

ENVIRONMENTAL PLANNING AND ASSESSMENT ACT, 1979

**DETERMINATION OF DEVELOPMENT APPLICATION
UNDER SECTION 80 OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT
1979**

I, the Minister for Urban Affairs and Planning, under Section 80 of the "Environmental Planning and Assessment Act, 1979" ("the Act") determine the development application ("the application") referred to in Schedule 1 by granting consent to the application subject to the conditions set out in Schedule 2.

The reason for the imposition of conditions generally is to minimise any adverse effects from the development, consistent with the objectives of the Act. These conditions are set out in detail in Schedule 2.



Andrew Refshauge MP
Deputy Premier
Minister for Urban Affairs and Planning
Minister for Aboriginal Affairs
Minister for Housing

Sydney,

12 Nov

1999

File No. R97/00029

SCHEDULE 1

Application made by:

Waste Recycling and Processing Service of NSW and Sutherland Shire Council ("the Applicants"). Note that the term "the Applicants" is used generically in this instrument of consent. The roles and responsibilities of the Waste Recycling and Processing Service of NSW and Sutherland Shire Council shall be in accordance with the terms of the deed of agreement addressed in Condition 10 of this consent.

To:

The Minister for Urban Affairs and Planning ("the Minister").

In respect of:

Lots 10 and 11 DP 818819, PO (PO 85/81 Metrop) Crown Land, Portion 126, Lot 24 DP 874608, Lot 2 DP 605077, Lot 1 DP 804455, Lot 10 DP 837126, Lot 102 DP

unregistered, and Lot 101 DP unregistered, New Illawarra Road and Heathcote Road, Sutherland Shire.

For the following:

The expansion of the capacity of the Lucas Heights Waste Management Centre and the progressive redevelopment of the site for recreational purposes;
The development of composting and recycling facilities including a Green Waste Processing and Composting Facility (GWPCF) and a biowaste facility at the Lucas Heights Waste Management Centre;
The diversion of dry waste and clean fill from the Lucas Heights Waste Management Centre to the area known as Lucas Heights 1 and the progressive development of a local and regional multi-purpose sporting and recreational complex at the site;
The establishment of an area known as the Lucas Heights Conservation Area to the immediate north of the Lucas Heights Waste Management Centre.
("the development").

Development Application:

DA No. 11-01-99 lodged with the Department of Urban Affairs and Planning on 18 January 1999, accompanied by the Environmental Impact Statement prepared by National Environmental Consulting Services dated January 1999, and Amended DA lodged with the Department of Urban Affairs and Planning on 28 April 1999.

BCA Classification:

Lucas Heights 1

Weighbridge – Class 10b

Sports Club:

Main lounge, dining room, gaming room - Class 9b

Function areas – Class 9b

Pro-shop – Class 6

Amenities buildings:

Kiosks - Class 6

Change rooms & toilets – Class 10a

Maintenance building – Class 10a

Shade structures – Class 10a

Golf course players' pavilion – Class 10a

Fences, retaining walls – Class 10b

Picnic area structures (tables, seating, shelters etc) – Class 10a

Car parking areas – Class 7

Lucas Heights Waste Management Centre

Weighbridge – Class 10b

Biowaste Facility:

Administration offices – Class 5

Warehouse, laboratory and maintenance building – Class 8

Anaerobic Digestion Plant – Class 10a
Waste water treatment structures – 10a
Post-treatment, product storage and bagging plant – Class
8
Composting Hall – Class 8
Recycling sheds – Class 8
Lucas Heights Conservation Area
Fences – Class 10b

Determination:

- 1) To ascertain the date upon which the consent becomes effective, refer to section 83 of the Act.
- 2) To ascertain the date upon which the consent is liable to lapse, refer to section 95 of the Act.
- 3) Section 97 of the Act confers on an applicant who is dissatisfied with the determination of a consent authority a right of appeal to the Land and Environment Court exercisable within 12 months after receipt of notice.

SCHEDULE 2

Conditions of Development Consent

Abbreviations and Interpretation

Approval from EPA	means approved in writing by the EPA or as specified as a condition of a licence
BCA	Building Code of Australia
CELC	Community Environment Liaison Committee
Council	Sutherland Shire Council
DA	development application
DLWC	Department of Land and Water Conservation
DLWC GTA	DLWC General Term of Approval
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
EP&A Act	Environmental Planning and Assessment Act 1979, as amended
EPA	Environment Protection Authority
EPA GTA	EPA General Term of Approval
EPA Licence	means a licence under the Protection of the Environment Operations Act 1997
Leachate	means any liquid released by, or water that has percolated through waste, and that contains dissolved and/or suspended liquids and/or solids and/or gases and includes old fill leachate and new fill infiltrate
LH1	Lucas Heights 1
LH1LC	Lucas Heights 1 Liaison Committee
LH1SC	Lucas Heights 1 Steering Committee
LHCA	Lucas Heights Conservation Area
LHEMTG	Lucas Heights Environmental Management Technical Group
LHWMC	Lucas Heights Waste Management Centre
New fill infiltrate	means any liquid that has come into contact with the waste that will be placed over the top of stages 2 and 5 at the LH1 site
NPWS	National Parks and Wildlife Service
Old fill leachate	means any liquid that has come into contact with the waste that was disposed of at the LH1 site prior to the commencement of this consent
PCA	Principal Certifying Authority
RTA	Roads and Traffic Authority
Subject Land	the land to which the DA and this consent applies
The Applicants	Waste Recycling and Processing Service of NSW and Sutherland Shire Council
The Department	Department of Urban Affairs and Planning
The Director-General	Director-General of the Department of Urban Affairs and Planning

VENM

Virgin Excavated Natural Material, as defined in the
Protection of the Environment Operations Act 1997

INTEGRATED DEVELOPMENT

Integrated development is development (not being complying development) that, in order for it to be carried out, requires development consent and one or more of the approvals set out in the EP&A Act. The subject proposal is integrated development, as it requires development consent and the approval of the Environment Protection Authority (EPA) under the Protection of the Environment Operations Act 1997, a permit from the Department of Land and Water Conservation (DLWC) under Part 3A of the Rivers and Foreshores Improvement Act 1948, a licence from DLWC under Part 2 of the Water Act 1912 and a licence from DLWC under Part 5 of the Water Act 1912. The general terms of approval of both the EPA and DWLC therefore form part of this consent.

GENERAL

Adherence to Terms of DA and EIS

1. Development shall be carried out in accordance with:
 - (a) DA No. 11-01-99;
 - (b) the EIS prepared by National Environmental Consulting Services dated December 1998; and
 - (c) Amended DA and accompanying Assessment Report prepared by National Environmental Consulting Services dated 27 April 1999

except as modified by the following conditions.

In the event of an inconsistency between this consent and DA No. 11-01-99 (and accompanying EIS), this consent shall prevail.

Staged Development

2. In accordance with section 80(4) of the EP&A Act, this consent does not apply to new vehicle access points to the LHWMC site from New Illawarra Road ("South Entrance") and Heathcote Road ("West Entrance"). In accordance with section 80(5) of the EP&A Act, the South Entrance and West Entrance require a further development consent.

