Development Consent

Section 89E of the Environmental Planning and Assessment Act 1979

As delegate of the Minister for Planning under delegation executed on 14 September 2011, the Planning Assessment Commission of NSW (the Commission) approves the development application referred to in Schedule A, subject to the conditions specified in Schedules B to D.

These conditions are required to:

- prevent, minimise, and/or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the ongoing environmental management of the Development.

Member of the Commission | Member of the Commission | Member of the Commission

Sydney 2017

The Department has prepared a consolidated version of the consent which is intended to include all modifications to the original determination instrument.

The consolidated version of the consent has been prepared by the Department with all due care. This consolidated version is intended to aid the consent holder by combining all consents relating to the original determination instrument but it does not relieve a consent holder of its obligation to be aware of and fully comply with all consent obligations as they are set out in the legal instruments, including the original determination instrument and all subsequent modification instruments.

SCHEDULE A

Application No:	SSD 6835
Applicant:	SITA Australia Pty Ltd and Sutherland Shire Council
Consent Authority:	Minister for Planning
Land:	Little Forest Road, Lucas Heights Lot 101 in DP 1009354, Lot 3 in DP 1032102 and Lot 2 in DP 605077
Development:	Increase landfill capacity, relocate and expand the garden organics facility and construct and operate a new resource recovery facility

SUMMARY OF MODIFICATIONS

Application Number	Determination Date	Decider	Modification Description
SSD-6835-Mod-1	5 June 2018	Director	Extension of operating hours
SSD-6835-Mod-2	23 November 2023	Team Leader	SSD-6835-MOD-2: • increase the landfill receival rate from 850,000 to 970,000 tonnes per annum (tpa) • not proceed with the construction and operations of the approved ARRT facility • increase the GO facility throughput from 80,000 to 100,000 tpa • amend the GO facility layout and processing technology • amend the conditions of consent relating to leachate model calibration and groundwater monitoring bores.
SSD-6835-Mod-3	12 June 2025	Team Leader	Construct and operate five landfill gas combustion flares and associated electricity connection and infrastructure

TABLE OF CONTENTS

DEFINITIONS

ANSTO	Australian Nuclear Science and Technology Organisation
Applicant	SITA Australia Pty Ltd and Sutherland Shire Council, or any person carrying out any development to which this consent applies
BCA	Building Code of Australia
Biosolids	As defined in the EPA's *Environmental Guidelines: Use and Disposal of Biosolids Products*, *2000*
Calendar year	A period of 12 months commencing on 1 January
CEMP	Construction Environmental Management Plan
Construction	As described in the EIS, including: • landfill re-profiling, stripping back covered areas and landfilling on top of existing waste; • construction of the GO Facility, earthworks, hardstand, internal access road, water and leachate infrastructure, waste receival and sorting areas, compost bunkers and storage areas; • Mill Creek re-alignment.
Council	Sutherland Shire Council
Day	The period from 7 am to 6 pm on Monday to Saturday, and 8 am to 6 pm on Sundays and Public Holidays
Department	Department of Planning and Environment
Development	The development described in Appendix 1, EIS and Response to Submissions, including increasing landfill capacity and expanding garden organics processing at Little Forest Road, Lucas Heights as modified by the conditions of consent and by Modification Assessments
DPE Water	Water Group of the Department
EHG	Environment and Heritage Group of the Department
EIS	Environmental Impact Statement titled *Environmental Impact Statement – Lucas Heights Resource Recovery Park Project*, prepared by GHD dated October 2015
ENM	Excavated Natural Material
EPA	NSW Environment Protection Authority
EP&A Act	*Environmental Planning & Assessment Act 1979*
EP&A Regulation	*Environmental Planning & Assessment Regulation 2000*
EPL	Environment Protection Licence issued by the EPA under the *Protection of the Environment Operations Act 1997*
Evening	The period from 6 pm to 10 pm
Former ARRT Facility	Advanced Resource Recovery Technology Facility, as described in the EIS but removed from the development through SSD-6835-MOD-2
General Solid Waste (putrescible)	As defined in the EPA's *Waste Classification Guidelines, 2014*, or its latest version, includes manure
General Solid Waste (non-putrescible)	As defined in the EPA's *Waste Classification Guidelines, 2014*, or its latest version, includes garden waste and wood waste
GO Facility	Garden Organics Facility, as described in the Modification Assessments
Feasible	Feasible relates to engineering considerations and what is practical to build
Heritage	Encompasses both Aboriginal and historic heritage including sites that predate European settlement, and a shared history since European settlement
Heritage Item	An item as defined under the *Heritage Act 1977,* and assessed as being of local, State and/ or National heritage significance, and/or an Aboriginal Object or Aboriginal Place as defined under the *National Parks and Wildlife Act 1974*
Incident	An incident causing or threatening material harm to the environment, and/or an exceedance of the limits or performance criteria in this consent
Land	In general, the definition of land is consistent with the definition in the EP&A Act
Landfill re-profiling	Area of the landfill to be stripped of existing final cap cover and intermediate cover for the placement of further waste on top, as described in the EIS and shown on the figures in Appendix A
LHRRP	Lucas Heights Resource Recovery Park incorporating the landfill, GO facility, administration building, weighbridge, workshops, parking areas, gas, leachate and water management infrastructure
Management & Mitigation Measures	The Applicant's management and mitigation measures described in the EIS, as modified by the Modification Assessments and included in Appendix B
Material harm to the environment	Harm to the environment is material if it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial
Minister	Minister for Planning and Public Spaces (or delegate)
Mitigation	Activities associated with reducing the impacts of the Development

Modification Assessment	The documents assessing the environmental impact of proposed modification of this consent and any other information submitted with the following modification application made under the EP&A Act: a) *Suez Recycling and Recovery Pty Ltd Modification to LHRRP Operation Hours Environmental Assessment* prepared by GHD dated January 2018, as amended by the Response to Submissions report prepared by GHD and dated 5 April 2018 b) *LHRRP Modification – Organics Facility Statement of Environmental Effects Cleanaway Pty Ltd* prepared by GHD dated 19 December 2022, as amended by the Response to Submissions report and supplementary information prepared by GHD and dated 24 August 2023 and 6 November, respectively c) *Lucas Heights Resource Recovery Park Flare Installation Modification Report* prepared by GHD dated 26 March 2025 (MOD 3).
Night	The period from 10 pm to 7 am on Monday to Saturday, and 10 pm to 8 am on Sundays and Public Holidays
OEMP	Operational Environmental Management Plan
Operation	As described in the EIS and Modification Assesments, includes receipt, processing and landfilling waste on the re-profiled landfill and at the GO facility
OU/m^3	Odour units per cubic metre, as defined in the EPA's *Technical Framework: Assessment and Management of Odour from Stationary Sources in NSW,* November 2006
Planning Secretary	Planning Secretary of the Department (or nominee)
POEO Act	*Protection of the Environment Operations Act 1997*
Reasonable	Reasonable relates to the application of judgment in arriving at a decision, taking into account: mitigation benefits, costs of mitigation versus benefits provided, community views, and the nature and extent of potential improvements
Resource Recovery Centre	Existing resource recovery centre in the eastern part of the site for receipt and processing of recyclable materials including plastics, paper, scrap metal and household rubble
RTS	Response to submissions and supplementary information received in relation to the application of consent for the Development under the EP&A Act and includes the following documents: a) *Lucas Heights Resource Recovery Park Project Response to Submissions and Preferred Project Report* prepared by SUEZ Recycling & Recovery Australia dated June 2016 b) *LHRRP Response to Biodiversity Offsets Review*, prepared by GHD dated 29 July 2016 c) *LHRRP Re: DPI Comments on the RTS Report*, prepared by GHD dated 3 August 2016 d) *Response to Cronulla Model Aero Club*, prepared by SUEZ Recycling and Recovery, dated 29 July 2016 e) *LHRRP Environmental Assessment for Consent Mod Change in Operating Hours – Odour Assessment*, prepared by GHD dated 5 April 2018 f) *LHRRP Modification – Organics Facility Response to Submissions Report Cleanaway Pty Ltd*, prepared by GHD dated 24 August 2023 g) *Response to Request for Additional Information SSD-6835-MOD-2*, prepared by GHD, submitted on 6 November 2023 h) *Response to Environment Protection Authority and Sutherland Shire Council submissions to SSD Modification Report for SSD-6835 (MOD 3), Lucas Heights Resource Recovery Park Flare Installation* prepared by GHD dated 23 May 2025
Sensitive Receivers	Residence, education institution (e.g. school, university, TAFE college), health care facility (e.g. nursing home, hospital), religious facility (e.g. church) and children's day care facility, as shown on the figure in Appendix E
Site	The land listed in Schedule A, and as depicted in Appendix A including the landfill, GO Facility, administration building, weighbridge, workshops, parking areas, gas, leachate and water management infrastructure
Special waste	As defined in the EPA's *Waste Classification Guidelines, 2014*, or its latest version, includes asbestos waste

SSD-6835-MOD-1	The section 4.55(1A) SSD-6835-MOD-1 modification application prepared by GHD titled *Suez Recycling and Recovery Pty Ltd Modification to LHRRP Operation Hours Environmental Assessment* dated 5 April 2018, as amended by the Response to Submissions report prepared by GHD and dated 5 April 2018
SSD-6835-MOD-2	The section 4.55(1A) SSD-6835-MOD-2 modification application prepared by GHD titled *LHRRP Modification – Organics Facility Statement of Environmental Effects Cleanaway Pty Ltd* dated 19 December 2022, as amended by the Response to Submissions report and supplementary information prepared by GHD and dated 24 August 2023 and 6 November, respectively
SSD-6835-MOD-3	The section 4.55(1A) SSD-6835-MOD-3 modification application prepared by GHD titled *Lucas Heights Resource Recovery Park Flare Installation Modification Report* prepared by GHD dated 26 March 2025 (MOD 3)
TFNSW	Transport for NSW
VENM	Virgin Excavated Natural Material
Voluntary Planning Agreement	Voluntary Planning Agreement between Council and SITA Australia Pty Ltd for the Lucas Heights Resource Recovery Park, as described in the EIS, publicly exhibited from 1 June to 29 June 2016 and referred to in the Letter of Offer dated 15 December 2016

SCHEDULE B

ADMINISTRATIVE CONDITIONS

OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

B1. In addition to meeting the specific performance criteria established under this consent, the Applicant must implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the Development.

TERMS OF CONSENT

B2. The Applicant must carry out the Development in accordance with the:
- (a) EIS and RTS
- (b) Modification Assessments
- (c) Development plans and drawings in the EIS, RTS and Modification Assessments (see Appendix A)
- (d) management and mitigation measures (see Appendix B)
- (e) the draft landfill, GO and Post Closure Environmental Management Plans included in the EIS
- (f) conditions of this Consent, as modified.

B3. If there is any inconsistency between the plans and documentation referred to in Condition B2 above, the most recent document must prevail to the extent of the inconsistency. However, the conditions of this consent must prevail to the extent of any inconsistency.

B4. The Applicant must comply with any reasonable requirement(s) of the Planning Secretary arising from the Department's assessment of:
- (a) any reports, plans or correspondence that are submitted in accordance with this consent; and
- (b) the implementation of any actions or measures contained in these documents.

LIMITS OF CONSENT

B5. This consent lapses five years after the date from which it operates, unless the Development has physically commenced on the land to which the consent applies before the date on which the consent would otherwise lapse under Section 95 of the EP&A Act.

B6. The Applicant must not receive more than:
- (a) 970,000 tonnes of general solid waste (putrescible and non-putrescible) and asbestos waste per calendar year on site for landfill disposal;
- (b) 10,000 tonnes of recyclable general solid waste (non-putrescible) and batteries per calendar year on site at the Resource Recovery Centre and waste collection point;
- (c) 100,000 tonnes of garden and wood waste and 2,000 tonnes of manure per calendar year at the GO Facility;
- (d) the quantity of waste required to meet the final landform profile described in the EIS.

B7. The receipt, processing and disposal of waste at the landfill and GO Facility **must** cease at the end of 2037.

OTHER CONSENTS AND APPROVALS

B8. Within 6 months of the date of this consent, the Applicant must lodge an application to modify DA 11-01-99 to remove the conditions of that consent that relate to the LHRRP. The modification must be in accordance with Clause 97 of the *Environmental Planning and Assessment Regulation, 2000.* The modification is required to ensure all activities undertaken at the LHRRP are covered by this consent only.

