

Environment Protection Licence



Licence - 6108

Licence Details

Number:	6108
Anniversary Date:	15-August

Licensee

TWEED SHIRE COUNCIL
PO BOX 816
MURWILLUMBAH NSW 2484

Licence Type

Premises

Premises

STOTTS CREEK RESOURCE RECOVERY CENTRE
LEDDY'S CREEK ROAD
EVIRON NSW 2484

Scheduled Activity

Waste processing (non-thermal treatment)

Fee Based Activity

Non-thermal treatment of hazardous and other waste

Scale

0 - All

Region

Waste Operations (Coffs Harbour)
59-61 Goulburn Street
SYDNEY NSW 2000
Phone: 02 9995 5000
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PO BOX A290 SYDNEY SOUTH
NSW 1232

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Information about this licence

Dictionary

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

Responsibilities of licensee

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

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

Variation of licence conditions

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

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

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

Duration of licence

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

Licence review

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

Fees and annual return to be sent to the EPA

For each licence fee period you must pay:

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

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

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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:

TWEED SHIRE COUNCIL
PO BOX 816
MURWILLUMBAH NSW 2484

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.

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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
Waste processing (non-thermal treatment)

Fee Based Activity	Scale
Non-thermal treatment of hazardous and other waste	0 - All

A1.3 Not applicable.

A2 Premises to which this licence applies

A2.1 The licence applies to the following premises:

Premises Details
STOTTS CREEK RESOURCE RECOVERY CENTRE
LEDDY'S CREEK ROAD
EVIRON
NSW
2484
LOT 5 DP 221825 AND PART OF LOT5 DP590220
The licence applies to all of Lot 5 DP 221825 and the north western section of Lot 1 DP 590220, where the leachate dam and wetland are located.

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.

- A4.2 The LEMP for Stotts Creek Landfill, Tweed Shire Council, October 1999 is not to be taken as part of the documentation in A4.1, other than those parts specifically referenced in this licence.

2 Discharges to air and water and applications to land**P1 Location of monitoring/discharge points and areas**

- P1.1 The following points referred to in the table below are identified in this licence for the purposes of monitoring and/or the setting of limits for the emission of pollutants to the air from the point.

Air

EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Description of Location
23	Landfill Gas Generation Monitoring		All enclosed buildings at the premises and any buildings within 250m of waste filled areas.
24	Landfill Gas Generation Monitoring		Surface of all waste filled areas which have been capped.
25	Landfill Gas Generation Monitoring		All groundwater monitoring bores [refer Points 8-22].

- 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.

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Water and land

EPA identification no.	Type of monitoring point	Type of discharge point	Description of location
1	Surface Water Quality Monitoring		LEMP Figure 7, refer S3
2	Surface Water Quality Monitoring		LEMP Figure 7, refer D1
3	Surface Water Quality Monitoring		LEMP Figure 7, refer S4
5	Surface Water Quality Monitoring	Surface Water Quality Monitoring	wetland (as shown in Council's fax to EPA dated 3/02/2003)
6	Leachate Quality Monitoring	Leachate Quality Monitoring	LEMP Figure 7, refer LD1.
7	Leachate Quality Monitoring		LEMP Figure 7, refer LD2.
8	Groundwater Quality Monitoring		LEMP Figure 7, refer GMB1
9	Groundwater Quality Monitoring		LEMP Figure 7, refer GMB2
10	Groundwater Quality Monitoring		LEMP Figure 7, refer GMB3.
11	Groundwater Quality Monitoring		LEMP Figure 7, refer GMB 4
12	Groundwater Quality Monitoring		LEMP Figure 7, refer GMB 5
14	Groundwater Level and Quality Monitoring		LEMP Figure 7, refer GMB 7.
15	Groundwater Level and Quality Monitoring		LEMP Figure 7, refer GMB 8.
16	Groundwater Level and Quality Monitoring		LEMP Figure 7, refer GMB 9.
18	Groundwater Quality Monitoring		LEMP Figure 7, refer GMB 10A
19	Groundwater Quality Monitoring		LEMP Figure 7, refer GMB 11.

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EPA identification no.	Type of monitoring point	Type of discharge point	Description of location
20	Groundwater Quality Monitoring		LEMP Figure 7, refer GMB 12.
21	Groundwater Quality Monitoring		LEMP Figure 7, refer GMB 13.
22	Leachate Quality and Volume Monitoring		LEMP Figure 7, refer LB 14.
26	Groundwater Quality Monitoring		Refer GMB 6 as shown on Council's fax dated 5 February 2003.
27		Leachate Discharge Point	Refer to Council's facsimile to DEC dated 26 February 2004, Drawing 007 - Leachate Pond: Location and Typical Details (June 2003)
28	Groundwater Quality Monitoring		Refer GMB28 as shown on Drawing 1 attached to TSC correspondence to DEC dated 13 December 2005.
29	Groundwater Quality Monitoring		Refer GMB29 as shown on Drawing 1 attached to TSC correspondence to DEC dated 13 December 2005.
30	Groundwater quality monitoring		Refer to GMB20 as shown on Drawing 1 attached to TSC correspondence dated 13 December 2005.
31	Groundwater quality monitoring		Refer GMB21 as shown on Drawing 1 attached to TSC correspondence dated 13 December 2005.
32	Groundwater level and quality monitoring		Refer to location map titled 'Plan of all groundwater quality monitoring locations within Stotts Creek Site' attached to TSC electronic mail correspondence to DECC dated 27 March 2009 - GMB 9A

3 Limit conditions

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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.

L2 Load limits

- L2.1 Not applicable.
L2.2 Not applicable.

L3 Concentration limits

- L3.1 For each monitoring/discharge point or utilisation area specified in the table\> below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.
- L3.2 Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.
- L3.3 To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table\>.

Water and Land

POINT 5

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	milligrams per litre				50

- L3.4 Exceedances of the concentration limits for TSS and pH in condition L3.3 are permitted at the following points for the duration of the overflow:
Point 5, whenever a wet weather overflow is occurring due to stormwater events greater than or equal to 83mm in total falling over any consecutive 5 day period.
- L3.5 Leachate is only permitted to overflow from the leachate management system as a direct result of a rainfall event of equal to or greater than 348mm in total falling over any consecutive 5 day period and only from the following points: Point 6 and Point 27.
- L3.6 The level of liquid and other material in each sedimentation basin must not exceed the level indicated by the sedimentation basin marker, except:

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- (a) when the basin is receiving stormwater caused by rainfall on the premises; or
- (b) within five days of the cessation of any rain.