Compliance with Requirements of the Director-General and Prescribed Conditions

3. The Applicants shall comply with all reasonable requirements of the Director-General in respect of the implementation of any measures arising from reports submitted in accordance with the conditions of this consent, within such time as the Director-General may agree.
4. The Applicants shall comply with all relevant conditions prescribed in Part 7 of the Environmental Planning and Assessment Regulation 1994, as required by Section 80A (11) of the Act.

Obligation to Prevent and Minimise Harm to the Environment

5. All practicable measures shall be taken to prevent and minimise harm to the environment as a result of the construction, operation, post closure and, where relevant, the decommissioning of the development. (EPA GTA)

Structural Adequacy

6. Detailed plans and specifications relating to the design and construction of all structural elements associated with the proposed development are to be submitted to the Principal Certifying Authority (PCA) prior to the commencement of construction works. Such plans and specifications shall be accompanied by certification provided by a practicing professional structural engineer or an accredited certifier certifying the structural adequacy of the proposed building design and compliance with the Building Code of Australia (BCA).

Verification of Construction

7. Upon completion of building works and prior to the issue of an occupation certificate/s, a certificate/s prepared by a suitably qualified person or a compliance certificate/s issued by an accredited certifier, is to be submitted to the PCA certifying that the following building components, where relevant, have been completed in accordance with approved plans and specifications:
 - (a) footings;
 - (b) concrete structures, including ground floor and any subsequent floors, and retaining walls and columns;
 - (c) framing and roof structure;
 - (d) fire protection coverings to building elements required to comply with the BCA; and
 - (e) mechanical ventilation.

The certificate/s shall demonstrate at what stage of construction inspections were undertaken.

Year 2000 Conformity

8. One month prior to the commencement of operation of any automated system, including embedded systems, used for operation, pollution control, monitoring and safety (including fire safety), the Applicants shall provide the Director-General with a report confirming that the system has been tested in accordance with the most recent edition of BSI/DISC PD2000-1 to confirm continuous time and date functionality of that system.

Commencement of operation shall not take place until the Director-General's receipt of that report.

Dispute Resolution

9. In the event that the Applicants, Council, a government authority other than the Department or the PCA cannot agree on the specification or requirements applicable under this consent, the matter shall be referred by either party to the Director-General or, if not resolved, to the Minister, whose determination of the disagreement shall be final and binding on the parties.

Deed of Agreement

10. The Applicants shall enter into a deed of agreement in relation to:
 - (a) their respective responsibilities for different areas of the subject land; and
 - (b) responsibilities and arrangements between them for implementing and complying with the conditions of this consent.

ENVIRONMENTAL MANAGEMENT

Environmental Services

11. The Applicants shall employ or contract suitably qualified environmental services throughout the duration of landfilling/construction activities at LH1, landfilling activities at LHWMC, and rehabilitation activities at the LHCA. The Applicants shall nominate an Environmental Management Representative/s (EMR) as the principal person/s responsible for overseeing environmental management of the project and supervision of environmental services. The EMR appointment shall be subject to the satisfaction of the Director-General. The EMR/s shall have the authority to stop work if an adverse impact on the environment has occurred or is likely to occur.

The EMR/s shall:

- (a) be responsible for the preparation or certification of all environmental management plans and procedures;
- (b) be responsible for considering and advising on matters specified in the conditions of this consent and compliance with such matters;
- (c) oversee the receipt and response to complaints about the environmental performance of the project;
- (d) facilitate an induction and training program for all persons involved with construction, landfilling and rehabilitation activities at all sites; and
- (e) be present on-site during any critical construction or operational activities as defined in the relevant Environmental Management Plan (EMP).

Committees

12. Prior to the commencement of landfilling/construction activities at LH1, or at such other time as agreed to between the Applicants and the Director-General, the Applicants shall establish the Lucas Heights 1 Steering Committee (LH1SC) and

Lucas Heights 1 Liaison Committee (LH1LC) in accordance with Section 5.9 of the EIS.

13. Prior to the commencement landfilling/construction activities at LH1, landfilling activities at LHWMC, and rehabilitation activities at the LHCA, the Applicants shall establish the Lucas Heights Environmental Management Technical Group (LHEMTG) in accordance with the principles of Section 5.9 of the EIS.

(Note: the EPA's role will be advisory only).

14. A Community Environment Liaison Committee (CELC) shall be established for LH1 and LHWMC, comprising representatives of the community, ANSTO (for LHWMC only) and the Applicants. The CELC shall meet on a quarterly basis. The purpose of the meetings will be to discuss matters of concern associated with the environmental impact of the development and to promote mutually satisfactory solutions. *(EPA GTA)*

(Note: the requirements of this condition may be fulfilled by the existing Community Monitoring Committee).

Environmental Management Plans

15. Within 3 (three) months of the date of this consent, or within such period as otherwise agreed to by the Director-General, the Applicants shall amend the draft EMPs for the LH1, LHWMC and LHCA sites such that the EMPs reflect and comply with the conditions of this consent, except as provided by Condition 17.

The amended EMPs shall be prepared to the satisfaction of the Director-General in consultation with the EPA, DLWC, LH1SC and LHEMTG.

Furthermore, the Applicants shall, in consultation with the Director-General, the EPA, DLWC, LH1SC and LHEMTG update the amended EMPs from time to time in order to ensure continuing compliance with the conditions of this consent and all relevant approvals and licenses.

16. The amended EMPs for LH1 and LHWMC shall be submitted to the EPA when relevant licence applications are made. *(EPA GTA)*
17. Within 12 (twelve) months of the date of this consent, or within such period as otherwise agreed to by the Director-General, the Applicants shall prepare an EMP for the operation of the sporting and recreation facilities at LH1 that reflects and complies with the conditions of this consent.

(Note: for the purposes of this condition, the Applicants may update section 7 of the draft LH1 EMP.)

ENVIRONMENTAL MONITORING

18. The Applicants shall undertake monitoring of surface water, leachate, landfill gas, groundwater, dust, noise and any other environmental performance indicators in accordance with the amended EMPs and the requirements of the relevant EPA licences. *(EPA GTA)*
19. The LHCA and LHWMC amended EMPs shall provide a program to identify the source and extent of contamination detected in the bores that are located near to the Sydney International Clay Target Area, former night soil areas, Harrington's Quarry, Industrial Waste Centre, and Little Forest Burial Ground sites. *(EPA GTA)*
20. The results of any monitoring required at the LH1 site and LHWMC shall be recorded and retained as set out in the EPA licences. *(EPA GTA)*
21. Water quality monitoring results shall be forwarded to DLWC within one month of sample collection. In addition, an annual interpretation and report on groundwater monitoring in the bore and any associated bores, shall be prepared by an independent/consultant and forwarded to DLWC. *(DLWC GTA)*

CONDITIONS COMPLIANCE REPORTS

LH1

22. The Applicants shall submit to the Director-General Conditions Compliance Reports as follows:
 - (a) At least one month prior to the commencement of construction works for the purposes of landfilling, or within such period as otherwise agreed to by the Director-General;
 - (b) At least one month prior to the commencement of each stage of works as indicated in Section 5.2 of the EIS, or within such period as otherwise agreed to by the Director-General.