STATUTORY REQUIREMENTS

B9. The Applicant must ensure that all licences, permits and approval/consents are obtained as required by law and maintained as required throughout the life of the Development. No condition of this

consent removes the obligation for the Applicant to obtain, renew or comply with such licences, permits or approval/consents.

STRUCTURAL ADEQUACY

B10. The Applicant must ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures are constructed in accordance with the relevant requirements of the BCA.

Notes:

- *Under Part 4A of the EP&A Act, the Applicant is required to obtain construction and occupation certificates for the proposed building works; and*
- *Part 8 of the EP&A Regulation sets out the requirements for the certification of the Development.*

OPERATION OF PLANT AND EQUIPMENT

B11. The Applicant must ensure that all plant and equipment used for the Development are:
(a) maintained in a proper and efficient condition; and
(b) operated in a proper and efficient manner.

PROTECTION OF PUBLIC INFRASTRUCTURE

B12. Prior to the commencement of construction, the Applicant must:
(a) prepare a dilapidation report of the public infrastructure in the vicinity of the site (including roads, kerbs, footpaths, nature trip, street trees and furniture); and
(b) submit a copy of this report to the Planning Secretary and Council.

B13. The Applicant must:
(a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged as a result of the Development; and
(b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the Development.

STAGED SUBMISSION OF PLANS OR PROGRAMS

B14. With the approval of the Planning Secretary, the Applicant may:
(a) submit any strategy, plan or program for the landfill re-profiling and GO Facility construction and operation, required by this consent, on a progressive basis; and/or
(b) combine any strategy, plan or program required by this consent.

DISPUTE RESOLUTION

B15. In the event that a dispute arises between the Applicant and either Council or a public authority, in relation to an applicable requirement in this consent or relevant matter relating to the Development, either party may refer the matter to the Planning Secretary for resolution. The Planning Secretary's determination of any such dispute must be final and binding on the parties.

Note: This condition does not relate to disputes raised regarding matters in the Voluntary Planning Agreement required under Condition B19.

COMPLIANCE

B16. The Applicant must ensure that employees, contractors and sub-contractors are aware of, and comply with, the conditions of this consent relevant to their respective activities.

B17. The Applicant must be responsible for environmental impacts resulting from the actions of all persons that it invites onto the site, including contractors, sub-contractors and visitors.

EVIDENCE OF CONSULTATION

B18. Where consultation with any public authority or community group is required by the conditions of this consent, the Applicant must:

(a) consult with the relevant public authority or community group prior to submitting the required documentation to the Planning Secretary for approval, where required;
(b) submit evidence of this consultation as part of the relevant documentation required by the conditions of this consent; and
(c) include the details of any outstanding issues raised by the relevant public authority or community group and an explanation of or agreement between any public authority or community group and the Applicant or any person acting on this Development consent.

PLANNING AGREEMENT

B19. Prior to the commencement of construction and prior to receiving increased tonnes of waste in accordance with Condition B6(a), the Applicant must enter into the Voluntary Planning Agreement with Council in accordance with the Letter of Offer dated 15 December 2016.

SCHEDULE C

SPECIFIC ENVIRONMENTAL CONDITIONS

WASTE

Receipt, Storage & Handling of Waste

C1. The Applicant must only receive waste on site that is authorised for receipt by an EPL.

C2. The Applicant must ensure any waste generated on the site during construction is classified in accordance with the EPA's *Waste Classification Guidelines*, *2014* or its latest version, and disposed of to a facility that may lawfully accept the waste.

C3. The Applicant must:
- (a) implement auditable procedures to:
  - i. ensure the site does not accept wastes that are prohibited;
  - ii. screen incoming waste loads; and
- (b) ensure that:
  - i. all waste types that are controlled under a tracking system have the appropriate documentation prior to acceptance at the site; and
  - ii. staff receive adequate training in order to be able to recognise and handle any hazardous or other prohibited waste.

Monitoring

C4. The Applicant must provide details of the quantity, type and source of wastes received on the site and provide these details to the EPA and the Planning Secretary when requested.

Landfill Operations

C5. To minimise the potential for odour generation, the Applicant must, unless otherwise agreed in writing by the EPA:
- (a) ensure a maximum of 1 hectare of existing intermediate cover or 2 hectares of existing final capped cover may be stripped in advance of landfilling to form the prepared surface. The prepared surface must have a minimum depth of 300 millimetres;
- (b) each day a maximum of 2,500 metres squared of the prepared surface may be stripped back to expose previously landfilled waste to form the active tip face; and
- (c) the landfill gas field infrastructure must be retained and operating at all times, with the exception of the stripped back prepared surface.

Imported Soil

C6. The Applicant must:
- (a) ensure that only VENM or ENM or other material approved in writing by the EPA is used as fill on the site;
- (b) keep accurate records of the volume and type of fill to be used; and
- (c) make these records available to the Planning Secretary upon request.

C7. During construction, the Applicant must ensure any material brought on site for use as fill meets the requirements of the relevant Resource Recovery Order and Exemption issued under the *Protection of the Environment Operations (Waste) Regulation 2014*, to apply that material to land. The Applicant must retain records of all material brought on site for filling purposes and provide the records to the EPA and the Planning Secretary when requested.

ODOUR & AIR QUALITY

Limits

C8. The Applicant must ensure the Development does not cause or permit the emission of any offensive odour, as defined in the POEO Act.

C9. The Applicant must:

(a) operate and maintain all facilities within the site in a condition which controls the emission of dust; and
(b) carry out all reasonable and feasible measures to minimise dust from the site.

C9A. The Applicant must design, construct and operate the landfill gas flares described in SSD-6835-MOD 3 to comply with the NSW EPA's *Environmental Guidelines: Solid Waste Landfills 2016* and the *Protection of the Environment Operations (Clean Air) Regulation 2021*.

C9B. The Applicant must install, maintain and operate equipment on the site to ensure the development complies with the air emission limits in the EPL.

Meteorological Monitoring

C10. The Applicant must install, operate and maintain a meteorological weather station on the site that complies with the requirements of an EPL for the site.

Site Air Quality and Odour Management Plan

C11. The Applicant must prepare a Site Air Quality and Odour Management Plan. The plan must:

(a) be prepared by a suitably qualified and experienced person in consultation with the EPA and Council;
(b) be submitted to the Planning Secretary prior to the commencement of construction;
(c) list all emission sources across the LHRRP and key performance indicators for each emission type;
(d) describe odour and dust monitoring methods, location, frequency and duration;
(e) show the locations of real-time dust monitors on and off-site with appropriate trigger values;
(f) report on the performance of the site against the key performance indicators for each emission type;
(g) detail proactive mitigation measures for the control of dust and odour impacts;
(h) detail the contingency measures to be implemented to respond to complaints or if dust or odour impacts are identified; and
(i) include record keeping, a complaints register and compliance reporting.

C11A. The Applicant must update the Site Air Quality and Odour Management Plan required by Condition C11 of this consent to include the Modification Assessments. The updated plan must:

(a) be prepared by a suitably qualified and experienced person in consultation with the EPA;
(b) be submitted to the Planning Secretary within six months of the determination of SSD-6835-MOD-2;
(c) detail additional mitigation measures which will be employed to prevent future odour emissions at the site; and
(d) address the requirements of Condition C11 of this consent.

Landfill

C12. The Applicant must conduct an odour audit of the landfill to validate the odour reductions described in the EIS have been achieved at the existing landfill. The odour audit must:

(a) be prepared by a suitably qualified and experienced person in consultation with the EPA and Council;
(b) be submitted to the EPA, Council and the Planning Secretary at least one month prior to the commencement of landfill re-profiling;
(c) include collection and analysis of odour samples in accordance with the EPA's *Approved Methods for Sampling and Analysis of Air Pollutants in NSW*; and
(d) identify mitigation measures with a timeline for implementation, where the odour reductions identified in the EIS are not being achieved.

GO Facility

C13. All organic material and waste must be stored at the GO Facility in accordance with the requirements of an EPL for the site, including limits on the height of stockpiles.

C14. The Applicant must conduct an odour audit of the GO Facility to validate the odour data used in SSD-6835-MOD-2. The odour audit **must**:

(a) be prepared by a suitably qualified and experienced person in consultation with the EPA and Council;
(b) be submitted to the EPA, Council and the Planning Secretary within 12 months of commencement of operation of the GO Facility, as described in SSD-6835-MOD-2;
(c) include collection and analysis of odour samples in accordance with the EPA's *Approved Methods for Sampling and Analysis of Air Pollutants in NSW*;
(d) validate the efficiencies of the odour controls, specifically the tunnel pasteurisation technology used for the active composting stage;
(e) validate the odour data for freshly turned material;
(f) demonstrate that the final design achieves an equivalent or better performance than stated in the Modification Assessment, supported by dispersion modelling in accordance with EPA's *Approved Methods for Sampling and Analysis of Air Pollutants in NSW*, if required; and
(g) identify additional mitigation measures with a timeline for implementation, where odour performance significantly differs from the predictions in the Modification Assessments.

GREENHOUSE GAS

C22. The Applicant must implement all reasonable and feasible measures to minimise energy use on site and greenhouse gas emissions produced on site.

LEACHATE

Landfill – Dual Gas and Leachate Trench

C23. The Applicant must design and install a dual gas and leachate management trench near the perimeter of the re-profiled landfill to intercept sideways movement of leachate. The trench must:

(a) be designed in accordance with the requirements of the EPA;
(b) be approved by the EPA, prior to construction of the trench and landfill re-profiling;
(c) include extraction risers along the length of the trench to allow extraction and transfer of leachate to the existing ring main; and
(d) be installed in accordance with a CEMP, prepared by a suitably qualified person and submitted to the EPA at least one month prior to construction of the trench.

Landfill Gas Infrastructure

C24. The Applicant must maintain and operate the landfill gas infrastructure on the site, at all times. The Applicant must retain and operate the gas collection system within the prepared surface (stripped back cover) as much as practicable.

Operating Conditions

C25. Accumulated sludge and sediment formed during leachate storage at the site must be disposed of to a special waste area at the LHRRP, separate from the active tip face.

C26. The Applicant must manage all water that comes into contact with waste at the GO Facility as leachate. Leachate generated at the GO Facility may only be reused in the composting process on site or disposed to sewer in accordance with a Trade Waste Agreement or as otherwise agreed in writing with the EPA.

Leachate Monitoring

C28. The Applicant must routinely monitor leachate volumes from all sources to evaluate the need to re-calibrate the leachate model included in the EIS, and to ensure adequate storage, treatment and disposal capacity is maintained at all times. The leachate model must be recalibrated if ongoing

monitoring demonstrates that leachate is being generated more than can be routinely managed at the site, or at least every five years. The Applicant must report the results of ongoing monitoring and status of the modelling in the Annual Review required under Condition D9.

C29. The Applicant must implement any recommended measures identified by leachate model calibrations to maintain adequate storage, treatment and disposal capacity for the LHRRP at all times.

SURFACE WATER & GROUNDWATER

Discharge Limits

C30. The Development must comply with Section 120 of the POEO Act, which prohibits the pollution of waters, except as expressly provided for in an EPL.

GO Facility

C31. The Applicant must ensure excess water collected in the leachate dams at the GO Facility during high rainfall periods is transported off-site and disposed of lawfully or discharged to sewer in accordance with a Trade Waste Agreement.

C32. The Applicant must prepare and submit a detailed design for managing surface water from the western and eastern operational areas at the GO Facility detailed in SSD-6835-MOD-2. The design must:

(a) be approved by the EPA prior to commencement of operation of the GO Facility
(b) demonstrate that surface water runoff from roofs (including the covered maturation area) does not come into contact with waste
(c) describe a program for ongoing monitoring of the water quality at the GO facility, including discharge of surface water to Mill Creek.

Mill Creek

C33. The Applicant must prepare an Aquatic Habitat Monitoring Plan to monitor the stream health of Mill Creek within the site. The plan must:

(a) be prepared by a suitably qualified and experienced person in consultation with DPE Water;
(b) be submitted to the Planning Secretary prior to construction of the GO Facility;
(c) describe the monitoring locations, frequency and parameters to be measured; and
(d) detail the measures to be implemented if monitoring indicates the habitat quality of Mill Creek is decreasing as a result of activities on the site.

