



Environment Protection Licence

Licence - 2647

<u>Licence Details</u>	
Number:	2647
Anniversary Date:	01-January

<u>Licensee</u>
CENTRAL COAST COUNCIL
PO BOX 20
WYONG NSW 2259

<u>Premises</u>
CENTRAL COAST COUNCIL NORTH SEWAGE TREATMENT SCHEME
WILFRED BARRETT DRIVE
NORAVILLE NSW 2263

<u>Scheduled Activity</u>
Sewage treatment

<u>Fee Based Activity</u>	<u>Scale</u>
Sewage treatment processing by large plants	> 10000-20000 ML annual maximum volume of discharge

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Information about this licence

Dictionary

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

Responsibilities of licensee

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

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

Variation of licence conditions

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

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

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

Duration of licence

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

Licence review

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

Fees and annual return to be sent to the EPA

For each licence fee period you must pay:

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



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

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

Transfer of licence

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

Public register and access to monitoring data

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

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

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

This licence is issued to:

CENTRAL COAST COUNCIL
PO BOX 20
WYONG NSW 2259

subject to the conditions which follow.



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1 Administrative Conditions

A1 What the licence authorises and regulates

A1.1 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 large plants	> 10000 - 20000 ML annual maximum volume of discharge

A1.2 The objectives of this licence are to:

- a) prevent as far as practicable sewage overflows and sewage treatment plant bypasses;
- b) require proper and efficient management of the system to minimise harm to the environment and public health; and
- c) require practical measures to be taken to protect the environment and public health from sewage overflows and sewage treatment plant effluent.

A1.3 This licence is to be construed in a manner that will promote the objectives referred to in the condition above.

A2 Premises or plant to which this licence applies

A2.1 The licence applies to the following premises:

Premises Details
CENTRAL COAST COUNCIL NORTH SEWAGE TREATMENT SCHEME
WILFRED BARRETT DRIVE
NORAVILLE
NSW 2263
LOT 11 DP 632403
INCLUDING TOUKLEY SEWAGE TREATMENT PLANT (STP) WYONG SOUTH STP, GWANDALAN STP, MANNERING PARK STP, CHARMHAVEN STP AND THEIR ASSOCIATED SEWERAGE NETWORKS.

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 Information supplied to the EPA



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A3.1 Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence.

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

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

2 Discharges to Air and Water and Applications to Land

P1 Location of monitoring/discharge points and areas

- P1.1 The following 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.
- P1.2 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.

Water and land

EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description
1		Discharge to waters	Ocean outfall structure at Norah Head labelled 'Discharge Point 1' on map titled "Licensed Premises Information EPL 2647 - Toukley STP" dated 07/09/2021 and filed as EPA document DOC21/786028.
2	Volume monitoring		All flows to the Norah Head Outfall labelled "Volume Monitoring Point 2" on map titled "Licensed Premises Information EPL 2647 - Toukley STP" dated 07/09/2021 and filed as EPA document DOC21/786028..
3	Volume monitoring		Sewer Pump Station TO01 labelled '2647 Volume Monitoring Point 3' on map titled "Licensed Premises Information EPL 2647 Toukley STP 2" dated 08/08/2022 and filed as EPA document DOC22/756039

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4	Volume monitoring		Wyong South STP effluent pump station labelled "Volume Monitoring Point 4" on map titled "Licensed Premises Information EPL 2647 - Wyong South STP" dated 29/09/2021 and filed as EPA document DOC21/888133.
5	Volume monitoring		Charmhaven STP effluent pump station labelled "Volume Monitoring Point 5" on map titled "Licensed Premises Information EPL 2647 - Charmhaven STP" dated 29/09/2021 and filed as EPA document DOC21/888133.
6	Effluent quality monitoring		Combined final effluent from all STPs located at the Effluent Collection Tank, labelled 'Quality Monitoring Point 6' on map titled "Licensed Premises Information EPL 2647 - Toukley STP" dated 07/09/2021 and filed as EPA document DOC21/786028
7	Discharge to waters Volume monitoring	Discharge to waters Volume monitoring	The outlet to sand dunes disposal area labelled "Volume Monitoring Point 7" on map titled "Licensed Premises Information EPL 2647 - Toukley STP" dated 07/09/2021 and filed as EPA document DOC21/786028.
8	Volume monitoring		Mannering Park STP effluent pump station labelled "Volume Monitoring Point 8" on map titled "Licensed Premises Information EPL 2647 - Mannering Park STP" dated 29/09/2021 and filed as EPA document DOC21/888133.
9	Volume monitoring		Gwandalan STP effluent pump station labelled "Volume Monitoring Point 9" on map titled "Licensed Premises Information EPL 2647 - Gwandalan STP" dated 07/09/2021 and filed as EPA document DOC21/786028.
10	Volume monitoring		ewer Pump Station TO01a labelled '2647 Volume Monitoring Point 10' on map titled "Licensed Premises Information EPL 2647 Toukley STP 2" dated 08/08/2022 and filed as EPA document DOC22/DOC22/756039
11	Volume monitoring		Sewer Pump Station TO06 labelled '2647 Volume Monitoring Point 11' on map titled "Licensed Premises Information EPL 2647 Toukley STP 2" dated 08/08/2022 and filed as EPA document DOC22/756039

