

Licence Variation

Section 58(5) Protection of the Environment Operations Act 1997



HUNTER WATER CORPORATION,
ABN 46 228 513 446,
PO BOX 5171,
HUNTER REGION MAIL CENTRE NSW 2310
STANDARD POST

Attention: Miss BERNADETTE TISDELL

Notice Number 1019409
File Number 270807
Date 02-Jul-2003

NOTICE OF VARIATION OF LICENCE 1683

BACKGROUND

- A. HUNTER WATER CORPORATION ("the licensee") is the holder of environment protection licence 1683 for Scheduled Activity - Premises Based ("the licence") under the Protection of the Environment Operations Act 1997 ("the POEO Act").
- B. On 26-Jun-2002 the EPA received an application for the variation of the licence. The variation sought was for an increase in the volume limit at the Shortland WWTW to allow for flows from the Stockton and Fern Bay reticulation systems following diversion from the Stockton WWTW.
- C. The EPA has also included the LBL Load Limits for the premises.
- D. The EPA has also included a number of conditions specifically relating to the sewage reticulation system.

VARIATION OF LICENCE 1683

- 1. By this notice the EPA varies licence 1683 as set out in the Appendix. The Appendix is a copy of the licence marked with the variations that are made to it by this notice. *(for licences with a small number of*

Licence Variation

Section 58(5) Protection of the Environment Operations Act 1997



changes where only the conditions will be printed: The Appendix is a copy of the provisions of the licence which are varied by this notice, marked with the variations that are made to them.

2. The variations to the licence are indicated in the following way:
 - if a strike through mark appears through any word or other text (eg. ~~Solids or~~) this indicates that the word or other text is deleted from the licence by this notice; and
 - if a double underline appears under any word or other text (eg. must be treated) this indicates that the word or other text is added to the licence by this notice.
3. Except, as provided by s84(2) of the POEO Act, the variations to the licence by this notice begin to operate at the expiry of the period of 21 days from when you get notice of the variations, unless another date is specified in this notice.
4. Note: Section 84(2) provides that a variation to a licence does not operate until
 - the expiry of the period of 21 days after notice of the decision to vary the licence is given to the licensee, or
 - if an appeal against the decision is lodged, until the Land and Environment Court determines the appeal, or
 - the licensee notifies the EPA in writing that no appeal is to be made against the decision to vary the licence,whichever first occurs.
5. This notice is issued under section 58(5) of the Protection of the Environment Operations Act 1997.

.....
Mr David Darvall
Head Regional Operations Unit
Hunter
(by Delegation)

INFORMATION ABOUT THIS NOTICE

- Section 287 of the Act enables appeals to be made in connection with decisions about a licence application within 21 days after notice of the decision is given to the applicant.
- Details provided in this notice will be available on the EPA's Public Register in accordance with section 308 of the Protection of the Environment Operations Act 1997.

Environment Protection Authority

Environment Protection Licence

Section 55 Protection of the Environment Operations Act 1997

2004

- ♦ Licence number: 1683
- ♦ File number: 270807
- ♦ Licence Anniversary Date: 01-July
- ♦ Review date not later than 01-Jul-2002 03-Dec-2004

Licence Type

Premises

Licensee

HUNTER WATER CORPORATION

PO BOX 5171

HUNTER REGION MCMAIL CENTRE NSW 2310

Licensed Premises

NEWCASTLE SEWERAGE SYSTEM including BURWOOD
BEACH WASTEWATER TREATMENT PLANT

OFF SCENIC DRIVE

MEREWETHER NSW 2291

Fee Based Activity

Sewage Treatment - processing by large plants (>
10000 ML per year) (71[b])

Scale

> 20000 - 30000 ML discharged

EPA Region

Hunter

Ground Floor, NSW Govt Offices, 117 Bull Street

NEWCASTLE WEST NSW 2302

Phone: 02 49086800

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PO Box 488G NEWCASTLE

NSW 2300

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Information about this licence

Dictionary

The licence contains a dictionary, which defines terms used in the licence. It is found at the end of the 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.

Transfer of licence

Transfer of the licence to another person may be requested by the licensee using the form for this purpose available from the EPA.

Variation of licence conditions

Variations to the conditions of this licence may be requested by the licensee using the form for this purpose available from the EPA. The EPA may also vary a 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 3 years after the issue of the licence, as

set out in Part 3.6 of the Act. You will receive advance notice of the licence review. For licences held immediately before 1 July 1999, the first review will take place before 1 July 2002.

Fees and annual return to be sent to the EPA

The licence requires you to forward to the EPA an Annual Return, comprising a Statement of Compliance and a summary of any monitoring required by the licence (including the recording of complaints).

The Annual Return must be submitted within 60 days after the end of each reporting period. Where a licence is transferred, surrendered or revoked, a special reporting period applies.

For each licence fee period you must pay:

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

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

See condition R1 and the accompanying form regarding the Annual Return requirements.

The EPA publication "A Guide to Licensing" contains information about how to calculate your licence fees.

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

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.

Licence anniversary date

01-July

This licence is issued to

HUNTER WATER CORPORATION
PO BOX 5171
HUNTER REGION MCMAIL CENTRE NSW 2310

subject to the conditions which follow:

1 Administrative conditions

A1 What the licence authorises and regulates

A1.1 Not applicable.

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

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

Scheduled Activity
Sewage Treatment Systems

Fee Based Activity	Scale
Sewage Treatment - processing by large plants (> 10000 ML per year) (71[b])	> 20000 - 30000 ML discharged

A1.3 Not applicable.

A2 Premises to which this licence applies

A2.1 The licence applies to the following premises:

Premises Details
NEWCASTLE SEWERAGE SYSTEM including BURWOOD BEACH WASTEWATER TREATMENT PLANT
OFF SCENIC DRIVE
MEREWETHER
NSW
2291
LOT 1 & 7 DP 776283 AND INCLUDING SHORTLAND WASTE WATER TREATMENT PLANT
LOT 1&2 DP 535220; LOT 1 DP 408005; LOT 1 DP 163423; LOT A DP 400052; LOT A & B DP 33943
COBBY STREET, SHORTLAND NSW 2307

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

A3 Other activities

A3.1 Not applicable.

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.

A5 Objectives of this licence

A5.1 The objectives of this licence are to:

- (a) require practical measures to be taken to protect the environment and public health;
- (b) require proper and efficient design, construction and management of the sewage treatment system to minimise harm to public health and the environment; and
- (c) minimise the frequency and volume of overflows from the reticulation system and sewage treatment plant.

