Environment Protection Licence

Licence - 12235

Licence Details	
Number:	12235
Anniversary Date:	01-July

Licensee

SYDNEY WATER CORPORATION

PO BOX 399

PARRAMATTA NSW 2124

Premises

WALLACIA SEWAGE TREATMENT SYSTEM

INCLUDING THE STP AT NORTONS BASIN ROAD

WALLACIA NSW 2745

Scheduled Activity

Sewage treatment

Fee Based Activity	Scale
Sewage treatment processing by small plants	> 219-1000 ML annual maximum volume of discharge

Region

Metropolitan Infrastructure

Level 13, 10 Valentine Ave

PARRAMATTA NSW 2150

Phone: (02) 9995 5000

Fax: (02) 9995 6900

PO Box 668

PARRAMATTA NSW 2124

Environment Protection Licence

Licence - 12235

INFORMATION ABOUT THIS LICENCE ---- 4

Dictionary ---- 4

Responsibilities of licensee ---- 4

Variation of licence conditions ---- 4

Duration of licence ---- 4

Licence review ---- 4

Fees and annual return to be sent to the EPA ---- 4

Transfer of licence ---- 5

Public register and access to monitoring data ---- 5

1 ADMINISTRATIVE CONDITIONS ---- 6

A1 What the licence authorises and regulates ---- 6

A2 Premises or plant to which this licence applies ---- 6

A3 Other activities ---- 7

A4 Information supplied to the EPA ---- 7

2 DISCHARGES TO AIR AND WATER AND APPLICATIONS TO LAND ---- 7

P1 Location of monitoring/discharge points and areas ---- 7

3 LIMIT CONDITIONS ---- 8

L1 Pollution of waters ---- 8

L2 Load limits ---- 9

L3 Concentration limits ---- 10

L4 Volume and mass limits ---- 12

L5 Waste ---- 13

L6 Noise limits ---- 13

L7 Other limit conditions ---- 13

4 OPERATING CONDITIONS ---- 14

O1 Activities must be carried out in a competent manner ---- 14

O2 Maintenance of plant and equipment ---- 14

O3 Emergency response ---- 15

O4 Processes and management ---- 15

O5 Other operating conditions ---- 16

5 MONITORING AND RECORDING CONDITIONS ---- 16

M1 Monitoring records ---- 16

M2 Requirement to monitor concentration of pollutants discharged ---- 17

M3 Testing methods - concentration limits ---- 19

Environment Protection Licence

Licence - 12235

M4 Testing methods - load limits ---- 19
M5 Environmental monitoring ---- 20
M6 Recording of pollution complaints ---- 20
M7 Telephone complaints line ---- 21
M8 Requirement to monitor volume or mass ---- 21
M9 Requirement to record bypass incidents from sewage treatment plants ---- 21
M10 Other monitoring and recording conditions ---- 22
6 REPORTING CONDITIONS ---- 24
R1 Annual return documents ---- 24
R2 Notification of environmental harm ---- 25
R3 Written report ---- 25
R4 Other notifications ---- 26
R5 Annual system performance report ---- 26
7 GENERAL CONDITIONS ---- 29
G1 Copy of licence kept at the premises or plant ---- 29
G2 Contact number for incidents and responsible employees ---- 29
G3 Signage ---- 29
8 SPECIAL CONDITIONS ---- 29
E1 Sydney Water Dry Weather Sewage Overflow Response Report ---- 29
E2 Special Dictionary ---- 33
DICTIONARY ---- 36
General Dictionary ---- 36

Environment Protection Licence

Licence - 12235

Information about this licence

Dictionary

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

Responsibilities of licensee

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

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

Variation of licence conditions

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

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

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

Duration of licence

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

Licence review

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

Fees and annual return to be sent to the EPA

For each licence fee period you must pay:

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

Environment Protection Licence

Licence - 12235

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.

Environment Protection Licence

Licence - 12235

1 Administrative Conditions

A1 What the licence authorises and regulates

A1.1 This licence authorises the carrying out of the scheduled development work listed below at the premises listed in A2: 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	Fee Based Activity	Scale
Sewage treatment	Sewage treatment processing by small plants	> 219 - 1000 ML annual maximum volume of discharge

A1.3 Not applicable.

A1.4 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.

A1.5 This licence is to be construed in a manner that will promote the objectives referred to in A1.4.

A2 Premises or plant to which this licence applies

A2.1 The licence applies to the following premises:

Premises Details
WALLACIA SEWAGE TREATMENT SYSTEM
INCLUDING THE STP AT NORTONS BASIN ROAD
WALLACIA
NSW 2745

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:

Ancillary Activity
Chemical Storage
Waste Storage

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.

2 Discharges to Air and Water and Applications to Land

P1 Location of monitoring/discharge points and areas

P1.1 Air monitoring points - not applicable.

P1.2 The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area.

P1.3 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.

Water and land

EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description
2		Discharge to waters	STP discharge point located at the outfall to ther Warragamba River, about 200 metres downstream of the junction with Magarritys Creek
3	Volume monitoring		In the flat weir outlet of the dechlorination tanks, as shown on Drawing Number PSP-02-STP73-M-5, dated 29 November 2005, submitted with the Licence Variation Application Form dated 28 June 2006.
4	Effluent quality monitoring		Disinfected plant effluent quality from the dechlorination tank, as shown on Drawing Number PSP-02-STP73-M-5, dated 29 November 2005, submitted with the Licence Variation Application Form dated 28 June 2006.
5	discharge to utilisation area volume monitoring	discharge to utilisation area volume monitoring	Tanker filling point located at the onsite reuse line.