LHWMC

23. The Applicants shall submit to the Director-General and Council Conditions Compliance Reports as follows:
 - (a) In the case of the expansion of landfill operations and site rehabilitation works, at least one month prior to the commencement of each stage of works as indicated in Section 6.2 of the EIS, or within such period as otherwise agreed to by the Director-General;
 - (b) In the case of the biowaste facility and GWPCF, at least one month prior to the commencement of construction works and at least one month prior to the commencement of operation of either facility, or within such periods as otherwise agreed to by the Director-General.

INDEPENDENT ENVIRONMENTAL AUDITS

24. Every 3 (three) years following the date of this consent, or at periods otherwise agreed to by the Director-General, and until such time as agreed to by the Director-General, the Applicants shall arrange for an independent audit of the environmental performance of the development at the LH1, LHWMC and LHCA. The audits shall:
- (a) be conducted pursuant to ISO 14010 – Guidelines and General Principles for Environmental Auditing, ISO 14011 – Procedures for Environmental Monitoring and any specifications of the Director-General;
 - (b) be conducted by a suitably qualified independent person approved by the Director-General;
 - (c) assess compliance with the requirements of this consent;
 - (d) assess the implementation of the EMPs and review the effectiveness of the environmental management of the proposal; and
 - (e) be carried out at the Applicants' expense.

The audits shall be submitted to the Director-General, DLWC, EPA, Council, the LHEMTG, and the LH1, LHCA and LHWMC CELC.

The Applicants shall comply with all reasonable requirements of the Director-General in respect of any measures arising from or recommended by the audits and within such time as agreed to be the Director-General.

HOURS OF CONSTRUCTION AND LANDFILL OPERATION

LH1

25. All construction and landfilling operations at LH1 shall be restricted to between the hours of 6:00 am to 4:00 pm Monday to Friday and 8:00 am to 5:00 pm Saturdays and Sundays. Heavy earthmoving and landfilling equipment shall only operate between 7:00 am and 4:00 pm Monday to Friday and 8:00 am and 5:00 pm Saturdays and Sundays, except in emergency situations.

LHWMC

26. All construction and landfilling operations at LHWMC shall be restricted to between the hours of 6.00am to 4.00pm Monday to Friday and 8.00 am to 5.00 pm Saturday and Sunday. Heavy earthmoving and landfilling equipment shall only operate between 7:00 am and 4:00 pm Monday to Friday and 8:00 am and 5:00 pm Saturdays and Sundays, except in emergency situations.

WASTE VOLUMES AND TYPES

LH1

27. No more than 1.3 million tonnes of waste as described in Section 5.3.2 of the EIS shall be landfilled at LH1.

No waste shall be delivered to or landfilled at the site after 31 December 2009.

28. A weighbridge shall be used in accordance with Clause 25 of the Protection of the Environment Operations (Waste) Regulation 1996. *(EPA GTA)*
29. Only the waste types identified in Section 5.3.2 of the EIS and VENM and which is diverted from the LHWMC and Waste Service NSW transfer stations shall be disposed of at LH1. Hazardous waste or industrial waste shall not be disposed of the site. *(EPA GTA)*
30. Except as expressly permitted in the EPA license, waste shall not be:
 - (a) received at the site for storage, treatment, processing or reprocessing; or
 - (b) disposed of at the site. *(EPA GTA)*
31. A record shall be maintained of all events involving the removal of any waste that was brought to the site and which is not permitted to be disposed of at the site. *(EPA GTA)*
32. Any hazardous waste or industrial waste generated on or received at the site shall be stored and disposed of in a manner to minimise its impact on the environment including appropriate segregation for storage and separate disposal by a waste transporter licensed by the EPA. *(EPA GTA)*
33. Material accepted as VENM shall be certified as such by the Applicants. Such certification shall be provided to Council prior to its placement at the LH1 site.
34. The Applicants shall provide the LHEMTG and CELC with quarterly reports outlining fill volumes to date and an assessment of the compliance of works with the staging plan outlined in Section 5.2 of the EIS.

LHWMC

35.
 - (a) No more than 630,000 tonnes of waste per annum shall be delivered to the LHWMC after 31 December 2000. This includes waste that is recovered for use as on-site construction materials.
 - (b) Of the maximum 630,000 tonnes of waste per annum delivered to the LHWMC after 31 December 2000:
 - no more than 575,000 tonnes per annum shall be landfilled at the LHWMC; and
 - subject to Conditions 37 and 38, no more than 55,000 tonnes per annum shall be treated at the recycling and resource recovery facilities at the LHWMC site.
36. Waste delivered to the LHWMC shall comprise waste generally in accordance with Table 6.2 of the EIS. After 31 December 2000, a minimum of 80% of Municipal waste received at the site shall be sourced from the Southern Sydney Waste Planning and Management Board's region.

37. If the GWPCF does not proceed, the biowaste facility can be expanded to receive up to 55,000 tonnes of waste but only if the Applicants obtain EPA approval which demonstrates that the environmental impacts of the expanded biowaste facility are not greater than those avoided by the GWPCF not proceeding. (EPA GTA)
38. If the biowaste facility does not proceed, the GWPCF can be expanded to receive up to 55,000 tonnes of waste but only if the Applicants obtain EPA approval which demonstrates that the environmental impacts of the expanded GWPCF are not greater than those avoided by the biowaste facility not proceeding. (EPA GTA)
39. The expansion of landfill capacity at the LHWMC shall not exceed 8.225 million tonnes beyond the remaining capacity of 8 million tonnes under the existing consent calculated as at 1 July 1997. No landfilling shall occur at the LHWMC after 31 December 2024.
40. Excavation and filling in Stage 5 shall be in accordance with Section 6.4.3 of the EIS. Prior to the excavation of Phases 2 and 3 of Stage 5, the Applicants shall undertake a review of fill volumes, compaction rates and remaining capacity in order to ensure that the Stage 5 excavation area does not exceed the remaining waste capacity at then current compaction rates. This review shall be submitted to the Director-General, EPA, and the LHEMTG.
41. A weighbridge shall be used in accordance with Clause 25 of the Protection of the Environment Operations (Waste) Regulation 1996. (EPA GTA)
42. The Applicants shall provide evidence at the time of seeking to amend the EPA licence (No. 4910) that sufficient cover material is available for covering waste for all stages of the landfill. (EPA GTA)
43. The capping of the waste at the site shall meet relevant environmental goals identified in Benchmark Technique no. 28 in the EPA's Environmental Guidelines: Solid Waste Landfills. (EPA GTA)
44. Except as expressly permitted in the EPA licence, waste shall not be:
 - (a) received at the site for storage, treatment, processing or reprocessing; or
 - (b) disposed of at the site. (EPA GTA)
45. Only the following types of waste as defined by the Protection of the Environment Operations Act 1997 and the Waste Guidelines may be disposed of at the premises:
 - Inert Waste; and
 - Solid Waste.