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

2 Discharges to air and water and applications to land

P1 Location of monitoring/discharge points and areas

P1.1 Not applicable.

P1.2 The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.

P1.3 The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area.

Water and land

EPA identification no.	Type of monitoring point	Type of discharge point	Description of location
1	Discharge to waters Effluent quality monitoring (Ocean Outfall)	Discharge to waters Effluent quality monitoring (Ocean Outfall)	At the inspection pit down stream of the secondary clarifier and the wet weather bypass chamber at the Burwood Beach WWTP identified as Q1 LDP#1 in HWC Drawing No FC9101, Revision C, December 2001
3	Discharge to waters Sludge quality monitoring Sludge volume monitoring.	Discharge to waters Sludge quality monitoring Sludge volume monitoring.	At the sludge pumping station at the Burwood Beach WWTP identified as Sludge Pump Station LDP#3, F3 & Q2 in HWC Drawing No FC9101, Revision C, December 2001
5	Environmental Monitoring		In the waters of Bar Beach
6	Environmental Monitoring		In the waters of Merewether Beach
7	Environmental Monitoring		In the waters of Burwood Beach
8	Environmental Monitoring		In the waters of Glenrock Beach
9	Environmental Monitoring		In the waters of Dudley Beach
10	Effluent quality monitoring Effluent volume monitoring (Sludge dilution)		Pump well between clarifier and the sludge line at the Burwood Beach WWTP, identified as Q4 LDP#10 and F4 LDP#10 respectively in HWC Drawing No FC9101, Revision C, December 2001.
11	Scum quality monitoring Scum volume monitoring		At the scum pump well at the Burwood Beach WWTP, identified as Q5 LDP#11 and F5 LDP#11 respectively in HWC Drawing No FC9101, Revision C, December 2001
12	Total volume monitoring		Between the primary pump station and the screening / grit removal facility at the Burwood Beach WWTP, identified as F1 LDP#12 in HWC Drawing No FC9101, Revision C, December 2001.
13	Treated volume monitoring		Between the secondary pump station and the secondary treatment works at the Burwood Beach WWTP, identified as F2 LDP#13 in HWC Drawing No FC9101, Revision C, December 2001.
17	Effluent volume monitoring		At the point where the effluent bypasses the secondary pump station at the Burwood Beach WWTP identified as LDP#17 in HWC Drawing No FC9101, Revision C, December 2001
18	Discharge to waters Effluent quality monitoring	Discharge to waters Effluent quality monitoring	Overflow structure of the storm storage pond at Shortland WWTW labelled as "ADP003" on map titled "Site Layout - Drawing No. 14252-05 dated 16 December 1996.
19	Effluent quality monitoring Discharge to Waters	Effluent quality monitoring Discharge to Waters	At the Shortland WWTW dechlorination building, 200m upstream of the outfall diffuser on the Hunter River which is labelled "ADP004" on map titled "Reclaimed Water Rising Main Diffuser Outlet Arrangement - Drawing No. 14253-07" dated 31 Jan 1997.
20	Effluent quality monitoring Discharge to waters	Effluent quality monitoring Discharge to waters	Temporary discharge point near the Kooragang Island Rail Bridge to the Hunter River for the period of 15 April to 31 July 2002 – refer to diagram dated 13 June 2001

P2 — Signage

P2.1 — Each discharge and volume monitoring point must be clearly marked by a sign that indicates the

location and name of the monitoring point.

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 This licence does not permit the pollution of waters classified as Class S or Class P under the Clean Waters Regulation 1972 to the extent that such pollution would breach a standard applicable to those waters by the operation of clause 6 of schedule 5 of the Act.

L1.3 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 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.

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

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

Assessable Pollutant	Load limit (kg)
BOD Phosphorus (total) (Estuarine Waters)	17839
Phosphorus (total) (Open Coastal Waters)	
BOD (Estuarine Waters)	15094
BOD (Open Coastal Waters)	
Cadmium (Estuarine Waters)	2.6
Cadmium (Open Coastal Waters)	124.4
Chromium (Estuarine Waters)	3.9
Chromium (Open Coastal Waters)	223.5
Copper (Estuarine Waters)	51
Copper (Open Coastal Waters)	2080
Lead (Estuarine Waters)	12.8
Lead (Open Coastal Waters)	1472

Assessable Pollutant	Load limit (kg)
Mercury (Estuarine Waters)	1.3
Mercury (Open Coastal Waters)	8.9
Oil and Grease Nitrogen (total) (Estuarine Waters)	33229
Oil and Grease Nitrogen (total) (Open Coastal Waters)	778257
Pesticides Oil and PCBs Grease (Estuarine Waters)	1135
Pesticides Oil and PCBs Grease (Open Coastal Waters)	341290
Selenium Pesticides and PCBs (Estuarine Waters)	0.13
Selenium Pesticides and PCBs (Open Coastal Waters)	7.2
Total Nitrogen Selenium (Estuarine Waters)	1.28
Total Nitrogen Selenium (Open Coastal Waters)	14
Total Phosphorus suspended solids (Estuarine Waters)	29329
Total Phosphorus suspended solids (Open Coastal Waters)	4717189
Total Suspended Solids Zinc (Estuarine Waters)	383.5
Total Suspended Solids Zinc (Open Coastal Waters)	3943
Zinc (Estuarine Waters)	
Zinc (Open Coastal Waters)	

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\.

Water and Land

POINT 1

Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile Concentration Limit
Oil and Grease	mg/L	5	10	15	-
Total Suspended Solids	mg/L	35	50	60	-

POINT 19

Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile Concentration Limit
pH	pH				6.5-8.5
Total Suspended Solids	mg/L	40	80		100
Biochemical Oxygen Demand	mg/L	25	60		80

POINT 20

Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile Concentration Limit
pH	pH				6.5-8.5
Total Suspended Solids	mg/L	40	80		100
Biochemical Oxygen Demand	mg/L	25	60		80

L3.4 ~~Point 19 and 20 – Compliance with limit conditions~~

- ~~L3.4.1~~ For the purpose of determining compliance with the licence limit for pH for point 19 ~~and 20~~, the licensee will be deemed to have complied with the pH licence limit provided the pH of the secondary effluent from the humus tanks entering the tertiary ponds is within the range 6.5-8.5 for more than 90 percent of the samples collected.