P1.4 For the purposes of conditions L2.1, L2.2, L2.7, L2.8 and L2.9, the sewage treatment plant discharges to Yarramundi 2 sub-zone. Yarramundi 2 sub-zone is the area labelled ‘Yarramundi 2’ on the zone map held on EPA electronic file EF15/791.

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 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.

L1.3 Notwithstanding the provisions of the condition above, this licence does not permit the pollution of waters at any time during dry weather from:

a) uncontrolled overflows, or

b) directed overflows other than from sewage pumping stations,

if a cause of the pollution is failure to:

i) operate any part of the reticulation system in a proper and efficient manner; or

ii) maintain any part of the reticulation system in a proper and efficient condition.

L1.4 This licence does not permit the pollution of water at any time during dry weather from any pumping station. .

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 From 1 July 2024, the load limits for Nitrogen (total) and Phosphorus (total) listed in L2.1 will change to the following values:

a) Nitrogen (total) 55,300 kg/year
b) Phosphorus (total) 3,450 kg/year

L2.3 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 Water)	8395.00
Nitrogen (total) (Enclosed Water)	12410.00
Oil and Grease (Enclosed Water)	1132.00
Phosphorus (total) (Enclosed Water)	1606.00
Total suspended solids (Enclosed Water)	8760.00

L2.4 For the purposes of condition L2.1 only, premises means the sewage treatment plant(s) referred to in condition A2.1 of this licence.

L2.5 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.

L2.6 Not applicable.

L2.7 From 1 July 2024, the annual load of Nitrogen (total) and Phosphorus (total) discharged from Sydney Water’s sewage treatment plants in the Yarramundi sub-zone 2 must not result in the aggregated 5 year rolling average load of Nitrogen (total) and Phosphorus (total) exceeding the specified aggregate loads in condition L2.2 in a given year:

a) Nitrogen (total) 55,300 kg/year
b) Phosphorus (total) 3,450 kg/year

Note: The loads for the 2024/25 year will be the rolling average of reporting period loads from 2019/20 to 2023/24. Where there have been STP upgrades during this period, the historical loads would be reduced by the load reductions achieved by the upgrades, to obtain an equivalent historical load for use in the rolling average calculations.

L2.8 From 1 July 2024, the annual load targets from Sydney Water's sewage treatment plants discharging to Yarramundi sub-zone 2 are the following aggregated 5 year rolling average loads of Nitrogen (total) and Phosphorus (total):
a) Nitrogen (total) 50,200 kg/year
b) Phosphorus (total) 3,130 kg/year

Note: The loads for the 2024/25 year will be the rolling average of reporting period loads from 2019/20 to 2023/24. Where there have been STP upgrades during this period, the historical loads would be reduced by the load reductions achieved by the upgrades, to obtain an equivalent historical load for use in the rolling average calculations.

L2.9 The licensee may use nutrient load offset trading to reduce or increase the aggregated 5 year rolling average load of Nitrogen (total) and Phosphorus (total) in L2.7 and L2.8 in accordance with the protocol detailed in the document titled *"Compliance offsets for nutrient discharges to the Hawkesbury-Nepean River - Interim Operational Protocol 2018 to 2024 (July 2019)"* by BDA Group held on EPA electronic file EF15/791.

L3 Concentration limits

L3.1 For each monitoring/discharge point or utilisation area specified in the table\s 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 than those specified in the table\s.

L3.4 Water and/or Land Concentration Limits

POINT 2

Pollutant	Units of Measure	Average concentration limit	50 percentile concentration limit	90 percentile concentration limit	100 percentile concentration limit
Aluminium	micrograms per litre	800	-	1500	-
Copper	micrograms per litre	35	-	100	-

Hydrogen sulfide (un-ionised)	micrograms per litre	290	-	3300	-
Nitrogen (ammonia)	milligrams per litre	-	0.5	1.0	-
Nitrogen (total)	milligrams per litre	-	7.5	10	-
Nonylphenol ethoxylates	micrograms per litre	64	-	580	-
Phosphorus (total)	milligrams per litre	-	0.15	0.3	-
Zinc	micrograms per litre	87	-	110	-

POINT 5

Pollutant	Units of Measure	Average concentration limit	50 percentile concentration limit	90 percentile concentration limit	100 percentile concentration limit
Aluminium	micrograms per litre	800	-	1500	-
Copper	micrograms per litre	35	-	100	-
Hydrogen sulfide (un-ionised)	micrograms per litre	290	-	3300	-
Nitrogen (ammonia)	milligrams per litre	-	0.5	1.0	-
Nitrogen (total)	milligrams per litre	-	7.5	10	-
Nonylphenol ethoxylates	micrograms per litre	64	-	580	-
Phosphorus (total)	milligrams per litre	-	0.15	0.3	-
Zinc	micrograms per litre	87	-	110	-

POINTS 2 and 5

Pollutant	Units of Measure	3DGM concentration limit	50 percentile concentration limit	90 percentile concentration limit

Biochemical oxygen demand	milligrams per litre	25	5	10
Total suspended solids	milligrams per litre	25	5	10
Faecal coliforms	colony forming units per 100 millilitres			200*

Note: The faecal coliforms concentration limit marked by an asterix in the above table is to be interpreted as an 80% concentration limit for the purpose of assessing compliance with this condition.

