which operates as a relief to allow sewage to discharge at a planned location or a sewage pumping station, but does not include a bypass from a sewage treatment plant.
discharge	Has the same meaning as in Schedule 1, classification [71] of the <i>Protection of the Environment Operations (General) Regulation 1998</i> .
dry weather	Dry weather occurs when less than 10 millimetres of rainfall has been measured at a rain gauge in the catchment of the sewage treatment system during a 24 hour period (where there is no rain gauge in the catchment, at the rain gauge closest to the centre of the catchment). Dry weather SPS discharge occurs when less than 10mm rainfall has been measured at a rain gauge in the catchment of the SPS during a 24 hour period (where there is no rain gauge in the catchment at the rain gauge closest to the SPS).
dry weather overflow	Means an overflow in the reticulation system not caused by wet weather, as determined by the hydraulic sewer system model.
effluent	Means sewage that has received all of the designed treatment processes at the sewage treatment plant.
emission factor	In relation to load-based licensing, means the level of emissions expected to be generated relative to another characteristic of the activity.
harm	Has the same meaning as in the <i>Protection of the Environment Operations Act 1997</i> .
kL	Means kilolitre.
L/s	Means litres per second.
leakage	Overflows caused by the exfiltration of sewage from faults, such as cracks, in sewer pipes to the surrounding environment.
licence issue date	Means the date of the issue of this licence, or 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.
mL	Means millilitres.
ML	Means megalitres.
node	Is a point in the hydraulic sewer system model that represents one or more overflows in the same catchment.
offensive odour	Has the same meaning as in the <i>Protection of the Environment Operations Act 1997</i> .
overflow	Is a discharge of untreated or partially treated sewage from the sewage treatment system. Overflows may occur as directed overflows or uncontrolled overflows.
Partial disinfection	Means a discharge of sewage or effluent from an STP that occurs when the flow rate of sewage at the influent point of the STP equals or exceeds the rate specified in condition O6.3
Partial treatment discharge	Means a discharge of sewage or effluent from an STP that occurs when the flow rate of sewage at the influent point of the STP equals or exceeds the rate specified in condition O6.3 for Bondi, Malabar and North Head STPs only.
performance acceptance criteria	In relation to hydraulic sewer stem model, means the standard of accuracy (sometimes called the "goodness of fit") to be achieved when observations of a particular performance indicator are compared to the results predicted by the model

	the results predicted by the model.
reticulation system	Means that part of the sewage treatment system which collects and transports sewage to the sewage treatment plant and includes all sewer pipes (whether greater or less than 300mm diameter), access chambers, vent shafts, directed overflow structures and sewage pumping stations, but does not include the sewage treatment plant.
SCAMP	Sewer Catchment Asset Management Plan
sewage	Means all material received in the reticulation system.
sewage products	Means any by-product of the treatment processes and includes biosolids, raw sludge, liquid sludge, thickened sludge, digested sludge, screenings and grit.
sewage pumping station (SPS)	Is a structure which controls the transport of sewage through the sewer pipes, where steep hills and other variations in the land topography can prevent or limit the gravity flow of sewage to the sewage treatment plant.
sewage treatment plant (STP)	Is a facility at which sewage is stored and treated following delivery from the reticulation system prior to discharge, and includes discharge structures and STP bypass points.
sewage treatment system	Means the reticulation system and the sewage treatment plant used for the transport, treatment and discharge of effluent and sewage.
sub-catchment	Sub-catchment boundaries are marked on the system map
ten year rainfall time series data	Means the rainfall data for the period 1985 to 1994 as used in the EISs.
Trade waste agreements	Means agreements reached between the licensee and industrial and commercial customers to restrict the amount of toxic and other potentially harmful substances discharged to the sewerage system.
ug/L	Means micrograms per litre.
uncontrolled overflow	Means an overflow from any part of the reticulation system that is not a directed overflow. Leakage or overflows from access chambers are examples of uncontrolled overflows.
waters	Has the same meaning as in the <i>Protection of the Environment Operations Act 1997</i> .
wet weather	Wet weather occurs when 10 millimetres or more of rainfall has been measured at a rain gauge in the catchment of the sewage treatment system during a 24 hour period (where there is no rain gauge in the catchment, at the rain gauge closest to the centre of the catchment).
wet weather overflow	Means an overflow in the reticulation system caused by wet weather as determined by the hydraulic sewer system model.

Mr Warren Hicks

Environment Protection Authority

(By Delegation)

Date of this edition - 03-Jul-2010

End Notes

1	Licence varied by notice V/M upgrade, issued on 06-Jul-2000, which came into effect on 06-Jul-2000.
2	Licence varied by notice 1007245, issued on 29-Oct-2001, which came into effect on 23-Nov-2001.
3	Licence varied by change to discharge point type, issued on 30-Nov-2001, which came into effect on 30-Nov-2001.
4	Licence varied by notice 1018147, issued on 27-Jun-2002, which came into effect on 28-Jun-2002.
5	Licence varied by notice 1021027, issued on 23-Dec-2002, which came into effect on 17-Jan-2003.
6	Licence varied by notice 1028327, issued on 08-Jul-2003, which came into effect on 02-Aug-2003.
7	Licence varied by notice 1032881, issued on 19-Mar-2004, which came into effect on 02-Apr-2004.
8	Licence varied by notice 1038499, issued on 30-Jun-2004, which came into effect on 30-Jun-2004.
9	Licence varied by notice 1043387, issued on 11-Mar-2005, which came into effect on 24-Mar-2005.
10	Licence varied by notice 1046971, issued on 30-Jun-2005, which came into effect on 30-Jun-2005.
11	Licence varied by notice 1053458, issued on 29-Jun-2006, which came into effect on 29-Jun-2006.
12	Licence varied by notice 1070427, issued on 05-Mar-2007, which came into effect on 05-Mar-2007.
13	Licence varied by notice 1092119, issued on 16-Sep-2008, which came into effect on 16-Sep-2008.
14	Licence varied by notice 1092485, issued on 04-Nov-2008, which came into effect on 04-Nov-2008.
15	Condition A1.3 Not applicable varied by notice issued on <issue date> which came into effect on <effective date>
16	Licence varied by Admin. corrections to Annual Return, issued on 01-Jul-2009, which came into effect on 01-Jul-2009.
17	Licence varied by notice 1104120, issued on 27-Nov-2009, which came into effect on 27-Nov-2009.
18	Licence varied by notice 1111303, issued on 17-Feb-2010, which came into effect on 17-Feb-2010.
19	Licence varied by notice 1111763, issued on 10-Mar-2010, which came into effect on 10-Mar-2010.
20	Licence varied by notice 1116059, issued on 02-Jul-2010, which came into effect on 02-Jul-2010.

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Environment,
Climate Change
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