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	kL/day	510000
3	kL/day	5000
19	kL/day	20000 31000
20	kL/day	20000

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 Group C waste 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 and Group C 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.

L5.5 Grit or screenings generated by activities on the premises may be disposed of by the licensee within the boundary of the sewage treatment plant(s) on the premises, but only if they are disposed of in a manner that prevents or minimises material harm to the environment.

L6 Noise Limits

L6.1 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:~~

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

~~O2 Maintenance of plant and equipment~~

~~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 Operation of volume monitoring equipment~~

~~L7 Frequency Limits~~

~~O3.1 Flow sensing and recording equipment used to monitor the volume must provide data which is within 5% of the theoretical design of the primary flow structure over the likely full range of flows required to be measured by the equipment.~~

~~L7.1 After 31 May 2004 the licensee must not permit discharges in dry weather from any sewage pumping stations or directed overflow structures within the premises.~~

~~O4 Appropriate treatment processes~~

~~L7.2 Not applicable.~~

~~O4.1 Liquid waste must not be discharged from the premises unless it has been treated in accordance with conditions O4.2 to O4.6.~~

~~Burwood Beach Wastewater Treatment Plant~~

~~O4.2 The portion of the liquid waste inflow that is less than 400L/s must receive screening, de-gritting, biological treatment and clarification.~~

~~This requirement does not apply after 30 June 2002.~~

~~From 1 July 2002 the portion of the liquid waste inflow that is less than 1400L/s must receive~~

screening, de-gritting, biological treatment and clarification.

L8 Potentially offensive odour

L8.1 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.

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.

L9 Additional directed overflow structures

O4.3 The portion of the sewage treatment inflows to the sewage treatment plant that is 400 L/s or more must receive screening and degritting whilst the Activated Biofilter is offline until 30 June 2002.

L9.1 Additional directed overflow structures must not be constructed within the sewage treatment system unless the directed overflow structure is essential for the proper and efficient operation of the system.

Before constructing an additional directed overflow structure, the licensee must prepare a written report assessing the following issues for the purposes of this condition:

- (a) risk of harm to public health, environment or property if the proposed directed overflow structure is not constructed;
- (b) risk of harm to public health and the receiving environment if an overflow from the directed overflow structure occurred;
- (c) systems to be used to monitor overflows, power failures or mechanical failures of pumping or electrical equipment relating to or affecting the proposed directed overflow structure; and
- (d) ability of the licensee to respond to overflows from the proposed directed overflow structure and to minimise the impact on the environment and public health.

L9.2 The report must be:

- (a) kept for at least 4 years after the report is made or the directed overflow structure is constructed, whichever is later; and
- (b) produced in a legible form to any authorised officer of the EPA who asks to see it.

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 Appropriate treatment processes

O3.1 Sewage or effluent discharged must not be discharged from Point(s) 1, 3, 18, and 19 unless it has been treated in accordance with this condition.

Burwood Beach Wastewater Treatment Plant

O3.2 The portion of sewage inflows to the sewage treatment plant less than 1400 L/s must receive screening, de-gritting, biological treatment and clarification prior to discharge to point(s) 1 and 3.

O3.3 The portion of sewage inflows to the sewage treatment plant that is 1400 L/s or more must receive screening and de-gritting prior to discharge to point(s) 1 and 3.

Shortland Wastewater Treatment Plant

O4.03.4 The portion of the liquid waste inflow that is sewage inflows to the sewage treatment plant less than 360L/s must receive screening, de-gritting, biological treatment, and disinfection, clarification prior to discharge to point(s) 19.

O4.03.5 The portion of the sewage treatment inflows to the sewage treatment plant that is 360 L/s or more must receive screening prior to discharge to point(s) 19.

O4.03.6 However the licensee is not taken to have breached conditions O4.2 to O4.5 this condition if the licensee can demonstrate:

- (a) the failure to treat the liquid waste as required was solely as a result of a failure of the power supply to the premises, or a failure of essential equipment; and
- (b) the failure of the power supply or equipment could not reasonably have been prevented; and

(c) normal operating conditions were restored as soon as possible after the power supply failure or the failure of essential equipment.

O4 Prohibition on acceptance of pesticides

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

O5 Biosolids

O5.1 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.

O6 Effluent application to land

O6.1 Not applicable.

O7 Additional Sewage Pumping Stations

O7.1 Discharges in dry weather from any sewage pumping station(s) installed within the sewage treatment system after 3 November 2003 are not permitted.

O8 Extensions to the reticulation system

O8.1 The licensee must ensure that any extension to the reticulation system is planned, designed, constructed and installed to prevent as far as practicable discharges of sewage or partially treated sewage from the premises.

Note: "The premises" includes both the new and the previously existing parts of the reticulation 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.

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:

Water and Land

POINT 1

Pollutant	Units of measure	Frequency	Sampling Method
Aldrin	ug/L	2 Times a year	Grab sample
Alpha-BHC	ug/L	2 Times a year	Grab sample
Arsenic	ug/L	2 Times a year	Grab sample
Biochemical Oxygen Demand	mg/L	Every 12 days exactly	Composite sample
Cadmium	ug/L	2 Times a year	Grab sample
Chlordane, total	ug/L	2 Times a year	Grab sample
Chromium	ug/L	2 Times a year	Grab sample
Copper	ug/L	2 Times a year	Grab sample
Dieldrin	ug/L	2 Times a year	Grab sample
Endosulfan	ug/L	2 Times a year	Grab sample
Endrin	ug/L	2 Times a year	Grab sample
Heptachlor	ug/L	2 Times a year	Grab sample
Heptachlor epoxide	ug/L	2 Times a year	Grab sample
Hexachlorobenzene (HCB)	ug/L	2 Times a year	Grab sample
Lead	ug/L	2 Times a year	Grab sample
Mercury	ug/L	2 Times a year	Grab sample
Methoxychlor	ug/L	2 Times a year	Grab sample
Nickel	ug/L	2 Times a year	Grab sample
Oil and Grease	mg/L	Every 12 days exactly	Composite sample
Polychlorinated biphenyls	ug/L	2 Times a year	Grab sample
Selenium	ug/L	2 Times a year	Grab sample
Silver	ug/L	2 Times a year	Grab sample
Total Suspended Solids	mg/L	Every 12 days exactly	Composite sample
Zinc	ug/L	2 Times a year	Grab sample
alpha-BHC	ug/L	2 Times a year	Grab sample
beta-BHC	ug/L	2 Times a year	Grab sample
gamma-BHC (Lindane)	ug/L	2 Times a year	Grab sample
methoxychlor	ug/L	2 Times a year	Grab sample
p,p-DDD	ug/L	2 Times a year	Grab sample
p,p-DDE	ug/L	2 Times a year	Grab sample
p,p-DDT	ug/L	2 Times a year	Grab sample
polychlorinated biphenyls	ug/L	2 Times a year	Grab sample