L3.5 From 1 July 2024, the concentration limits for Nitrogen (total) and Phosphorus (total) listed in L3.4 for Points 1 and 2 will change to the following values:

a) Nitrogen (total) 6 mg/L (50 percentile concentration limit)
b) Phosphorus (total) 0.1 mg/L (50 percentile concentration limit)

Note: The 100 percentile limits for Nitrogen (total) and Phosphorus(total) will cease to apply from 1 July 2024.

L3.6 When a wet weather bypass flow is occurring, exceedances of the 3DGM concentration limits in condition L3.4 are permitted at the following point(s) for the duration of the bypass where the bypass was the sole cause of the exceedance: 2 and 5.

L3.7 Not applicable.

L3.8 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 4

Toxicity	Units of Measure	50 percentile limit
Ceriodaphnia dubia immobilization (EC50)	percent effluent by volume	50

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	kilolitres per day	15000

5	kilolitres per day	15000

L4.2 Notwithstanding the volume limits specified in condition L4.1, the combined volume discharged from point(s) 3 and 5 must not exceed 15000 kL/day.

L5 Waste

L5.1 The licensee must not cause, permit or allow any waste generated outside the premises to be received at the premises for storage, treatment, processing, reprocessing or disposal or any waste generated at the premises to be disposed of at the premises, except as expressly permitted by the licence.

L5.2 This condition only applies to the storage, treatment, processing, reprocessing or disposal of waste at the premises if those activities require an environment protection licence.

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 Other limit conditions

L7.1 **Hydraulic Sewer System Model**

a) 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.
b) 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(a).
c) 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.
d) 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.

e) 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.

f) The licensee must ensure that the Independent Criteria Review Committee prepares a written report on the review required by condition L7.1(e).

g) 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 R5 of this licence.

L7.2 **Wet weather overflow limits**

The frequency of wet weather overflows from the reticulation system must not exceed 25 overflows per 10 years. Compliance with this condition must be determined at the end of each reporting period against the frequency predicted using the hydraulic sewer system model required by condition L7.1 with the 10 year rainfall time series data.

L7.3 The licensee must report the number of wet weather overflows per 10 years as determined using the hydraulic sewer system model required by condition L7.1.

L7.4 **Dry weather overflow limits**

Not applicable.

4 Operating Conditions

O1 Activities must be carried out in a competent manner

O1.1 Licensed activities must be carried out in a competent manner.
This includes:
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.

O1.2 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.

O2 Maintenance of plant and equipment

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

O3 Emergency response

O3.1 In the event of an overflow from the reticulation system or a bypass from a sewage treatment plant that harms or is likely to harm the environment or present a significant public health risk, the licensee must take all reasonable and feasible actions as soon as practicable to minimise the impact of the overflow or bypass on the environment and public health.

For the avoidance of doubt, the requirements of this condition are in addition to any measures required to be implemented in accordance with the Pollution Incident Response Management Plan required to be prepared and implemented under Part 5.7A of the Protection of the Environment Operations Act 1997.

O4 Processes and management

O4.1 **Appropriate Treatment Processes**

Sewage or effluent must not be discharged from point 2 unless it has been treated in accordance with the requirements of the table below.

The flows specified in the table below are the effluent from the sewage treatment plant.

Required treatment process	Flow range
screening, activated sludge treatment, tertiary filtration, chlorination and dechlorination	Less than 55 L/s
screening, partial activated sludge treatment, chemical dosing for phosphorous removal, chlorination and dechlorination	55 L/s or more and less than 110 L/s
screening, degritting, settling, chlorination and dechlorination	110 L/s or more
Partial disinfection	180L/s or more

O4.2 Not applicable.

O4.3 Not applicable.

O4.4 Not applicable.

O4.5 Not applicable.

O4.6 Not applicable.

O4.7 **Level of reticulation system management, operations and maintenance activities**

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.

O4.8 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.

O4.9 **Exceedance of design capacity of primary disinfection processes**

a) The sewage treatment system must be operated and maintained such that the operational and maintenance works and activities must not at any time increase the frequency at which the effluent flow rate exceeds the design capacity of the primary disinfection process.

b) For the purposes of determining compliance with (a), the licensee must compare the number of times the design capacity of the primary disinfection process is exceeded per 10 years as predicted by the hydraulic sewer system model for 2002 to the number of times the design capacity of the primary disinfection process is exceeded 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.

c) An exceedance of the design capacity of the primary disinfection process occurs when the effluent flow rate of sewage from the sewage treatment plant equals or exceeds 180L/s.

O5 Other operating conditions

O5.1 **Prohibition on acceptance of pesticides**

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.

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.

M1.4 Registers

The licensee must maintain and make available for inspection by the public, at the 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;
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 recorded under M7 during each reporting period.

M1.5 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.

M2 Requirement to monitor concentration of pollutants discharged

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

M2.2 Not applicable.