C34. The Applicant must prepare a Mill Creek Stream Rehabilitation, Stabilisation and Vegetation Management Plan. The plan must:

(a) be prepared by a suitably qualified and experienced person in consultation with DPE Water;
(b) be submitted to the Planning Secretary prior to construction of the GO Facility;
(c) be prepared in accordance with DPE Water *Guidelines for Controlled Activities on Waterfront Land;*
(d) detail proposed stream realignment works including details of the measures to minimise water quality impacts;
(e) detail the proposed rehabilitation and stabilisation of the stream including methods and staging of works;
(f) detail opportunities to maximise the width of riparian zones, particularly in the final landform design, and detail the vegetation types, maintenance, monitoring and performance criteria for the rehabilitation works; and
(g) be updated to include any changes to the rehabilitation objectives and staging approved in the Post Closure Plan for the site, required under Condition C40.

Groundwater Management Plan

C35. The Applicant must prepare or update a Groundwater Management Plan for the site. The plan must:
(a) be prepared by a suitably qualified and experienced person, in consultation with the EPA and DPE Water;
(b) be submitted to the Planning Secretary, prior to the commencement of construction;
(c) detail the groundwater monitoring network including location and frequency of monitoring, the parameters for testing, relevant criteria and trigger levels for action;
(d) include a protocol for investigation, notification and mitigation of any exceedances of the identified trigger levels; and
(e) describe the measures that could be implemented to respond to identified groundwater contamination.

Groundwater Monitoring

C36. The Applicant must monitor groundwater from the extensive bore network established at and within proximity to the LHRRP, as in accordance with the requirements of the EPL for the site and groundwater management plan required under Condition C35.

Bunding

C37. Dangerous Goods, as defined by the Australian Dangerous Goods Code, must be stored and handled strictly in accordance with:

(a) all relevant Australian Standards;
(b) for liquids, the NSW EPA's Storing and Handling of Liquids: Environmental Protection – Participants Manual.

In the event of an inconsistency between the requirements of condition C37(a) and C37(b), the most stringent requirement must prevail to the extent of the inconsistency.

FINAL LANDFORM, REHABILITATION & CLOSURE

Final Landform

C38. The Applicant must rehabilitate the site to achieve the final landform shown in Appendix C, in accordance with the criteria in the EPA's *Environmental Guidelines: Solid Waste Landfills*, *2016*, or its latest version.

C39. The Applicant must ensure the height of the final landform does not exceed 179.9 metres Australian Height Datum (AHD) post-settlement of the waste mass and final capping, as described in the EIS.

Post-Closure Plan

C40. The Applicant must amend the draft Post-Closure Plan for the site, to the satisfaction of the Planning Secretary. The plan must:

(a) be prepared by a suitably qualified and experienced person;
(b) be submitted to the EPA and the Planning Secretary 12 months prior to the planned closure of the landfill and GO Facility on the site;
(c) be approved by the EPA, Council, ANSTO and the Planning Secretary, prior to commencement of the final phase of landfill capping and rehabilitation works;
(d) detail the requirements for on-going management of the capped waste mass;
(e) describe monitoring and management measures to ensure integrity of the cap;
(f) describe on-going leachate and surface water management, odour and dust control;
(g) detail landfill gas monitoring and maintenance;
(h) identify future land uses on the site, developed in consultation with Council, ANSTO, the Cronulla Model Aero Club and local recreational and sporting groups;
(i) include a rehabilitation management plan, including, but not limited to:
    i. rehabilitation works as generally depicted in Appendix C;

ii. criteria for evaluating the effectiveness of the rehabilitation;
iii. a program and schedule to monitor the effectiveness of the rehabilitation;
iv. a program and schedule for routine maintenance of the rehabilitation;
v. any remedial actions necessary to ensure the success of the rehabilitation;
vi. a weed management plan; and

(j) incorporate the post closure requirements detailed in the VPA.

VISUAL AMENITY

C41. The Applicant must undertake early screen planting as shown on the plan in Appendix D to minimise the visual impacts of the Development. The planting must be undertaken within 6 months of the date of this consent, or as otherwise agreed with the Planning Secretary, subject to agreement with ANSTO for works on ANSTO's land. Evidence of implementation of the planting must be provided to the satisfaction of the Planning Secretary, within one month of completing the planting.

C42. The Applicant must progressively hydro-mulch and grass completed landfill areas to minimise the visual impacts of the Development.

C42A. The Applicant must ensure any lighting associated with the operation of the landfill:

(a) complies with the latest version of *AS 4282 (INT) - Control of Obtrusive Effects of Outdoor Lighting*; and

(b) is mounted, screened and directed in such a manner that it does not create a nuisance to surrounding properties or the public road network.

BIODIVERSITY

Construction

C43. The Applicant must prepare a Vegetation and Fauna Management Plan to minimise impacts on biodiversity during construction of the GO Facility, to the satisfaction of the Planning Secretary. The plan must:

(a) be prepared by a suitably qualified and experienced ecologist;
(b) be submitted to the Planning Secretary, prior to the commencement of construction of the GO Facility;
(c) include a vegetation clearing protocol and pre-clearance surveys;
(d) detail specific procedures for protecting native vegetation, including the *Coastal Upland Swamp*, and fauna adjacent to construction areas, including the access track near the GO Facility, the sediment pond and the verge adjacent to Heathcote Road;
(e) detail erosion and sediment controls and weed management procedures; and
(f) include procedures for seed collection and translocation of key species, including *Allocasuarina diminuta subsp. Mimica* and *Acacia bynoeana*.

C44. The Applicant must appoint a qualified and experienced ecologist to be present on site during native vegetation clearing for construction of the GO Facility and realignment of Mill Creek.

Biodiversity Offset Strategy

C45. The Applicant must purchase and retire the ecosystem and species credits listed in Table 1, in accordance with EHG's *Frameworks for Biodiversity Assessment 2014* and the *NSW Biodiversity Offsets Policy for Major Projects 2014,* to the satisfaction of the Planning Secretary. The credits must be purchased and retired prior to construction of the relevant facility listed in Table 1.

Table 1: Biodiversity Offset Strategy

Facility	No. of Credits	Offset Type
GO Facility	185 ecosystem	Red Bloodwood – Scribbly Gum heathy woodland on sandstone plateaux
	97 species	Eastern Pygmy-possum
Former ARRT Facility	143 ecosystem	Red Bloodwood – Scribbly Gum heathy woodland on sandstone plateaux
	88 species	Eastern Pygmy-possum
	5154 species	*Allocasuarina diminuta subsp. mimica*

Note: The areas referred to in Table 1 are shown on the figures in Appendix A.

C46. The Applicant must not commence construction of a facility listed in Table 1, until the Biodiversity Offset Strategy for that facility has been implemented, to the satisfaction of the Planning Secretary.

C47. The Applicant must ensure the biodiversity offsets are secured by a conservation mechanism, which protects and manages the land in perpetuity, to the satisfaction of the Planning Secretary.

TRANSPORT AND ACCESS

Construction Traffic Management Plan

C48. The Applicant must prepare a Construction Traffic Management Plan for construction of the GO Facility. The plan must:

(a) be prepared by a suitably qualified and experienced expert, in consultation with Council and TFNSW;
(b) be submitted to the Planning Secretary, prior to the commencement of construction of the GO Facility;
(c) detail the measures to be implemented to ensure road safety and network efficiency during construction;
(d) detail heavy vehicle routes, access and parking arrangements;
(e) include a Driver Code of Conduct to:
- minimise the impacts of construction works on the local and regional road network;
- minimise conflicts with other road users;
- ensure truck drivers use specified routes;

(f) include a program to monitor the effectiveness of these measures; and
(g) if necessary, detail procedures for notifying residents and the community, of any potential disruptions to routes.

Intersection Safety Review

C49. The Applicant must conduct a safety review of the Little Forest Road and New Illawarra Road intersection in the years 2020 and 2025 to ensure the on-going safe and efficient performance of the intersection. The safety reviews must be prepared to the satisfaction of the Planning Secretary and must:

(a) be prepared by an independent traffic expert;
(b) be undertaken in consultation with Council and TFNSW and in accordance with relevant guidelines;
(c) be approved by the Planning Secretary and TFNSW, by the end of 2020 and 2025;
(d) analyse vehicle movements and delays during peak periods;
(e) establish intersection performance and the need for any intersection upgrade works; and
(f) include a program for implementation of intersection upgrade works, if required.

C50. The Applicant must implement the recommendations of the safety reviews, including any required intersection upgrades, to the satisfaction of the Planning Secretary and TFNSW. The timing and payment for implementation of any required intersection upgrades must be agreed with the Planning Secretary and TFNSW.

C42A. The Applicant must ensure any lighting associated with the operation of the landfill:

(a) complies with the latest version of *AS 4282 (INT) - Control of Obtrusive Effects of Outdoor Lighting*; and

(b) is mounted, screened and directed in such a manner that it does not create a nuisance to surrounding properties or the public road network.

Operating Conditions

C51. The Applicant must ensure:

(a) all staff vehicles, plant and equipment are parked on site and do not park on the public road network;

(b) all loading and unloading of materials is carried out on site;

(c) all trucks entering or leaving the site with loads have their loads covered;

(d) vehicles do not track dirt onto the public road network; and

(e) heavy vehicles use designated routes to minimise impacts on the local and regional road network.

Parking

C52. The Applicant must provide sufficient parking facilities for site personnel and heavy vehicles on the site, to ensure traffic associated with the site does not utilise public and residential streets or public parking facilities.

NOISE

Hours of Work

C53. The Applicant must comply with the hours detailed in Table 2, unless otherwise agreed in writing by the EPA or the Planning Secretary.

Table 2: Hours of Work

Facility	Activity	Day	Time
Landfill	Construction	Monday – Friday Saturday - Sunday	7 am - 5 pm 8 am - 5 pm
	Operation	Monday – Friday Saturday Sunday	5 am - 5 pm 6 am - 5 pm 8 am - 5 pm
	Other operations[1]	Monday – Sunday	Anytime
GO Facility	Construction	Monday – Friday Saturday - Sunday	7 am - 5 pm 8 am - 5 pm
	Operation	Monday – Friday Saturday - Sunday	6 am - 5 pm 8 am - 5 pm
	Other operations[2]	Monday – Sunday	Anytime

Notes:

[1] Other landfilling operations includes only security guard control, machinery maintenance and/or repairs, site infrastructure maintenance and/or repairs (landfill gas and leachate), and emergency management activities related to site safety, emergency repairs and site infrastructure repairs

[2] Other GO operations includes only repair works, machinery maintenance and repairs, loading tunnels, final product preparation manufacture (but does not include shredding) and emergency management activities related to site safety, emergency repairs and site infrastructure repairs. Unloading tunnels is only permitted during the hours of operations listed under 'GO Facility – Operation' in Table 2.

Operational Noise Limits

C54. The Applicant must ensure noise from the site does not exceed the noise limits in Table 3.

Table 3: Noise Limits dB(A)

No.	Location	Day	Evening	Night	Night
		$L_{eq(15min)}$	$L_{eq(15min)}$	$L_{eq(15min)}$	$L_{1(1min)}$
R1	Engadine	35	35	35	45
R2	Barden Ridge	35	35	35	45
R3	Menai	35	35	35	45
R6	Gandangara	37	37	37	45
R7	Gandangara North	35	35	35	45
R8	The Ridgeway	35	35	35	35

Note:

- *To identify a noise receiver location, refer to the figure in Appendix E.*
- *Noise generated on the site is to be measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the EPA's NSW Industrial Noise Policy.*

Noise Management

C55. The Applicant must implement the noise management measures described in the OEMPs for the LHRRP and GO Facility to ensure noise from the site complies with the limits in Table 3.

Noise Monitoring

C56. The Applicant must monitor noise from the site to demonstrate compliance with the noise limits in Table 3. The monitoring must be:
(a) undertaken annually, or to address genuine noise complaints that are related to the site as determined by the EPA or the Planning Secretary;
(b) in accordance with the *NSW Industrial Noise Policy*; and
(c) reported to the EPA and the Planning Secretary within one month of completing the monitoring, including details of management actions taken and the effectiveness of the actions to address any exceedances of the limits in Table 3.