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12	Volume monitoring	Sewer Pump Station TO22 labelled '2647 Volume Monitoring Point 12' on map titled "Licensed Premises Information EPL 2647 Toukley STP 2" dated 08/08/2022 and filed as EPA document DOC22/756039
13	Ambient water monitoring	The waters of Cabbage Tree Harbour (to the north of Norah Head) labelled as 'Quality Monitoring Point 13' on map titled "Licensed Premises Information EPL 2647 - Toukley STP" dated 07/09/2021 and filed as EPA document DOC21/786028.
14	Ambient water monitoring	The waters off Soldiers Beach (to the south of Norah Head) labelled as 'Quality Monitoring Point 14' on map titled "Licensed Premises Information EPL 2647 - Toukley STP" dated 07/09/2021 and filed as EPA document DOC21/786028.
15	Effluent Quality Monitoring	Wyong South STP - final effluent discharge to Wet Weather Pond/Ocean Outfall labelled "Quality Monitoring Point 15" on map titled "Licensed Premises Information EPL 2647 - Wyong South STP" dated 29/09/2021 and filed as EPA document DOC21/888133.
16	Effluent Quality Monitoring	Gwandalan STP - final effluent discharge to Wet Weather Pond labelled "Quality Monitoring Point 16" on map titled "Licensed Premises Information EPL 2647 - Gwandalan STP" dated 07/09/2021 and filed as EPA document DOC21/786028.
17	Effluent Quality Monitoring	Mannering Park STP - final effluent discharge to Wet Weather Pond labelled "Quality Monitoring Point 17" on map titled "Licensed Premises Information EPL 2647 - Mannering Park STP" dated 29/09/2021 and filed as EPA document DOC21/888133.
18	Effluent Quality Monitoring	Charmhaven STP - final effluent discharge to Wet Weather Pond labelled "Quality Monitoring Point 18" on map titled "Licensed Premises Information EPL 2647 - Charmhaven STP" dated 29/09/2021 and filed as EPA document DOC21/888133.

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19	Effluent Quality Monitoring	Toukley STP - final effluent discharge to the Effluent Collection Tank labelled 'Quality Monitoring Point 19' on map titled "Licensed Premises Information EPL 2647 - Toukley STP" dated 07/09/2021 and filed as EPA document DOC21/786028.
20	Volume Monitoring	Inflow to Wyong South STP labelled "Volume Monitoring Point 20" on map titled "Licensed Premises Information EPL 2647 - Wyong South STP" dated 29/09/2021 and filed as EPA document DOC21/888133.
21	Volume Monitoring	Inflow to Charmhaven STP labelled "Volume Monitoring Point 21" on map titled "Licensed Premises Information EPL 2647 - Charmhaven STP" dated 29/09/2021 and filed as EPA document DOC21/888133.
22	Volume Monitoring	Inflow to Gwandalan STP as labelled "Volume Monitoring Point 22" on map titled "Licensed Premises Information EPL 2647 - Gwandalan STP" dated 07/09/2021 and filed as EPA document DOC21/786028.
23	Volume Monitoring	Inflow to Mannering Park STP labelled "Volume Monitoring Point 23" on map titled "Licensed Premises Information EPL 2647 - Mannering Park STP" dated 29/09/2021 and filed as EPA document DOC21/888133.
24	Volume Monitoring	Inflow to Toukley STP labelled "Volume Monitoring Point 24" on map titled "Licensed Premises Information EPL 2647 - Toukley STP" dated 07/09/2021 and filed as EPA document DOC21/786028.
25	Volume Monitoring	Sewer Pump Station TO36 labelled '2647 Volume Monitoring Point 25' on map titled "Licensed Premises Information EPL 2647 Toukley STP 2" dated 08/08/2022 and filed as EPA document DOC22/756039.

P1.3 The following points referred to in the table below are identified in this licence for the purposes of weather and/or noise monitoring and/or setting limits for the emission of noise from the premises.

Noise/Weather



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EPA identi- fication no.	Type of monitoring point	Location description
26	Meteorological Station	Rain gauge located at Toukley Sewage Treatment Plant labelled '2647 Weather Monitoring Point 26' on map titled "Licensed Premises Information EPL 2647 Toukley STP 2" dated 08/08/2022 and filed as EPA document DOC22/756039

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 The licensee may only discharge untreated or partially treated sewage from the sewage treatment plant and/or the reticulation system subject to the conditions of this licence, including Sections O1 and O2.

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.
- 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 (Coastal Water)	
Cadmium (Coastal Water)	14.00
Chromium (Coastal Water)	14.00
Copper (Coastal Water)	160.00
Lead (Coastal Water)	14.00
Mercury (Coastal Water)	2.00
Nitrogen (total) (Coastal Water)	175750.00
Oil and Grease (Coastal Water)	40036.00
Pesticides and PCBs (Coastal Water)	3.00
Phosphorus (total) (Coastal Water)	
Selenium (Coastal Water)	14.00
Total suspended solids (Coastal Water)	150450.00
Zinc (Coastal Water)	280.00



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L2.3 The load limits referred to in condition L2.1 do not apply to discharges from the reticulation system.