M2.3 Water and/ or Land Monitoring Requirements

POINT 4

Pollutant	Units of measure	Frequency	Sampling Method
Aluminium	micrograms per litre	12 Times a year	Composite sample
Biochemical oxygen demand	milligrams per litre	Special Frequency 1	Composite sample
Copper	micrograms per litre	12 Times a year	Composite sample

Faecal Coliforms	colony forming units per 100 millilitres	Every 6 days	Grab sample
Hydrogen sulfide (un-ionised)	micrograms per litre	12 Times a year	Grab sample
Nitrogen (ammonia)	milligrams per litre	Every 6 days	Composite sample
Nitrogen (total)	milligrams per litre	Every 6 days	Composite sample
Nonylphenol ethoxylates	micrograms per litre	12 Times a year	Composite sample
Phosphorus (total)	milligrams per litre	Every 6 days	Composite sample
Total suspended solids	milligrams per litre	Special Frequency 1	Composite sample
Toxicity	percent effluent by volume	12 Times a year	Grab sample
Zinc	micrograms per litre	12 Times a year	Composite sample

M2.4 For the purposes of the table above Special Frequency 1 means:
a) For the purposes of determining compliance with the average and percentile limits sampling must be undertaken every 6 days.
b) 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.

M2.5 The following conditions apply to the monitoring requirements under condition M2:

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.

M2.6 The monitoring results collected in accordance with condition M2 for point 4 can be used to determine compliance with the limits in condition L3.4 for points 2 and 5.

M2.7 Subject to M2.8, where the licensee is unable to carry out any sampling required under condition M2 at the required frequency or interval or both because of a circumstance set out in column 1 of the Table below, the licensee is taken to have carried out the sampling at the required frequency or interval or both, as the case may be, if the licensee collects the required sample within the corresponding timeframe in column 2 of the Table.

No.	Column 1	Column 2
1	The unforeseen loss of power supply to the essential monitoring equipment that cannot be rectified by the reasonable provision and operation of standby generators	Within 48 hours of power being restored to the premises

2	The inability of the licensee to access or safely access the monitoring site or equipment due to tidal or fluvial flooding	As soon as practicable once flooding has ceased or abated
3	The failure or malfunction of essential monitoring equipment caused by tidal or fluvial flooding	Within 48 hours after failure or malfunction of essential monitoring equipment has ceased

M2.8 The licensee must collect and analyse the required number of samples for the reporting period as specified in conditions M2.3 – M2.5 above.

M2.9 The licensee must keep records of all circumstances listed in column 1 of the Table in condition M2.7 which triggered sample collection in accordance with column 2 of the same Table, including information that can demonstrate that the circumstances in column 1 applied and that the sampling was carried out in accordance with the timeframe prescribed in column 2 of that Table. The licensee must keep these records for a period of 5 years after the end of the reporting period in which the circumstances occurred.

M2.10 The record must be produced to any authorised officer of the EPA who requests to see them.

M3 Testing methods - concentration limits

M3.1 Not applicable.

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.

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:

Bailey, H.C., Krassoi, R., Elphick, J.R., Mulhall, A-M., Hunt, P., Tedmanson, L. & Lovell, A. (2000), 'Application of Ceriodaphnia dubia for whole effluent toxicity tests in the Hawkesbury-Nepean watershed, New South Wales, Australia: Method development and validation', Environmental Toxicology and Chemistry: Vol. 19, No. 1, pp. 88–93.

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 Testing methods - load limits

Note: Division 3 of the *Protection of the Environment Operations (General) Regulation 2009* requires that monitoring of actual loads of assessable pollutants listed in L2.2 must be carried out in accordance with the relevant load calculation protocol set out for the fee-based activity classification listed in the

Administrative Conditions of this licence.

M5 Environmental monitoring

M5.1 Sewage Treatment System Impact Monitoring Program

a) The licensee must undertake the monitoring programs detailed in the Sydney Water publication "Sewage Treatment System Impact Monitoring Program, December 2010", or in any replacement document approved in writing by the EPA.

b) 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.

c) The licensee must provide to the EPA the reports specified in the document cited above.

d) The "Sewage Treatment System Impact Monitoring Program (STSIMP): Annual Data Report" specified in the document cited above must be submitted not later than 15 December in each year.

e) The "STSIMP: Interpretive Report" specified in the document cited above must be submitted not later than 31 December every fourth year.

f) For the purposes of conditions e) above, the next "STSIMP: Interpretative Report" must be submitted by 31 December 2020.

Note: Copies of reports relating to the Sewage Treatment System Impact Monitoring Program can be found at

http://www.sydneywater.com.au/SW/water-the-environment/how-we-manage-sydney-s-water/wastewater-network/stsimp-reports/index.htm

M6 Recording of pollution complaints

M6.1 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.

M6.2 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.

M6.3 The record of a complaint must be kept for at least 4 years after the complaint was made.

M6.4 The record must be produced to any authorised officer of the EPA who asks to see them.

M7 Telephone complaints line

M7.1 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.

M7.2 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.

M7.3 The preceding two conditions do not apply until 3 months after the date of the issue of this licence.