LITTER & PEST CONTROL

C57. The Applicant must:
(a) ensure all waste loads are covered;
(b) inspect and clear the site (and if necessary, surrounding area) of litter arising from the Development on a daily basis; and
(c) maintain the site in a clean and tidy state at all times.

C58. The Applicant must:
(a) implement measures to manage pests, vermin and declared noxious weeds on site; and
(b) inspect the site routinely to ensure the measures are effective, and pests, vermin or noxious weeds are not present on site in sufficient numbers to pose an environmental hazard, or cause the loss of amenity in the surrounding area.

Note: For the purposes of this condition, noxious weeds are those species subject to an order declared under the Noxious Weed Act 1993.

HERITAGE

Unexpected Finds Protocol

C59. If Aboriginal objects are uncovered during construction, work in the immediate area must stop and the Regional Operations Group of the EHG, Council and the Registered Aboriginal Parties are to be consulted.

C60. If any archaeological relics are uncovered during the course of the work, then all works must cease immediately in that area and the EHG Heritage Branch contacted. Depending on the possible significance of the relics, an archaeological assessment and an excavation permit under the *NSW Heritage Act 1977* may be required before further works can continue in that area.

Site Impact Recording

C61. Within one month of the date of this consent, the Applicant must submit Site Impact Recording TfNSW to EHG for the four previously impacted Aboriginal heritage sites, AHIMS 52-2-1108, 52-2-1029, 52-2-1030 and 52-2-1031, as described in the EIS.

FIRE PREVENTION & MANAGEMENT

C62. The Applicant must:

(a) design and construct the GO Facility buildings to meet the fire safety requirements of the BCA; and
(b) maintain a 10 metre wide Asset Protection Zone around the northern and western sides of the GO Facility buildings.

C63. The Applicant must prepare an Emergency Response Plan for the site detailing procedures to be implemented in the event of a fire on or near the site. The Emergency Response Plan must:

(a) be prepared by a suitably qualified and experienced expert in consultation with Council and the NSW Rural Fire Service;
(b) be submitted to the Planning Secretary within three months of the date of this consent, or an alternative timing as otherwise agreed with the Planning Secretary; and
(c) detail emergency access and egress routes, including an alternative access route, escape routes, refuge areas, assembly points and evacuation procedures.

C64 The Applicant must ensure construction and operation of the flares described in SSD-6835-MOD-3 complies with:

(a) the relevant provisions of *Planning for Bushfire Protection* (NSW RFS, 2019); and
(b) the construction standards and asset protection zone requirements recommended in the *Lucas Heights Resource Recovery Park Flare Installation Modification Report* prepared by GHD dated 26 March 2025.

SCHEDULE D

ENVIRONMENTAL MANAGEMENT, REPORTING, AUDITING AND COMMUNITY ENGAGEMENT

ENVIRONMENTAL MANAGEMENT

Construction Environmental Management Plan

D1. The Applicant must prepare a Construction Environmental Management Plan (CEMP) for the Development, to the satisfaction of the Planning Secretary. The Plan must:
- (a) be prepared in consultation with Council and be approved by the Planning Secretary prior to construction of the Development;
- (b) identify the statutory approvals that apply to the site;
- (c) outline all environmental management practices and procedures to be followed during construction;
- (d) describe all activities to be undertaken on the site during construction, including a clear indication of construction stages;
- (e) detail how the environmental performance of the construction works will be monitored, and what actions will be taken to address identified adverse environmental impacts;
- (f) describe the roles and responsibilities for all relevant employees involved in construction works; and
- (g) include the management plans under Condition D2 of this consent.

D2. As part of the CEMP for the Development, required under Condition D1 of this consent, the Applicant must include the following:
- (a) a construction management plan for the dual gas and leachate trench prepared in consultation with EPA (Condition C23);
- (b) an erosion and sediment control plan;
- (c) a vegetation and fauna management plan (Condition C43); and
- (d) a construction traffic management plan (Condition C48).

D3. The Applicant must carry out construction of the Development in accordance with the CEMP approved by the Planning Secretary (and as revised and approved by the Planning Secretary from time to time), unless otherwise agreed by the Planning Secretary.

Operational Environmental Management Plan

D4. The Applicant must amend the Operational Environmental Management Plan (OEMP) for the Landfill and GO Facility, to the satisfaction of the Planning Secretary. The Plans must:
- (a) be prepared in consultation with Council and be approved by the Planning Secretary prior to operation of the Development;
- (b) identify the statutory approvals that apply to the site;
- (c) outline all environmental management practices and procedures to be followed during operation;
- (d) detail how the environmental performance of the Development will be monitored, and what actions will be taken to address identified adverse environmental impacts; and
- (e) include the management plans under Condition D5 of this consent.
- (f) incorporate the measures identified in the Modification Assessments in accordance with the timing specified in Condition D8(d).

D5. As part of the OEMP's for the Development, required under Condition D4 of this consent, the Applicant **must** include the following:
- (a) site air quality and odour management plan (Condition C11);
- (b) detailed design of the surface management at the GO Facility (Condition C32);
- (c) aquatic habitat monitoring plan (Condition C33);
- (d) Mill Creek stream rehabilitation, stabilisation and vegetation management plan (Condition C34);
- (e) groundwater management plan (Condition C35); and
- (f) emergency response plan (Condition C63).

D6. The Applicant must operate the Development in accordance with the OEMP's approved by the Planning Secretary (and as revised and approved by the Planning Secretary from time to time), unless otherwise agreed by the Planning Secretary.

Management Plan Requirements

D7. The Applicant must ensure the Management Plans required under this consent are prepared in accordance with any relevant guidelines, and include:
(a) detailed baseline data;
(b) a description of:
  i. the relevant statutory requirements (including any relevant approval, licence or lease conditions);
  ii. any relevant limits or performance measures/criteria; and
  iii. the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the Development or any management measures;
(c) a description of the measures that will be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;
(d) a program to monitor and report on the:
  i. impacts and environmental performance of the Development; and
  ii. effectiveness of any management measures (see (c) above);
(e) a contingency plan to manage any unpredicted impacts and their consequences;
(f) a program to investigate and implement ways to improve the environmental performance of the Development over time;
(g) a protocol for managing and reporting any:
  i. incidents;
  ii. complaints;
  iii. non-compliances with statutory requirements; and
  iv. exceedances of the impact assessment criteria and/or performance criteria; and
(h) a protocol for periodic review of the plan.

Note: The Planning Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.

Revisions to Strategies, Plans and Programs

D8. Within three months of:
(a) an audit submitted under Condition D12;
(b) an incident report under Conditions D10 and D11;
(c) an annual review under Condition D9; and/or
(d) a modification to this consent,

the Applicant must review, and if necessary, revise the strategies, plans, and programs required under this consent to the satisfaction of the Planning Secretary.

Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the site.

REPORTING

Annual Review

D9. By the end of each calendar year, and annually thereafter, the Applicant must review the environmental performance of the site, to the satisfaction of the Planning Secretary. This review must:
(a) be submitted to the Planning Secretary by the end of February each year;
(b) describe the operations that were carried out in the past year;
(c) analyse the monitoring results and complaints records of the site over the past year, including a comparison of these results against the:
  i. relevant statutory requirements, limits or performance measures/criteria;

ii. monitoring results of previous years;
iii. predictions in the EIS;

(d) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;
(e) identify any trends in the monitoring data;
(f) identify any discrepancies between the impacts predicted in the EIS and the actual impacts of the site and analyse the potential cause of any significant discrepancies; and
(g) describe what measure will be implemented over the next year to improve the environmental performance of the site.

Incident Reporting

D10. Upon detecting an exceedance of the limits/performance criteria in this consent or the occurrence of an incident that causes (or may cause) material harm to the environment, the Applicant must immediately (or as soon as practical thereafter) notify the Planning Secretary and any other relevant agencies of the exceedance/incident.

D11. Within seven days of the date of the incident, the Applicant must provide the Planning Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.

INDEPENDENT ENVIRONMENTAL AUDIT

D12. Within one year of the date of this consent, and every three years thereafter, unless the Planning Secretary directs otherwise, the Applicant must commission and pay the full cost of an Independent Environmental Audit of the site. The audit must:
(a) be carried out by a suitably qualified, experienced and independent audit team whose appointment has been endorsed by the Planning Secretary;
(b) assess the environmental performance of the site, and its effects on the surrounding environment;
(c) determine whether the site is complying with the relevant standards, performance measures and statutory requirements;
(d) review the adequacy of the Environmental Management Plans for the site, compliance with this consent, and any other licences and consents; and, if necessary;
(e) recommend measures or actions to improve the environmental performance of the site, and/or any plan/program required under this consent.

D13. Within three months of commissioning the audit, or as otherwise agreed by the Planning Secretary, the Applicant must submit a copy of the audit report to the Planning Secretary with a response to all recommendations contained in the audit report.

COMMUNITY ENGAGEMENT

Community Reference Group

D14. The Applicant must establish and maintain a Community Reference Group (CRG) to maintain regular communication with the local community regarding activities on the site, any environmental impacts, monitoring results and management actions. The CRG must include representatives from the local community, recreational and sporting clubs, ANSTO, Council and the Applicant. The CRG must meet on a quarterly basis.

Access To Information

D15. The Applicant must make the following information publicly available on its website and keep the information up to date.
(a) the EIS, RTS, CEMP and OEMPs;
(b) current statutory consents, approvals and licences for the site;
(c) approved strategies, plans and programs;
(d) a summary of all monitoring data for the site as required under this consent;
(e) a complaints register, updated on an annual basis;

(f) Annual Reviews, Independent Environmental Audits and the Applicant's response to the recommendations; and
(g) any other matter required by the Planning Secretary.

Note: This requirement does not require any confidential information to be made available to the public.

APPENDIX A
DEVELOPMENT PLANS

Figure 1: *Key Infrastructure*

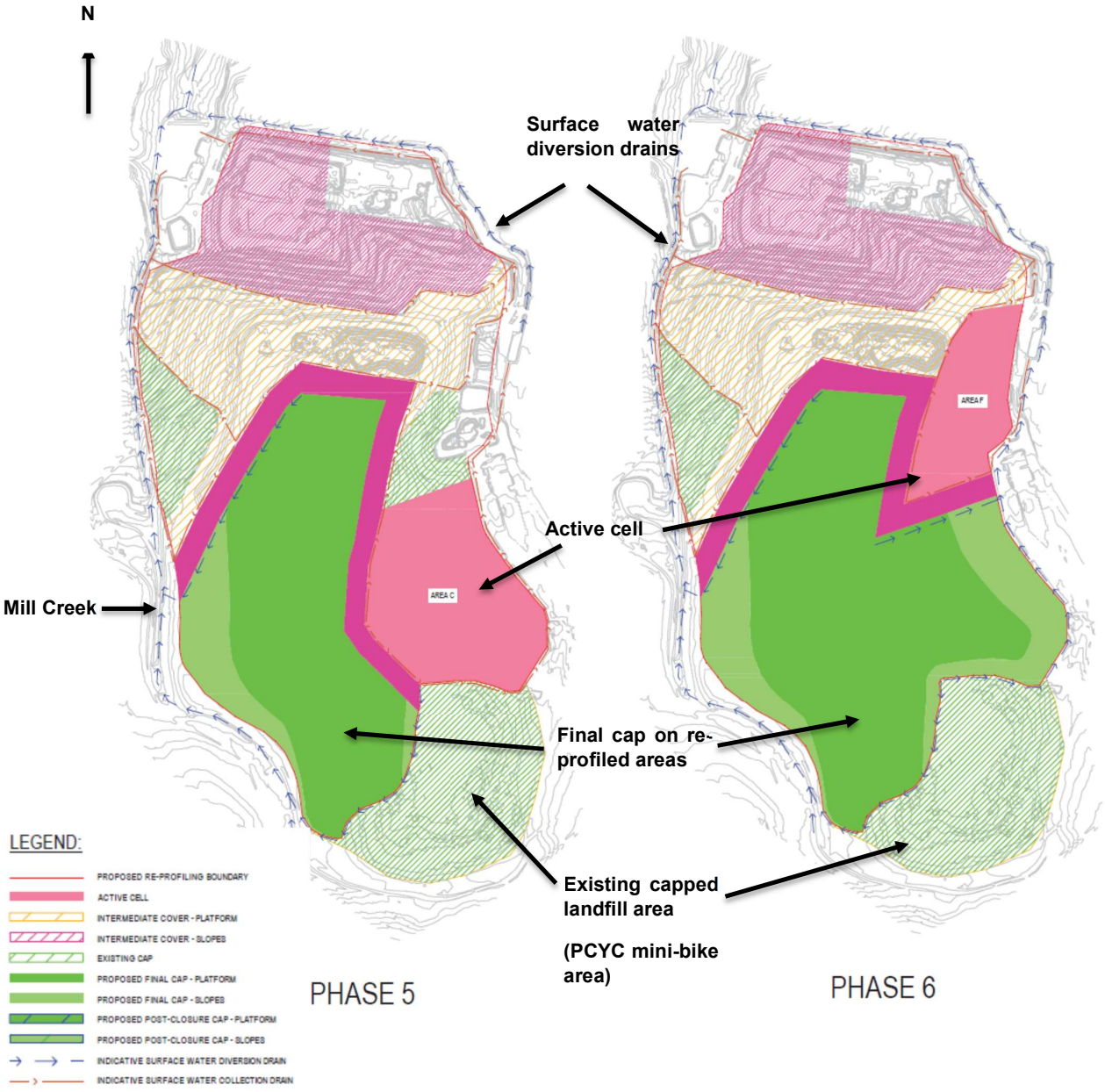

Figure 2: *Re-Profiling of Existing Landfill (shows landfilling on top of already capped areas)*