L4 Volume and mass limits

L4.1 Not applicable.

L5 Waste

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

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

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

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

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

L5.2 Landfilling at the site is to cease when the site reaches the final contours as shown in the LEMP Attachment C [Figures 4A-D] or by the 28 January 2005, which ever comes first.

L5.3 The licensee must not dispose of any tyre at the premises unless:

- (a) the tyre has a diameter of 1.2 metres or more; or
- (b) the tyre has been shredded or had its walls removed as defined in condition L5.6 (a); or
- (c) the tyre was delivered to the premises as part of a domestic load as defined by condition L5.6 (b).

L5.4 In condition L5.4:

- (a) tyres are taken to be shredded only if the tyres are in pieces measuring no more than 250mm in any direction; and

- (b) domestic loads means a load containing no more than 5 tyres having a diameter of less than 1.2 metres.

L6 Noise Limits

L6.1 Noise from the premises must not exceed:

- (a) an $LA_{eq(15min)}$ noise emission criterion of 50 dB(A) (7am to 6pm) Monday to Friday and 8am to 5pm Saturday; and
- (b) an $LA_{eq(15min)}$ noise emission criterion of 45 dB(A) during the evening (6pm to 10pm) Monday to Friday; and
- (c) at all other times an $LA_{eq(15min)}$ noise emission criterion of 40 dB(A),

except as expressly provided by this licence.

L6.2 Noise from the premises is to be measured at the most affected point on or within the nearest affected residential property boundary or if this is more than 30m from the residence at the most affected point within 30m of the residence, to determine compliance with this condition.

L7 Hours of operation

- L7.1 All work at the premises must be conducted between the following hours:
7am to 5.00pm Mondays to Fridays and 8am to 4.00pm Saturdays, Sundays and Public Holidays.
- L7.2 The hours of operation permitted by this licence may be varied where there is no significant impact on the ambient levels outside the premises or at any noise sensitive location. The licensee must provide evidence that no significant impact occurs prior to a variation being granted for the hours of operation.

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.

O2 Maintenance of plant and equipment

O2.1 All plant and equipment installed at the premises or used in connection with the licensed activity:

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- (a) must be maintained in a proper and efficient condition; and
- (b) must be operated in a proper and efficient manner.

O3 Dust Control

- O3.1 All operations and activities occurring at the premises must be carried out in a manner that will minimise the emission of dust from the premises.

O4 Closure plan

- O4.1 The last licensee must prepare and submit to the EPA by 31 July 2004 a closure plan in accordance with section 76 of the Protection of the Environment Operations Act 1997.

O5 Leachate Collection

- O5.1 A leachate collection system which complies with the following specifications must be installed on all surfaces used for the disposal of waste after the date of issue of this licence:-
- A leachate drain must be constructed in accordance with Diagram 2D -Detail I [refer Council correspondence dated 17 April 2000] into the centre of each waste cell and exhibit a longitudinal slope of no less than 1%;
 - The drainage layer must exhibit a permeability of $>10^{-3} \text{ ms}^{-1}$ and be constructed to a minimum depth of 300mm;
 - The base of each waste cell is to be graded at no less than 3 % to the drain; &
 - The drain must convey all leachate captured to the main leachate drain as shown in the LEMP [Attachment C – Diagram 2A].
- O5.2 The main leachate drain must be located as shown in the LEMP [Attachment C – Drawing 2A] and be constructed in accordance with the specifications provided in Councils correspondence [refer fax dated 1 November 2000, 'Alternative Type 2 – Leachate Drain Design'].

Note that the material used as the drainage layer must exhibit a permeability of greater than 10^{-3} ms^{-1} , but must not be capable of puncturing the drain liner.

NB : Additional conditions relating to the leachate collection system are contained in Condition U3.

O6 Leachate Storage

- O6.1 The leachate pond is to be augmented in accordance with the LEMP [refer Attachment C, Section 6.2 & Drawing 3A] by the 31 March 2001.
- O6.2 The licensee must take all practicable measures to minimise the amount of leachate in the leachate management system to enable compliance with condition L3.5.

O7 Leachate Disposal

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- O7.1 Leachate impounded in the leachate storage ponds and leachate collected by the subsurface leachate collection system may be irrigated on the landfills northern waste mound and / or on the eastern batter adjacent to the main leachate drain[refer LEMP, Attachment C Section 6.3 & Drawing 2A].
- O7.2 The volume of leachate directed to the utilisation area must not exceed the capacity of the area to assimilate the leachate.
- O7.3 If Council intends to construct leachate injection wells or trenches, designs for the wells or trenches must be submitted to the EPA for approval prior to construction.

O8 Maintenance of sedimentation system / leachate pond

- O8.1 The leachate pond, detention basins, wetland and sediment control devices must be maintained to ensure that their design capacity is available for the storage / treatment of stormwater and leachate.

O9 Management of surface waters

- O9.1 The perimeter of the areas where waste has been or is being landfilled must be contoured to prevent stormwater running onto these surfaces from all storm events less than or equal to a 1 in 10 year 24 hour duration storm event .
- O9.2 All surface water management controls detailed in the LEMP Attachment C : Water Management and Filling Plan – Drawing 2 Revision D [Note Revision D - Attached to TSC Correspondence dated 17April 2000] and Drawing 3A are to be constructed and operational by 28 February 2001.
- O9.3 The sedimentation basin must have a marker (the “sedimentation basin marker”) that identifies the upper level of the sediment storage zone.
- O9.4 Whenever the level of liquid and other material in any sedimentation basin exceeds the level indicated by the sedimentation basin marker, the licensee must take all practical measures as soon as possible to reduce the level of liquid and other material in the sedimentation basin.
- O9.5 The drainage from all areas at the premises which will liberate suspended solids when stormwater runs over these areas must be diverted into the sedimentation basins and wetland as shown in the LEMP Attachment C refer Drawings 2A and 3A.

O10 Fire risk reduction works

- O10.1 The licensee must undertake all practical initiatives to minimise the risk of fire at the premises.

O11 Burning of waste

- O11.1 There must be no incineration or burning of any waste at the premises.

O12 Quality assurance

- O12.1 The licensee must install the leachate collection system and the landfill capping system at the premises in accordance with the following quality assurance standard HB 90.3 [2000].