M8 Requirement to monitor volume or mass

M8.1 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 3

Frequency	Unit of Measure	Sampling Method
Continuous	kilolitres per day	Electronic level sensor and continuous logger

POINT 5

Frequency	Unit of Measure	Sampling Method
Daily during any discharge	kilolitres per day	Estimate

M8.2 The monitoring results collected in accordance with condition M8.1 for point(s) 3 can be used to determine compliance with the limits in condition L4.1 for point(s) 2.

M8.3 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.

M9 Requirement to record bypass incidents from sewage treatment plants

M9.1 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.

M9.2 A dry weather bypass is a bypass that occurs when the effluent flow rate of sewage from the sewage treatment plant does not exceed 16 L/s and a wet weather bypass occurs when this flow is equalled or exceeded.

M10 Other monitoring and recording conditions

M10.1 **Continuation of Monitoring Programs**

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.

M10.2 **Biosolids**

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.

M10.3 **Dry weather leakage monitoring program**

a) 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 spreadsheet titled “Dry Weather Leakage Monitoring Program SCAMP sampling locations master spreadsheet” and associated maps submitted to the EPA (EPA Reference: SF19/48619).
b) The licensee must undertake the dry weather leakage 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.
c) The licensee must seek approval in writing from the EPA to make changes to the dry weather leakage monitoring program SCAMP sampling locations.
d) Within two weeks of receiving approval from the EPA, the licensee must update the master spreadsheet and associated maps referenced in condition M10.3a and provide the EPA with a copy of the updated documents.

M10.4 **Investigations and remedial action for dry weather leakage**

a) 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 10,000 cfu/100mL ("the threshold"). The investigation must be commenced as soon as the licensee becomes aware of the threshold for faecal coliform being exceeded.
b) 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 M10.4(a).
c) The licensee must record:
    i) the method, results and conclusions of investigations undertaken in accordance with condition M10.4(a), and
    ii) actions taken by the licensee as a result of the conclusions of the investigations.

M10.5 a) The licensee must undertake the following actions, in addition to the actions set out in condition M10.4, when analysis results of three consecutive samples collected at the same location indicate that the threshold for faecal coliform specified in condition M10.4(a) has been exceeded:
    i) notify the EPA in writing as soon as possible, providing the three sample analysis results, and identifying the relevant SCAMP;
    ii) 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 M10.4(a). 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;
    iii) submit the results of the independent review to the EPA within 42 days of the commissioning of the independent review;
    iv) implement the recommendations of the independent review unless otherwise directed in writing by the EPA; and
    v) 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 M10.3.
b) The independent review required by condition M10.5(a) must examine the three investigations undertaken by the licensee into the relevant exceedances of the threshold and determine:
    i) if the investigations and any actions undertaken as a result of the investigations were appropriate to prevent further exceedances of the relevant threshold; and
    ii) if any additional investigations or actions must be undertaken to prevent further exceedances of the threshold.

M10.6 The licensee must notify the EPA in writing if any sample analysis result obtained from monitoring required by condition M10.3 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.

6 Reporting Conditions

Environment Protection Licence

Licence - 12235

R1 Annual return documents

R1.1 The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:

1. a Statement of Compliance,
2. a Monitoring and Complaints Summary,
3. a Statement of Compliance - Licence Conditions,
4. a Statement of Compliance - Load based Fee,
5. a Statement of Compliance - Requirement to Prepare Pollution Incident Response Management Plan,
6. a Statement of Compliance - Requirement to Publish Pollution Monitoring Data; and
7. a Statement of Compliance - Environmental Management Systems and Practices.

At the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.

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

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

R1.3 Where this licence is transferred from the licensee to a new licensee:
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.

R1.5 The Annual Return for the reporting period must be supplied to the EPA via eConnect *EPA* or 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').

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.

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.

R1.8 Within the Annual Return, the Statements of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:
a) the licence holder; or
b) by a person approved in writing by the EPA to sign on behalf of the licence holder.

R2 Notification of environmental harm

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

R2.1 Notifications must be made by telephoning the Environment Line service on 131 555.

R2.2 The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.

R3 Written report

R3.1 Where an authorised officer of the EPA suspects on reasonable grounds that:
a) where this licence applies to premises, an event has occurred at the premises; or
b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence,
and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.

R3.2 The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.

R3.3 The request may require a report which includes any or all of the following information:
a) the cause, time and duration of the event;
b) the type, volume and concentration of every pollutant discharged as a result of the event;
c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event;
d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;
e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants;
f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and
g) any other relevant matters.

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 Other notifications

R4.1 a) Notwithstanding notification requirements under condition R2, the licensee must notify the EPA of incidents where:

i. a dry weather sewage overflow from a sewage pumping station or

ii. sewage or effluent not treated at the sewage treatment plant in accordance with the requirements of conditions O4.1 – O4.6 has been discharged to, or is reasonably expected to discharge to, waterways.

b) Notifications must be made to the EPA by contacting the Environment Line as soon as practicable after the licensee becomes aware of the incident.

c) The notification should include the relevant information as per s150 of the Protection of Environment Operations Act.

d) Where an incident has been reported under condition R2 there is no requirement to report it under condition R4 in addition to the report made under condition R2.

Note: Notifications must be made to the other agencies such as Beachwatch, National Parks and NSW Food Authority, where relevant. The requirements for such notifications must be included in Pollution Incident Response Management Plans.