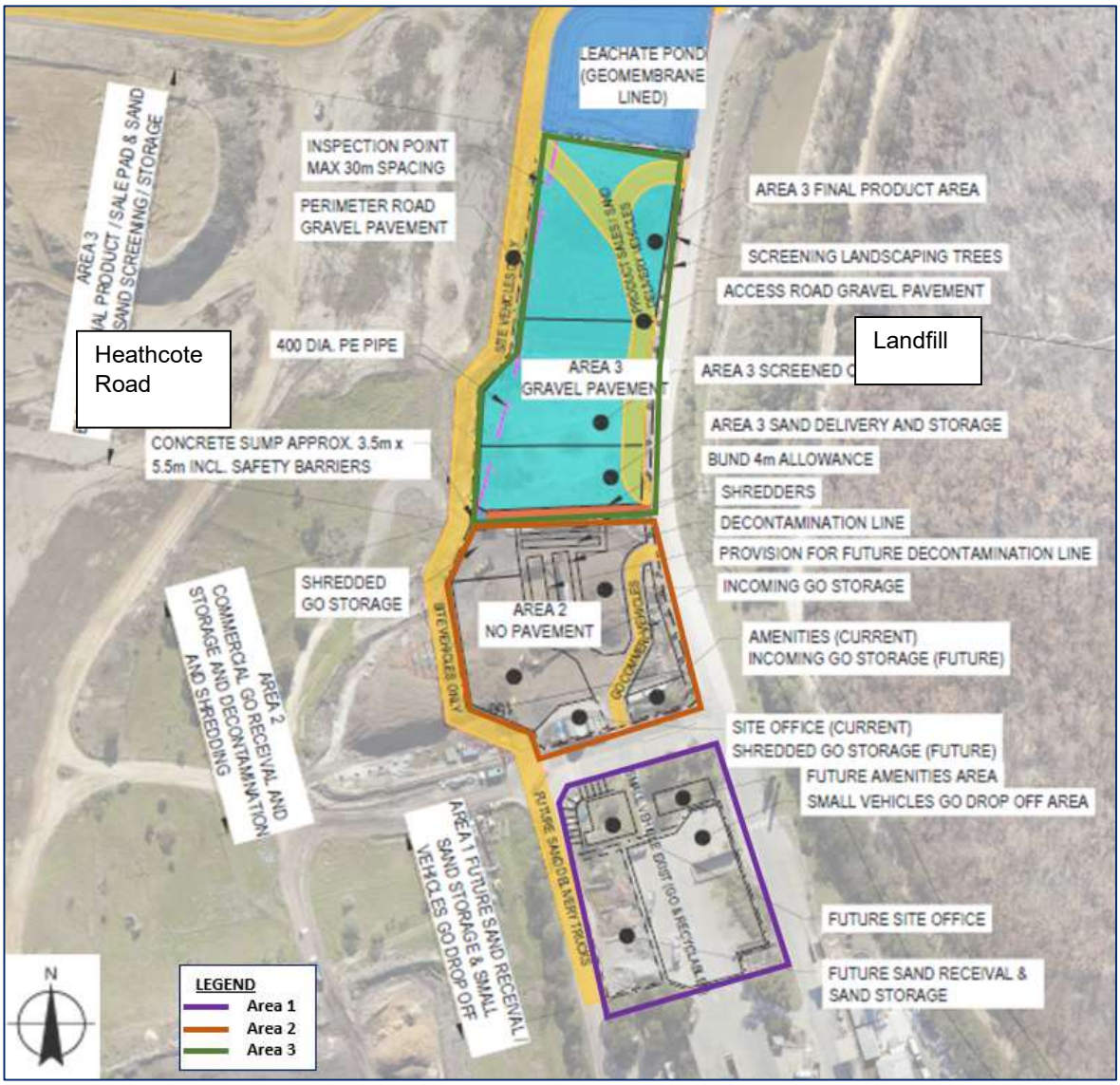

Figure 3: *Garden Organics Facility – eastern GO operational area*

Figure 4: *Garden Organics Facility – western GO operational area*

Figure 5: *Landfill Gas Combustion Flares and Associated Infrastructure (MOD 3)*

APPENDIX B
APPLICANT'S MANAGEMENT AND MITIGATION MEASURES

Table 1 *Construction mitigation and management measures*

Potential issue	Mitigation and management measures
Waste management	– Prepare a waste management sub-plan for the landfill and GO facility as part of the CEMP
Traffic, transport and access	– Undertake a Community information and awareness program during construction – Prepare a Traffic Management Plan for the construction phase of the proposal including the following key measures: – Consultation with TfNSW and SSC to ensure that general signposting of construction access roads are appropriate and provide adequate warning of heavy vehicle and construction activity • Distribute construction activity warning notices to advise local road users of scheduled construction activities • Provide advance notice of road/lane closures and advice on alternative routes (if required) • Whenever practical, promote the use internal and haulage access roads rather than public roads by construction vehicles • Manage the transportation of construction materials to maximise vehicle loads and minimise vehicle movements in consultation with TfNSW and SSC and the NSW Police Service
Noise	– Select plant and equipment to minimise noise emissions where possible whist maintaining efficiency of function. Fit residential grade silencers and maintain all noise control equipment in good order – Restrict noisy activities to daylight hours – Use reverse quackers with a low decibel output rather than beepers for excavators and wheel loaders
Visual	– Implement 'early works' rehabilitation and maintenance measures, including substantial woodland and understory planting to screen the LHRRP from ANSTO land and adjacent roads including along Heathcote Road and around the boundary of the existing PCYC area – Apply hydromulch on exposed batter areas
Dust	– Prepare a dust management plan sub-plan as part of the CEMP
Soils and surface water	– Develop erosion and sediment control plan or soil and water management plan for the GO facility – Continue surface water monitoring as prescribed in EPL 5065 – Develop a soil and water management plan for the GO facility and incorporate into the construction contractor's environmental management plans – Continue use of existing measures in place to minimise demand for potable water including reuse of water captures in site basins for dust suppression – Construct the GO facility so that there is no increase in potable water demand in addition to current demands – Excavated slopes of the Western GO facility would not exceed those recommended by Douglas Partners (2:1 and 1:1) – Plant equipment used at the GO facility would be rubber tyred if possible. Tracked equipment would be avoided.
Groundwater	– Develop appropriate site management practices and emergency response procedures to be detailed in a construction and environmental management plan (CEMP) for the GO facility to minimise water quality impacts associated with construction activities. **This will include**

Potential issue	Mitigation and management measures
	procedures, and relevant guidance to prevent, or respond to, leaks and spills from site activities and waste/chemical storage. – Seepage from the walls of the excavation for the Western GO facility would be managed using a perimeter drainage system. **Capacity would be made in the design to separate groundwater seepage, if seepage became adversely impacted over time from landfill leachate, based on monitoring.** – **Undertake groundwater monitoring to verify that the GO facility is not adversely impacting the surrounding environment. This monitoring would be in accordance with Section 5.4 of *LHRRP Modification – Organics Facility: Groundwater Assessment* (GHD, 2023).** – **Adopt the trigger action response plan (TARP) described in Table 5.2 of *LHRRP Modification – Organics Facility: Groundwater Assessment* (GHD, 2023) to prevent and mitigate potential impacts to the downgradient receptor (Mill Creek) as a result of GO facility construction.**
Contamination	– After development approval and prior to the Western GO facility development, conduct targeted soil sampling and subsequent lead analysis on the area which is adjacent to, and proposed to extend onto SICTA – As recommended in the groundwater assessment, install new monitoring wells around the Western GO facility prior to construction – Monitor these wells during construction of the Western GO facility to provide early indication of any additional impacts from construction or operation on the proposal site – Undertake a general site inspection in conjunction with the soil sampling and well installation to identify any visual or olfactory signs of potential contamination on the proposal site, primarily in the form of stockpiled materials or previously unknown land use activities. – If unexpected material (including waste materials or evidence of filling) is encountered during construction, seek advice from an appropriately qualified Environmental Consultant in regard to the management of this material – Develop and detail in the CEMP appropriate site management practices and emergency response procedures prior to construction to minimise water quality impacts associated with GO facility construction – If required by the planning authorities, prepare a Statutory Site Audit report to approve any remediation works required to make the land suitable for construction of the Western GO facility. – Where fractured zones and high permeability joints are encountered during excavation for Western GO facility, an additional hydraulic barrier or grouting may be required to reduce permeability and seepage pending an inspection and recommendation from a suitably qualified geotechnical engineer or hydrogeologist. – The leachate pond for the Western GO facility will have a leachate barrier system to minimise the potential for groundwater contamination. A detailed design will be prepared for the lining system and is expected to include, at a minimum: • HDPE geomembrane liner, acting as a low permeability layer in the pond. The geomembrane liner material would be of a similar standard to the geomembrane materials used for the lining of landfill cells. • A geonet geotextile drainage composite, acting as a drainage layer beneath the geomembrane liner. Any flow within the composite material will flow to a sump, where it can be removed and tested if required. This system would prevent the build-up of any water beneath the liner, reducing any driving head for leachate to enter the groundwater and preventing uplift of the liner. – Any existing unsuitable material within the works footprint of the Eastern GO facility will be removed and suitably disposed of, including the Biocell material and soils from within the existing leachate pond area – EMN material will be used for backfilling and earthworks – The Eastern GO facility leachate pond will have a leachate barrier system to minimise the potential for groundwater contamination. A detailed design will be prepared for the lining system and is expected to include, at a minimum: • HDPE geomembrane liner, acting as a low permeability layer in the pond. The geomembrane liner material would be of a similar standard to the geomembrane materials used for the lining of landfill cells. • 900 mm compacted clay layer, with saturated hydraulic conductivity of less than 1×10^{-9} m/s.
Hazards and risk	– Undertake a detailed safety study to confirm the safety exclusion zone from SICTA operations and identify any hazards associated with constructing and operating a facility in the proposed location