O13 Screening of waste

- O13.1 The licensee must undertake all practical initiatives to identify and prevent the disposal of any waste not permitted by this licence to be disposed of at the premises.

O14 Waste compaction

- O14.1 The licensee must minimise the volume of landfill space consumed by landfilling by compacting all waste.
- O14.2 The licensee must ensure that the achieved compaction rate of landfilled waste (excluding cover material) is stated in the annual report for the waste premises submitted to the EPA.

O15 Filling plan

- O15.1 The licensee must manage the disposal of waste at the premises in accordance with the progressive filling plan specified in the LEMP Management Technique No. 27 and Attachment C.

O16 Completion of landfill cells

- O16.1 The licensee must ensure that the landfill cells are capped progressively and in accordance with condition 16.2 during operations and specifically at times when the level of waste reaches final heights as detailed in the LEMP Management Technique No. 27 and Attachment C.
- O16.2 Final capping must comprise five layers in the order of installation: a seal bearing surface, a gas drainage layer, a sealing layer, an infiltration layer and a revegetation layer as specified in the LEMP Management technique No. 28.
- O16.3 The revegetation layer of the final cap must be no less than 100cm deep.
- O16.4 The northern waste mound is to be capped in accordance with Condition O16.2 by the 31 December 2001.

O17 Unauthorised entry

- O17.1 The licensee must take all practicable steps to control entry to the premises.
- O17.2 The licensee must maintain lockable security gates at all access and departure locations.
- O17.3 The licensee must ensure that all gates are locked whenever the landfill is unattended.

O18 Degradation of local amenity

O18.1 The licensee must undertake all practical actions to prevent the degradation of the local amenity by litter.

O19 Tracking of mud and waste

O19.1 The licensee must minimise the tracking of waste and mud by vehicles leaving the premises.

O20 Covering of waste

O20.1 Cover material must be clean earthen material or an alternative material approved by the EPA.

(a) Daily cover

Cover material must be applied to a minimum depth of 15 centimetres over all exposed landfilled waste prior to ceasing operations at the end of each day.

(b) Intermediate cover

Cover material must be applied to a depth of 30 centimetres over surfaces of the landfilled waste at the premises which are to be exposed for more than 90 days.

(c) Cover material stockpile

At least two weeks cover material must be available at the premises under all weather conditions. This material may be won on site, or alternatively a cover stockpile must be maintained adjacent to the tip face.

O21 Control of pests, vermin and weeds

O21.1 The licensee must undertake all practical actions to control pests, vermin and weeds at the premises.

O22 Fire extinguishment

O22.1 The licensee must extinguish fires at the premises as soon as possible.

O23 Fire fighting capability

O23.1 The licensee must have adequate fire prevention measures in place, and ensure that facility personnel are able to access fire-fighting equipment and manage fire outbreaks at any part of the premises.

O24 Staff training

O24.1 The licensee must ensure that adequately trained staff are available at the premises in order to administer the requirements of this licence.

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:

POINTS 1,2,3,5,6,7

Pollutant	Units of measure	Frequency	Sampling Method
Ammonia	milligrams per litre	Quarterly	Grab sample
Biochemical oxygen demand	milligrams per litre	Quarterly	Grab sample
Conductivity	microsiemens per centimetre	Quarterly	In situ
Copper	milligrams per litre	Quarterly	Grab sample
Dissolved Oxygen	milligrams per litre	Quarterly	In situ
Manganese	milligrams per litre	Quarterly	Grab sample
Nitrate	milligrams per litre	Quarterly	Grab sample
Nitrite	milligrams per litre	Quarterly	Grab sample
Nitrogen (total)	milligrams per litre	Quarterly	Grab sample
Redox potential	As approp.	Quarterly	In situ
Total Kjeldahl Nitrogen	milligrams per litre	Quarterly	Grab sample
Total suspended solids	milligrams per litre	Special Frequency 1	Grab sample
pH	pH	Special Frequency 1	In situ

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POINTS 8,10,12,16,19,20

Pollutant	Units of measure	Frequency	Sampling Method
Ammonia	milligrams per litre	Quarterly	Representative sample
Biochemical oxygen demand	milligrams per litre	Quarterly	Representative sample
Conductivity	microsiemens per centimetre	Quarterly	In situ
Copper	milligrams per litre	Quarterly	Representative sample
Dissolved Oxygen	milligrams per litre	Quarterly	In situ
Manganese	milligrams per litre	Quarterly	Representative sample
Nitrate	milligrams per litre	Quarterly	Representative sample
Nitrite	milligrams per litre	Quarterly	Representative sample
Nitrogen (total)	milligrams per litre	Quarterly	Representative sample
Redox potential	As approp.	Quarterly	In situ
Total Kjeldahl Nitrogen	milligrams per litre	Quarterly	Representative sample
pH	pH	Quarterly	In situ

POINTS 9,11,18,21,22

Pollutant	Units of measure	Frequency	Sampling Method
Ammonia	milligrams per litre	Yearly	Representative sample
Biochemical oxygen demand	milligrams per litre	Yearly	Representative sample
Conductivity	microsiemens per centimetre	Yearly	In situ
Copper	milligrams per litre	Yearly	Representative sample
Dissolved Oxygen	milligrams per litre	Yearly	In situ
Manganese	milligrams per litre	Yearly	Representative sample
Nitrate	milligrams per litre	Yearly	Representative sample
Nitrite	milligrams per litre	Yearly	Representative sample
Nitrogen (total)	milligrams per litre	Yearly	Representative sample
Redox potential	As approp.	Yearly	In situ
Total Kjeldahl Nitrogen	milligrams per litre	Yearly	Representative sample
pH	pH	Yearly	In situ

POINT 23

Pollutant	Units of measure	Frequency	Sampling Method
Methane	percent by volume	Quarterly	In situ

POINT 24

Pollutant	Units of measure	Frequency	Sampling Method
Methane	percent by volume	Quarterly	In situ

POINT 25

Pollutant	Units of measure	Frequency	Sampling Method
Methane	percent by volume	Quarterly	In situ