POINT 3

Pollutant	Units of measure	Frequency	Sampling Method
Aldrin	ug/L	Monthly	Grab sample
Alpha-BHC	ug/L	Monthly	Grab sample
Ammonia nitrogen	mg/L	Every 6 days	Grab sample
Arsenic	ug/L	Weekly	Grab sample
Cadmium	ug/L	Weekly	Grab sample
Chlordane, total	ug/L	Monthly	Grab sample
Chromium	ug/L	Weekly	Grab sample
Copper	ug/L	Weekly	Grab sample
Dieldrin	ug/L	Monthly	Grab sample
Endosulfan	ug/L	Monthly	Grab sample
Endrin	ug/L	Monthly	Grab sample
Heptachlor	ug/L	Monthly	Grab sample
Heptachlor epoxide	ug/L	Monthly	Grab sample
Hexachlorobenzene (HCB)	ug/L	Monthly	Grab sample
Lead	ug/L	Weekly	Grab sample
Mercury	ug/L	Weekly	Grab sample
Methoxychlor	ug/L	Monthly	Grab sample
Nickel	ug/L	Weekly	Grab sample
Nitrogen (ammonia)	mg/L	Every 6 days	Grab sample
Oil and Grease	mg/L	Every 6 days	Grab sample
Polychlorinated biphenyls	ug/L	Monthly	Grab sample
Selenium	ug/L	Weekly	Grab sample

Pollutant	Units of measure	Frequency	Sampling Method
Silver	ug/L	Weekly	Grab sample
Total Solids	%by weight	Every 6 days	Grab sample
Zinc	ug/L	Weekly	Grab sample
alpha-BHC	ug/L	Monthly	Grab sample
beta-BHC	ug/L	Monthly	Grab sample
gamma-BHC (Lindane)	ug/L	Monthly	Grab sample
methoxychlor	ug/L	Monthly	Grab sample
p,p-DDD	ug/L	Monthly	Grab sample
p,p-DDE	ug/L	Monthly	Grab sample
p,p-DDT	ug/L	Monthly	Grab sample
polychlorinated biphenyls	ug/L	Monthly	Grab sample

POINT 5

Pollutant	Units of measure	Frequency	Sampling Method
Enterococci/Enterococci	cfu/100mL	Every 6 days	Grab sample
Faecal coliforms/Coliforms	cfu/100mL	Every 6 days	Grab sample

POINT 6

Pollutant	Units of measure	Frequency	Sampling Method
Enterococci/Enterococci	cfu/100mL	Every 6 days	Grab sample
Faecal coliforms/Coliforms	cfu/100mL	Every 6 days	Grab sample

POINT 7

Pollutant	Units of measure	Frequency	Sampling Method
Enterococci/Enterococci	cfu/100mL	Every 6 days	Grab sample
Faecal coliforms/Coliforms	cfu/100mL	Every 6 days	Grab sample

POINT 8

Pollutant	Units of measure	Frequency	Sampling Method
Enterococci/Enterococci	cfu/100mL	Every 6 days	Grab sample
Faecal coliforms/Coliforms	cfu/100mL	Every 6 days	Grab sample

POINT 9

Pollutant	Units of measure	Frequency	Sampling Method
Enterococci/Enterococci	cfu/100mL	Every 6 days	Grab sample
Faecal coliforms/Coliforms	cfu/100mL	Every 6 days	Grab sample

POINTS 10,11

Pollutant	Units of measure	Frequency	Sampling Method
Total Solids	%by weight	Every 6 days	Grab sample

POINT 18

Pollutant	Units of measure	Frequency	Sampling Method
Ammonia nitrogen Biochemical oxygen demand	mg/L	Daily when wastes discharged Daily during any discharge	Grab sample
Biochemical Oxygen Demand Nitrogen (ammonia)	mg/L	Daily when wastes discharged Daily during any discharge	Grab sample
Total Suspended Solids Total suspended solids	mg/L	Daily when wastes discharged Daily during any discharge	Grab sample
pH	pH	Daily when wastes discharged Daily during any discharge	Grab sample

POINT 19

Pollutant	Units of measure	Frequency	Sampling Method
Ammonia nitrogen Phosphorus (total)	mg/L	Monthly	Grab sample
Biochemical Oxygen Demand oxygen demand	mg/L	Weekly	Grab sample
Faecal coliforms Coliforms	cfu/100mL	Monthly	Grab sample
Nitrate + nitrite (oxidised nitrogen)	mg/L	Monthly	Grab sample
Nitrogen (ammonia)	mg/L	Monthly	Grab sample
Oil and Grease	mg/L	Fortnightly	Grab sample
Total Phosphorus suspended solids	mg/L	Monthly Weekly	Grab sample
Total Suspended Solids	mg/L	Weekly	Grab sample
pH	pH	Weekly	Grab sample

POINT 20

Pollutant	Units of measure	Frequency	Sampling Method
Ammonia nitrogen	mg/L	Monthly	Grab sample
Biochemical Oxygen Demand	mg/L	Weekly	Grab sample
Faecal coliforms	cfu/100mL	Monthly	Grab sample
Nitrate + nitrite (oxidised nitrogen)	mg/L	Monthly	Grab sample
Oil and Grease	mg/L	Fortnightly	Grab sample
Total Phosphorus	mg/L	Monthly	Grab sample
Total Suspended Solids	mg/L	Weekly	Grab sample
pH	pH	Weekly	Grab sample

NOTE: **Daily means daily for each day of discharge.**

Weekly means weekly at a minimum of 5 day intervals.

Fortnightly means fortnightly at a minimum of 10 day intervals.

Monthly means monthly at a minimum of 20 day intervals.

2 times a year means twice yearly with at least 5 months between samples.

M2.2 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 and sample at the frequency specified opposite in the other columns:

Water and Land

Point 1

Pollutant	Frequency	Sampling Method
Total Suspended Solids	On both the two days immediately following the samples collected above whenever the result of any sampling required by this licence indicates a result higher than the 90 percent limit for any parameter	Composite sample
Oil and Grease	On both the two days immediately following the samples collected above whenever the result of any sampling required by this licence indicates a result higher than the 90 percent limit for any parameter	Composite sample

M2.3 In addition to the requirements of M2.1, the following information must be recorded for any discharges from Point 18:

- (a) The date and duration of the discharge; and
- (b) The reason for the discharge.