Note: The reporting requirements in condition R4 do not replace any other reporting requirements in the licence or under the Protection of the Environment Operations Act 1997.

R5 Annual 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:

R5.3 **Effluent discharged**

a) The percentile values calculated from the monitoring data for each pollutant which has corresponding limits.

b) The annual load of all assessable pollutants.

c) An analysis of the sewage treatment plant performance against the concentration, toxicity and load limits specified in the licence.

d) An assessment of the current year's sewage treatment plant 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 sewage treatment plant performance, and the reason for such trends.

e) The load of Phosphorous (total) and Nitrogen (total) discharged from the sewage treatment plant expressed as a percentage of the total load of Phosphorous (total) and Nitrogen (total) directly discharged from all Sydney Water sewage treatment systems to the Hawkesbury-Nepean.

f) The total volume discharged from the sewage treatment plant, and the average volume discharged from the sewage treatment plant during dry weather.

g) The total volume and percentage volume of effluent recycled.

h) i) The total number of sewage treatment plant bypasses and the total volume discharged that did not receive required treatment during:
AA) dry weather; and
BB) wet weather
ii) A summary report of all bypass events which includes, but is not limited to, the following: classification as a dry or wet weather bypass, duration, volume discharged, volume treated, receiving waters, cause, treatment process(es) bypassed and any action(s) taken

R5.4 **Biosolids**

Reporting requirements in accordance with the Biosolids Guidelines

R5.5 **Reticulation System**

a) Dry weather leakages:
i) monitoring results from each SCAMP;
ii) outcomes of any investigations; and
iii) details of rectification action taken.
b) Dry weather overflows from chokes and sewage pumping stations:
i) including;
AA) number of dry weather overflows to waterways, for the whole system and for each SCAMP;
BB) total number of dry weather overflows, for the whole system and for each SCAMP;
CC) total number of dry weather overflows per 100km for whole system;
DD) the name of each sewage treatment system which exceeded the dry weather overflow limit at condition L7.4; and
EE) the name of each SCAMP where the number of dry weather overflows reaching waterways in a SCAMP exceeds the target for that SCAMP specified in the SCAMP table below.
ii) comparison of the dry weather overflow performance against the previous four twelve month periods for dry weather overflows to waterways and total dry weather overflows.
c) Where the dry weather overflow sewage treatment system limit at condition L7.4 and/or target in the SCAMP table below was exceeded during the reporting period, the licensee must provide a report to the EPA no later than 30 September each year explaining the reason for the exceedance, which should include but not be limited to:
i) an analysis of the exceedances of limit(s) and / or target(s), including the determination of any long-term trends and evaluation of dry weather overflow abatement programs implemented by the licensee;
ii) the details of any dry weather overflow abatement investigations, works and activities that were scheduled to be undertaken during the reporting period and which were completed;
iii) the details of any dry weather overflow abatement investigations, works and activities that were scheduled to be undertaken during the reporting period and which were not undertaken or not completed;
iv) the details of any dry weather overflow abatement investigations, works and activities the licensee will undertake in subsequent reporting periods to minimise the likelihood of the limit(s) and / or target(s) being exceeded in any future reporting period, including the timeframes for those actions to be implemented and the level of prioritisation given to each sewage treatment system and / or SCAMP; and
v) an assessment of whether any amendment to the dry weather overflow abatement

investigations, works and activities scheduled for the remaining reporting periods to 30 June 2015 is required to achieve the dry weather overflow limits and / or targets at condition L7.4 and in the SCAMP table below.

SCAMP table

SCAMP Name	Dry Weather Overflows Reaching Waterways per Annum
S_WALLACIA	1
S_WARRAGAMBA	1

R5.6 **Wet weather overflow abatement**

a) Wet weather overflow performance relative to the long term wet weather overflow limit required by conditions L7.2 or the interim wet weather overflow target required by conditions at PRP302, including whether the wet weather overflow limit or interim wet weather overflow target was acheived.
b) Where the wet weather overflow limit or the interim wet weather overflow target was not achieved, the licensee must provide a statement explaining the reason for the non-compliance, which includes:
i) the details of any investigations, works and activities that were scheduled to be undertaken during the reporting period and which were completed;
ii) the 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;
iii) an assessment of whether any amendment to the investigations, works and activities scheduled for the remaining reporting periods to 30 June 2015 is required to achieve the requirements of conditions L7.2 or PRP302.

R5.7 **Complaints and reports**

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.

R5.8 The Annual Sewage Treatment System Performance Report must be presented in a format approved in writing by the EPA.

R5.9 Target nutrient loads (applicable from 1 July 2024)

a) The licensee must report the Nitrogen (total) and Phosphorus (total) from Sydney Water’s sewage treatment plants discharging to Yarramundi sub-zone 2 relative to the annual load targets in condition L2.8 including whether the targets were achieved. The report is to include a summary of any investigations, programs, projects, works or activities, including offsets, that were completed that contributed to the achieving of the targets.
b) Where the annual load targets were not achieved, the licensee must provide a statement explaining the reasons for exceeding the targets which includes:
i. a summary of any investigations, programs, projects, works or activities, including offsets, that were

completed with the intent of achieving the targets
ii. a summary of any planned investigations, programs, projects, works or activities, including offsets that were not undertaken or completed
iii. a summary of what will be done in the next reporting period to achieve the targets including an assessment of whether an amendment to the investigations, programs, projects, works or activities, including offsets is required to achieve the targets in conditions L2.8.