Potential issue	Mitigation and management measures
	– Propose suitable mitigation measures to be incorporated in building design and construction
Fire prevention and management	– Apply the relevant fire safety requirements of the Building Code of Australia to any buildings, including provision of smoke detectors, fire extinguishers, fire blankets, fire hose reels and sprinklers where applicable – Design the buildings on site to meet the requirements of the Planning for Bushfire Protection guidelines to protect staff and minimise the potential for building damage, including provision of a 10 m APZ. – Identify and incorporate appropriate construction standards for buildings and refuge areas during the detailed design phase. – Ensure that bushfire management procedures are included in the CEMP. This would include: – Requirements for emergency access and egress including nomination of an alternative access route. – Formal preparedness procedures for staff and contractors to maintain awareness of and respond to escalating forecast fire danger – Formal pre-rehearsed procedures for staff and contractors to respond to respond to a formal bushfire warning being issued by emergency services, including identification of escape routes and refuge areas – **Ensure that the GO facility design development makes provision for safe, efficient and effective access in accordance with Fire safety guideline - Access for fire brigade vehicles and firefighters (Fire and Rescue NSW, 2019)** – **Develop the general design of the GO facility with consideration to the FRNSW guideline – Fire safety in waste facilities (Fire and Rescue NSW, 2020)**
Biodiversity	General – Ensure that all workers are provided with an environmental induction prior to starting work on site. This would include information on the ecological values of the proposal site, protection measures to be implemented to protect biodiversity and penalties for breaches – Prepare a flora and fauna management sub-plan as part of the CEMP incorporating recommendations below, and expanding where necessary – Put in place measures to suppress dust during clearing and construction Flora species – Collect seeds of the *Acacia bynoeana* individual in the appropriate season (September to January) prior to vegetation clearing occurring. Plant seeds in the nursery and use any individuals grown for onsite plantings. Propagate Acacia species from scarified seed or using boiling water treatment (Wrigley and Fagg 2007) – Carefully remove the *Acacia bynoeana* individual and transfer it to the on-site nursery, along with soil adjacent to the individual which may include a long-term soil seed bank (Benson and Macdougal 1996). Replant it at the proposed offset site or another suitable location – Collect seeds and propagules of *Allocasuarina diminuta* subsp. *mimica* in March prior to vegetation clearing occurring. Plant seeds in the nursery and use any individuals grown for on site plantings. – Collect ramets of *Allocasuarina diminuta* subsp. *mimica* and associated soil prior to vegetation clearing and transfer them to the on-site nursery for propagation and replanting. Undertake replanting in areas that are not likely to be impacted by future development, including the proposed offset site. Plant ramets along the realigned Mill Creek where the ironstone soil is present. Do not plant *Allocasuarina littoralis* near these plants as this species can shade out *Allocasuarina diminuta* subsp. *mimica* and mycorrhyzial associations may be different. Carry out any removal and replanting with input from the SSC bushcare staff. – Prepare a management plan for the collection of seed and translocation of plants as part of the CEMP for the proposal and include monitoring and assessment of the success of the program Vegetation clearing – Limit disturbance of vegetation to the minimum necessary to construct the proposal – Ensure that vehicles are appropriately washed prior to work on site to prevent the potential spread of Cinnamon Fungus (*Phytophthora cinnamomi*) and Myrtle Rust (*Pucciniales fungi*) in accordance with the national best practice guidelines for Phytophthora (DEH 2006) and the Myrtle Rust factsheet (DPI 2011c) for hygiene control – Where the proposal footprint adjoins native vegetation mark the limits of clearing and install fencing around the construction footprint area prior to the commencement of construction activities to avoid unnecessary vegetation and habitat removal

Potential issue	Mitigation and management measures
	– Place stockpiles of fill or vegetation within existing cleared areas (and not within areas of adjoining native vegetation) – Install sediment fences to prevent transfer of sediments into adjacent vegetation Weeds – Actively manage weeds during the construction phase of the proposal, including managing and disposing of weeds that were recorded within the proposal footprint. Manage any noxious weeds in accordance with the NW Act – Clean vehicles and other equipment to be used on site to minimise seeds and plant material entering the proposal site and prevent the introduction of further exotic plant species or disease – Incorporate control measures in the design of the proposal to limit the spread of weed propagules downstream of study area. Use sediment control devices, such as silt fences, to assist in reducing the potential for spreading weeds – Fauna habitat – Implement protocols to prevent introduction or spread of chytrid fungus following Office of Environment and Heritage Hygiene protocol for the control of disease in frogs (DECCW 2008) – Ensure that a trained ecologist is present during the clearing of native vegetation or removal of potential fauna habitat to avoid impacts on resident fauna and to salvage habitat resources as far as is practicable – When undertaking clearing surveys: • Stage the vegetation clearing, commencing in the south of the GO facility and progressing northwards to increase the opportunity for fauna to vacate the proposal site and move into areas of 'secure' habitat to evade injury • Mark any hollow-bearing trees to be felled prior to clearing of vegetation. Remove hollow bearing trees in accordance with a hollow-bearing tree management protocol which includes the presence of a qualified ecologist or wildlife expert experienced in the rescue of fauna • Ensure that habitat features (fallen logs and tree hollows) removed from site are salvaged and relocated within adjacent areas of vegetation • Undertake inspections of native vegetation for resident fauna and/or nests or other signs of fauna occupancy • Defer vegetation removal and associated construction activity in areas occupied by more mobile threatened fauna until the fauna has vacated the proposal footprint • Ensure that an ecologist is present during works along Mill Creek to rescue and relocate any frogs to other locations along Mill Creek. Undertake any handling of frogs with respect to the Office of Environment and Heritage Hygiene protocol for the control of disease in frogs (DECCW 2008) Water quality and aquatic habitats – Prepare erosion and sediment control plans in accordance with Volume 2b of Managing Urban Stormwater: Soils and Construction (DECC 2008). Establish erosion and sediment control plans prior to the commencement of construction and update and managed them throughout as relevant to the activities during the construction phase – Regularly inspect erosion and sediment control measures particularly after rainfall events, to ensure their ongoing functionality. – Reinstate stabilised surfaces as quickly as practicable after construction – Apply water to exposed surfaces that are causing dust generation, which may include unpaved roads, stockpiles, hardstand areas and other exposed surfaces (for example recently graded areas) – Ensure that vehicles follow appropriate speeds to limit dust generation – Store all stockpiled material in bunded areas and keep them away from waterways to avoid sediment entering the waterways – Make spill kits available to construction vehicles and put in place a management protocol for accidental spills – Eradicate Plague Minnow (if present) prior to decommissioning to ensure that it is not released into local waterways as a result of draining of dams. Use humane methods and obtain an appropriate licence from NSW Primary Industries (Animal Welfare branch and Fishing and Aquaculture branch) – Salvage large woody debris removed from the realigned creek and place it in the new alignment to maintain habitat values

Potential issue	Mitigation and management measures
	– Construct the new section of the creek to mimic a natural ecosystem and revegetate with locally endemic species. Consideration should be given to using propagated *Allocasuarina diminuta* subsp. *mimica*
Landuse	– Submit a planning proposal to enable proposed activities under the SLEP.
Heritage	– Develop and included in the CEMP an unexpected finds procedure. This would outline the procedures to follow if unexpected Aboriginal objects or non-Aboriginal relics were uncovered during construction – Submit Site Impact Recording Forms for the previously impacts sites, AHMS 52-2-1108, 52-2-1029, 52-2-1030 and 52-2-1031 to OEH
Riparian corridors	– Provide a minimum of 875 m2 of riparian offsets for the permitted activities
Socio-economic	– Implement measures to reduce the potential for amenity impacts during construction, as identified in the relevant chapters of the EIS – Maintain ongoing engagement with the community during construction. Develop a stakeholder engagement plan would be developed for the proposal construction phase. This would include how information would be disseminated, communication channels including for feedback on the proposal and protocols for responses to feedback or enquiries

Table 2 *Operational mitigation and management measures*

Potential issue	Mitigation and management measures
Waste management	– Include waste handling procedures, waste processing procedures, quality control procedures and protocols (including sampling and testing) and finished product storage and handling requirements in OEMPs – Carry out sampling and testing in accordance with the requirements of relevant resource recovery orders – Apply for specific resource recovery orders if required
Traffic, transport and access	– Perform a safety review in both 2020 and 2025 on the safety of the intersection of New Illawarra Road and Little Forest Road – Review signposted and non-signposted speed restrictions along the road network and where necessary, provide additional signposting of speed limitations – Consult with schools and school bus services to determine and mitigate if any school bus service use roads within the study area – Install appropriate traffic control and warning signs for areas identified to have existing potential safety risks – Consult with the NSW Police Service to mitigate impacts of heavy (multi-dimensional) vehicles on the roads – Project induction training for truck and vehicle operators – Manage queuing and prevent long queues at site entrance – Actively monitor area and have in place traffic control – Delay trucks when required – Manage dispatch timing for vehicles from Cleanaway controlled facilities – Require Cleanaway owned waste delivery vehicles to travel on arterial or sub-arterial roads rather than local roads (with the exception of Little Forest Road). – Discourage customer transfer trailers and B doubles from travelling on local roads
Noise	LHRRP – Limit waste receival hours – Select plant and equipment to minimise noise emissions where possible whist maintaining efficiency of function. Fit residential grade silencers and maintain all noise control equipment in good order

Potential issue	Mitigation and management measures
	– Maintain all machinery and equipment in proper working order in accordance with manufacturer's requirements – Do not operate heavy machinery outside site operating hours – Include noise component in site inductions GO facility – Select plant and equipment to minimise noise emissions where possible whist maintaining efficiency of function. Fit residential grade silencers and maintain all noise control equipment in good order – Restrict operations to designated areas – Restrict noisy activities to daylight hours – Use reverse quackers with a low decibel output rather than beepers for excavators and wheel loaders – Utilise favourable routes for accessing and exiting the facility to ensure avoidance of residential areas where possible
Visual	– Grass the final capping layer as the reprofiling works occur to further minimise visual impacts – Ensure filling does not exceed proposed final landform heights – Maintain fences and other site infrastructure – Maintain Little Forest Road – Provide screen and screen maintenance – Progressively rehabilitation and revegetation.
Odour	Landfill reprofiling – Strip back the areas of the existing landfill (south of existing active landfill area) in segments with approximately 1 ha of cover stripped in advance of the active tipping area. Of this area ensure that approximately 2,500 m^2 would be less than one day old to minimise the emission of odours from the stripped surface. • Strip back the existing areas which are capped and revegetated and do not expose previously landfilled waste • Strip back the existing areas of intermediate cover (south of the existing active landfilling area) and do not expose previously landfilled waste – Each morning further strip back the equivalent to a day's waste disposal operations (to minimise the potential for the perching of leachate) and place waste directly over this area. Ensure that there is no exposed waste during the night when the potential for odour issues off site is higher LHRRP – Cover odorous wastes as soon as possible after delivery in accordance with the requirements of the site's environment protection licence – Minimise the size of the active landfill face, taking into account the practicalities, safety, access, traffic management, etc. – Inspect and monitor the capping layer regularly – Train staff (internal and contractors) on odour management strategy and all relevant procedures – Install and operate a landfill gas collection system progressively to minimise odour as a result of landfill gas seepage GO facility – Conduct random monitoring and inspections of incoming vehicles to determine waste composition – Order manures in accordance with production schedules and blend with compost only in favourable weather conditions at any given time – Train staff (internal and contractors) on odour management strategy and all relevant procedures – Only allow up to 40,000 tonnes of composting material to be stored on site (includes receival, shredding, active composting and maturation stage) at any one time at the western GO – Measure oxygen and moisture content of compost (active phases) and control with aeration and moisture addition

