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Project: Lamberts North

Environmental Audit Report – Operations

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Glossary

Abbreviation	Description
ANZECC	Australian and New Zealand Environment and Conservation Council
BLALC	Bathurst Local Aboriginal Land Council
AQMP	Air Quality Management Plan
CEMP	Construction Environmental Management Plan
SSWMP	Soil and Surface Water Management Plan
NMMP	Noise Management and Monitoring Plan
CoA	Conditions of Approval
dB(A)	Decibel – Measure of A-weighted sound; approximation of response of human ear
DEC	Former Department of Environment and Conservation (now OEH)
DECC	Former Department of Environment and Climate Change (now OEH)
DECCW	Former Department of Environment and Climate Change and Water (now OEH)
DP&I	Department of Planning and Infrastructure (now Planning and Environment)
EA	Environmental Assessment (SKM August 2010)
EMS	Environmental Management System
EPA	Environment Protection Authority
EP&A Act	*Environmental Planning and Assessment Act 1979*
ER	Environmental Representative
ESC	Erosion and Sediment Control
ESCMP	Erosion and Sediment Control Management Plan
GMMP	Groundwater Management and Monitoring Plan
IECA	International Erosion Control Association
LCC	Lithgow City Council
LGA	Local Government Area
NOW	NSW Office of Water
NPW Act	*National Parks and Wildlife Act 1973*
OEH	Office of Environment and Heritage
OEMP	Operation Environmental Management Plan
PE	Planning and Environment (formerly DP&I)
RMP	Repository Management Plan
SCA	Sydney Catchment Authority
SKM	Sinclair Knight Merz
TEOM	Tapered Element Oscillating Microbalance
TSP	Total Suspended Particulates

1. Introduction

1.1 Background

1.1.1 Mt Piper Power Station

The Mt Piper Power Station comprises two 700 MW coal-fired steam turbine generators, built over two stages in 1992 and 1993. The power station is located approximately 17 km northwest of Lithgow and five and kilometres east of Portland.

The ash placement areas are in close proximity to the existing Mt Piper Power Station and located on the Centennial Coal operated Lamberts Gully Mine on land owned by either EnergyAustralia NSW or Centennial Coal. Ash placement only occurs on land owned by EnergyAustralia NSW.

EnergyAustralia acquired Mount Piper Power Station and associated land holdings and infrastructure from the state owned Delta Electricity in September 2013.

1.1.2 Lamberts North ash approvals

In 1990 Lithgow City Council granted Delta Electricity (now EnergyAustralia NSW) consent for ash placement in the former Western Main open cut mine void adjacent to the power station. This area is shown as Mount Piper Ash Repository in Figure 1 (identified as Area 1) in the Mt Piper Power Station Ash Placement Project Environment Assessment (August 2010), prepared by SKM. Dry ash placement is used and approximately 780,000 m^3 of ash is placed in this area on an annual basis. Based on the rate of ash emplacement, it was anticipated that this area would reach capacity by 2015.

A proposal to create a new ash placement area in Lamberts North was submitted to the Department of Planning and Infrastructure (now Planning and Environment) in 2010. This area includes former coal workings, both underground and open-cut coal mining and was also used for washery operations by Centennial Coal. Lamberts North was acquired by Delta Electricity in 2012.

The Environmental Assessment stated that the proposed project would comprise the extension of the existing Mt Piper Ash Repository into the Lamberts North area. The ash emplacement would use a system of benches constructed with a maximum batter length of 40 m with corresponding heights of 10 m. Material from the original mine working has been used in the construction of the emplacement area. The finished surface of Lamberts North is expected to vary from RL 966 to RL 980 m AHD, with the exposed ash areas progressively capped as areas reach the design elevations. The available volume for ash placement in Lamberts North was estimated to approximately 6.85 million m^3 (in-situ volume).

As described in the Environment Assessment (August 2010) and the Submissions Report (March 2011), both prepared by SKM, the proposed project included new ash placement facilities at both Lamberts North and Lamberts South. The project was approved by the then Department of Planning (now Planning and Environment) on 16 February 2012.