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POINTS 26,28,29,30,31

Pollutant	Units of measure	Frequency	Sampling Method
Ammonia	milligrams per litre	Quarterly	Representative sample
Biochemical oxygen demand	milligrams per litre	Quarterly	Representative sample
Conductivity	microsiemens per centimetre	Quarterly	In situ
Copper	milligrams per litre	Quarterly	Representative sample
Dissolved Oxygen	milligrams per litre	Quarterly	In situ
Manganese	milligrams per litre	Quarterly	Representative sample
Nitrate	milligrams per litre	Quarterly	Representative sample
Nitrite	milligrams per litre	Quarterly	Representative sample
Nitrogen (total)	milligrams per litre	Quarterly	Representative sample
Redox potential	As approp.	Quarterly	In situ
Total Kjeldahl Nitrogen	milligrams per litre	Quarterly	Representative sample
pH	pH	Quarterly	In situ

POINT 32

Pollutant	Units of measure	Frequency	Sampling Method
Ammonia	milligrams per litre	Quarterly	Representative sample
Biochemical oxygen demand	milligrams per litre	Quarterly	Representative sample
Conductivity	microsiemens per centimetre	Quarterly	In situ
Copper	milligrams per litre	Quarterly	Representative sample
Dissolved Oxygen	milligrams per litre	Quarterly	In situ
Manganese	milligrams per litre	Quarterly	Representative sample
Nitrate	milligrams per litre	Quarterly	Representative sample
Nitrite	milligrams per litre	Quarterly	Representative sample
Nitrogen (total)	milligrams per litre	Quarterly	Representative sample
Redox potential	As approp.	Quarterly	In situ
TKN-N	milligrams per litre	Quarterly	Representative sample
pH	milligrams per litre	Quarterly	In situ

For the purposes of the above Tables 'Special Frequency 1' in relation to Point 5, means the collection of samples:

- quarterly, immediately adjacent to the outlet of the wetland as shown in Council's faxes dated 3 & 4/02/2003; and,
- daily, from the wetland sump [the point at which overflow from the wetland enters the sump (and then outlet pipe to existing channel)] as shown in Council's fax to the DEC dated 22/02/2006, whenever water is discharging from the wetland from a rainfall event of up to 83mm in total falling at the premises over any consecutive 5 day period.

M2.2 The licensee must, continue to monitor in accordance with Condition M2, until a report which complies with the following conditions is received and approved by the EPA :

- assess all leachate monitoring results,
- propose and justify a list of parameters, sampling frequencies and a concentration limit for each parameter to be used in the future, designed to ensure the environmental sustainability of the method(s) employed to reuse or dispose of the leachate,
- submit a report to the EPA incorporating all monitoring results from (a) in graphical and tabular form and seeking approval for the monitoring program and limits proposed under (b).

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M2.3 The licensee must submit to the EPA an annual groundwater contamination detection monitoring program report by 14 October each year, commencing in 2006. The annual report must as a minimum incorporate the following:

- a) The results of all groundwater monitoring undertaken over the previous 12 months and an assessment of the results against the trigger levels stated in licence condition R8.1;
- b) A tabular and graphical representation of contamination levels for the annual reporting period compared to previous reporting periods and an assessment of any changes and trends over time;
- c) An assessment of the nature and level of (and changes to) any human health and environmental risk, with respect to off-site groundwater and the uses of those waters;
- d) Any further mitigation measures proposed to be implemented for the subsequent 12 months period to further reduce contamination levels and risks to human health and the environment.

M2.4 The licensee must submit to the EPA an annual surface water contamination detection monitoring program report by 14 October each year, commencing in 2006. The annual report must as a minimum incorporate the following:

- a) The results of all surface water monitoring undertaken over the previous 12 months and an assessment of the results against the trigger levels stated in licence condition R8.1;
- b) A tabular and graphical representation of contamination levels for the annual reporting period compared to previous reporting periods and an assessment of any changes and trends over time;
- c) An assessment of the nature and level of (and changes to) any human health and environmental risk, with respect to off-site surface water and the uses of those waters;
- d) Any further mitigation measures proposed to be implemented for the subsequent 12 months period to further reduce contamination levels and risks to human health and the environment.

M3 Testing methods - concentration limits

M3.1 Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence must be done in accordance with:

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

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

M3.2 Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.

M4 Recording of pollution complaints

- M4.1 The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.
- M4.2 The record must include details of the following:
- (a) the date and time of the complaint;
 - (b) the method by which the complaint was made;
 - (c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
 - (d) the nature of the complaint;
 - (e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and
 - (f) if no action was taken by the licensee, the reasons why no action was taken.
- M4.3 The record of a complaint must be kept for at least 4 years after the complaint was made.
- M4.4 The record must be produced to any authorised officer of the EPA who asks to see them.

M5 Telephone complaints line

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

M6 Requirement to monitor volume or mass

- M6.1 Not applicable.

M7 Monitoring remaining landfill capacity

- M7.1 The licensee must monitor the remaining disposal capacity (in cubic metres) of the landfill.

M8 Overflow Monitoring

- M8.1 For the purpose of complying with condition R5 the licensee must monitor overflow events from the following discharge points - Point 6 and Point 27.

M9 Rainfall Monitoring

- M9.1 The licensee must monitor and record rainfall at the premises twice daily, morning and evening.

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

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- (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 Not applicable.

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.

Sampling Frequency Reporting in Annual Return

- R1.10 All Annual Returns submitted must be accompanied by a letter, describing how many of the samples collected and analysed for each monitoring point were completed in order to comply with:
- (a) yearly monitoring;
 - (b) quarterly monitoring; and
 - (c) licence condition R8.1.

The dates on which sampling occurred to satisfy (a) through to (c) above must also be stipulated.

R2 Notification of environmental harm

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

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

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

R3 Written report

- R3.1 Where an authorised officer of the EPA suspects on reasonable grounds that:
- (a) where this licence applies to premises, an event has occurred at the premises; or
 - (b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence,
- and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.
- R3.2 The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.
- R3.3 The request may require a report which includes any or all of the following information:
- (a) the cause, time and duration of the event;
 - (b) the type, volume and concentration of every pollutant discharged as a result of the event;
 - (c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event;
 - (d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;
 - (e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants;
 - (f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and
 - (g) any other relevant matters.
- R3.4 The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.

R4 Recording of fires

- R4.1 The licensee must maintain a daily log and record the following data of fires at the site:
- (a) Time and date when the fire was started or reported.
 - (b) Whether the fire was authorised by the licensee, and, if not, the circumstances which ignited the fire.
 - (c) The time and date that the fire ceased and whether it burnt out or was extinguished.
 - (d) The location of fire (eg. clean timber stockpile, putrescible garbage cell, etc).
 - (e) Prevailing weather conditions.
 - (f) Observations made in regard to smoke direction and dispersion.
 - (g) The amount of waste that was combusted by the fire.
 - (h) Action taken to extinguish the fire.