Note: The volume limit and load limits for TSS and Nitrogen were reviewed and varied in June 2010 in line with the increased population within the Toukley Sewage Treatment Scheme Catchment

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

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 1,7

Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Ammonia	milligrams per litre				TBD
BOD	milligrams per litre				TBD
Oil and Grease	milligrams per litre		10	15	TBD
pH	pH				6.5-8.5
Total suspended solids	milligrams per litre		50	60	TBD

POINT 15,16,17

Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
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Ammonia	milligrams per litre	TBD
BOD	milligrams per litre	TBD
Oil and Grease	milligrams per litre	TBD
pH	pH	TBD
Total suspended solids	milligrams per litre	TBD

POINT 18

Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Ammonia	milligrams per litre				TBD
BOD	milligrams per litre				TBD
Oil and Grease	milligrams per litre				TBD
pH	pH				TBD
Total suspended solids	milligrams per litre				TBD

POINT 19

Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Ammonia	milligrams per litre				TBD
BOD	milligrams per litre				TBD
Oil and Grease	milligrams per litre				TBD
pH	pH				TBD
Total suspended solids	milligrams per litre				TBD



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Note: Following a review of treatment technologies in place at each sewage treatment plant and on completion of Pollution Reduction Study 4, it is the EPA's intention in 2024 to review data from monitoring locations that were added in 2021 (Points 15-19) and set 100 percentile limits . At this time the 90 percentile and 3DGM limits will be removed.

L3.5 The monitoring conducted at Point 6 is used to determine compliance with the limits set for Points 1 and 7.

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
1	kilolitres per day	60000

L4.2 The monitoring conducted at Point 2 is used to determine compliance with the volume limit shown for Point 1.

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 and liquid waste generated outside the premises for treatment, processing or reprocessing at the premises. The licensee must take reasonable steps to ensure that sewage and liquid waste 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 and liquid waste 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 Potentially offensive odour

L6.1 No condition in this licence identifies a potentially offensive odour for the purposes of section 129 of the Protection of the Environment Operations Act 1997.

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Note: Section 129 of the Protection of the Environment Operations Act 1997 provides that the licensee must not cause or permit the emission of any offensive odour from the premises but provides a defence if the emission is identified in the relevant environment protection licence as a potentially offensive odour and the odour was emitted in accordance with the conditions of a licence directed at minimising odour.

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.

Note: The requirements of O1.1 apply to the whole of the premises, including the reticulation system.

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.

Note: The requirements of O2.1 apply to the whole of the premises, including the reticulation system.

O3 Emergency response

O3.1 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. These measures are to be implemented as soon as practical after the licensee or one of the licensee's employees or agents becomes aware of the overflow or bypass.

Note: The licensee must maintain, and implement as necessary, a current Pollution Incident Response Management Plan (PIRMP) for the premises. The licensee must keep the incident response plan on the premises at all times. The incident response plan must document systems and procedures to deal with all types of incidents (e.g. spills, explosions or fire) that may occur at the premises or that may be associated with activities that occur at the premises and which are likely to cause harm to the environment.

The PIRMP must be tested annually or following a pollution incident.

The licensee must develop the Pollution Incident Response Management Plan in accordance with the requirements of Part 7A of the Protection of the Environment Operations (POEO) Act 1997 and POEO regulations.

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O4 Processes and management

- O4.1 The licensee must ensure that any extensions to the reticulation system are planned, designed, constructed and installed to prevent as far as practicable overflows from the premises.

Note: "The premises" includes both the new and the previously existing parts of the sewage treatment system.

- O4.2 The licensee must ensure that all chemicals, fuels and oils stored at the premises are contained within appropriately designed bunded areas that meet the following requirements:

- a) comply with any relevant Australian Standards for the liquids being stored; and
- b) have impervious flooring and walls; and
- c) have a minimum capacity of 110% of the volume of the largest container stored within the bund; and
- d) not have a drain valve incorporated in the bund structure.

Note: Additional information on bunding design, construction and maintenance can be found in the EPA's Guide: "Storing and Handling Liquids: Environmental Protection, Participants Manual".

O5 Waste management

- O5.1 Biosolids sludge generated at the premises must be stored, treated, processed, classified, transported and disposed in accordance with the EPA's Environmental Guidelines: Use and Disposal of Biosolids and Biosolids Products (1997).

O6 Other operating conditions

- O6.1 Prohibition on acceptance of pesticides

The licensee must not consent to the receipt of organochlorine pesticides (including dieldrin, heptachlor and chlordane) into the sewage system.

- O6.2 New sewage pumping stations

Dry weather overflows resulting in pollution of waters from any sewage pumping station(s) installed within the sewage treatment system after January 2004 are not permitted.

- O6.3 Appropriate treatment processes

Sewage or effluent must not be discharged from Point(s) 1 and 7 unless it has been treated in accordance with the requirements of the table below.

The flows noted in the table below are the inflows to the premises' sewage treatment plant(s).



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Required treatment process	Flow range
Toukley Wastewater Treatment Plant must at least receive screening, degritting, primary sedimentation and secondary treatment	All liquid waste inflow less than 830L/s
Toukley Wastewater Treatment Plant must at least receive screening, degritting, primary sedimentation	All liquid waste inflow above 830L/s
Wyong South, Gwandalan, Mannering Park and Charmhaven Wastewater Treatment Plants must receive screening and biological treatment	All liquid waste inflow
The licensee may receive flows from the Catherine Hill Bay STP provided the effluent is fully treated via screening, degritting, biological treatment and membrane filtration and discharged only to the Gwandalan STP Balance/Wet Weather Pond	All liquid waste inflow

O6.4 The licensee may divert treated effluent to Point 7 for periods up to fourteen days for the purpose of allowing inspection and maintenance of the outfall tunnel. Effluent must not be discharged at any other time, except with the written approval of the EPA.