Potential issue	Mitigation and management measures
Dust	LHRRP – Do not undertake dust generating activities during adverse weather conditions – Cease operations if unsafe (for example, during strong winds) – Monitor monthly dust deposition at six boundary locations on site – Limit vehicles to specified routes around the site and ensure speed limits are adhered to – Use dust suppression techniques such as watering to maintain moist conditions on exposed areas and unsealed roadways GO facility – Cover or enclose vehicles during transport around the site – Spray windrows, final compost storage areas and loading areas, particularly prior to transportation and turning – Cease operations if unsafe (for example, during strong winds) – Operate water cart(s) on trafficable areas as required
Soils and surface water	– Continue to use of existing measures in place to minimise demand for potable water including reuse of water captures in site basins for dust suppression – Where possible, minimise exposed areas over which sediment would be generated through maintenance of both natural and artificial ground cover such as grass or erosion control cover products – Discharge disturbed area drainage lines into a sediment basin designed in accordance with 'the Blue Book' Volume 1 (Landcom, 2005) and Volume 2b (DECC, 2008) – Divert clean upstream runoff around the actively worked areas of the proposal site to avoid mixing clean stormwater with runoff from disturbed areas – Manage vehicle movements to minimise generation and transport of sediment – Appropriately manage material stockpiles including locating them as far as possible from drainage lines – Continue general flood management practices including keeping drainage lines free of waste and debris and monitoring drainage lines during periods of heavy rainfall – Continue monitoring surface water quality in accordance with licences – Undertake further investigation of the habitat condition and macroinvertebrate populations to confirm the preliminary findings. It is recommended that this work be undertaken every three years commencing soon after reprofiling works commence in Area E. – Progressively revegetate completed reprofiling areas – Design and operate sediment dams and sediment traps to promote sedimentation – Maintain erosion and sediment control measures until the site is stabilised – Maintain drains to prevent weed build up – The water balance model prepared for the Modification assessment would be calibrated (one off) after 1 year of continuous operation, based on collection of actual site information. If the revised predictions of the water balance no longer satisfy the design criteria, site operations would be adjusted accordingly – **Undertake regular water quality monitoring in accordance with the GO facility OEMP, including any requirements in the site's EPL or Consent Conditions including quarterly monitoring of the northern stormwater dam and the analytes identified in Section 4.4 of *LHRRP Modification – Organics Facility: Water Assessment* (GHD, 2023)** – **Adopt the trigger action response plan (TARP) described in Section 4.4 of *LHRRP Modification – Organics Facility: Water Assessment* (GHD, 2023)** – **Calibrate the water balance model prepared for the *LHRRP Modification – Organics Facility: Water Assessment* (GHD, 2023) assessment after one year of operation of the GO facility and then every three years if the yearly recalibration shows consistency with the original modelling, based on collection of actual site information. If the revised predictions of the water balance no longer satisfy the design criteria, adjust the site operations accordingly.**
Groundwater	– Develop a monitoring system to assess the landfill collection system during re-profiling. This may include one or a combination of the following: • Ongoing assessment of the leachate generation volumes within the Stage 1 to 4 landfill areas during re-profiling

Potential issue	Mitigation and management measures
	• Ongoing assessment of the operation efficiency of the basal drainage system in Stage 1 to 4 of the landfill. This may represent some practical difficulties in given the drainage system is buried beneath waste • Characterisation and monitoring of leachate levels at the base of the landfill during re-profiling works to assess the potential for changes to leachate levels • Characterisation of changes in the hydraulic properties of the Stage 1 to 4 landfill areas during the re-profiling works • An improved collection system if water balance discrepancies are interpreted and/or overall changes in leachate levels and yields are observed and taking into account groundwater quality data. – Continue ongoing leachate management until such time as the leachate volume monitoring and or leachate and water quality monitoring suggest that risks are no longer significant – Confirm trigger levels for groundwater quality for monitoring wells around the LHRRP on which further investigations would be undertaken. – Include operational procedures and practices designed to minimise the production and spillage of impacted water and/or fluids used in operational activities in the OEMPs – Continue current groundwater monitoring activities (refer Table 13.3 for details). If impacts occur during operation or post closure carry out further investigation and implement remedial measures which may include: • Additional investigations to isolate the source of impact and characterise the significance of the impact relative to key target criteria for the protection of surrounding sensitive systems. • Implementation of additional control measures to prevent ongoing impact. This may include: – Installation of additional monitoring wells to assess the emergence of significant impacts that may not be considered presently significant – Installation of additional wells to capture and treat impacted groundwater. This may include treating the water separately or incorporating the system into the existing leachate management system – It would be possible to use the Stage 5 groundwater drainage system located beneath the liner to intercept any impacted water – **Undertake groundwater monitoring to verify that the GO facility is not adversely impacting the surrounding environment. This monitoring would be in accordance with Section 5.4 of *LHRRP Modification – Organics Facility: Groundwater Assessment* (GHD, 2023).** – **Adopt the trigger action response plan (TARP) described in Table 5.2 of *LHRRP Modification – Organics Facility: Groundwater Assessment* (GHD, 2023) to prevent and mitigate potential impacts to the downgradient receptor (Mill Creek) as a result of GO facility operation.**
Leachate	– Continue ongoing monitoring of leachate volumes extracted from LHRRP landfill and other sources – Periodically review the leachate water balance model – Monitor groundwater and surface water impacts, as required by the proposal site EPL – Ongoing monitoring of surface water and leachate as required by EPL – Review of leachate levels daily – Inspect the site and review pumping/discharge records daily – Update standard operating procedures as site develops – Maintain relevant emergency procedures – Take action as leachate volumes and levels increase – Document corrective and preventative actions taken – Undertake regular inspections and repairs of infrastructure including removal of sludge from dams and maintenance of pumps and aerators – Compact and cover waste with daily and intermediate cover material to minimise infiltration of stormwater and further leachate generation – Remove leachate from a number of gas extraction wells using air lift pumps, flowing by gravity to the leachate collection dam

Potential issue	Mitigation and management measures
	– Maintain the leachate collection dam (holding capacity of 10 ML) to allow for the collection of leachate from the western ring main, central ring main, eastern ring main, Area 5-1 and Areas 5-2/5-3 – Maintain further emergency leachate containment dam (containment capacity of 9.2 ML) to contain leachate in extended wet weather events – Actively manage leachate levels in the containment dams so that they have sufficient capacity to cope with leachate arising from wet weather events
Hazards and risk	Dangerous Goods – Transport Dangerous Goods to site and store in accordance with the Australian Dangerous Goods Code – Implement appropriate safe work procedures for the safe handling of the Dangerous Goods, including spill prevention and clean up requirements – Store and use any smaller quantities of Dangerous Goods (aerosols, paints, cleaners etc.) that may be used on site in accordance with the Australian Dangerous Goods Code, including appropriate labelling, separation where necessary and disposal – Implement all safeguards identified in the hazard identification process through the development and implementation of a comprehensive safety management system for the operation of the proposal or via an update of the existing safety management procedures for the existing site, taking into account any new requirements specific to the proposal Emergency preparedness – Regularly review and update the ERP
Fire prevention and management	– Manage the areas adjoining Heathcote Road adjacent to buildings as a specific APZ. – Implement bushfire management procedures as outlined in the LHRRP OEMP, including: • Requirements for emergency access and egress including nomination of an alternative access route. • Establishing an alternative access and egress route to the north-east through the existing cleared and developed areas • Implementing formal preparedness procedures for staff and contractors to maintain awareness of and respond to escalating forecast fire danger – Regularly rehearse procedures for staff and contractors to respond to respond to a formal bushfire warning being issued by emergency services, including identification of escape routes and refuge areas – Inspect and maintained all fire protection systems in accordance with AS1851-2012 Routine Service of Fire Protection Systems and Equipment. – Maintain waste stockpiles (including any garden organics or paper based waste material) in a tidy manner prior to processing and make efforts to limit exposure to ignition sources – Maintain waste storage areas in accordance with NSW Fire and Rescue Fire Safety Guideline Fire safety in waste facilities – Undertake hot works in accordance with Cleanaway's hot work procedure and permit system as per existing operations procedures to minimise the potential for flammable materials to be ignited – Regularly maintain all mechanical components associated with the raw material delivery, shredding and mixing processes would also be undertaken to prevent overheating – Manage fires in accordance with emergency response procedures. If the fire cannot be extinguished immediately, contact local emergency services to provide assistance – **Develop the following for the GO facility prior to commencement of operations:** • **an Emergency Response Plan (ERP) in accordance with HIPAP No. 1 (NSW Government, 2011a) and HIPAP No. 2 (NSW Government, 2011b)** • **an Emergency Services Information Package (ESIP) in accordance with Fire safety guideline – Emergency services information package and tactical fire plans (FIre and Rescue NSW, 2019)** – **Develop the ERP and ESIP for the GO facility with consideration to the FRNSW guideline – Fire safety in waste facilities (Fire and Rescue NSW, 2020)**
Biodiversity	Vegetation and weeds

Potential issue	Mitigation and management measures
	– Manage noxious weeds on an ongoing basis according to legislative requirements. – Continue suppression of dust within the landfill and GO facility – Manage water quality Feral animals – Provide ongoing control of feral animals – Minimise sources of food and habitat for pest species Post closure – vegetation and weeds – Sow exposed soil with native seed immediately to prevent colonisation by weeds. – Use locally sourced native species – Incorporate propagated individuals of *Allocasuarina diminuta* subsp. *mimica* from the site into the landscaping plan. – Manage noxious weeds according to legislative requirements – Monitor and manage revegetation areas, including planted *Allocasuarina diminuta* subsp. *mimica*, as per the EMP
Greenhouse gas	– Investigate opportunities to increase the methane capture rate on an ongoing basis, as the landfill gas system is progressively modified to accommodate the new final landfill profile during the entire operational life of the proposal. – Continue to work with the landfill gas management contractor to refine the gas extraction and oxidation system in identified major emissions contributing areas. – Consider implementation of greenhouse gas mitigation strategies such as implementation of energy efficient practices, installation of solar panels and use of biofuels – Install gas extraction wells in completed areas to control gas migration – Progressively install gas extraction wells in operational areas as the landfill develops – Prepare and regularly review the emergency plan and emergency procedures – Implement a program for scheduled monitoring of landfill gas (surface and subsurface)
Litter and illegal dumping	– Support Regional Illegal Dumping (RID) squads – Engage with stakeholders regarding illegal dumping – Undertake internal audits – Establish a Litter and Illegal Dumping fund

Table 3 *Mitigation and Management Measures – Flares MOD 3*

ID	Impact	Environmental Safeguard	Responsibility	Timing
General				
GEN1	Avoid, minimise and manage potential environmental impacts	A Construction Environment Management Plan (CEMP) will be prepared and implemented during construction and operation. As a minimum, the CEMP will address the following: – relevant requirements associated with statutory approvals – details of how the proposed modification will implement the identified mitigation measures – issue-specific environmental management sections in accordance with relevant mitigation measures – roles and responsibilities – communication requirements – induction and training requirements – procedures for monitoring and evaluating environmental performance, and for corrective action – reporting, record-keeping, audit and review requirements – procedures for emergency and incident management	LMS / Contractor	Pre-construction / Construction / Operation

		– a map delineating the construction footprint and environmentally sensitive ('no-go') areas.		
GEN2		The limit of works will be clearly delineated on site using fencing, flagging, bunting, barrier mesh or similar as appropriate.	Contractor	Construction
GEN3		All construction and operational personnel will receive a site induction that will include general environmental management requirements, and include as a minimum: – biodiversity values and protection measures – noise management approaches, including: • permissible hours of work and site opening/closing times (including deliveries) • limitations on high noise generating activities • location of nearest sensitive receivers • construction employee parking areas • designated loading/unloading areas and procedures – incident notification procedures – penalties for breaches.	Contractor	Construction / Operation
Noise				
N1	Plant noise levels	The noise levels of plant and equipment should be selected and designed to have an operating sound power lower to the levels presented in section 3 of Appendix E or similar.	LMS	Detailed design
N2	Maintain equipment	Regularly inspect and maintain equipment to ensure it is in good working order. Equipment must not be operated until it is maintained or repaired, where maintenance or repair would address the annoying character of noise identified.	LMS	Operation
N3	Schedule activities to minimise noise impacts	All activities on site will be confined between the hours: 7:00 am to 6:00 pm from Monday to Friday and 8:00 am to 5:00 pm on Saturday - Sunday.	Contractor	Pre-construction / Construction
N4	Plant noise levels Maintain equipment	The noise levels of plant and equipment should have an operating sound power lower to the levels presented in Appendix E or similar.	Contractor	Pre-construction / Construction
N5		Regularly inspect and maintain equipment to ensure it is in good working order. Equipment must not be operated until it is maintained or repaired, where maintenance or repair would address the annoying character of noise identified.	Contractor	Construction
Bushfire hazard				
BF1	Bushfire management	Details of fire management are to be outlined in the CEMP and OEMP, including:	LMS / Contractor	Construction / Operation