- R4.2 The licensee or its employees or agents must notify the EPA in accordance with conditions R2.1 and R2.2 of all fires at the premises as soon as practical after becoming aware of the incident.

R5 Leachate discharges to surface waters

- R5.1 Whenever leachate is discharged to surface waters from the premises the licensee must notify the event to the EPA in accordance with condition 5.2.
- R5.2 The licensee must provide written details of any leachate discharge(s) to the EPA within 7 days of the date on which the incident occurred in accordance with condition 5.3.
- R5.3 The written details referred to in the above condition must be provided as a report. The report must include the following information:
- (a) the volume of the leachate discharged and over what time period the discharge occurred;
 - (b) the date and time of the commencement of the overflow;
 - (c) the weather conditions at the time of the discharge, specifying the amount of rainfall on a daily basis that had fallen:
 - on the day(s) of the discharge; and
 - for the one week period prior to the discharge.
 - (d) the most recent monitoring results of the chemical composition of the leachate;
 - (e) an explanation as to why the discharge occurred;
 - (f) the location(s) of the discharge;
 - (g) a plan of action to prevent a similar discharge in the future; and
 - (h) was the discharge permitted by this licence.

R6 Landfill Gas Hazard Reporting

- R6.1 The licensee must notify the EPA within 24 hours in accordance with condition R2.1 if subsurface monitoring detects methane above 1.25% (v/v), and increase the frequency of monitoring to daily, until the EPA determines otherwise.

R7 Waste recording

- R7.1 The licensee must provide the EPA with information on the quantity of waste received at the facility and the quantity of waste transported from the facility each quarter. The information in respect of a particular quarter is to be provided on the approved Form WISQTR.1 and must be received by the EPA within 60 days of the end of that quarter.

For the purposes of this condition each of the following periods is a quarter:

- (Quarter 1) 1 January - 31 March
- (Quarter 2) 1 April - 30 June
- (Quarter 3) 1 July - 30 September
- (Quarter 4) 1 October - 31 December

R8 Groundwater Contamination Reporting

R8.1 Table A - Ground and Surface Water Trigger Levels for the Stotts Creek Monitoring Program

Pollutant	Units of Measure	Trigger Level	
		Groundwater	Surface Water
pH	pH	4.5-9.0	6.0-9.0
Conductivity	US/cm	2000	1500
Redox. Potential	Eh	-	-
Dissolved Oxygen	mg/L	-	-
Copper	mg/L	0.05	0.05
Manganese	mg/L	2.0	2.0
Nitrate	mg/L	NA*	NA*
Nitrite	mg/L	NA*	NA*
Ammonia	mg/L	NA*	NA*
Total Nitrogen	mg/L	5.0	5.0
TKN	mg/L	NA*	NA*
Biological Oxygen Demand	mg/L	20	20

*NA – Not applicable

Surface Water - Whenever 2 or more of the indicator analytes [refer Table A] in one sampling round required by Condition M2.1, exceeds the surface water trigger levels specified in Table A, a re-sampling event for the surface water sampling point in question is to be conducted within 14 days of the results being received. If the second set of results also exceed two trigger levels another re-sampling event is to be conducted within 14 days of receiving the results from the second round of sampling. If two trigger levels are in exceedance for all three consecutive monitoring rounds, Council must submit a report to the EPA within 14 days of receiving the results from the third round of sampling, proposing a future monitoring program to assess the extent of surface water contamination emanating from the premises and identify any necessary remediation strategies.

Groundwater - Whenever 2 or more of the indicator analytes [refer Table A] in one sampling round required by Condition M2.1, exceeds the groundwater trigger levels specified in Table A, a re-sampling event for the groundwater sampling point in question is to be conducted within 30 days of the results being received. If the second set of results also exceed two trigger levels another re-sampling event is to be conducted within 30 days of receiving the results from the second round of sampling. If two trigger levels are in exceedance for all three consecutive monitoring rounds, Council must submit a report to the EPA within 14 days of receiving the results from the third round of sampling, proposing a future monitoring program to assess the extent of groundwater contamination emanating from the premises and identify any necessary remediation strategies.

NB.

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1. Trigger levels and re-sampling provisions do not apply for Leachate Quality Monitoring Points 6, 7 and 22.
2. Re-sampling provisions (due to trigger level exceedances of indicator analytes) do not apply for Monitoring Points 8, 16, 26 and 29 until current investigations into leachate contamination issues have been resolved.

R9 Trigger Level Exceedance Reporting

- R9.1 The licensee must review the monitoring results collected in accordance with Condition M2, against the trigger levels specified in Table A and notify the EPA in writing within 14 days of any exceedance of the trigger levels being detected.

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.

Pollution studies and reduction programs

U1 Leachate management system

- U1.1 The licensee must by the 31 July 2001:
- Investigate a range of options to facilitate compliance with Condition L3.5, including but not limited to:
 - Improving the management of surface water to reduce the volume of leachate generated;
 - Reduction in the size of the active cell to reduce leachate volumes;
 - Reduction of the residual volumes in the leachate dam, the potential to extend the irrigation areas or alternative disposal options such as disposal to sewerage or onsite treatment;
 - Exploration of options to increase the leachate storage capacity eg. tanks or another leachate dam;
 - Final capping of completed cells and batters; &
 - More effective daily cover.

- Submit a report to the EPA summarising the results of the above investigations, highlighting the preferred options, detailing the extent to which the preferred options will facilitate compliance with Condition L3.5 and nominating a workplan and deadlines for the implementation of the preferred options.

U1.1.1 The licensee is not required to comply with Condition L 3.5 until the 31 January 2002, or the implementation of the preferred options, in accordance with condition U3.1, whichever comes first.

U2 Revised interim leachate/surface water management

- U2.1 Temporary diversion structures are to be installed to divert surface water from the landfill away from the wetland, by the 31 July 2001.
- U2.2 Sedimentation and erosion control structures are to be installed to treat surface water and prevent erosion associated with new discharge points.
- U2.3 The licensee must irrigate the maximum volume of leachate possible, from both the leachate dam and the wetland. Irrigation in areas draining to the surface water management system must not result in runoff.
- U2.4 The licensee must maximise the 'freeboard' in the leachate dam and minimise the total volume of leachate stored[in the leachate dam and former wetland].
- U2.5 The licensee is exempt from complying with licence conditions L 3.1, 3.2, 3.3 & 3.4, until the 31 January 2002.