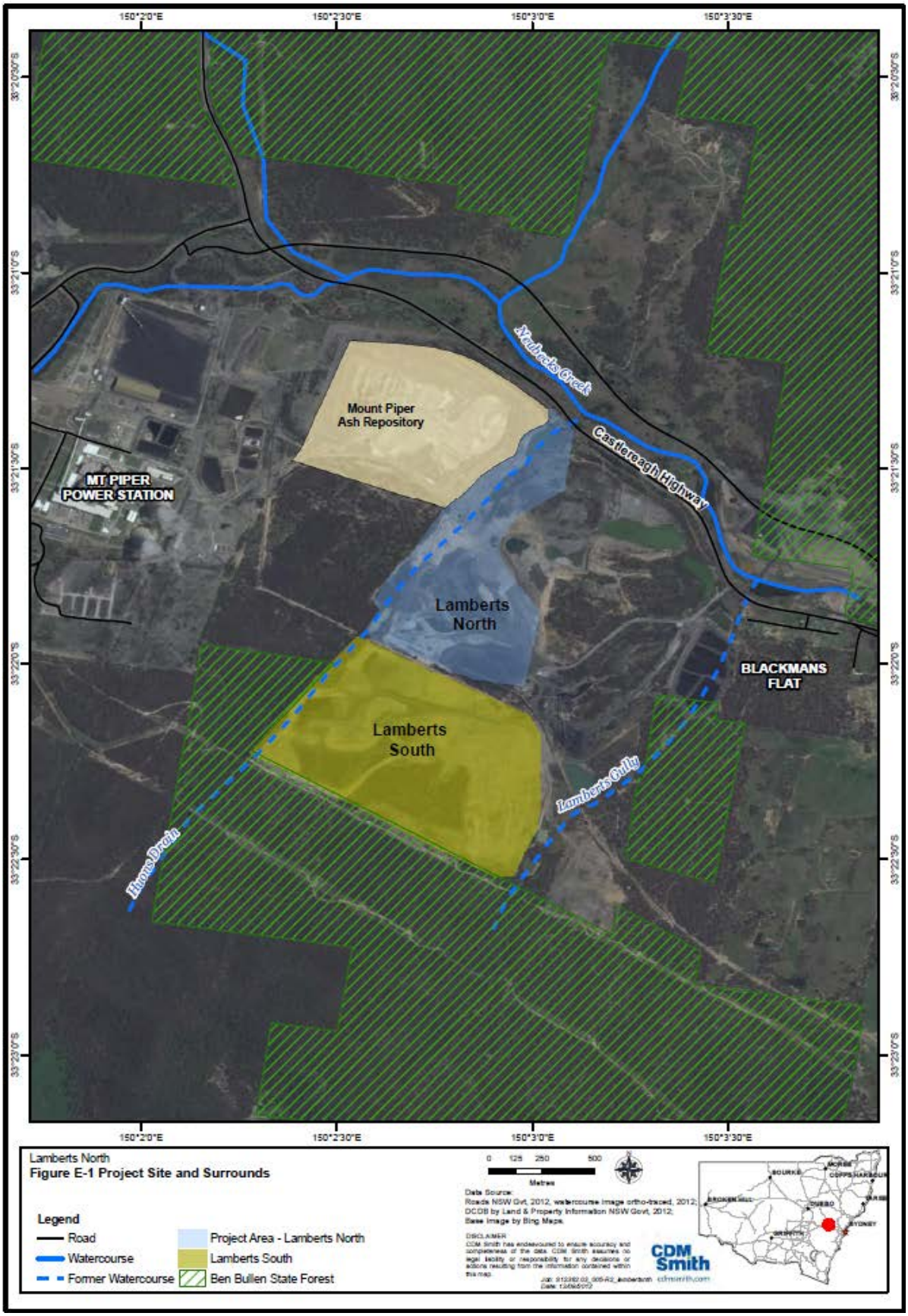

Figure 1: Ash placement at Mt Piper Power Station (Source: OEMP – CDM Smith, 2013)

1.1.3 Lamberts North ash construction and operation

The proposal was for a staged development with Lamberts North to be developed first followed by Lamberts South. The Project Approval allows for the preparation of separate Environmental Management Plans (EMPs) for construction and operation for each stage of the project. The Construction Environmental Management Plan (CEMP), prepared by CDM Smith, for Lamberts North was approved on 12 December 2012. Construction commenced 7 January 2013 and ash placement commenced in September 2013.