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.

Note: Testing methods - load limit

Note: Clause 18 (1) and (2) of the Protection of the Environment Operations (General) Regulation 1998 requires that monitoring of actual loads of assessable pollutants listed in L2.1 must be carried out in accordance with the testing method set out in the relevant load calculation protocol for the fee-based activity classification listed in condition A1.2.

M4 Recording of pollution complaints

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

- M4.2 The record must include details of the following:
- (a) the date and time of the complaint;
 - (b) the method by which the complaint was made;
 - (c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
 - (d) the nature of the complaint;
 - (e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and
 - (f) if no action was taken by the licensee, the reasons why no action was taken.
- M4.3 The record of a complaint must be kept for at least 4 years after the complaint was made.
- M4.4 The record must be produced to any authorised officer of the EPA who asks to see them.

M5 Telephone complaints line

- M5.1 The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.
- M5.2 The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.
- M5.3 Conditions M5.1 and M5.2 do not apply until 3 months after:
- (a) the date of the issue of this licence or
 - (b) if this licence is a replacement licence within the meaning of the Protection of the Environment Operations (Savings and Transitional) Regulation 1998, the date on which a copy of the licence was served on the licensee under clause 10 of that regulation.

M5.4 For the purpose of this condition, operating hours are defined as twenty four hours a day, seven days a week.

M5.5 The public notification referred to in condition M5.2 must include specific reference to the fact that the complaints line may be used by the community for the reporting of overflows.

M6 Requirement to monitor volume or mass

- M6.1 For each discharge point or utilisation area specified below, the licensee must monitor:
- (a) the volume of liquids discharged to water or applied to the area;
 - (b) the mass of solids applied to the area;
 - (c) the mass of pollutants emitted to the air;

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

POINT 1

Frequency	Unit Of Measure	Sampling Method
Daily	kL/day	Special Method 1

POINT 3

Frequency	Unit Of Measure	Sampling Method
Daily	kL/day	Special Method 2

POINT 10

Frequency	Unit Of Measure	Sampling Method
Daily	kL/day	By Calculation (volume flow rate or pump capacity multiplied by operating time)

POINT 11

Frequency	Unit Of Measure	Sampling Method
Daily	kL/day	By Calculation (volume flow rate or pump capacity multiplied by operating time)

POINT 12

Frequency	Unit Of Measure	Sampling Method
Continuous	kL/day	Flow meter and continuous logger

POINT 13

Frequency	Unit Of Measure	Sampling Method
Continuous	kL/day	Flow meter and continuous logger

POINT 17

Frequency	Unit Of Measure	Sampling Method
Daily	kL/day	Special Method 3

POINT 19

Frequency	Unit Of Measure	Sampling Method
Continuous	kL/day	Magnetic flow meter

POINT 20

Frequency	Unit Of Measure	Sampling Method
Continuous	kL/day	Magnetic flow meter

For the purposes of the table(s) above:

- (a) Special Method 1 means monitoring volume by calculation (ie. F1-F3-F4-F5);
- (b) Special Method 2 means monitoring volume by calculation ie. (F3 (Flow meter and continuous logger) +F4+F5); and
- (c) Special Method 3 means monitoring volume by calculation (ie. F1-F2).

M6.2 **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**

M6.3 In the event that the licensee cannot comply with a volume monitoring method stipulated in this licence solely due to the failure or malfunction of essential monitoring equipment, volume may be calculated using another method previously approved in writing by the EPA. The alternate method may not be so employed on more than 14 days during the licence period without specific approval of the EPA.

M6.3 ~~4~~ For the purpose of condition M6.2 the alternative method approved by the EPA is as follows:

Monitoring Point	Frequency	Method
3	In the event of failure of the Sludge Volume Flow Meter (F3)	Pump hours run times pump flow rate (L/s)
12	In the event of failure of the Total Volume Flow Meter (Point 12 (F1)) and no bypass occurring	The treated volume flow meter (Point 13 (F2))
12	In the event of failure of the Total Volume Flow Meter (Point 12 (F1)) and bypass occurring	Pump hours run times pump flow rate (L/s) of all operating pumps in the primary pump station, provided that all variable speed pumps are running at maximum speed
13	In the event of failure of the Treated Volume Flow Meter (Point 13 (F2)) and no bypass occurring	Total Volume (Point 12 (F1)) flow meter
13	In the event of failure of the Treated Volume Flow Meter (Point 13 (F2)) and bypass occurring	Pump hours run times pump flow rate (L/s)
17	In the event of failure of the total volume flow meter	Level sensing Venturi Flume
19	In the event of failure of the flow meter at the dechlorination building	Magnetic flowmeter at the inlet to the chlorine contact tank or the venturi flume on the bypass flow plus the hours run on the storm return pumps

M6.4 M7 Requirement to record sewage treatment plant bypasses

M7.1 The licensee must record the following details in respect of ~~the bypassing~~ **each bypass** of any of the appropriate treatment processes required ~~in this licence which occurs for more than 30 minutes on any day and by condition Q3~~ which may adversely affect the quality of the final effluent:

(a) ~~(a) the EPA point identification number through which the bypass discharged~~
the estimated starting ~~ing~~ time, ~~date~~ and duration ~~of the bypass~~

(b) ~~the most likely cause of the bypass~~

(b) ~~(c) the name of the treatment process or processes bypassed~~ **bypass**

(c) ~~(d) the estimated volume of waste that bypassed any treatment process~~ **the bypass**

M7 ~~Sludge, scum and dilution quality monitoring~~

~~M7.1 The licensee must measure the following parameter for each monitoring point specified at the frequency and using the method specified for each parameter:~~

~~Point 3~~

Parameter	Unit of measure	Frequency	Sampling method
Total solids	Expressed as a percentage by weight	Every 6 days	Grab sample

~~Point 10~~

Parameter	Unit of measure	Frequency	Sampling method
Total solids	Expressed as a percentage by weight	Every 6 days	Grab sample

~~Point 11~~

Parameter	Unit of measure	Frequency	Sampling method
Total solids	Expressed as a percentage by weight	Every 6 days	Grab sample

- ~~(d) the level of treatment at the sewage treatment plant prior to discharge; and~~
- ~~(e) the most likely cause of the bypass.~~

M8 Requirement to monitor biosolids

M8.1 The licensee must monitor biosolids that are produced at the premises in accordance with the Biosolids Guideline. However, the licensee is not required to comply with the monitoring conditions in the Biosolids Guideline that relate to the reuse or disposal of biosolids at the locations other than the premises.