U3 Leachate Extraction System

- U3.1 Leachate extraction from the leachate sump, Monitoring Point 22 [Leachate Monitoring Bore (LMB) 14] must be conducted, in accordance with the following conditions U3.1.1-3.1.5.
- U3.1.1 The leachate extraction system must be operational whenever there is free liquid in the sump.
- U3.1.2 A flow meter must be used to monitor the volume of liquid extracted from the sump.
- U3.1.3
- U3.1.4 Water levels in wells GMB 14, GMB 15 and GMB 16 must be monitored weekly.
- U3.1.5 Leachate extracted from the sump [GMB 14] can be either pumped directly to the leachate dam or irrigated directly on to the northern landfill batter in accordance with Condition O 7.2.
- U3.1.6 If the licensee wishes to vary the operating conditions of the leachate extraction sump, a report which addresses the following requirements must be provided to the EPA's Grafton Office :-
- A summary and analysis of rainfall data, leachate extraction volumes and water levels;
 - An analysis of the trends in the volume of leachate being extracted, water level response in adjacent wells and the extent of leachate contamination;

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- Recommendations for the ongoing operation of the system; &
- The report must cover the period from January 2002 onwards.

U4 The licensee must prepare and submit to the EPA for review, a report by 29 October 2001, which assesses the extent of leachate impacts on groundwater and surface water to the west of the landfill and the preferred option to address these impacts.

U5 A groundwater monitoring bore must be installed between the wetland and the main access road, in the vicinity of the previous monitoring well GMB 6. The groundwater bore must be installed by the 30 June 2001.

The licensee must notify the EPA as soon as possible after the new bore is installed, so that the monitoring program can be revised.

U6 The licensee must forward a water balance report to the EPA by the 31 August 2001, which estimates the volume of leachate being lost to groundwater on an annual basis. The report must address the following issues:-

- Calculation of the total volume of leachate being generated from the site;
- Review the assumptions underpinning the infiltration predictions ;
- The proportion of leachate contributed by infiltration through the batters of the northern waste mound;
- Calculation of the volume of leachate being captured by the leachate dam;
- Calculation of the volume of stormwater being captured in leachate dam;
- Calculation of the evaporative losses and overflows from the leachate dam;
- Calculation of the volume of leachate being extracted from the northern and western leachate sumps;
- Estimates of the volume of leachate mounding in the landfill; &
- Estimates of the volume of leachate being lost to groundwater.

U7 Stormwater collection and diversion measures, including sediment basin spillways, must be designed to remain stable in the peak flows resulting from an appropriate design storm, as defined by the upper limits of the ranges listed in Table 3.1 of the "Managing Urban Stormwater: Soils and Construction" document (Department of Housing, 3rd Edition, August 1998).

U8 Inert waste area

U8.1 The licensee must by the 31 March 2002 comply with the following conditions:-

- The size of the active cell must be minimised in order to reduce the volume of leachate generated;
- The active cell must be covered with clean earthen material to a depth of 15cm weekly; &
- An inert waste filling plan for the period 31 March 2002 to October 2004 must be provided to the EPA for review.

U8.2 The licensee must by the 31 May 2002 comply with the following conditions :

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- The licensee must implement surface water controls to capture and treat all surface water emanating from the inert waste landfilling area; &
- Any surface water discharges from the inert waste landfilling area must comply with licence conditions L3.3 and L3.4.

NB. Discharge points and monitoring requirements for this component of the surface water management system will be formally specified in the licence pending finalisation of the systems design.

U9 Leachate Management – Western Batter

- U9.1 Leachate irrigation on the western batter must cease by 19 December 2001, with all leachate collected in the existing leachate sumps and any additional sumps to be pumped directly to the leachate dam.
- U9.2 The licensee must provide a report, which includes detailed designs for the proposed western batter leachate capture system to the EPA by the 30 April 2002. The report must include the following information:
- A. Detailed designs for the leachate interception trench, including the sump(s) and the pipeline to convey the leachate directly to the leachate dam;
 - B. Identification of the proposed lining, piping, capping and backfill material to be used in the leachate interception trenches construction;
 - C. Detailed designs for the new surface water drain including its depth, width, lining and exact location relative to the leachate interception drain;
 - D. The invert of the leachate interception trench, relative to groundwater, the base of the waste and the underlying bedrock;
 - E. An assessment of the volumes of leachate likely to be captured and appropriate disposal options;
 - F. A review of the potential groundwater volumes which maybe captured by the trench and initiatives to ensure that large volumes of groundwater do not overload the system;
 - G. Initiatives to minimise the capture of surface water within the leachate interception trench;
 - H. Designs which demonstrate how the existing seepage points are to be captured; &
 - I. Consideration of options for the construction of preferential pathways from the waste mound to the leachate interception trench, which will actively reduce leachate mounding within the landfill [eg. horizontal boring].

U10 Leachate Collection System [Northern Batter]

- U10.1 The licensee must provide a report which explores options to increase the volume of leachate being captured along the northern toe of the main landfill mound. The report must be provided to the EPA by the 31 March 2003 and include the following:-
- A] An assessment of all possible options to collect leachate in this area, including a leachate collection trench;
 - B] Identify a preferred option and provide detailed designs for this option; &
 - C] A commitment to construct and have the preferred option operational by the 30 September 2003.

U11 Detailed Surface Water Investigation [Western Drain]

U11.1 The licensee must undertake the following detailed surface water investigation :-

Sampling Points – Points 1[S3], 2[D1], 3[S4] must be sampled in accordance with the analytes and frequency detailed below;

Analytes – the analytes specified under condition M2.1 must be tested during the detailed surface water investigation. Faecal Coliforms must also be tested to assist in determining whether birds are contributing to the observed levels of contamination;

Sampling Frequency – the next three rainfall events which produce flow in the western drain must be sampled at the following frequency. Samples must be collected on the day that flow commences and every second day thereafter, while flow continues. A maximum of three samples per rainfall event is required. Photographs to confirm the nature of flow during the sampling must be submitted.

U12 Capping and extension on the leachate irrigation area

U12.1 Capping of the inert waste area as shown in Council's fax dated 26 February 2004 must be completed by the 31 March 2004. The capping of this area must comply with the following specifications:-

- Sealing Layer – a clay layer which is at least 50cm thick and exhibits a permeability of less than 10^{-8}ms^{-1} ;
- The surface of the sealing layer must exhibit a minimum grade of 2% and drain to the north into the landfill surface water management system [ie. wetland];
- Revegetation Layer – must be 50cm thick and capable of supporting the growth of vetiver grass.