7 General Conditions

G1 Copy of licence kept at the premises or plant

G1.1 A copy of this licence must be kept at the premises to which the licence applies.

G1.2 The licence must be produced to any authorised officer of the EPA who asks to see it.

G1.3 The licence must be available for inspection by any employee or agent of the licensee working at the premises.

G2 Contact number for incidents and responsible employees

G2.1 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.

G2.2 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.

G3 Signage

G3.1 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.

8 Special Conditions

E1 Sydney Water Dry Weather Sewage Overflow Response Report

E1.1 **Report Scope**

a) The Licensee must provide a single, combined Report ("the Report") on the adequacy of the systems, resources, processes, procedures, practices and training it has in place for its reticulation system as at the date which this condition is included in the Licence to comply with:

1. Condition O3.1 of the Sydney Water Environment Protection Licences (EPLs) on responding to sewer overflows; and
2. Part 5.7 of the Protection of Environment Operations Act 1997 ("the Act") regarding the notification of incidents; and
3. Part 5.7A of the Act and Part 3A POEO (General) Regulation regarding requirements for a Pollution Incident Response Management Plan (PIRMP).

b) The Report is to identify any improvements that the Licensee should make so that its response to sewer overflows from its reticulation system complies with the regulatory requirements identified within this condition.

E1.2 **Independent Expert**

a) The Report must be prepared by a suitably qualified and experienced independent environmental expert (the "Expert").
b) Details of three options on the Expert (and team members) proposed to be engaged by the Licensee must be provided to the EPA's Regional Manager Operations - Metropolitan Infrastructure for written approval by 12 April 2019.
c) The Licensee must ensure when selecting the proposed Expert and their team for b) above that there is expertise in each team across all the areas of human health, aquatic and terrestrial ecology, water science, laboratory operations, sewage and environmental engineering, logistics and systems auditing. For the purposes of this condition, the Licensee must provide the EPA the following details for the Expert and each proposed team member:

1. name;
2. contact details;
3. the area in which they have expertise;
4. relevant qualifications;
5. relevant experience;
6. availability.

d) The Licensee must engage an Expert and team that is approved by the EPA's Regional Manager Operations - Metropolitan Infrastructure in writing by two weeks after approval is received from the EPA.
e) Once engaged, the Licensee must require the Expert and their team to meet with the EPA to discuss the background and context for the Report.

E1.3 **Report Requirements**

a) The Licensee must provide a single combined Report which examines, makes recommendations to improve and provides conclusions about the effectiveness of the licensee's procedures and processes

with respect to its response to sewer overflows from its reticulation system.
b) The Report must detail the current systems, resources, processes, procedures, practices and training used by the Licensee on or around the time that this condition was included in this Licence.
c) The Licensee must also require the Expert to provide as part of the final Report:

1. a list of all the documents considered, including copies of any of the Licensee's procedures specifically referenced in the Report;
2. names, roles and organisations of personnel interviewed by the Expert (including their team members) in preparing the Report.

d) The report must consider the following:

E1.4 *Notifications*

a. process for notification of incidents to the EPA to meet the requirements of Part 5.7 of the Act;
b. process for determining incidents that trigger the statutory requirement for notification to the EPA per Part 5.7 of the Act;
c. process for providing information to comply with Part 5.7 of the Act;
d. process for providing further information to the EPA following the initial self-report in an accurate and timely manner to comply with Part 5.7 of the Act;
e. the practices used to implement the processes under a – d in a timely and consistent manner;

E1.5 *Incident Management*

f. roles and responsibilities of personnel involved in incident management including, but not limited to, overseeing of incident response, coordination and implementation of on ground response, liaison with and communication to the EPA, provision of information to the public, and whether roles and responsibilities are sufficiently clear;
g. availability, accessibility and scheduling of suitable plant and personnel resources for all aspects of managing the sewer overflow;
h. process and methodology used to allocate priority when responding to sewer overflows, including relationships to other responses being undertaken by the Licensee;
i. whether the systems, resources, processes, procedures, practices and training in place for monitoring and auditing current processes require improvement and if so, the reasons, to meet the requirements of Condition O3.1 of the EPLs;

E1.6 *Rectification of faults and sewage containment*

j. processes or procedures for response to, and rectification of, faults;
k. adequacy of processes and procedures for achieving timely and satisfactory fault rectification;
l. processes or procedures for implementation of sewage containment strategies;
m. adequacy of processes and procedures for achieving timely implementation of sewage containment strategies;
n. adequacy and effectiveness of the methods for, and execution of, sewage containment, to meet the requirements of Condition O3.1 of the EPLs;