Waste Guidelines means the EPA's *Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes* (or as amended). (EPA GTA)

46. No types of waste other than those permitted by the EPA licence may be disposed of at the site, unless approved of by the EPA. *(EPA GTA)*
47. Hazardous waste or industrial waste shall not be disposed of at the site. *(EPA GTA)*
48. Any hazardous waste or industrial waste generated on or received at the site shall be stored and disposed of in a manner to minimise its impact on the environment including appropriate segregation for storage and separate disposal by a waste transporter licensed by the EPA. *(EPA GTA)*
49. Tyres shall not be disposed of at the landfill unless:
- (a) the tyre has a diameter of 1.2 metres or more; or
 - (b) the tyre has been shredded into pieces which measure no more than 250mm in any direction or had its walls removed; or
 - (c) the tyre was delivered to the facility as part of load containing no more than 5 tyres having a diameter less than 1.2 metres; or
 - (d) as otherwise approved by the EPA. *(EPA GTA)*
50. A record shall be maintained of all events involving the removal of any waste that was brought to the site and which is not permitted to be disposed of at the site. *(EPA GTA)*
51. The Applicants shall submit a report to and obtain approval from the EPA prior to the disposal of waste into stage 5. The report must address the following matters:
- the proposed locations and purpose of the new bores which are under consideration and the rationale for the selection of their locations;
 - the leachate collection system will need to be designed to cater for the increased volumes of leachate that would require removal to ensure minimal head of leachate on the liner, if there is a possibility that leachate could flow from the previously filled stages into stage 5;
 - details of the rate of intrusion and quality of groundwater (if any) into stage 5 once fully excavated;
 - information to demonstrate that upheaval has stabilised, prior to the construction of the liner;
 - details quality assurance system to be employed for the installation of the liner and the initial layers of waste to ensure that the liner achieves its design performance as nominated in the EIS; and
 - details of the method of sealing the monitoring bores which exist in stage 5. *(EPA GTA)*

Biowaste Facility

52. The biowaste facility shall only reprocess the following wastes:
- non-quarantine food wastes
 - paper waste

- vegetation wastes
- untreated wood wastes
- manures

unless otherwise approved by the EPA. *(EPA GTA)*

53. The products produced from the biowaste facility shall comply with the Australian Standard AS 4454 - Composts, Soil Conditioners and Mulches or an alternative standard agreed to by the EPA or be disposed of as waste. *(EPA GTA)*
54. Waste processing at the site shall be undertaken within the enclosed parts of the biowaste facility that have all odour and leachate collection and treatment systems operating unless it meets a protocol developed by the Applicants and approved by the EPA as being suitable for external curing. *(EPA GTA)*
55. The environmental controls at the biowaste facility (including odour and leachate collection and treatment) shall be operational at all times the biowaste facility is processing waste. These controls shall include backup supplies of essential services and continuous monitoring of the operation. *(EPA GTA)*

GWPCF

56. The GWPCF shall only receive those wastes nominated in the EIS unless otherwise approved by the EPA. *(EPA GTA)*
57. The products produced from the GWPCF shall comply with the Australian Standard AS 4454 - Composts, Soil Conditioners and Mulches or an alternative standard agreed to by the EPA or be disposed of as waste. *(EPA GTA)*

WATER

Pollution of Water

58. Except as may be expressly provided in the EPA licence, the Applicants shall comply with section 120 of the Protection of the Environment Operations Act 1997 prohibiting the pollution of waters at LH1 and LHWMC. *(EPA GTA)*

(Notes:

The EPA may require energy dissipation to be provided for the surface water that is to be redirected around the LHWMC site.

The EPA may require separate storage capacity to be provided for surface water that is to be re-used on the site.)

Operation

59. In order to avoid tracking of materials on roads, a wheel washer to remove materials from wheels and underneath the bodies of vehicles, shall be designed and installed to the approval of the EPA. All vehicles leaving the LH1 and LHWMC sites likely to track materials on roads shall pass through the wheel washer. *(EPA GTA)*
60. Washing and servicing of equipment shall be conducted in a washbay/workbay which is bunded to exclude rainwater. All waste from washdown/service area shall be discharged to sewer under a Trade Waste Agreement with Sydney Water or treated for disposal or reuse.

Groundwater and Leachate Management

61. Accumulated sludge and sediment formed during leachate storage or treatment at LH1 and LHWMC shall be disposed of to a special waste area at LHWMC.

(Note: a "special waste area" is an area separate from the active tipping face of the landfill).

LH1

62. Groundwater, new fill infiltrate and old fill leachate shall be managed at the LH1 site in accordance with the amended EMP and the requirements of the EPA licence. *(EPA GTA)*
63. The leachate management system at the LH1 site shall be designed and operated to prevent leachate from polluting groundwater, unless otherwise permitted by the EPA licence.

The monitoring program for groundwater quality in the amended EMP shall additionally address the following:

- the provision and installation of additional groundwater bores to monitor and intercept any leachate released from stages 2 and 5;
- the depth at which groundwater will be able to flow into the monitoring bores;
- provision of a scale diagram identifying the boreholes, including the perimeter dimensions of stages 2 and 5; and
- provision of the methodology on how the monitoring results will be interpreted by the applicants in order to assess the performance of the LH1 site in relation to the above specified environmental outcome.

A groundwater contamination remediation action plan shall be prepared and incorporated into the amended EMP for the LH1 site. *(EPA GTA)*

64. Water drawn from the monitoring bores shall be tested prior to discharge. Discharge to the irrigation system will only be allowed if it can be demonstrated that irrigation water will still comply with adopted guidelines on raw water in the EIS.

Where levels of contaminants are unacceptable, water shall be discharged to the sewer or leachate system.

65. The Applicants shall undertake Leachate Irrigation Trials to determine if old fill leachate can be used for irrigation. To avoid potential impacts on high value playing surfaces, the trials shall take place only on areas where finished playing surfaces have not been completed.
66. A minimum cover thickness of 600mm shall separate putrescible waste from overtopping waste at LH1.

LHWMC

67. Leachate shall not pollute groundwater at the LHWMC, unless otherwise permitted by the EPA licence.

A groundwater contamination remediation action plan shall be prepared and incorporated into the amended EMP for the LHWMC site.

Leachate and groundwater at the LHWMC shall be managed in accordance with the amended EMP and the requirements of the EPA licence. (EPA GTA)

68. Leachate shall not be reinjected into the waste at LHWMC in a manner that exceeds the capacity of the leachate management system. (EPA GTA)
69. The volume of leachate that is generated at LHWMC and the volume of leachate collected shall be modelled. The modelling methodology and the results shall be provided to the EPA within 1 (one) year of commencement of this consent. (EPA GTA)
70. Once the excavation in any phase of Stage 5 is complete, the excavation shall be left for a minimum of 3 months prior to commencement of placement of the base liner to allow for stress relief of the underlying strata.
71. The base liner installed in Stage 5 shall extend across the entire base of the excavation. Where significant lateral groundwater flows are encountered, the base liner shall be extended up the walls of the excavation in order to intercept such flows, unless otherwise approved by the EPA.

Surface Water Management

LH1

72. Any liquid emitted from LH1 shall not result in receiving water exceeding criteria specified in the *"Australian Water Quality Guidelines for Fresh and Marine Waters"* ANZECC 1992, unless otherwise permitted by the EPA licence.

Emissions to surface waters shall not compromise the ANZECC water quality objectives for the receiving water. Where receiving waters do not meet the desired

water quality objectives, the emissions must not cause any further degradation. Stormwater overflows may occur where it can be demonstrated that baseline ambient (low) objectives will not be compromised in the long term and these emissions comply with the conditions of the EPA licence.