M9 Requirement to record overflows

Sewage treatment plant overflows

~~M9.1 The licensee must record the following details in relation to each overflow from the sewage treatment plant:~~

- ~~(a) the EPA point identification number through which the overflow discharged;~~
- ~~(b) the date, estimated start time and estimated duration of the overflow;~~
- ~~(c) the estimated volume of the overflow;~~
- ~~(d) the level of treatment at the sewage treatment plant prior to discharge; and~~
- ~~(e) the most likely cause of the overflow.~~

Overflows from the reticulation system

~~M9.2 From 3 November 2003 the licensee must record the following details in relation to each observed or reported overflow from the reticulation system:~~

- ~~(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) the most likely cause of the overflow; and
- (e) actions taken to prevent the overflow happening again.

M10 Environmental monitoring

M10.1 Not applicable

6 Reporting conditions

R1 Annual return documents

What documents must an Annual Return contain?

- R1.1 The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:
- (a) a Statement of Compliance; and
 - (b) a Monitoring and Complaints Summary.
- A copy of the form in which the Annual Return must be supplied to the EPA accompanies this licence. Before the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.

Period covered by Annual Return

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

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

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

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

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

Deadline for Annual Return

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

Notification where actual load can not be calculated

- R1.6 Where the licensee is unable to complete a part of the Annual Return by the due date because the licensee was unable to calculate the actual load of a pollutant due to circumstances beyond the licensee's control, the licensee must notify the EPA in writing as soon as practicable, and in any event not later than the due date. The notification must specify:
- (a) the assessable pollutants for which the actual load could not be calculated; and
 - (b) the relevant circumstances that were beyond the control of the licensee.

Licensee must retain copy of Annual Return

- R1.7 The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.

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

- R1.8 Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:
- (a) the licence holder; or
 - (b) by a person approved in writing by the EPA to sign on behalf of the licence holder.
- R1.9 A person who has been given written approval to certify a certificate of compliance under a licence issued under the Pollution Control Act 1970 is taken to be approved for the purpose of this condition until the date of first review of this licence.

R2 Notification of environmental harm

Note: The licensee or its employees must notify the EPA of incidents causing or threatening material harm to the environment as soon as practicable after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.

- R2.1 Notifications must be made by telephoning the EPA's Pollution 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; and
- (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;
- (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 **Report Notification of Beach Monitoring overflow incidents**

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 the overflow or bypass may result in a significant risk to public health, the licensee is to promptly give appropriate notification to any parties that are likely to be affected, such as:

- (i) the EPA's Pollution Line service on 131 555**
- (ii) the NSW Department of Public Health, and**
- (iii) local council(s) where relevant.**

R4.2 Within 3 months the licensee must develop and implement an incident notification protocol. The incident notification protocol must include procedures for notification of, but not limited to, the following groups or organisations:

- (a) notification of the EPA's Pollution Line service on 131 555 where an overflow has occurred from either the treatment plant or the reticulation system that has discharged to a waterway or could reasonably be expected to discharge to a waterway;**
- (b) notification of the NSW Department of Public Health for incidents of public health significance; and**
- (c) notification of local council(s) where relevant.**

For the purposes of this condition, "overflow" does not include leakage.

R4.3 Notifications required by condition R4 must include the following information:

- (a) the nature of the incident that led to the bypass or overflow;
- (b) any testing or inspections of the discharge or receiving waters that have been carried out;
- (c) any testing or inspections currently occurring and when results are anticipated; and
- (d) any other available information regarding harm or potential harm to the environment.

R4.4 The notification is to be given as soon as practicable after the licensee or one of the licensee's employees or agents becomes aware of the incident.

The notification could detail incidents in more than one location or sewage treatment system operated by the licensee.

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

R4.5 The Licensee must notify the SafeFood NSW of incidents of significance to shellfish production. This notification is to be given as soon as practicable after the licensee or one of the licensee's employees or agents becomes aware that the incident may be of significance to shellfish production.

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, 100 percentile and 3DGM values calculated from the monitoring data for each pollutant which has corresponding concentration limits specified in this licence;
- (b) 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;
- (c) the number of dry and wet weather bypasses recorded over the reporting period (recorded in accordance with condition M7);
- (d) a summary of observed, reported or recorded sewage treatment plant bypasses and overflows. These data are to be for the current reporting period and for the previous twelve-month periods, up to a maximum of four, for which data has been required to be collected. Any significant actions taken to address bypasses or overflows are to be noted;
- (e) 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;
- (f) a progress report on the implementation over the reporting period of actions specified in the PRP's; and
- (g) any additional structures constructed in accordance with condition L7.

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

R6 Report of Beach Monitoring

R6.1 The licensee is to forward the results of monitoring required in conditions M2.1 Point 5, M2.1 Point 6, M2.1 Point 7, M2.1 Point 8 and M2.1 Point 9 to the EPA Beachwatch Unit as soon as they become available.

General conditions

G1 Copy of licence kept at the premises

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

G2 Signage

G2.1 The location of EPA point numbers 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 17, 18, and 19 must be clearly marked by a sign that indicates the point identification number used in the licence and located as close as practical to the point.

G3 Contact number for incidents and responsible employees

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

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

G3.2 The licensee is to inform the EPA in writing of the representative or representatives and their telephone number(s) by 1 August 2003. The EPA must be notified of the telephone number(s) on commencement of its/their operation.

G3.3 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.

G4 Clean-up (Emergency Response)

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

Pollution studies and reduction programs

Guiding environmental principles

The following guiding principle will apply to the pollution reduction programs in this licence. The document titled "Upgrade Management Plan for the Wastewater System of Newcastle (Burwood Beach) Catchment Volume 3 - Upgrade Strategy" dated September 2000 forms the basis of the reticulation system upgrade strategies. This document acknowledges that leakage reduction works form an important component of the wet weather upgrade strategy and as such will be used as a tool to target source control of wet weather flows.

U1PRP100 Sewer Overflow Investigations Report

Dudley/Charlestown sub-catchments

100.1 The objective of this PRP is to identify overflows from the sewage reticulation system that pose a significant risk of harm to the environment or public health, and to identify management priorities and actions required to reduce this risk.