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:
- M2.2 Water and/ or Land Monitoring Requirements



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POINT 6

Pollutant	Units of measure	Frequency	Sampling Method
Aldrin	micrograms per litre	Special Frequency 1	Grab sample
alpha-BHC	micrograms per litre	Special Frequency 1	Grab sample
Ammonia	milligrams per litre	Fortnightly	Composite sample
beta-BHC	micrograms per litre	Special Frequency 1	Grab sample
BOD	milligrams per litre	Fortnightly	Composite sample
Cadmium	micrograms per litre	Special Frequency 1	Grab sample
Chlordane (cis & trans)	micrograms per litre	Special Frequency 1	Grab sample
Chromium	micrograms per litre	Special Frequency 1	Grab sample
Copper	micrograms per litre	Special Frequency 1	Grab sample
Dieldrin	micrograms per litre	Special Frequency 1	Grab sample
Endosulfan	micrograms per litre	Special Frequency 1	Grab sample
Endrin	micrograms per litre	Special Frequency 1	Grab sample
gamma-BHC (Lindane)	micrograms per litre	Special Frequency 1	Grab sample
Heptachlor	micrograms per litre	Special Frequency 1	Grab sample
Heptachlor epoxide	micrograms per litre	Special Frequency 1	Grab sample
Hexachlorobenzene	micrograms per litre	Special Frequency 1	Grab sample
Lead	micrograms per litre	Special Frequency 1	Grab sample
Mercury	micrograms per litre	Special Frequency 1	Grab sample
Methoxychlor	micrograms per litre	Special Frequency 1	Grab sample
Oil and Grease	milligrams per litre	Fortnightly	Composite sample
p,p-DDD	micrograms per litre	Special Frequency 1	Grab sample
p,p-DDE	micrograms per litre	Special Frequency 1	Grab sample
p,p-DDT	micrograms per litre	Special Frequency 1	Grab sample
PCBs	micrograms per litre	Special Frequency 1	Grab sample
pH	pH	Fortnightly	Composite sample
Selenium	micrograms per litre	Special Frequency 1	Grab sample
Total suspended solids	milligrams per litre	Fortnightly	Composite sample
Zinc	micrograms per litre	Special Frequency 1	Grab sample

POINT 13,14

Pollutant	Units of measure	Frequency	Sampling Method
Enterococci	colony forming units per 100 millilitres	Special Frequency 2	Grab sample
Faecal Coliforms	colony forming units per 100 millilitres	Special Frequency 2	Grab sample

POINT 15,16,17,18

Pollutant	Units of measure	Frequency	Sampling Method
Ammonia	milligrams per litre	Fortnightly	Grab sample
BOD	milligrams per litre	Fortnightly	Grab sample



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Oil and Grease	milligrams per litre	Fortnightly	Grab sample
pH	pH	Fortnightly	Grab sample
Total suspended solids	milligrams per litre	Fortnightly	Grab sample

POINT 19

Pollutant	Units of measure	Frequency	Sampling Method
Ammonia	milligrams per litre	Fortnightly	Grab sample
BOD	milligrams per litre	Fortnightly	Grab sample
Oil and Grease	milligrams per litre	Fortnightly	Grab sample
pH	pH	Fortnightly	Grab sample
Total suspended solids	milligrams per litre	Fortnightly	Grab sample

M2.3 For the purposes of the table(s) above Special Frequency 1 means the collection of samples at least twice each reporting period and at a minmium of 5 monthly intervals.

For the purposes of the table(s) above Special Frequency 2 means the collection of samples at least 5 times per month with the interval between sampling not less that 2 days and not more that 7 days.

M2.4 Whenever the concentration monitoring for Total Suspended Solids and Oil and Grease indicates a concentration higher that the 90 percentile limits specified in L3.3, samples must be collected daily for Total Suspended Solids and Oil and Grease on both of the 2 days immediately following the days that samples were collected for M2.1.

M3 Testing methods - concentration limits

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

M4 Testing methods - load limits

Note: Division 4 of the *Protection of the Environment Operations (General) Regulation 2022* 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 Weather monitoring

M5.1 At the point(s) identified below, the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1 of the table below, using the corresponding sampling method, units of measure, averaging period and sampling frequency, specified opposite in the Columns 2, 3, 4 and 5 respectively.



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POINT 26

Parameter	Sampling method	Units of measure	Averaging period	Frequency
Rainfall	AM-4	millimetres	24 hours	Continuous

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.
- M7.4 For the purpose of condition M7.1, operating hours are defined as twenty-four hours a day, seven days a week.
- M7.5 The public notification referred to in condition M7.2 must include specific reference to the fact that the complaints line may be used by the community for the reporting of overflows.



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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 2

Frequency	Unit of Measure	Sampling Method
Continuous	kilolitres per day	Flow meter and continuous logger

POINT 7

Frequency	Unit of Measure	Sampling Method
Daily during any discharge	kilolitres per day	Special Method 1

POINT 20,21,22,23,24

Frequency	Unit of Measure	Sampling Method
Continuous	kilolitres per day	Flow meter and continuous logger

- M8.2 For the purpose of the table(s) above Special Method 1 means monitoring volume at Points 3, 10, 11 and 12 by calculation (volume flow rate or pump capacity multiplied by operating time), and adding these volumes
- M8.3 Equipment used to monitor the volume must provide data that is within 5 percent of the actual volume over the likely full range of flow required to be measured by the equipment.

Note: Note: In regard to the flow monitoring at Points 20-24, which was added to the licence in October 2021, the licensee was unsure if the existing flow measurement methods in place at Points 20-24 can meet the requirements of this condition. This condition does not apply to the flow monitoring at Points 20-24. It is the EPA's intention to remove this Note once this issue is resolved.