E1.7 *Management of environmental and health impacts resulting from sewer overflows*

o. assessment methodology for determining environmental and health impacts resulting from sewer

overflows;
p. assessment methodology for determining appropriate clean-up strategies to remediate the environment and reduce risk to public health;
q. processes or procedures for achieving timely implementation of clean-up strategies;
r. types of environmental remediation works utilised to clean-up after sewer overflows;
s. effectiveness of environmental remediation works utilised to clean-up after sewer overflows;
t. types of remediation works utilised for reducing public health risks from sewer overflows;
u. effectiveness of remediation works utilised for reducing public health risks from sewer overflows;
v. assessment methodology for determining the adequacy of clean-up strategies; and
w. environmental impact of clean-up strategies, to meet the requirements of Condition O3.1 of the EPLs;

E1.8 *Risk communication*

x. methods used to communicate potential health risks from sewer overflows to potentially affected parties to meet the requirements of Condition O3.1 of the EPLs. This may include but is not limited to signage, door knocking, written notification and physical barriers;
y. processes for achieving timely implementation of communication referred to in (x) to meet the requirements of Condition O3.1 of the EPLs;
z. adequacy and appropriateness of communication methods deployed; and

E1.9 *Training*

aa. adequacy of the Licences' requirements for staff competency in relation to incident management, fault rectification, assessment of environmental and health risks and undertaking remediation works, including staff training provided by the Licensee.

E1.10 **Report**

a) The Licensee must submit to the EPA's Regional Manager Operations - Metropolitan Infrastructure a draft Report ("Draft Report"), being a report prepared by the Expert (and their team) covering all of the matters described in conditions E1.3-E1.9, six months after the Expert is engaged (condition E1.2 d).
b) The Licensee must ensure the Draft Report is updated to address any comments made by the EPA.
c) The Licensee must submit to the EPA's Regional Manager Operations - Metropolitan Infrastructure the final Report one month after the EPA's comments have been provided (condition E1.10 b).

E1.11 **Implementation of the Report Recommendations**

a) The Licensee must submit an Implementation Plan to the EPA's Regional Manager Operations - Metropolitan Infrastructure by no later than two months after acceptance of the final Report by the EPA (condition E1.10 c).
b) The Implementation Plan must:

1. identify what actions the Licensee proposes to take in response to the Report from the Expert;
2. propose a timeframe for these action(s); and
3. provide an explanation for the Licensee's proposals where there is any variance from the recommendations in the final Report.

Environment Protection Licence

Licence - 12235

E2 Special Dictionary

E2.1

Term	Definition
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 Protection of the Environment Operations Act 1997.
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.
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.
dry weather	Dry weather occurs when less than 10 millimitres 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.

Environment Protection Licence

Licence - 12235

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 Protection of the Environment Operations Act 1997.
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 Protection of the Environment Operations Act 1997.
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.
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.

Environment Protection Licence

Licence - 12235

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 or uncontrolled overflows.
waters	Has the same meaning as in the Protection of the Environment Operations Act 1997.
waterways	Means the whole or any part of any river, stream, lake, lagoon, swamp, wetlands, natural or artificial watercourse, dam or tidal waters (including the sea), but does not include watercourses that are dry at the commencement of the overflow, or underground pipes, channels or gutters designed to receive or pass rainwater.
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.

Environment Protection Licence

Licence - 12235

Dictionary

General Dictionary

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

Environment Protection Licence

Licence - 12235

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

Environment Protection Licence

Licence - 12235

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

Mr Neale Philip

Environment Protection Authority

(By Delegation)

Date of this edition: 23-December-2004

Environment Protection Licence

Licence - 12235

End Notes

1	Licence varied by notice 1044480, issued on 27-Oct-2005, which came into effect on 21-Nov-2005.
2	Licence varied by notice 1061022, issued on 01-Aug-2006, which came into effect on 01-Aug-2006.
3	Licence fee period changed by notice 1072609 approved on 26-Apr-2007.
4	Licence varied by correction to DEC LGA record, issued on 15-May-2007, which came into effect on 15-May-2007.
5	Licence varied by notice 1074762, issued on 29-Jun-2007, which came into effect on 29-Jun-2007.
6	Licence varied by notice 1081518, issued on 16-Sep-2008, which came into effect on 16-Sep-2008.
7	Licence varied by notice 1092478, issued on 05-Nov-2008, which came into effect on 05-Nov-2008.
8	Condition A1.3 Not applicable varied by notice issued on <issue date> which came into effect on <effective date>
9	Licence varied by admin corrections to annual return, issued on 02-Jul-2009, which came into effect on 02-Jul-2009.
10	Licence varied by notice 1116054, issued on 02-Jul-2010, which came into effect on 02-Jul-2010.
11	Licence varied by notice 1129009, issued on 27-Jun-2011, which came into effect on 27-Jun-2011.
12	Licence varied by notice 1504906 issued on 28-Jun-2012
13	Licence format updated on 26-Feb-2014
14	Licence varied by notice 1528931 issued on 23-Mar-2015
15	Licence varied by notice 1538209 issued on 19-Feb-2016
16	Licence varied by notice 1539419 issued on 07-Apr-2016
17	Licence varied by notice 1542297 issued on 27-Jul-2016
18	Licence varied by notice 1572516 issued on 30-Nov-2018
19	Licence varied by notice 1577329 issued on 25-Mar-2019
20	Licence varied by notice 1580211 issued on 01-Jul-2019
21	Licence varied by notice 1586319 issued on 04-Oct-2019
22	Licence varied by notice 1587680 issued on 31-Oct-2019

Environment Protection Licence

Licence - 12235