100.2 The licensee must prepare a Sewer Overflow Investigations Report for the Dudley and Charlestown sub-catchments reticulation system. The Report must include but need not be limited to:

- (a) identification of the location of overflow points within the reticulation system and an assessment of the likelihood of overflows from these points;
- (b) assessment of the significance of impacts on the environment and public health resulting from these overflows;
- (c) evaluation and ranking of the resultant risk to the environment and public health from these overflows; and
- (d) identification of management priorities and actions to reduce the risk of harm to the environment and public health.

100.3 The report must also include the identification of any sewage pumping stations within the premises that are not capable of meeting a condition prohibiting dry weather discharges, including reasons why any sewage pumping station is not capable of meeting such a condition.

100.4 This Report is to be submitted to the EPA in writing by 31 May 2004.

100.5 Nothing in this PRP is to be construed as authorising a discharge to Class S or P waters.

- Notes:**
- (1) If this requirement is included on a number of sewage treatment system licences held by the licensee, a single Report may be submitted to the EPA provided that it meets the requirements relating to all of the licences.
 - (2) The requirement to prepare this report does not affect the requirement to comply with any other condition of this licence.
 - (3) It is the EPA's intention to include a licence condition prohibiting dry weather overflows from sewage pumping stations identified as capable of meeting a condition prohibiting dry weather overflows. This would be consistent with the requirement for proper and efficient maintenance and operation of the system.
 - (4) Progress reports on the implementation over the reporting period of actions specified in PRP100 are required in the Annual System Performance Report under condition R5 of this licence.

PRP101 Incident Notification Protocol

100.1 Not applicable.

PRP102 Reticulation system operation and maintenance plan

102.1 The licensee must develop and implement an Operation and Maintenance Plan for the reticulation system. The Operation and Maintenance Plan must include, but need not be limited to:

- (a) operational strategies and the procedures for normal operation and environmental and public health emergency situations to ensure the requirements of this licence are met
- (b) preventative and breakdown maintenance strategies and procedures such as:
 - (i) proactive maintenance activities in known problem areas in the reticulation system;
 - (ii) routine clean-out of pipes;
 - (iii) sealing or maintenance of access chambers;
 - (iv) maintenance to prevent or minimise deterioration of sewer lines;
 - (v) maintaining sewer pipe capacity during dry weather conditions, for example by choke reduction and flushing to remove debris and silt;
 - (vi) maintenance of sewage pumping stations; and
 - (vii) emergency responses to overflows, chokes, sewage pumping station failures and offensive odour emissions.
- (c) details of how the plan will be made available to personnel responsible for implementing the plan;
- (d) related training procedures for appropriate personnel (including the frequency of training activities); and
- (e) the process for review and revision of the Plan.

102.2 The licensee must advise the EPA in writing by 3 May 2004 that it has developed and implemented the Plan in accordance with condition 101.1.

102.3 The EPA may request an independent audit of the operation and maintenance plan.

PRP103 Reticulation system evaluation and Environmental Monitoring Program development

Sewer System Evaluation Protocol

103.1 The licensee must develop and implement a Sewer System Evaluation Protocol for the purpose of obtaining sufficient data on the hydraulic performance of the reticulation system to update the hydraulic reticulation system model predictions.

Data collected under the Protocol must:

- (a) be capable of verifying that the sewer system model is reflective of actual system performance;
- (b) identify points in the sewer system with a high risk of system failure likely to directly or indirectly cause a discharge to the environment;
- (c) enable long term changes in system environmental performance to be identified; and
- (d) be capable of assisting in identifying points of leakage and/or infiltration/ingress in the reticulation system.

103.2 The licensee must be advise the EPA in writing by 3 November 2003 that it has completed and implemented the protocol in accordance with condition 103.1.

Environmental Monitoring Program

103.3 By 3 November 2003 the licensee must establish and maintain a register of directed overflow structures. This register must contain:

- (a) map coordinates of the location of the point;
- (b) a street description of the point, anda map showing the location of the point.

103.4 The licensee must prepare an Environmental Monitoring Program to assess of the impact of overflows on the waters/land associated with directed overflows identified in condition 103.3. The Program must, at a minimum, demonstrate how it will:

- (a) quantify the short and long-term impacts of overflows and odours on the sensitive receivers, land and receiving waters;
- (b) identify and quantify improvements in the environmental performance of the overflows achieved as a result of the works required by condition 104.

103.5 The Environmental Monitoring Program required by conditions 103.4 must be submitted to the EPA's Regional Manager Hunter by 2 February 2004.

Note: It is the intention of the EPA to attach licence conditions to require the implementation of an approved Environmental Monitoring Program.

PRP104 Reticulation system works and activities

Sewage pumping station overflow frequency reductions

104.1 The licensee must undertake investigations, works and activities to minimise wet weather overflows in terms of both frequency and volume from the sewage system in accordance with the document titled Upgrade Management Plan for the Wastewater System of Newcastle (Burwood Beach) Catchment Volume 3 - Upgrade Strategy dated September 2000.

104.2 The licensee must complete the works to the following pump stations as outlined in Section 9.2 of the document titled "Upgrade Management Plan for the Wastewater System of Newcastle (Burwood Beach) Catchment Volume 3 – Upgrade Strategy" dated September 2000:

- (i) Newcastle wet weather pumping system (Mayfield SEPS and Lambton WWPS);
- (ii) Wallsend stormflow station upgrade;
- (iii) Dry Weather storage at Lambton WWPS and Mayfield West WWPS;
- (iv) Carriermain upgrades in Mayfield from Valencia Street to the Newcastle Wet Weather Pumping System.

Date for Completion: 1 July 2007

Special conditions

E1.1 Not applicable.