The current system of ash transport has been maintained for Lamberts North. Ash is transported by conveyer from Mount Piper Power Station to RL 937 m at the Mount Piper Ash Repository (Area 1) as part of the existing operations. Ash will then be transported by heavy haulage vehicles (generally one to two trucks) from RL 937 m to Lamberts North via the southern boundary haulage road in the existing ash repository. During peak periods an additional truck maybe added to deliver the ash.

The ash is delivered to the work face, where it is placed into position and then spread and shaped by a dozer. A dozer and roller are used to compact the ash to an average compaction of 95%, relative to its maximum standard compaction.

Ash is placed in layers and stepped to produce an overall batter slope of approximately 1(V):4(H), with benches added every 10m in vertical height change. This process of ash placement produces an average batter length of 40m.

The sequence of ash placement will entail initially placing ash across the site starting from the most northerly part, then towards the east and south of Lamberts North.

1.1.4 Current status

Ash placement commenced in 2 September 2013 and as of 31 July 2014, approximately 343,731 tonnes or 264,408 m^3 of ash has been placed in Lamberts North.

1.2 Purpose of this report

In accordance with Condition of Approval E22 of Project Approval 09_0186, dated 16 February 2012, EnergyAustralia NSW is required to prepare and submit to the Director General, an independent audit report within 12 months of commencing operation of Lamberts North and Lamberts South.

EnergyAustralia NSW engaged Aurecon to undertaken the independent environmental audit with prior approval from the Director-General. As described above, the audit will only include operation of Lamberts North ash placement area.

1.3 Audit objectives

Based on the requirements specified in Condition E22 of the Project Approval, the objectives of this audit are to:

a) *be carried out in accordance with ISO 19011:2002 - Guidelines for Quality and or Environmental Management Systems Auditing;*

b) *assess compliance with the requirements of this approval, and other licences and approvals that apply to the project;*

c) *assess the environmental performance of the project against the predictions made and conclusions drawn in the documents referred to under condition A 1 of this approval;*

d) *review the effectiveness of the environmental management of the project, including any environmental impact mitigation works; and*

e) *review the adequacy of the Proponent's response to any complaints made about the project identified in the Complaints Register.*

The Environmental Audit Report shall be submitted to the Director-General within two months of the completion of the Audit, detailing the findings and recommendations of the Audit and including a detailed response from the Proponent to any of the recommendations contained in the Report.

2. Methodology

The environmental audit report was prepared based on the following methodology.

2.1 Documents considered

A number of documents have been considered in preparing this Audit Report. This includes the following:

- Major Project Application 09_0186
- Mt Piper Ash Placement (two volumes) – Environmental Assessment (EA), prepared by SKM, August 2010.
- Mt Piper Ash Placement – Submissions Report, prepared by SKM, March 2011.
- Delta Electricity's Letter to the Department – Submissions Report Response to the Department and Agency Issues (dated 22 June 2011).
- Conditions of this approval (dated 16 February 2012).

In addition to the above documents, the following documents were also reviewed for the checklist preparation.

- Lamberts North Ash Placement Project Operation Environmental Management Plan (OEMP) prepared by CDM Smith, dated May 2013.
- Environmental Protection Licence (EPL) 13007.

2.2 Checklist preparation

A checklist for the site audit was prepared based on the review of the documents listed in Section 2.1.

2.3 Opening meeting

An Audit opening meeting was held at 10am on Tuesday 2 September 2014 at Mt Piper Power Station. The meeting was attended by:

- Coleen Milroy (Environment Officer, EnergyAustralia NSW)
- Peter Griffiths (Environment Manager, EnergyAustralia NSW)
- Kelly Gillen (Environmental Representative)
- Jane Aiken (Environmental Team Leader / Scientist, Lend Lease)
- Heather Tilley (Audit Team)
- Michael Wicks (Audit Team)

2.4 Closing meeting

An Audit closing meeting was held at 3pm on Wednesday 3 September 2014 at Mt Piper Power Station. The meeting was attended by:

- Coleen Milroy (Environment Officer, EnergyAustralia NSW)
- Peter Griffiths (Environment Manager, EnergyAustralia NSW)

- Kelly Gillen (Environmental Representative)
- Jane Aiken (Environmental Team Leader Scientist, Lend Lease)
- Heather Tilley (Audit Team)
- Michael Wicks (Audit Team)

2.5 Site inspection

A preliminary inspection of the Lamberts North site was undertaken on 2 September 2014 by Heather Tilley and Michael Wicks. The audit team were accompanied by Peter Griffiths, Coleen Milroy and Jane Aiken. A follow up inspection was undertaken on 3 September to review various aspects of the ash placement discussed during the interviews and following review of various documents.