- M8.4 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 estimated using another agreed method approved in writing by the EPA. This provision only applies for the duration of the failure or malfunction. The licensee is to rectify the failure or malfunction as soon as practicable.
- M8.5 For the purposes of condition M8.4, the alternative method approved by the EPA is as follows:

For each monitoring point specified below the licensee must monitor the volume of liquid discharged at the frequency and using the method and units of measure, specified below.

POINTS 3, 4, 5, 8, 9, 10, 11 and 12.

Frequency	Unit of Measure	Sampling Method
Continuous	kL/Day	By calculation (volume flow rate or pump capacity multiplied by operating time)

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M8.6 The total estimated volume of discharge from the premises as referred to in condition M8.4 is to be determined by adding the respective volumes from Points 3, 4, 5, 10, 11 and 12.

M8.7 The licensee must:

- a) submit in writing to the EPA a proposal for a method of volume estimation; or
- b) use a method of volume estimation already approved in writing by the EPA,

to be used in the event that essential monitoring equipment referred to in the previous condition has failed or malfunctioned.

M9 Requirement to record bypass incidents from sewage treatment plants

M9.1 The licensee must record the following details in respect of each bypass of any of the appropriate treatment processes required by condition O6.3 which may be reasonably expected to adversely affect the quality of the final discharge:

- a) the EPA point identification number through which the bypass discharged;
- b) the date, estimated start time and estimated duration of the bypass;
- c) the estimated volume of the bypass;
- d) the level of treatment of the sewage at the STP prior to discharge;
- e) the probable cause of the bypass;
- f) any actions taken to stop the bypass happening; and
- g) any actions taken to prevent the bypass happening again.

M9.2 The licensee must record the following details in relation to each observed or reported overflow from the reticulation system and from the sewage treatment plant:

- a) the location of the overflow;
- b) the date, estimated start time and estimated duration of the overflow;
- c) the estimated volume of the overflow;
- d) a description of the receiving environment of the overflow;
- e) classification as a dry or wet weather overflow;
- f) the probable cause of the overflow;
- g) any actions taken to stop the overflow happening;
- h) any actions taken to clean up the overflow; and
- i) any actions taken to prevent the overflow happening again.

M10 Other monitoring and recording conditions

M10.1 Biosolids at the premises must be recorded, monitored and classified in accordance with the Biosolids Guidelines, to the extent that those Guidelines are applicable, or as otherwise approved in writing by the EPA.

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6 Reporting Conditions

R1 Annual return documents

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

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 notification that the Annual Return is due.

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.

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- 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 they became aware of the incident.

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.

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R4 Other notifications

R4.1 Where either:

- a) sewage or partially treated sewage is discharged from the premises as a result of a bypass of the sewage treatment plant, or:
- b) an observed or reported overflow has occurred from the reticulation system, and overflow or bypass may pose a risk to public health, the licensee is to promptly give appropriate notification to any parties that are likely to be affected, including:
 - i) the potentially affected community;
 - ii) the Department of Health;
 - iii) the NSW Food Authority Shellfish Quality Assurance Program, where a bypass or overflow could have potential impacts on shellfish production.

R4.2 Where sewage or partially treated sewage is discharged from the premises as a result of a bypass of the sewage treatment plant, the licensee must notify Beachwatch by telephone on (02) 9995 5344 or via email at beachwatch@environment.nsw.gov.au. Notifications are to be given as soon as practicable after the licensee or one of the licensee's employees or agents become aware of the incident, and must include all relevant information including the information required under condition M9.1.

Note: These reporting requirements are in addition to the licensee's general obligation as described in condition R2 to report incidents which cause or threaten material harm to the environment. A notification may satisfy the requirements of both R2 and R4.

R5 Annual system performance report

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

R5.2 The report is to supplement the Annual Return and must include but need not be limited to:

- a) the 50 percentile, 90 percentile, and 100 percentile values calculated from the monitoring data required by this licence for the reporting period for each pollutant identified in Condition L3.4;
- b) the total amounts of biosolids, as classified in the Biosolids Guideline, disposed of on-site, off-site and to landfill during the reporting period;
- c) a diagram showing the major process elements, discharge points and monitoring points at the premises' sewage treatment plant(s), where there has been any significant change since the previous reporting period or this information has not been provided previously to the EPA;
- d) the number of dry and wet weather bypasses recorded over the reporting period (recorded in accordance with condition M9);
- e) a breakdown of the total number of complaints received by the licensee during the reporting period in relation to the premises into categories of "odours – sewage treatment plant", "odours – reticulation system", "water pollution – sewage treatment plant", "water pollution – reticulation system" and any other category indicated by the complaints;
- f) a summary of observed, reported or recorded wet weather overflows and observed, reported or recorded dry weather overflows and sewage treatment plant bypasses. These data are to be for the current reporting

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period and for the four previous twelve-month periods, for which data has been collected. Any significant actions taken to address bypasses or overflows are to be noted; and

g) the amount of rainfall measured at a rain gauge at the STP, or at the rain gauge closest to the centre of the catchment of the sewage treatment system, for each month of the reporting period.

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

R6 Other reporting conditions

R6.1 When the licensee notifies the Department of Health or NSW Food Authority Shellfish Quality Assurance Program of a bypass or overflow incident, the licensee must also notify the EPA by telephoning its Pollution Line service on 131555. Notifications are to be given as soon as practicable after the licensee or one of the licensee's employees or agents becomes aware of the incident, and must include all relevant information including the information required under condition M9.1 or M9.2.