The monitoring program for surface water quality in the amended EMP shall additionally address the following:

- monitoring of the quantity of surface water discharged from the premises;
- monitoring of the quantity of rainfall on a daily basis;
- monitoring the quality of surface water at the commencement of any discharge and during any discharge from the premises;
- monitoring the quantity of surface water flowing onto the LH1 site from all sources including from the drain under New Illawarra Road;
- monitoring of the quality of surface water flowing onto the LH1 site from all sources including from the drain under New Illawarra Road;
- monitoring for the list of chemical/physical parameters listed in Table 2.1 of the ANZECC guideline;
- provision of a scale diagram that identifies the discharge points from LH1 into Lucas Heights 1 Creek and the monitoring locations; and
- provision of the methodology on how the monitoring results will be interpreted by the applicants in order to assess the performance of the LH1 site in relation to the above specified environmental outcome. *(EPA GTA)*

73. The location and design of the water supply storages on LH1 Creek shall be in accordance with details provided in the EIS.
74. Any vegetation or other material removed from the area of operations shall be disposed of to an appropriate site where the debris cannot be swept back into LH1 Creek during a flood.
75. Three sets of detailed plans and drawings including long sections and cross sections of the water supply storages on LH1 Creek and any related works shall be provided to and approved by DLWC prior to the commencement of any works that are subject to this condition.
76. A leachate irrigation trial shall be undertaken at the LH1 site and its results applied to the management of irrigation liquids, surface water, new fill infiltrate and old fill leachate to ensure that the requirements of the amended EMP are achieved and the EPA licence is complied with.
77. Surface water at the LH1 site shall be managed in accordance with the amended EMP and the requirements of the EPA licence. *(EPA GTA)*

LHWMC

78. The design, construction, operation, monitoring and rehabilitation of surface water control works at the LHWMC shall be in accordance with the amended EMP and the requirements of the EPA licence. *(EPA GTA)*

(Note: The EPA may require energy dissipation to be provided for the surface water that is to be redirected around the site).

79. The "Surface Water Management Plan" for the GWPCF shall be submitted to and approved by the EPA before construction of GWPCF. *(EPA GTA)*
80. The biowaste facility shall operate as far as practicable on a total water reuse strategy as outlined in the EIS. If water is to be discharged from the facility it shall be only within the site in accordance with the EPA licence or to sewer in accordance with the discharge limit to sewer. *(EPA GTA)*
81. In addition to annual de-silting of sediment ponds as outlined in the EIS, de-silting shall be carried out when 30% of the sediment basin capacity has been filled with silt.
82. Scour protection, lining or vegetating of drains and waterways shall be undertaken when flow velocities exceed 0.5 m/s.

Water Act 1912 - Part 5 License for the Construction of Groundwater Bores (DLWC GTAs)

General

83. In accordance with relevant occupational health and safety requirements, the Applicants shall allow an authorised DLWC officer or any person authorised by DLWC, full and free access to the development works, either during or after construction, for the purpose of carrying out inspection or tests of the works and its fittings. The Applicants shall carry out any work or alterations deemed necessary by DLWC for the protection and proper maintenance of the works, or the control of the water extracted to prevent wastage and for the protection of the quality and prevention from pollution or contamination of sub-surface water.
84. If a bore works and associated works is abandoned at any time the Applicants shall notify DLWC that the work has been abandoned and seal off the aquifer by:
- Backfilling the work to ground level with clay or cement after withdrawing the casing (lining); or
 - Such methods as agreed to or directed by DLWC.
85. If the bore authorised by the Water Act - Part 5 license is lined with steel or plastic casing the inside diameter of that casing shall not exceed 220 mm.

86. Water shall not be pumped from the bore authorised by this license for any purpose other than expressly provided under a relevant licence under the Protection of the Environment Operations Act 1997.

Conditions Specific to the DA

87. If during the construction of the work, saline or polluted water is encountered above the producing aquifer, such water shall be sealed off by:

- Inserting the appropriate length(s) of casing to a depth sufficient to exclude the saline or polluted water from the work; and
- Cementing between the casing(s) and the walls of the bore hole from the bottom of the casing to ground level.

Any departure from these procedures shall be approved by DLWC before undertaking the work.

88. The Applicants shall notify DLWC if a flowing supply of water is obtained. The bore shall then be lined with casing and cemented and a suitable closing gear shall be attached to the borehead as specified by DLWC.

89. The Applicants shall within two months of the date of completion of the bore authorised by the License:

- Backfill it with clay or cement to ground level, after withdrawing any casing (lining), or
- Render it ineffective by any other means acceptable to DLWC.

Formal Application Issues

90. Upon formal Part 5 License application, the Applicants shall within two months of completion or after the issue of the license if the work is existing, furnish to DLWC:

- Details of the bore and associated works set out on the appropriate form.
- A plan showing accurately the location of the bore and associated works, in relation to portion and property boundaries.
- Details of any water analysis and/or pumping tests.
- Other relevant information required by DLWC.

Water Act 1912 - Part 2 License (Surface Water) (DLWC GTAs)

(Note: A license under Part 2 of the Water Act (1912) is required to construct the three proposed dams and diversion works (pumps) on LH1 Creek for irrigation and recreation purposes and Sedimentation Dam 5 on Mill Creek).

General

91. In accordance with relevant occupational health and safety requirements, the Applicants shall allow DLWC, or any person authorised by it, full and free access to the works, either during or after construction, for the purpose of carrying out inspection or test of the works and its fittings and shall carry out any work or alterations deemed necessary by DLWC for the protection or proper maintenance of the works, or the control of the water extracted and for the protection of the quality and the prevention from pollution or contamination of sub-surface water.
92. The Applicants shall notify DLWC if a work is abandoned at any time.
93. Works authorised by this license shall not be used for any other purpose or any other location other than that specified by the license.

Conditions Specific to the DA

94. The holder of the license shall, within three months of being called upon by DLWC to do so, install to the satisfaction of DLWC in respect of location, form, type and construction, an appliance or appliances or such other class of meter, or means as may be approved by DLWC, for the measurement of the quantity of water diverted or taken by means of the licensed work. The holder of the licence shall continuously maintain such appliance or appliances in good working order and condition, and shall, after the installation of such appliance or appliances, record the measurements of all water diverted or taken by means of the licensed work and supply particulars of such measurement to DLWC at such intervals as shall be directed by DLWC. Whenever called upon to do so a test certificate furnished either by the manufacturer concerned or by some person or authority duly qualified shall be supplied by the holder of the license as to the accuracy of the appliance or appliances installed.
95. The Applicants shall not allow any tailwater drainage to discharge into or onto:
 - any adjoining public or crown road;
 - any other persons' land;
 - any adjoining Crown land;
 - any river, creek or watercourse;
 - any groundwater aquifer;
 - any native vegetation as described under the Native Vegetation Conservation Act 1997; or
 - any wetlands of environmental significance.
96. Where practicable, a vegetated buffer zone of not less than 20 metres shall be maintained between the irrigated area and the high bank of the watercourse located within the water source.