Following the inspection relevant documentation was reviewed and interviews were undertaken with relevant staff.

Those interviewed included:

- Coleen Milroy (Environment Officer, EnergyAustralia NSW)
- Kelly Gillen (Environmental Representative)
- Jane Aiken (Environmental Team Leader / Scientist, Lend Lease)
- Stephen Thompson (Senior Environment Officer, EnergyAustralia NSW)
- Michelle Blackley (Commercial Manager / Community liaison)
- Jane Aiken (Lend Lease)

2.6 Documents and records

Project records and reports reviewed during the audit included the following:

- Community Information Plan
- Complaints Register / System
- Groundwater Quality and Geotechnical Impacts report (Conditions of Approval D4)
- Repository Management Plan
- Lend Lease Environmental Management Plan
- Operational Noise Review (Conditions of Approval E11)
- Contractors Waste Management Plan
- Audit reports applicable to Lamberts North
- Aquatic Ecology – Macro-invertebrates / Aquatic Habitat reports
- Monitoring data:
  - Air quality
  - Noise
  - Groundwater
  - Surface water
  - Weather monitoring
- Records and registers:
  - Incidents register

- Risk register
- Operation logs (haulage)
- Training register
- Waste register
- Complaints register
- Inspections records ie daily, weekly, monthly
- ER weekly inspections records
- Plant and equipment inspection checks, servicing records
- Ash moisture content at placement and water usage

Additional report reviewed following the audit included:

- SKM (2012): Mt Piper Power Station Ash Placement Project, Consistency Report Project Approval 09_0186, Delta Electricity (June 2012)
- GHD (2014): Neubecks Creek - Ecological Monitoring Project Aquatic Ecosystem Baseline Survey (dated July 2014)
- GHD (2014): Neubecks Creek - Ecological Monitoring Project Aquatic Ecosystem Annual Report (dated July 2014)
- GHD (2014): Neubecks Creek - Ecological Monitoring Project Aquatic Ecosystem Report Spring 2013 (dated July 2014)
- GHD (2014): Neubecks Creek - Ecological Monitoring Project Aquatic Ecosystem Report Autumn 2014 (dated September 2014)

The weather on 2 September 2014 was wet and windy and the weather on 3 September was sunny and windy.

2.7 Audit report

Section 4 of the report provides a summary of the findings described in more detail in the checklists in Appendices A to C.

Table 1 defines the terminology used in the checklists and identifies the action required with respect to audit findings.

Table 1 – Definitions and action required

Audit Finding	Definition and Actions
Compliant	Addressed Project Conditions of Approval/Monitoring requirement. No Corrective Actions required.
Non-compliance	Based on objective evidence, the absence of, or a significant failure to implement and/or maintain compliance to requirements of the Project Conditions of Approval. Corrective Actions will be required to address non-compliances.
Partial compliance	Area of the system for which the client is generally compliant but requires some modification to ensure full compliance is obtained
Recommendations	A documented statement, which may identify areas for improvement.

Source: SAI Global 2012 audit report modified by Michael Wicks 21/08/14

3. ISO 19011:2002 Guidelines

Condition E22(a) of the Project Approval requires that the audit be *"carried out in accordance with ISO 19011:2002 - Guidelines for Quality and or Environmental Management Systems Auditing".* Table 1 is derived from Section 6 of the ISO 19011:2002 – Guideline.