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.

Note: For the purposes of this condition, "the premises" refers to each Sewage Treatment Plant(s) described in condition A2.1.

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 subsequent 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

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- G3.1 The location of EPA point number(s) 2,3,4,5,6,7,8,9,10,11,12,15,16,17,18,19,20,21,22,23 and 24 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 Pollution Studies and Reduction Programs

U1 Pollution Reduction Study 4 - Review of Treated Effluent Quality Data and Propose Appropriate Limits

U1.1 Background

The Central Coast Council North Sewage Treatment Scheme comprises the Toukley, Gwandalan, Charmhaven, Wyong South and Mannering Park sewage treatment plants (STPs). Currently pollutant limits are set only at Points 1 and 7 as described in this licence and are reflective of all inflows from the STPs described above. The EPA understands that monitoring effluent quality is undertaken by the Licensee for all of the above STPs at various positions post treatment and prior to discharge from either Point 1 or Point 7.

To better understand the performance for all STPs the EPA in 2021 required effluent quality monitoring of the treated effluent from each STP and intends to use the submission from this PRS to determine appropriate 100 percentile pollutant limits for all STPs in the scheme.

Deliverables

The licensee must review effluent quality data for all constituent STPs identified in this licence for at least 2 years and provide a report to the EPA that proposes appropriate 100 percentile pollutant limits based on the plant design and reviewed data. The report must include but is not limited to the following.

1. Proposed 100 percentile limits for Oil and Grease, pH, Total Suspended Solids, Ammonia and Biochemical Oxygen Demand for all STPs included in the scheme including the existing Points 1 and 7.
2. A full discussion and justification for the proposed 100 percentile limits based on the data review and the unit operations in place at each STP.
3. All raw data used by CCC in deriving the proposed 100 percentile limits.

The Report must be provided to the EPA and addressed to the Director - Metropolitan North by no later than 5PM on Friday 26 January 2024 at RegOps.MetroNorth@epa.nsw.gov.au.

U2 Pollution Reduction Study 5 - Investigation into Inundation of Sewage Infrastructure in Wyong South STP Reticulation System

U2.1 Background

The EPA is aware that during significant rainfall events that a number of sewage pump stations in low lying areas of the Wyong South STP reticulation system became inundated causing issues with system performance and inflows to the STP. The EPA understands that in some instances the pump stations remained inundated for a number of days.

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The EPA further understand that increased inflows into the Wyong South STP reticulation system are also due to low lying property overflow relief gullies as well as from illegal stormwater connections and leaking Council assets.

The Licensee undertook a study and prepared a report into all sewage pump stations within the low lying areas of the Wyong South reticulation system that have become inundated in significant rainfall events and also investigate low lying property overflow relief gullies, illegal stormwater connections and leaking Council assets and provide a report to the EPA.

On 30 June 2023 the EPA received the report. The EPA have reviewed the report and support the recommended actions that the Licensee have outlined.

Deliverables

1. The Licensee must provide ongoing updates on the actions that the report outlined, to be provided to the EPA in 6 monthly progress reports starting on 5 April 2024 until all relevant works are completed. The report must be provided in writing to info@epa.nsw.gov.au.
2. The Licensee must provide to the EPA by 5 April 2024, a project plan that provides reasonable and feasible time frames in which the works and associated final report for this PRS can be completed. The report must be provided in writing to info@epa.nsw.gov.au. The EPA intends that the time frames provided will be used to inform the final completion dates of this PRS.

U3 Pollution Reduction Program 7 - Wyong South and Charmhaven Effluent Ponds Transfer Pump Upgrades

U3.1 Background

The licensee notified the EPA of overtopping events at the Wyong South STP Wet Weather Storage Pond in 2020 and in 2021 due to rainfall events. The licensee notified the EPA of an uncontrolled discharge from the Charmhaven Wet Weather Storage Pond in 2021 due to a rainfall event.

The licensee has advised the EPA of difficulties in drawing down both ponds prior to and following rainfall events due to the current capacity of effluent transfer pumps at both Wyong South and Charmhaven STPs. The current pump capacities at both plants compromises the licensee's ability to efficiently draw down pond volumes in a timely manner prior to and following rainfall events.

The licensee provided a report to the EPA detailing the proposed effluent pump capacity upgrades for both the Wyong South Wet Weather Storage Pond and the Charmhaven Balance Pond to the Toukley STP prior to discharge to the Norah Head Ocean Outfall.

Deliverables

1. The Licensee must provide ongoing updates on the actions that the above report outlined, to be provided to the EPA in 6 monthly reports starting on 5 April 2024 until all relevant works are completed. The report must be provided in writing to info@epa.nsw.gov.au.
2. The Licensee must provide to the EPA by 5 April 2024, a project plan that provides reasonable and

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feasible time frames in which the works and associated final report for this PRP can be completed. The report must be provided in writing to info@epa.nsw.gov.au. The EPA intends that the time frames provided will be used to inform the final completion dates of this PRP.

U4 Pollution Reduction Program 8 - Charmhaven STP Upgrade Project

U4.1 Background

The licensee has provided data to the EPA that shows the Charmhaven Sewage Treatment Plant is currently overloaded. Data provided shows the Charmhaven STP was designed for an Equivalent Population (EP) of 40,000 and is currently servicing an EP of approximately 59,000. Population projection data provided by the licensee shows that the STP can expect a population increase of over 100% by the year 2041.