U12.2 As soon as the capping of the inert waste area is completed it must be planted out with vetiver grass and the leachate irrigation system extended into the area as shown on Council's fax dated 26 February 2004. Revegetation of this area and extension of the leachate irrigation system must be completed by the 7 May 2004.

U12.3 The interim capping of the southern batters of the inert waste area must be stabilised using an appropriate species by the 30 May 2004.

U12.4 Council must survey the area of capping as specified in condition U12.1 in August 2005 and forward the results to the Department of Environment and Conservation by 30 September 2005. These survey results must include an analysis of any changes in slope across the cap and highlight any areas where the slope is less than 2%. In any areas where the slope is less than 2% the sealing layer must be amended to restore a minimum of 2% slope with appropriate clay material and the revegetation layer reinstated and stabilised.

U13 Upgrade of the existing leachate irrigation area

U13.1 The southern section of the current leachate irrigation area must be re-contoured to restrict the potential for leachate to pool and be replanted by the 31 March 2004.

U13.2 The existing leachate irrigation system is to be upgraded to minimise the potential for pipe break and therefore pooling of leachate by the 31 March 2004.

U14 Construction of the new leachate dam

U14.1 The new leachate dam must be constructed in accordance with the following specifications and be operational by the 14 May 2004:-

- The dam must be constructed in accordance with the leachate dam design as shown in Council's Fax dated 26 February 2004 [refer Drawing 007 – Leachate Pond : Location and Typical Details (June 2003)];
- The geomembrane liner must exhibit a permeability of less than 10^{-11}ms ;
- The clay fill must exhibit a permeability of less than 10^{-7}ms and be a minimum of 0.9m thick;
- The base of the dam must be located at least 1m above the highest recorded groundwater level in the vicinity of the dam.

U15 Investigation into the upgrading of the leachate management system

U15.1 The licensee must prepare and submit to the Department of Environment and Conservation for review a report which provides a plan of how Council intends to upgrade the leachate management system on the premises to ensure compliance with the groundwater trigger levels at Groundwater Monitoring Point 16 (GMB9). **Completion Date: 30 September 2005**

U16 Gross Pollutant Trap Waste Treatment Trial

U16.1 During the 6 months trial of treatment of Gross Pollutant Trap (GPT) waste, Council must:

- Advise the DECC in writing, within one week of starting the trial, of the trial start date;
- Ensure that modifications to the treatment facility are incorporated into the trial (for example, but not limited to longer filtering periods prior to discharge, and management of fines on the top layer of the sand medium) with a view to improving surface water discharge quality;
- Monitor and record the resulting waste classification for the sand solid fraction (contaminants tested for to include those analysed for in the previous trial together with C6 – C9 fraction, Nitrogen – oxidised, Total Phosphorous – P, and Ammonia – N) and, identify the final disposal facility for each batch of sand (and resulting solid fraction) disposed of;
- Characterise the resulting liquid fraction disposed to the surface water system monthly for six months. Analysis is required for the parameters and analytes used in the original September 2002 samples (as provided in Council's 14 June 2005 facsimile to the DECC) together with total petroleum hydrocarbons (including BTEX). Samples taken must be representative of discharge quality arising from the servicing of the GPT's. These samples should be compared to the ANZECC / NWQMS (2000) Guidelines for Fresh and Marine Water Quality (Aquatic Ecosystems Protection) where applicable;
- Calculate the volume of the resulting liquid fraction disposed to the surface water system for 6 months; and,
- At the end of the 6 months period Council must provide a report to the DECC within six weeks of the final servicing of GPT's containing all the information requested above, together with a

justification for continuing the program. The report must incorporate a discussion comparing the analysis results of this and the previous 12 months trial undertaken;

Following the completion of the above, a DECC determination will be made regarding the ongoing treatment of GPT waste beyond the 6 month trial.

[Note: this 6 months trial is the second such trial to be undertaken on GPT waste treatment at the landfill, the first trial being 12 months in duration concluding in approximately April 2008.]

U17 Final capping and extension of leachate irrigation area

U17.1 Capping of the solid waste area as shown in Council's facsimile dated 15 September 2005 must comply with the following specifications and be completed by the following dates:

- Sealing layer – a clay layer which is a minimum 1 metre thick and exhibits a permeability of less than 10^{-8} ms^{-1} ;
- The surface of the sealing layer must exhibit a minimum grade of 5% and drain to the north into the landfill surface water management system [ie. wetland];
- Infiltration drainage layer – a layer which is minimum 300 millimetres thick and exhibits a minimum permeability of 10^{-5} ms^{-1} to be completed by 15 February 2006; and
- Revegetation layer – a layer of depth of not less than 1 metre must be placed over the drainage layer and be completed by 30 March 2006.

U17.2 As soon as the capping of the area specified in U17.1 is completed it must be planted out with vetiver grass and the leachate irrigation system extended into the area. Revegetation of this area and extension of the leachate system must be completed by the 30 March 2006.

U17.3 Council must survey the area of capping as specified in condition U17.1 in October 2006 and forward the results (including a contour map) to the Department of Environment and Conservation by 30 November 2006. These survey results must include an analysis of any changes in slope across the cap and highlight any areas where the slope is less than 5%. In any areas where the slope is less than 5% the sealing layer must be amended to restore a minimum of 5% slope with appropriate clay material and the revegetation layer reinstated and stabilised.

U18 Greenwaste Management Plan

U18.1 The licensee must prepare and submit to the Department of Environment and Climate Change (DECC) a greenwaste management plan for approval, prior to the **14 August 2009**. This latest draft plan must take into account comments from DECC correspondence dated 14 September 2007, 12 February 2008, and July 2009 and Council findings from Pollution Reduction Program U20.

U19 Western Drain Surface Water Quality Investigation

U19.1 Surface water quality in the Western drain adjacent to the landfill is to be investigated. A report, including the findings of the investigation and proposed mitigation measures, must be submitted to the DECC by 2 May 2008.

U20 Leachate Management

U20.1 The licensee is to investigate improving leachate management at the site. A report is to be submitted to the DECC by the **24 December 2009** detailing all options considered, and Council's preferred option and timeframes for implementation.