Table 2 – Section 6 of ISO 19011:2002

Section of ISO 19011:2002	Comment	Report Section
6.2 initiating the audit		
6.2.1 appointing the audit team leader	Heather Tilley	2.3
6.2.2 defining audit objectives, scope and criteria	Purpose of Report. Audit Objectives. Review of Compliance. Discussions and Conclusions – Table 5 Recommendations.	1.2 1.3 4.0 5.0
6.2.3 determining the feasibility of the audit	Methodology. Audit Itinerary emailed to EnergyAustralia on 21/08/2014.	2.0
6.2.4 selecting the audit team	Heather Tilley (Lead Auditor), Michael Wicks (Auditor).	2.5
6.2.5 establishing initial contact with the auditee	Aurecon was selected as the auditor via email from EnergyAustralia NSW on 24/07/2014 after approval was given by Director-General.	
6.3 Conducting document review		
6.3 Conducting document review - reviewing relevant management system documents, including records, and determining their adequacy with respect to audit criteria	A number of documents were considered in preparing the Audit Report.	2.1
6.4 Preparing for the on-site audit activities		
6.4.1 preparing the audit plan	Methodology.	2.0
6.4.2 assigning work to the audit team	As the Audit team consisted of two members work was assigned as required.	-
6.4.3 preparing work documents	Appendices in this report formed the audit checklists used.	Appendices A – C
6.5 Conducting the on-site audit activities		
6.5.1 conducting opening meeting	An opening meeting, chaired by Heather Tilley, was held on 02/09/2014 at 10am at Mt Piper Power Station.	2.3

Section of ISO 19011:2002	Comment	Report Section
6.5.2 communication during audit	EnergyAustralia and Lend Lease staff provided face-to-face communication throughout the audit. Any additional information required will be emailed to the audit team for review.	Closing Meeting Minutes (Appendix E)
6.5.3 roles and responsibilities of guides & observers	Heather Tilley (Lead Auditor), Michael Wicks (Auditor) included in email to EnergyAustralia NSW on via email on 24/07/2014. No guides or observers attended this audit.	2.3
6.5.4 collecting and verifying information	Audit Checklists.	Appendices A – C
6.5.5 generating audit findings	The closing meeting, chaired by the Heather Tilley, was held on 03/09/2014 at 3:00pm at Mt Piper Power Station. Discussed the audit findings to be included in the final report.	5.0 & Closing Meeting Minutes (Appendix E)
6.5.6 Preparing audit conclusions	Discussions and Conclusions.	5.0
6.5.7 Conducting the closing meeting	The closing meeting, chaired by the Heather Tilley held on 03/09/2014 at 3:00pm at Mt Piper Power Station.	2.4
6.6 Preparing, approving and distributing the audit report		
6.6.1 preparing the audit report	This document followed guidelines under ISO 19011:2002 for preparing the audit report.	Report
6.6.2 approving and distributing the audit report	At the closing meeting it was agreed that the Final Audit should be submitted to the NSW Department of Planning and Environment by early October.	Closing Meeting Minutes (Appendix E)
6.7 Completing the audit	Date of Final Audit Report.	Page ii. Doc Control Table
6.8 Conducting audit follow up	EnergyAustralia NSW committed to addressing all of the audit findings prior to submitting the Final Audit Report. As such, no follow up would be required.	Closing Meeting Minutes (Appendix E)

4. Compliance with Conditions of Approval

4.1 Conditions of Approval

This section addresses Conditions of Approval E22 (b) and aims to *"assess compliance with the requirements of this approval (09_0186), and other licences and approvals that apply to the project".* A review of compliance with the Conditions of Approval is provided in **Appendix A.**

- Table A1 addresses Part A (Administrative Conditions) of the Conditions of Approval, but only those considered to be applicable to operation.
- Table A2 addresses Part B (Preconstruction Conditions) but only those applicable to operation.
- Table A3 addresses Part D (Prior to Operation).
- Table A4 addresses Part E (During Operation).

The following information is provided in each of the tables listed above.

- Ref. – Conditions of Approval number
- Description – brief description of the Conditions of Approval.
- Comment – any relevant matters relating to compliance.
- Date of Completion – if relevant, otherwise listed as an ongoing requirement.
- Status – complies / partially complies / non-compliant.

4.2 Licences or permits

4.2.1 Environmental protection licence (EPL)

Electricity generating works (including associated water storage, ash and waste management facilities) that supply or are capable of supplying more than 30 MW of electrical power from energy sources (including coal), are listed under Schedule 1. These works require an environmental protection licence (EPL) under the P*rotection of the Environment Operations Act 1997* (POEO Act).

The Environment Protection Authority (EPA) is the Authority responsible for issuing the licences. Licence conditions relate to pollution prevention and monitoring, and cleaner production through recycling and reuse and the implementation of best practice. Mt Piper and the operation of the ash emplacement must be undertaken in accordance with EPL 13007. The EPL is updated from time to time, and reviewed every 5 years in January. Licence version date reviewed was 21/11/2013.