The licensee provided a scope of works report outlining the upgrades to be carried out to increase the Charmhaven STP to appropriate capacity.

Deliverables

1. The Licensee must provide ongoing updates on the actions that the above report outlined, to be provided to the EPA in 6 monthly reports starting on 5 April 2024 until all relevant works are completed. The report must be provided in writing to info@epa.nsw.gov.au.
2. The Licensee must provide to the EPA by 5 April 2024, a project plan that provides reasonable and feasible time frames in which the works and associated final report for this PRP can be completed. The report must be provided in writing to info@epa.nsw.gov.au. The EPA intends that the time frames provided will be used to inform the final completion dates of this PRP.

U5 Pollution Reduction Study 9 - Norah Head Ocean Outfall Monitoring Program

- U5.1 The licensee must engage a suitably qualified and experienced professional to develop a robust and best practice program that monitors any impacts to ecological or human health receptors in the receiving marine environment from effluent discharges from the Norah Head outfall.

The licensee must provide the EPA with a report that demonstrates and justifies the proposed monitoring methodology against current best practice ecological methodology for monitoring ecological impacts from effluent release to the marine environment. The report must be provided to the EPA at info@epa.nsw.gov.au by no later than 5pm 1 November 2025.

The ecological and human health monitoring and assessment must be conducted 5-yearly.

The first sampling event must be completed in 2026, followed by additional sampling in 2031 and 2036.

Notwithstanding these dates it is anticipated the monitoring frequency and locations will be reviewed following each report.

Reports on each monitoring event must be submitted to the EPA at info@epa.nsw.gov.au by 31 December of

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the year that monitoring was conducted. The report must include statistical interpretation of variation, include any historical data available and an analysis of temporal trends. The report must draw conclusions as to the environmental and human health impact of the outfall and make recommendations for future monitoring and actions.

U6 Pollution Reduction Study 10 – Investigations into the Optimisation and Future Unit Operations at the Toukley STP

U6.1 Background

Central Coast Council (CCC) has provided a report (Response to Pollution Reduction Study 10) to the EPA detailing actions it can take to optimise Toukley sewage treatment plant (STP) operations.

The EPA has reviewed the report and approves CCC carrying out the recommended works to improve the overall efficiency of Toukley STP.

Deliverables

By 1 March 2023 the licensee must provide a written report to the EPA at info@epa.nsw.gov.au detailing the progress of works to optimise Toukley STP. A report detailing the progress of works must then be submitted every 6 months (i.e. by 1 March and 1 September of each year) until works to optimise the STP are completed.

By 26 January 2024 the licensee must conduct an investigation and provide a report to the EPA at info@epa.nsw.gov.au on the future unit operations that will be utilised for effluent treatment at Toukley STP taking into consideration the current design of this STP and effluent quality needs of the receiving environment.

U7 Pollution Reduction Study 11 - Investigation into Inundation of Sewage Infrastructure in Charmhaven STP Reticulation System

U7.1 Background

Ongoing population growth as well as stormwater infiltration due to increased frequency and duration of significant storm events has the potential to lead to increasing inflows to the Charmhaven STP. This has the potential to lead to the need for the plant to process volumes in excess of its design capacity.

A number of programs are being investigated and planned for implementation to ensure that the plant has the ongoing capacity to manage increasing inflow volumes in line with the predicted population growth. These programs include: ensuring adequate storage during wet weather events; improved effluent processing; and enhanced pumping capacity, as well as maintenance of the reticulation system.

The catchment contains a number of challenging environments and factors including low-lying areas subject to

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inundation as well as low-density residential properties spread across a large area.

The intent of this PRS is to ensure the program is focused on mitigative actions that will be most effective in minimising stormwater infiltration and subsequently maximise the efficiency and capacity of the system.

Deliverables

The licensee must conduct a study and prepare a report into all sewage pump stations (SPS) within the Charmhaven reticulation system that have been identified as problematic during significant rainfall events. The report must investigate low lying property overflow relief gullies, illegal stormwater connections, and leaking Council assets. A report must be provided to the EPA providing, but not limited to, the following details:

1. A map showing and describing the relevant SPS that the licensee has identified as a risk of inundation during rainfall events.
2. A list of all low-lying property overflow relief gullies, illegal stormwater connections (where identified) and any leaking Council assets.
3. The height in AHD of the identified SPS against recent floodwater heights (denoted in AHD).
4. A risk based assessment detailing priority remedial works of all identified SPS prone to inundation during rainfall events in the Charmhaven reticulation system.
5. A risk based assessment detailing priority remedial works to address low lying property overflow relief gullies, illegal stormwater connections and leaking Council assets.
6. A scope of works including commencement and completion timelines for all identified remedial works identified in the risk-based assessment of identified SPS, low lying property overflow relief gullies, illegal stormwater connections and leaking Council assets.

The licensee must provide the report to the EPA's Director - Metropolitan North at RegOps.MetroNorth@epa.nsw.gov.au by no later than 5pm, Tuesday 30 June 2026.

U8 Pollution Reduction Program 12 - Wyong South STP Wet Weather Pond Remediation

U8.1 Background

During the significant rainfall events of 2020 and 2021, the Wyong South Wet Weather Storage Pond (WSWWSP) overtopped due to the rate of inflow exceeding the capacity of the plant to store and pump to the outfall. The WSWWSP has no dedicated spillway, and the overtopping events resulted in uncontrolled discharges of treated effluent over the pond wall to downstream waters and subsequently to Ourimbah Creek. At the time of the discharges, the licensee notified the EPA of concerns regarding the structural integrity of the WSWWSP wall and in order to mitigate risk of failure, implemented emergency pumping to Ourimbah Creek to reduce levels in the WSWWSP and subsequently reduce the risk of wall failure.