Dictionary

General Dictionary

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

3DGM [in relation to a concentration limit]	Means the three day geometric mean, which is calculated by multiplying the results of the analysis of three samples collected on consecutive days and then taking the cubed root of that amount. Where one or more of the samples is zero or below the detection limit for the analysis, then 1 or the detection limit respectively should be used in place of those samples
Act	Means the Protection of the Environment Operations Act 1997
activity	Means a scheduled or non-scheduled activity within the meaning of the Protection of the Environment Operations Act 1997
actual load	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 1998
AMG	Australian Map Grid
anniversary date	The anniversary date is the anniversary each year of the date of issue of the licence. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the

	commencement of the Act.
annual return	Is defined in R1.1
Approved Methods Publication	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 1998
assessable pollutants	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 1998
BOD	Means biochemical oxygen demand
COD	Means chemical oxygen demand
composite sample	Unless otherwise specifically approved in writing by the EPA, a sample consisting of 24 individual samples collected at hourly intervals and each having an equivalent volume.
cond.	Means conductivity
environment	Has the same meaning as in the Protection of the Environment Operations Act 1997
environment protection legislation	Has the same meaning as in the Protection of the Environment Administration Act 1991
EPA	Means Environment Protection Authority of New South Wales.
fee-based activity classification	Means the numbered short descriptions in Schedule 1 of the Protection of the Environment Operations (General) Regulation 1998.
flow weighted composite sample	Means a sample whose composites are sized in proportion to the flow at each composites time of collection.
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
industrial waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
inert waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
licensee	Means the licence holder described at the front of this licence
load calculation protocol	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 1998
local authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
material harm	Has the same meaning as in section 147 Protection of the Environment Operations Act 1997
MBAS	Means methylene blue active substances
Minister	Means the Minister administering the Protection of the Environment Operations Act 1997
mobile plant	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
motor vehicle	Has the same meaning as in the Protection of the Environment Operations Act 1997
O&G	Means oil and grease
percentile [in relation to a	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

concentration limit of a sample]	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.
reprocessing of 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
solid waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
treatment of waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
TSP	Means total suspended particles
TSS	Means total suspended solids
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 code	Means the waste codes listed in Appendix 5 of the EPA document A Guide to Licensing Part B.
waste type	Means Group A, Group B, Group C, inert, solid, industrial or hazardous waste

Special Dictionary

ug/L	Means micrograms per litre
access chamber	a structure constructed to provide physical access to sewer pipes. Also known as a manhole
approved	Means approved in writing by the EPA. The EPA's approval may be given unconditionally, or subject to conditions
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 in October 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.
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 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.
directed overflow	Means an overflow from a directed overflow structure.
discharge	Has the same meaning as in Schedule 1, classification (71) of the <i>Protection of the Environment Operations (General) Regulation 1998</i> .
dry weather	Except for the purpose of compliance with condition L7.2, dry weather occurs when less than 10 millimetres of rainfall has been measured at a rain gauge in the catchment of the sewage treatment system during a 24 hour period (where there is no rain gauge in the catchment, at the rain gauge closest to the centre of the catchment). For the purpose of compliance with condition L7.2, dry weather means the greater of (i) the recorded flow into the sewage pumping station is less than or equal to the design wet weather flow, where this flow is determined in accordance with the Public Works Department Sewer Design Guide; or (ii) 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.
effluent	Means sewage that has received all of the designed treatment processes at the sewage treatment plant.
event	In respect to directed overflows an event is an overflow occurrence at one or more overflow locations in the reticulation system which continues until all overflows have ceased discharging for more than 24 hours.
fc	Means faecal coliforms expressed in colony forming units per 100ml.
Group C waste	Has the same meaning as in Part 3 of Schedule 1 of the <i>Protection of the Environment Operations Act 1997</i> .
harm	Has the same meaning as in the <i>Protection of the Environment Operations Act 1997</i> .
infiltration	Means the process by which groundwater enters the reticulation system through faults, such as cracks, in sewer pipes.
ISO	Means International Standards Organisation.
kl	Means kilolitre.
L/s	Means litres per second.
leakage	Overflows caused by the leakage of sewage from faults, such as cracks, in sewer pipes to the surrounding environment.
metal-A	Means the following metals: arsenic, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver and zinc.
ml	Means millilitres.
ML	Means megalitres.
offensive odour	Has the same meaning as in the <i>Protection of the Environment Operations Act 1997</i> .

overflow	is a discharge of untreated or partially treated sewage from the sewage treatment system
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
sensitive areas	Means sites or components of the environment which are of particular importance because of their ecological, conservation, cultural heritage, recreational, social or commercial values. Areas may be sensitive in terms of human health and/or the biophysical environment
sewage	Means untreated liquid waste received in the reticulation system
sewage products	Means any by-product of the treatment processes and includes biosolids, raw sludge, liquid sludge, thickened sludge, digested sludge, screenings and grit
sewage pumping station (SPS)	is a structure which controls the transport of sewage through the sewer pipes, where steep hills and other variations in the land topography can prevent or limit the gravity flow of sewage to the sewage treatment plant
sewage treatment plant (STP)	is a facility at which sewage is stored and treated following delivery from the reticulation system prior to discharge, and includes discharge structures and STP bypass points
sewage treatment system	Means the reticulation system and the sewage treatment plant used for the transport, treatment and discharge of effluent and sewage
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
TRC	Means total residual chlorine
uncontrolled overflow	Means an overflow from any part of the reticulation system that is not a directed overflow. Leakage or overflows from access chambers are examples of uncontrolled overflows
waters	Has the same meaning as in the <i>Protection of the Environment Operations Act 1997</i>
waterway	Means the whole or any part of any river, stream, lake, lagoon, swamp, wetlands, unconfined surface water, natural or artificial watercourse, dam or tidal waters (including the sea), or any water stored in artificial works. Artificial watercourses that are dry, water in underground pipes or channels used or designed to receive or pass rainwater, or any gutter used or designed to receive or pass rainwater are not included in this definition of "waterway"
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	A wet weather overflow in the reticulation system is an overflow caused by wet weather

Mr Grahame Clarke

Head Regional Operations Unit

(By Delegation)

Date of this edition - 16-May-2002

End Notes

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|---|---|
| 1 | Licence varied by notice V/M upgrade, issued on 06-Jul-2000, which came into effect on 06-Jul-2000. |
| 2 | Licence varied by notice 1002102, issued on 23-Oct-2000, which came into effect on 17-Nov-2000. |
| 3 | Licence varied by notice 1009306, issued on 02-Jul-2001, which came into effect on 27-Jul-2001. |
| 4 | Licence varied by notice 1010242, issued on 03-Dec-2001, which came into effect on 28-Dec-2001. |
| 5 | Licence varied by notice 1014132, issued on 04-Jan-2002, which came into effect on 29-Jan-2002. |
| 6 | Licence varied by notice 1016625, issued on 15-Apr-2002, which came into effect on 10-May-2002. |
| 7 | Licence varied by notice 1017406, issued on 16-May-2002, which came into effect on 16-May-2002. |