		Requirements for emergency access and egress (refer to Figure 6.6) including nomination of an alternative access route. – Formal preparedness procedures for staff and contractors to maintain awareness of and respond to escalating forecast fire danger. – Formal pre-rehearsed procedures for staff and contractors to respond to respond to a formal bushfire warning being issued by emergency services, including identification of escape routes and refuge areas.		
BF2	Construction requirements	Building work will comply with BAL-19 construction requirements as applicable to Class 10 structures.	LMS / Contractor	Construction
Heritage				
H1	Unexpected finds procedure	An unexpected finds procedure will be prepared for and will include measures such as, but not limited to; – stop work within 5 m of the find – an archaeologist will be contacted to assess the find and determine if it is clearly a relic or has moderate to high potential to be a relic (this may require additional research) – if the find is determined to be of historic significance, a s146 (of the Heritage Act) is to be forwarded to the Heritage Council who will be consulted on the appropriate management measure – if the find is assessed and is not of heritage significance then, works within the stop work area may recommence.	Contractor	Construction
General hazards				
H1	Flare shutdown	– Slam shut and failsafe valves fitted throughout – Flare is remotely monitored using telemetry and checked by a qualified Technician at least once every two weeks – Gas system pipework is air tight and rigorously pressure tested at commissioning stage. Therefore, will not leak methane when shutdown – UV type flame sensor incorporating auto shutdown – Thermocouple interlock for flashback lockout	LMS	Operation / Detailed design
H2	Un-odourised gas (explosive or asphyxiant)	– Project specific un-odourised gas risk assessment – confined space entry controls – open well-ventilated work area – Type B gas appliance design certification in accordance with AS/NZ5601 – Site access controls	LMS	Operation / Detailed design

APPENDIX C
FINAL LANDFORM & REHABILITATION PLAN

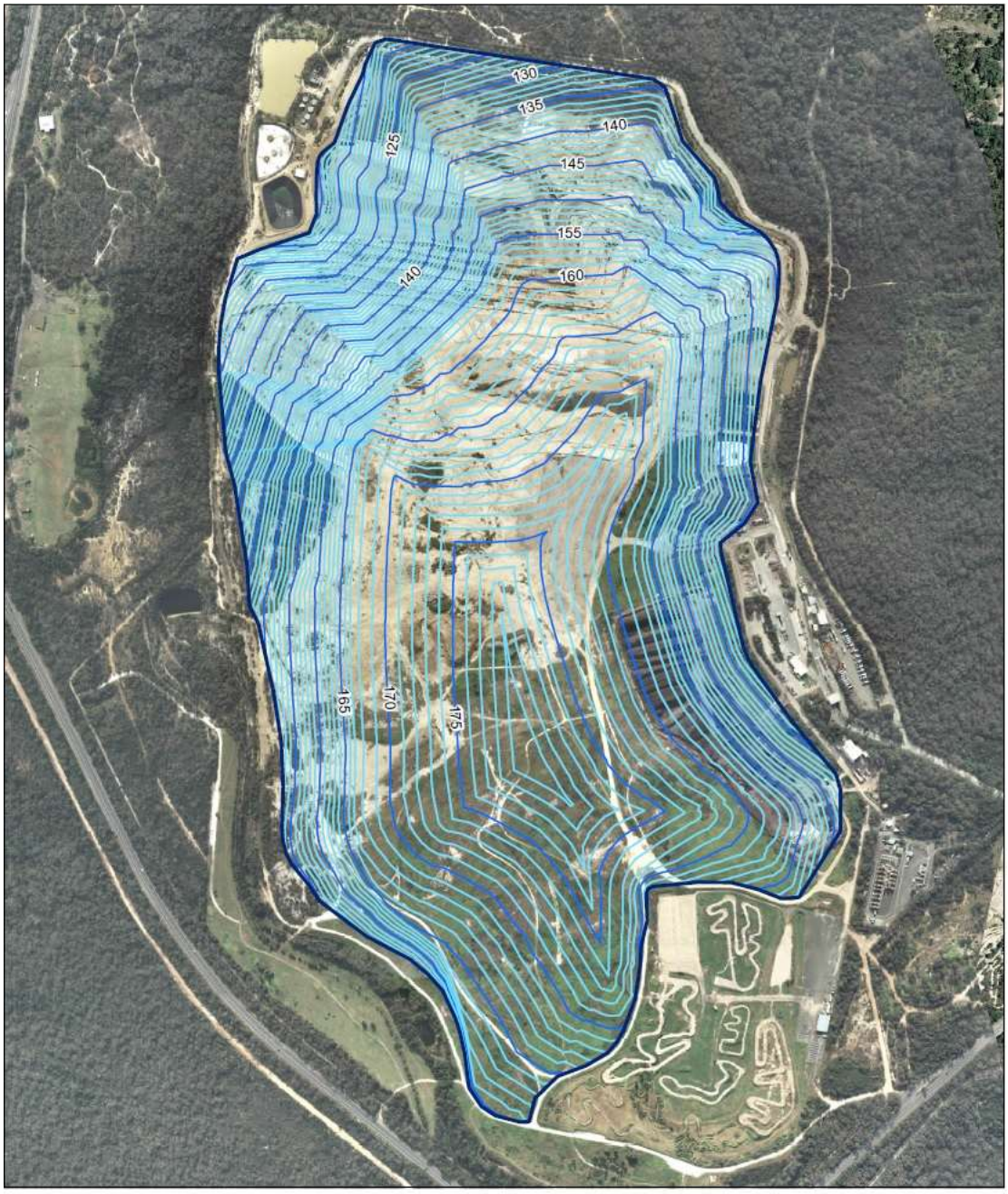

Figure 5: *Final Landform Post Settlement*

Figure 6: *Masterplan - Rehabilitation*

APPENDIX D
EARLY SCREEN PLANTING

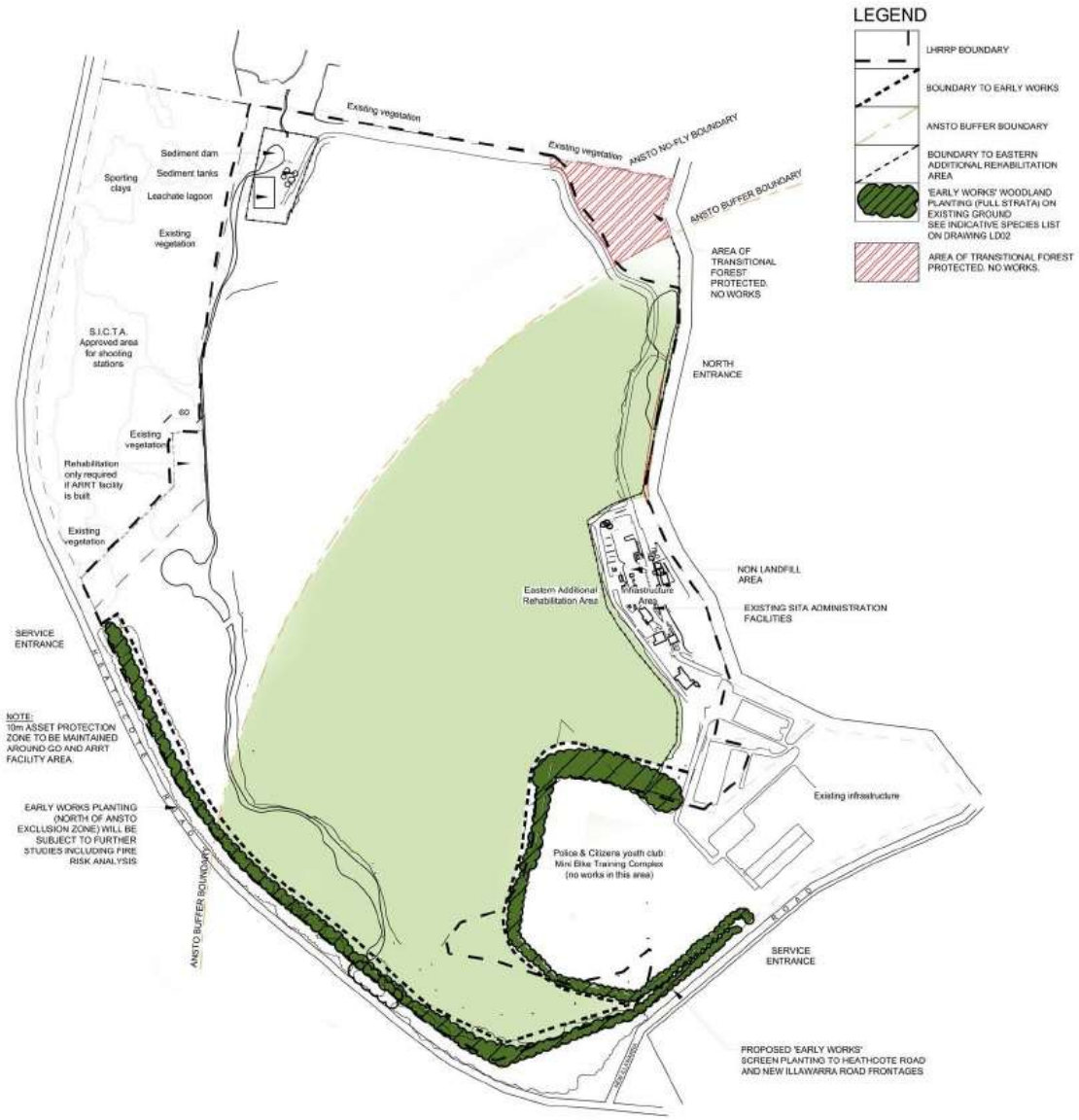

Figure 7: *Early Screen Planting*

APPENDIX E
SENSITIVE RECEIVERS

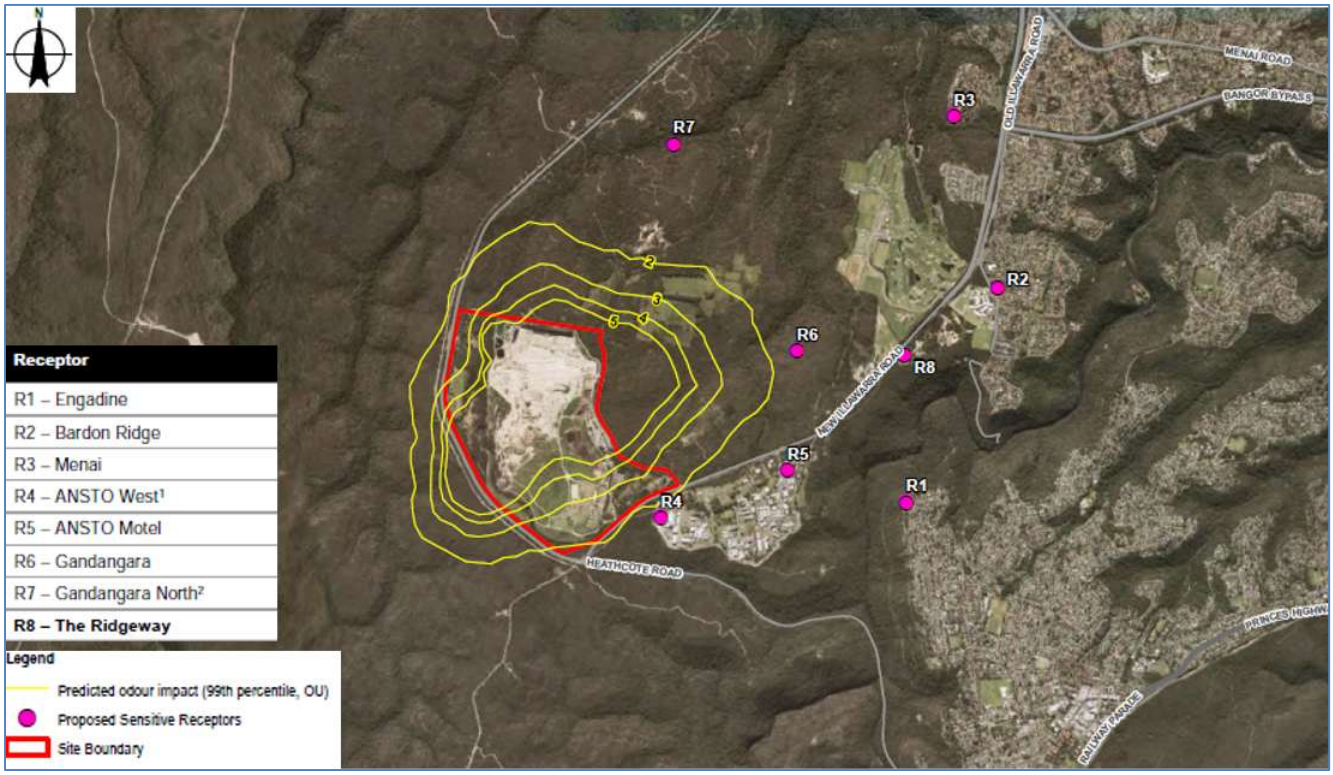

Figure 8: *Noise Receiver Locations (R1 – R8)*