97. Where any internal combustion powered work is used for the purpose of diverting water authorised under this license, the power unit and any associated fuel storage shall be located outside any watercourse or drainage depression and a bunding wall of hay bales or other approved material shall be installed around the pumping plant to avoid contamination of any river or lake through spills or leaks of oils, fuels or greases.
98. The pumping and ancillary equipment and pump sites shall be, at all times, properly secured and/or sealed so as to prevent any leakage of petroleum based products and/or noxious material from entering any river or lake.
99. The existing profile of the channel and bank of any watercourse or drainage depression shall not be disturbed any more than is necessary in order to site and maintain the authorised diversion work. Any area that is disturbed when carrying out such work shall be stabilised and maintained by grass cover, stone pitching or any other approved material as directed and to DLWC's satisfaction so as to prevent the occurrence of erosion.
100. Any drainage channels or cross banks associated with the authorised diversion works or access roads, to or from that work, shall have installed and maintained a bunding wall of hay bales, or other relevant silt trapping, to prevent siltation due to the authorised diversion work or access roads from reaching any river or lake.
101. The natural riverbank or artificial levee shall be altered as little as practicable. The delivery pipe shall, if practicable, be laid over the top of the bank. If it is necessary to lay the pipe in a trench, the length of pipe through the bank or levee shall be left in position and the trench back-filled with well compacted soil.
102. When the use of a pipe through the bank is to be discontinued, the pipe shall be removed or filled with concrete. If the pipe is temporarily out of use, it shall be plugged off at the ends.
103. The Applicants shall construct through the dam a pipe of appropriate diameter, as described in the EIS, fitted with a stop valve or other control device to the satisfaction of DLWC. The level of the invert of the said pipe shall be fixed and approved by DLWC or, alternatively, the Applicants shall provide a suitable pipe syphon or other approved device for passing flows through the storage of the dam.
104. Subject to Condition 103, when a flow is entering the storage of a dam the said pipe shall be so operated as to maintain a base flow in the watercourse downstream of the said dam equivalent to the flow entering the storage of the dam for the time being or the capacity of the said pipe, whichever is the lesser. This pipe will be for the purpose of maintaining baseflows.
105. The location and level of the crest of the bywash of the dam shall be fixed and approved by DLWC.

(Note: Conditions 103, 104, 105 apply to each individual dam).

106. The work shall be constructed and maintained in a safe and proper manner that will minimise the possibility of damage being occasioned by it, or resulting from it to any public or private interest.

Notes to Conditions 91 to 106:

DLWC may revoke, suspend or modify a license on being satisfied that:

- (a) the Applicants have conserved, diverted, taken or used any quantity of water in excess of that authorised by the license or has irrigated an area in excess of that which he/she is entitled by the license to irrigate, or*
- (b) the Applicants had failed to observe and perform any limitation or condition of the license, or*
- (c) the water taken or diverted by the Applicants is not being beneficially used, or is being wasted, or*
- (d) beneficial use is not being made of the licensed work.*

In the event of an actual or threatened shortage of water, or if there are any circumstances which, in its opinion, render it necessary or expedient to do so, DLWC may suspend or modify a license or reduce the quantity of water authorised to be taken under the license.

DLWC may suspend a license on being satisfied that the Applicants have failed to comply with the terms of any notice given by DLWC modifying the license or reducing the quantity of water authorised to be taken by the license.

Works are audited from time to time and license conditions reviewed on renewal. Surface water licenses are renewable every five years.

Rivers And Foreshores Improvement Act 1948 - Part 3a Permit (DLWC GTAs)

(Note: A permit issued under Part 3A of the Rivers and Foreshores Improvement Act 1948 (R&FI Act) is required to carry out excavations, construction of a sediment basin, stream re-alignment, stream diversion and riparian zone restoration in and within 40 metres of the top of the bank of Mill Creek at Lucas Heights, being works associated with the Lucas Heights Waste Management facility. A part 3A Permit is not required for works at the LH1 site).

General

107. The work to which these general terms of approval apply is not to commence until such time as a formal permit under Part 3A of the Rivers and Foreshores Improvement Act 1948 has been issued by DLWC.

108. If, in the opinion of an authorised DLWC officer, any work is being carried out in such a manner that it may damage or detrimentally affect the stream, or damage or interfere in any way with any work, the operation on that section of the stream shall cease immediately upon oral or written direction of such officer.
109. Survey plans showing works as executed shall be forwarded to DLWC upon request.
110. If the permit conditions have been breached, the permit holder shall restore the site to the satisfaction of DLWC. If the necessary works are not completed then the permit holder shall pay a fee prescribed by DLWC for the initial breach inspection and all subsequent breach inspections.
111. Operations shall be conducted in such a manner as not to cause damage or increase the erosion of adjacent stream banks. The permit holder shall carry out any instructions given by DLWC with a view to preventing damage to the banks.
112. Any vegetation or other material removed from the area of operations shall be disposed of to an appropriate site where the debris cannot be swept back into the river during a flood.
113. When the works are to cease, DLWC is to be notified 1 month in advance of the cessation of the operation.

Conditions Specific to LHWMC site

114. Work is to be carried out in accordance with drawings and any "plans" required by these conditions, and approved by DLWC and which will accompany the Part 3A Permit.
115. A "Mill Creek Stream Rehabilitation and Stabilisation and Vegetation Management Plan" for the length of the creek on the site shall be prepared by a suitably qualified person. The Plan shall be prepared to the satisfaction of DLWC and is to be completed within three months of the issue date of the 3A permit. The Plan is to describe in detail the proposed rehabilitation and stabilisation of the stream, staging of works, methods to stabilise the bed and banks of the stream, vegetation to be retained, the establishment of riparian zones using local native vegetation, vegetation maintenance, monitoring and performance criteria. The restoration of the stream channel is to adopt an environmentally sympathetic engineering approach.
116. Any proposed stream diversion works around Sediment Basin No 5 may be addressed by the preparation of a special section of the "Mill Creek Stream Rehabilitation and Stabilisation and Vegetation Management Plan", and approved by DLWC, prior to completion of the final plan. No stream diversion works are to be commenced until DLWC approval has been obtained.
117. A Soil and Water Management Plan for the works is to be prepared by a suitably qualified person, to the satisfaction of the Director-General, Sutherland Shire

Council and DLWC, and approved by DLWC, prior to the issue of the Part 3A Permit. The Plan is to cover all works in and near the stream, staging and maintenance requirements. The Plan is to meet the requirements outlined in the NSW Department of Housing's publication *Managing Urban Stormwater: Soils and Construction* (1998). The Plan is also to meet EPA licence requirements.

118. Within three months of the issue date of the 3A permit, a bank guarantee from any bank licensed pursuant to the Banking Act 1959 (Cth) is to be provided in favour of DLWC, for an amount equal to the cost of restoring Mill Creek and its environs in accordance with the "Mill Creek Stream Restoration and Vegetation Management Plan", and subject to the approval of DLWC. The moneys will be held until such time as the restoration works and any specified maintenance period are complete. The sum held may be reduced on application to DLWC, subject to the satisfactory completion of stages of restoration. DLWC may at any time, and more than once and without notice to the Permit holder, demand all or part of the moneys available under the bank guarantee, if in its opinion, the Permit holder has failed at any time to meet the performance criteria set out in the Plan.
119. The precise location of Sediment Basin No 5 shall be in accordance with the DA and as agreed to by DLWC.
120. The design of any stream crossings is to be sensitive to the corridor functions (now and in the future) of Mill Creek, and bridges with piered approaches or structures with equivalent corridor functions are to form the basis for any crossing design.
121. Surface drainage outlets to Mill Creek are to be in accordance with the requirements of DLWC and designs are to be approved by DLWC prior to their construction.