The licensee subsequently engaged an external consultant to investigate structural wall integrity and recommend mitigative actions. During implementation of the actions from that report, the licensee has identified that over the course of the life of the pond, biosolids have accumulated at the base of the WSWWSP which has created a reduction in depth and volume of capacity.

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The licensee proposes that removal of the accumulated biosolids will significantly increase the storage capacity for WSWWSP during wet weather events. This, combined with ongoing effective pond and reticulation maintenance, will provide increased capacity to manage repeat occurrences of the significant inflows experienced during the 2020 and 2021 rainfall events. However, even with this increased capacity, modelling by the licensee has suggested other pond modifications may also be necessary.

Deliverables

The licensee must engage a suitably qualified and experienced person to investigate and provide a report containing a full scope of works and actions recommended to safely maximise storage capacity and safely deal with high volume inflows and outflows at the WSWWSP.

The licensee must provide a copy of the report along with a plan of upgrade and remediation works and actions to the EPA's Director - Metropolitan North at RegOps.MetroNorth@epa.nsw.gov.au by no later than Friday 30 April 2023.

All works identified in the report must be completed by no later than 5pm Friday 29 December 2024.

U9 Pollution Reduction Program 13 - Charmhaven STP Wet Weather Pond Remediation

U9.1 Background

During the significant rainfall event of March 2021, the Charmhaven STP Wet Weather Storage Pond (CWWSP) overtopped due to the rate of inflow exceeding the capacity of the plant to store and pump to the outfall. The EPA note that the CWWSP has a dedicated spillway and the overtopping event resulted in a controlled discharge of treated effluent via the spillway to downstream waters and subsequently to Wallarah Creek.

During reduction of the levels and operational monitoring in 2021, the licensee identified that over the course of the life of the pond, biosolids have accumulated at the base of the CWWSP which has created a reduction in depth and volume of capacity.

The licensee is of the view that the removal of the accumulated biosolids will significantly increase the storage capacity for CWWSP during wet weather events. This, combined with ongoing effective pond and reticulation maintenance, will provide significant capacity to manage repeat occurrences of the significant inflows experienced during the 2021 rainfall event.

Deliverables

The licensee must engage a suitably qualified and experienced person to investigate and provide a report containing a full scope of works and actions recommended to safely maximise storage capacity of the CWWSP.

The licensee must provide a copy of the report along with the a plan of upgrade and remediation works to the EPA's Director - Metropolitan North at RegOps.MetroNorth@epa.nsw.gov.au by no later than 5pm Friday 31 March 2023.



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All works identified in the report must be completed by no later than 5pm Friday 28 June 2024.

Dictionary

General Dictionary

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



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



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TSP	Means total suspended particles
TSS	Means total suspended solids
Type 1 substance	Means the elements antimony, arsenic, cadmium, lead or mercury or any compound containing one or more of those elements
Type 2 substance	Means the elements beryllium, chromium, cobalt, manganese, nickel, selenium, tin or vanadium or any compound containing one or more of those elements
utilisation area	Means any area shown as a utilisation area on a map submitted with the application for this licence
waste	Has the same meaning as in the Protection of the Environment Operations Act 1997
waste type	Means liquid, restricted solid waste, general solid waste (putrescible), general solid waste (non-putrescible), special waste or hazardous waste
Wellhead	Has the same meaning as in Schedule 1 to the Protection of the Environment Operations (General) Regulation 2021.

Mr Tim Gilbert

Environment Protection Authority

(By Delegation)

Date of this edition: 01-May-2000



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End Notes	
1	Licence varied by notice V/M upgrade, issued on 07-Jul-2000, which came into effect on 07-Jul-2000.
2	Licence varied by notice 1011947, issued on 27-Jun-2002, which came into effect on 22-Jul-2002.
3	Licence varied by notice 1029225, issued on 28-Aug-2003, which came into effect on 22-Sep-2003.
4	Licence varied by notice 1035307, issued on 27-Apr-2004, which came into effect on 22-May-2004.
5	Licence varied by notice 1037770, issued on 20-Jul-2004, which came into effect on 14-Aug-2004.
6	EPA Condition ID S40934 amended 13-08-04
7	Licence varied by notice 1053673, issued on 15-Feb-2006, which came into effect on 12-Mar-2006.
8	Licence varied by notice 1061995, issued on 29-Aug-2006, which came into effect on 29-Aug-2006.
9	Licence varied by notice 1087478, issued on 27-May-2008, which came into effect on 27-May-2008.
10	Condition A1.3 Not applicable varied by notice issued on <issue date> which came into effect on <effective date>
11	Licence varied by notice 1115018, issued on 04-Jun-2010, which came into effect on 04-Jun-2010.
12	Licence varied by notice 1524485 issued on 08-May-2015
13	Licence varied by notice 1544525 issued on 27-Oct-2016
14	Licence varied by notice 1555647 issued on 26-Oct-2017
15	Licence transferred through application 1558516 approved on 09-Nov-2017 , which came into effect on 08-Nov-2017
16	Licence varied by notice 1610454 issued on 19-Oct-2021
17	Licence varied by notice 1621595 issued on 30-Aug-2022
18	Licence varied by notice 1632086 issued on 02-Apr-2024