U21 Investigation into the small pond adjacent to the inlet of the wetland

U21.1 The licensee is to:

- 1) sample the small pond which lies adjacent to the upstream wall of the wetland and forward the analysis results with interpretation to DECC; and,
- 2) investigate possible contamination of the pond and provide a report to the DECC recommending remedial action that may be required

prior to the **29 May 2009**.

U22 Sediment removal from sediment ponds and wetland

U22.1 The licensee must remove excess sediment from sediment ponds and wetland by 1 July 2009 and advise Department of Environment and Climate Change in writing when it has been completed.

Special conditions

Dictionary

General Dictionary

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

3DGM [in relation to a concentration limit]	Means the three day geometric mean, which is calculated by multiplying the results of the analysis of three samples collected on consecutive days and then taking the cubed root of that amount. Where one or more of the samples is zero or below the detection limit for the analysis, then 1 or the detection limit respectively should be used in place of those samples
Act	Means the Protection of the Environment Operations Act 1997
activity	Means a scheduled or non-scheduled activity within the meaning of the Protection of the Environment Operations Act 1997
actual load	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 1998
AM	Together with a number, means an ambient air monitoring method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .
AMG	Australian Map Grid
anniversary date	The anniversary date is the anniversary each year of the date of issue of the licence. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of

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	the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
annual return	Is defined in R1.1
Approved Methods Publication	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 1998
assessable pollutants	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 1998
BOD	Means biochemical oxygen demand
CEM	Together with a number, means a continuous emission monitoring method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .
COD	Means chemical oxygen demand
composite sample	Unless otherwise specifically approved in writing by the EPA, a sample consisting of 24 individual samples collected at hourly intervals and each having an equivalent volume.
cond.	Means conductivity
environment	Has the same meaning as in the Protection of the Environment Operations Act 1997
environment protection legislation	Has the same meaning as in the Protection of the Environment Administration Act 1991
EPA	Means Environment Protection Authority of New South Wales.
fee-based activity classification	Means the numbered short descriptions in Schedule 1 of the Protection of the Environment Operations (General) Regulation 1998.
flow weighted composite sample	Means a sample whose composites are sized in proportion to the flow at each composites time of collection.
general solid waste (non-putrescible)	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
general solid waste (putrescible)	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
grab sample	Means a single sample taken at a point at a single time
hazardous waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
licensee	Means the licence holder described at the front of this licence
load calculation protocol	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 1998
local authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
material harm	Has the same meaning as in section 147 Protection of the Environment Operations Act 1997
MBAS	Means methylene blue active substances
Minister	Means the Minister administering the Protection of the Environment Operations Act 1997
mobile plant	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997

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

Special Dictionary

Leachate Means liquid released by, or water that has percolated through, waste and which contains dissolved and/or suspended liquids and/or solids and/or gases.

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Climate Change
& Water

Title

Mr Graeme Budd

Environment Protection Authority

(By Delegation)

Date of this edition - 01-Nov-2010

End Notes

- 1 Licence varied by notice 1011737, issued on 26-Sep-2001, which came into effect on 21-Oct-2001.
- 2 Licence varied by notice 1013570, issued on 20-Dec-2001, which came into effect on 14-Jan-2002.
- 3 Licence varied by notice 1018048, issued on 07-Jun-2002, which came into effect on 02-Jul-2002.
- 4 Licence varied by notice 1022338, issued on 10-Feb-2003, which came into effect on 07-Mar-2003.
- 5 Licence varied by notice 1031545, issued on 09-Oct-2003, which came into effect on 03-Nov-2003.
- 6 Licence varied by notice 1035400, issued on 17-Mar-2004, which came into effect on 11-Apr-2004.
- 7 Licence varied by notice 1041949, issued on 01-Nov-2004, which came into effect on 26-Nov-2004.
- 8 Licence varied by notice 1043114, issued on 14-Dec-2004, which came into effect on 08-Jan-2005.
- 9 Licence varied by notice 1045883, issued on 23-Mar-2005, which came into effect on 17-Apr-2005.
- 10 Licence varied by notice 1046596, issued on 19-Apr-2005, which came into effect on 12-May-2005.
- 11 Licence varied by notice 1047627, issued on 13-May-2005, which came into effect on 07-Jun-2005.
- 12 Licence varied by notice 1048829, issued on 21-Jun-2005, which came into effect on 16-Jul-2005.
- 13 Licence varied by notice 1051487, issued on 02-Sep-2005, which came into effect on 27-Sep-2005.

End Notes

14	Licence varied by notice 1053513, issued on 09-Nov-2005, which came into effect on 04-Dec-2005.
15	Licence varied by notice 1054824, issued on 29-Dec-2005, which came into effect on 23-Jan-2006.
16	Licence varied by notice 1056362, issued on 23-Mar-2006, which came into effect on 17-Apr-2006.
17	Licence varied by notice 1064901, issued on 08-Sep-2006, which came into effect on 08-Sep-2006.
18	Licence varied by notice 1066370, issued on 26-Oct-2006, which came into effect on 26-Oct-2006.
19	Licence varied by notice 1069690, issued on 09-Feb-2007, which came into effect on <date to be advised>.
20	Licence varied by notice 1069690, issued on 09-Feb-2007, which came into effect on 09-Feb-2007.
21	Licence varied by notice 1070047, issued on 23-Feb-2007, which came into effect on 23-Feb-2007.
22	Licence varied by notice 1074000, issued on 07-Jun-2007, which came into effect on 07-Jun-2007.
23	Licence varied by notice 1078177, issued on 14-Sep-2007, which came into effect on 14-Sep-2007.
24	Licence varied by notice 1082803, issued on 12-Feb-2008, which came into effect on 12-Feb-2008.
25	Licence varied by notice 1087942, issued on 04-Jun-2008, which came into effect on 04-Jun-2008.
26	Condition A1.3 Not applicable varied by notice issued on <issue date> which came into effect on <effective date>
27	Licence varied by notice 1094047, issued on 17-Nov-2008, which came into effect on 17-Nov-2008.
28	Licence varied by notice 1100124, issued on 24-Apr-2009, which came into effect on 24-Apr-2009.
29	Licence varied by notice 1102863, issued on 25-Jun-2009, which came into effect on 25-Jun-2009.
30	Licence varied by notice 1103750, issued on 03-Jul-2009, which came into effect on 03-Jul-2009.
31	Licence varied by correction to DECCW Region data record, issued on 01-Nov-2010, which came into effect on 01-Nov-2010.