Notes to Conditions 107 to 121:

DLWC advises that a Part 3A Permit, subject to conditions, will be issued for the proposed works upon application, and upon payment of the appropriate fee.

Permits are generally granted for a period of 12 months from the date of formal approval and renewable on an annual basis. Any application for renewal shall be lodged three months prior to the expiry date.

Three sets of drawings, consisting of plans, long sections, cross sections and detail drawings of all engineering works associated with Mill Creek, to the satisfaction of DLWC, and all "Plans" referred to in the General Terms of Approval, are to be provided to DLWC to allow Part 3A Permit preparation.

The rehabilitation of the area to the satisfaction of DLWC is the responsibility of the permit holder and the owner or occupier of the land.

The permit holder and the owner or occupier of the land are responsible for any excavation or soil removal undertaken by any other person or company at this site.

Any Part 3A permit granted is not transferable to any other person or company and does not allow operations at any other site.

Any Part 3A permit granted does not give the holder the right to occupy any land without the consent of the owner(s), nor does it relieve the permit holder of any obligation which may exist to also obtain permission from local government and other authorities who may have some form of control over the site of the work and/or the activities you propose to undertake.

To issue a Part 3A Permit, DLWC will require full details on land ownership of all areas affected by the proposed works, and authorisation for the works by relevant land owners.

Should any of the above conditions not be complied with, DLWC may issue a Stop Order on 3A permit related operations at the site until the condition(s) has(have) been complied with.

AIR QUALITY

122. The LH1 and LHWMC sites shall not emit offensive odour, in accordance with the provisions of the Protection of the Environment Operations Act 1997 (EPA GTA).
123. The applicants shall take all practical steps to manage the LH1 and LHWMC operations so that there are no extra exceedences of the ambient air quality goals, specifically for total suspended particulates (TSP) of 90 micrograms per cubic metre (annual average) and the dust deposition goal of 4 gram per square metre per month (annual average). These goals apply when measured at any monitoring location specified in the Air Quality Management Plans.

The applicants shall prepare Air Quality Management Plans that contain strategies to manage the LH1 and LHWMC contributions to TSP and dust deposition. The air quality management plans shall contain, but not be limited to the following:

- Identification of all potential sources of dust deposition and TSP and detailed description of the remedial action to be taken or management systems to be employed to minimise emissions of these pollutants from all sources within the premise;
- The facility's ambient air quality management plan for dust deposition, TSP and meteorological data identifying the following:
 - Description of monitoring methodologies and standards that will be adhered to;
 - Identification of the locations where monitoring will be carried out; and
 - Detailed description of the monitoring cycle and the duration of each monitoring cycle.

The Air Quality Management Plans shall be prepared and incorporated into the amended EMPs for the LH1 and LHWMC sites, or at another time agreed to by the Director-General.

The applicants shall implement the Air Quality Management Plans in accordance with the EPA licence. (EPA GTA)

124. Landfill gas from LH1 and LHWMC sites shall be managed in accordance with the amended EMPs and the requirements of the EPA licences. (EPA GTA)

NOISE

LH1 & LHWMC

125. Noise emissions from the operation of the plant or processes at the sites, when measured or computed at any point within one metre of any affected residential or other noise sensitive premises, shall not exceed an LA10,T sound pressure level of 50dB (A). LA10,T is to be measured for any time period between ten and fifteen minutes. (EPA GTA)
126. Noise from the licenced premises (sports club) at LH1 shall comply with the following requirements:
- (a) The L_{A10} noise level emitted from the premises shall not exceed the background (L_{A90}) noise level in any Octave Band Frequency (31.5Hz to 8KHz inclusive) between the hours of 7:00 am to 12:00 am when assessed at the boundary of the nearest affected residence;
 - (b) The L_{A10} noise level emitted from the premises shall not exceed the background (L_{A90}) noise level in any Octave Band Frequency (31.5Hz to 8KHz inclusive) between the hours of 12:00 am to 7:00 am when assessed at the boundary of the nearest affected residence;
 - (c) Without limiting the generality of (b) above, noise emitted from the licenced premises shall not be audible within any habitable room in any residential premises between the hours of 12:00 am to 7:00 am.
127. Noise Monitoring shall be in accordance with the EPA licences. The parameters to be monitored and the frequency of monitoring will be established in the licence.

FLORA AND FAUNA

LH1

128. Within three months of the date of this consent, a LH1 Creek Vegetation Management Plan shall be prepared by a suitably qualified person, for the length of the creek on the LH1 site, to the satisfaction of DLWC. The plan shall describe the proposed staging of works affecting LH1 Creek, methods to stabilise the beds and banks of the stream, vegetation to be retained, the establishment of riparian zones using local native vegetation, vegetation maintenance, monitoring and performance criteria, and identification of implementation responsibilities.

(Note: Nothing in this condition precludes the above plan being prepared in conjunction with or as part of the finalised Landfill EMP required by Condition 16 of this consent).

129. A riparian zone, consisting of local native plant species (trees, shrubs and groundcover species), is to be established along both sides of LH1 Creek for the length of the disturbed area, and is to be addressed in the LH1 Creek Vegetation Management Plan. The riparian zone width is to extend to the top of the western embankment, between LH1 Creek and the proposed golf course, and at all other locations along LH1 Creek the riparian zone width is to be a minimum 20 metres (from the top of the bank) on both sides of the creek. Nothing in this condition precludes the retention of the vehicle existing access road.
130. No exotic plant species, other than sterile cover crops, are to be planted in or within 40 metres from the top of the bank of LH1 Creek.

LHWMC

131. The area of conservation value of the Shale/Sandstone Transition Forest shall include the full extent of the community and a 10 metre buffer adjacent to landfilling activity. The area of conservation value, including the 10 metre buffer, shall be fenced for the duration of the operation of the LHWMC.
132. A conservation plan for the Shale/Sandstone Transition Forest, as identified by the above survey, shall be prepared by a qualified bush regenerator/botanist. The objective of the plan shall be to ensure that the conservation values of the community are not adversely affected by development activity. Management issues to be addressed include control of any run-off or leachate discharge to the area, weed control, access control, fire management and regeneration of the buffer area. The Conservation Plan shall be prepared in accordance with the NPWS 's General Guidelines for Environmental Management Plans.

The Conservation Plan shall form part of the finalised LHCA EMP prepared in accordance with Condition 16 of this consent.

VISUAL IMPACTS

LH1

133. All outdoor lighting shall be designed in order to minimise impacts on the amenity of any nearby residence through illumination or light spillage. All outdoor lighting shall comply with Australian Standard AS4282: 1997 *Control of the Obtrusive Effects of Outdoor Lighting*.
134. In order to minimise disturbance to nearby residential areas, the Applicants shall implement an appropriate night time curfew/s on floodlighting of sporting fields and recreational facilities. The curfew/s shall be addressed in the LH1 Plan of Management prepared under Part 5 of the Crown Lands Act 1989.

135. Landscaping shall be undertaken in accordance with Section 3.1 and Appendix B of Volume 1 of the DA Report and all relevant drawings in Volume 2 of the DA Report. In addition to those species listed in Appendix B of Volume 1 of the DA Report, landscaping shall incorporate planting of *Acacia rubida*, *Darwinia diminuta*, and *Grevillea diffusa*, as appropriate.

LHWMC

136. Landscaping shall be undertaken in accordance with Section 6.2 of Volume 1 and Appendix F of the DA Report and all relevant drawings in Volume 2 of the DA Report. In addition to those species listed in Appendix F of Volume 1 of the DA Report, landscaping shall incorporate planting of *Darwinia diminuta*, as appropriate.
137. A detailed landscape plan shall be submitted to the satisfaction of Sutherland Shire Council prior to commencement of construction of the GWPCF. The Plan shall be generally in accordance with the approved Master Plan.

Built structures – LH1, LHWMC and LHCA

138. The Applicants shall ensure that the external colour and texture of all structures shall, where practical, blend into the natural surroundings of the locality.

HERITAGE AND ARCHEOLOGY

Aboriginal Heritage

139. Management strategies shall be prepared by a suitably qualified archaeologist in consultation with the Gandangara Local Aboriginal Land Council (GLALC) for Aboriginal sites that are located within or are less than 100 m of the subject land. The draft EMPs for LH1, LHWMC and LHCA shall be amended to incorporate these measures.
140. In the event that any Aboriginal artefacts are identified on the subject land during the carrying out of works, the Applicants shall cease work immediately in the vicinity of the artefact and contact the NPWS and the GLALC to arrange for the protection of the artefacts.

Non-Aboriginal Heritage

141. In the event that any items potentially of non-Aboriginal heritage significance are identified on the subject land during the carrying out of works, the Applicants shall arrange for a suitably qualified archaeologist to inspect the item/s, determine the level of significance of the item/s and advise on appropriate management measures.

TRAFFIC AND TRANSPORT

142. The existing vehicle access point to the Jenko Pony Club from New Illawarra Road shall be closed to general traffic by means of a gate or other appropriate measures and shall be retained for use in emergency situations only.
143. The Applicants shall fund and undertake to the satisfaction of the RTA upgrading of the intersection of Recreation Drive and New Illawarra Road in order to ensure adequate intersection performance and safety. Upgrading works shall include the provision of traffic signals, a single right turn lane for south-bound traffic on New Illawarra Road, a left turn deceleration lane for north-bound traffic on New Illawarra Road and any other appropriate measures agreed to by both the RTA and the Applicants. These works shall be undertaken:
- 3 years after the date of this consent, or
 - when peak vehicle generation from the site reaches 600 vehicles per hour, or
 - if a significant accident problem, as identified by the Roads and Traffic Authority (RTA), arises at the intersection,

whichever occurs first.

HAZARDS AND SAFETY

LH1

Pre-construction

144. At least one month prior to the commencement of construction (except for construction of preliminary works that are outside the scope of the hazard studies) of the proposed development at LH1, or within such further period as the Director-General or her nominee may agree, the Applicants shall prepare and submit for the approval of the Director-General a Fire Safety Study for the proposed Gas Management System. This study shall cover all aspects detailed in the Department's Hazardous Industry Planning Advisory Paper No. 2, *Fire Safety Study Guidelines*. The study shall also be submitted for the approval of the New South Wales Fire Brigades. The study shall take into account the New South Wales Government *Best Practice Guidelines for Contaminated Water Retention and Treatment Systems*.

Pre-operation

145. At least two months prior to the commencement of operation of the proposed development at LH1, or within such further period as the Director-General may agree, the Applicants shall prepare and submit for the approval of the Director-General a comprehensive Emergency Plan and detailed emergency procedures for the proposed Gas Management System. The plan should include detailed procedures for the safety of people in areas outside the development. The plan should be in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 1, *Industry Emergency Planning Guidelines*.

LHWMC

Pre-construction

146. At least one month prior to the commencement of construction (except for construction of preliminary works that are outside the scope of the hazard studies) of the proposed development at LHWMC, or within such further period as the Director-General or her nominee may agree, the Applicants shall prepare and submit for the approval of the Director-General the following studies:
- (a) A Fire Safety Study for the proposed biowaste facility, Stormwater Pre-treatment Plant and Gas Management System at LHWMC. This study shall cover all aspects detailed in the Department's Hazardous Industry Planning Advisory Paper No. 2, *Fire Safety Study Guidelines*. The study shall also be submitted for the approval of the New South Wales Fire Brigades. The study shall take into account the New South Wales Government *Best Practice Guidelines for Contaminated Water Retention and Treatment Systems*.
 - (b) A Hazard and Operability Study (HAZOP) for the proposed biowaste facility and Stormwater Pre-treatment Plant at LHWMC, chaired by an independent qualified person approved by the Director-General. The study should be carried out in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 8, *HAZOP Guidelines*.

Pre-operation

147. At least two months prior to the commencement of operation of the proposed development at LHWMC, or within such further period as the Director-General may agree, the Applicants shall prepare and submit for the approval of the Director-General a comprehensive Emergency Plan and detailed emergency procedures for the proposed biowaste facility, Stormwater Pre-Treatment Plant And Gas Management System. The plan should include detailed procedures for the safety of people in areas outside the development. The plan should be in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 1, *Industry Emergency Planning Guidelines*.

Incident Reporting

148. Within 24 hours of any incident or near incident with actual or potential significant off-site impacts on people or the biophysical environment, a report shall be supplied to the Department outlining the basic facts. A further detailed report shall be prepared and submitted following investigations of the causes, and identification of necessary additional preventative measures.

General

149. All chemicals shall be stored in accordance with the Australian Standard AS 1940-1993 *The Storage and Handling of Flammable and Combustible Liquids* and the

EPA's Environment Protection Manual for Authorised Officers: Technical Section
(Bunding and Spill Management).

150. Sufficient supplies of appropriate absorbent materials shall be kept on site to recover any liquid spillage. Liquid spills shall be cleaned up using dry methods. Adsorbent materials used to clean up shall be disposed of to an appropriately licensed facility.

TRANSGRID EASEMENT

151. Prior to the commencement of landfilling activity at LH1, the Applicants shall consult with TransGrid in relation to:

- Vehicular access;
- Excavation or alteration of ground levels;
- Location and height of above-ground structures;
- Location and height of vegetation;
- Utility services installation, whether above or below ground,

within the TransGrid easement, and shall comply with all relevant TransGrid requirements.

FINANCIAL ASSURANCE

152. The EPA may require a financial assurance in accordance with division 5 of the *Waste Minimisation and Management Act 1995* or after 1 July 1999 in accordance with Part 9.4 of the *Protection of the Environment Operations Act 1997*.

COMPLAINTS PROCEDURES

153. Prior to the commencement of construction, the Applicants shall establish a freecall telephone line that operates 24 hours per day 7 days per week on which complaints about the subject development can be registered. The Applicants shall record details of all complaints received and actions taken in response to complaints in an up-to-date log book. The Applicants shall ensure that an initial response to complainants is provided within 24 hours and a detailed response within 10 days of the complaint being lodged.

The complaints register shall be available for inspection upon request by the Director-General, EPA, DLWC, the LH1LC, and the LHEMTG.