Table 3 identifies the EPL clauses considered to be applicable to the operation of Lamberts North.

Noise

The EPL issued under the POEO Act, does not set any noise limits specifically for the Lamberts North project, however the Conditions for Approval includes noise level restrictions that need to be complied with during construction and operation of Lamberts North. Noise compliance is addressed in Section 6.3 of the OEMP and Conditions of Approval E7 (See Table A4 in Appendix A).

Table 3 – Summary of EPL 13007 and relevant to Lambert North ash placement area

Aspect	Clause	Description	Applicability to Lamberts North ash placement area
Other activities	A3	This licence applies to all other activities carried on at the premises, including Waste storage	Items in the licence applicable to the ash placement (waste storage) are considered in the audit.
Weather monitoring	P1.1	LMP 4 is the location of the weather monitoring station.	Weather monitoring is required for assessment of operational noise for the Lambert North site as required by Conditions of Approval E9(c). The weather monitoring data was sighted.
Waste	L4	The licensee (EnergyAustralia NSW) must not cause, permit or allow any waste generated outside the premises to be received at the premises for storage, treatment, processing, reprocessing or disposal or any waste generated at the premises to be disposed of at the premises, except as expressly permitted by the licence.	Only flyash, furnace ash and other materials expressly permitted by EPL 13007 originating from Mt Piper Power Station are proposed to be placed in Lamberts North.
		Mt Piper is only is permitted to receive waste water from the Wallerawang Power Station water treatment plant processes, including ash return water, for treatment, processing, reprocessing or disposal.	Although the approval allows for brine to be placed in Lamberts North, brine is currently being placed in Mt Piper Area 1 and is not likely to be placed in Lamberts North in the foreseeable future.
Maintenance of plant and equipment	O2.1	All plant and equipment installed at the premises or used in connection with the licensed activity: a) must be maintained in a proper and efficient condition; and b) must be operated in a proper and efficient manner.	Addressed in the OEMP under the Noise Management Plan and the Air Quality Management Plan.
Dust	O3.1	The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.	Air quality monitoring including PM_{10} (see Plate 1), dust deposition (see Plate 2) and total suspended solids are required to be monitored in accordance with Conditions of Approval E18 and is addressed in OEMP Air quality management plan.

Aspect	Clause	Description	Applicability to Lamberts North ash placement area
Monitoring and recording	M1.1	The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.	Monitoring of Lamberts North is addressed in Section 5 of the approved OEMP which includes the monitoring program for: • Noise [Conditions of Approval E7, E11, E12] • Groundwater [Conditions of Approval E15(a)(B)] • Surface water [Conditions of Approval E16 (a)] • Ecology [Conditions of Approval B7] • Air quality [Conditions of Approval D3(d) and E18]. Each monitoring schedule addresses the requirements laid out in Conditions of Approval. Monitoring results are addressed in Appendix C Table C1 and compliance with Conditions of Approval is addressed in Appendix A.
	M1.2	All records required to be kept by this licence must be: a) in a legible form, or in a form that can readily be reduced to a legible form; b) kept for at least 4 years after the monitoring or event to which they relate took place; and c) produced in a legible form to any authorised officer of the EPA who asks to see them.	
	M1.3	The following records must be kept in respect of any samples required to be collected for the purposes of this licence: a) the date(s) on which the sample was taken; b) the time(s) at which the sample was collected; c) the point at which the sample was taken; and d) the name of the person who collected the sample.	
Pollution Complaints	M5	The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.	Section 3.5 of the OEMP addresses the complaints management procedure as required by Conditions of Approval B11 and B12.
Telephone complaints line	M6	The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.	A 24 hour telephone number is available on the EnergyAustralia website for Mt Piper Power Station specific issues, incidents, complaints and enquiries. http://www.energyaustralia.com.au/about-us/what-we-do/generation-assets/wallerawang-mtpiper-power-station
Reporting	R2	The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.	Section 3.9 describes the procedure for managing an environmental incident. This includes a procedure for reporting the incidents to the relevant authorities.

4.2.2 Other permits and licences

Based on the Environmental Assessment and OEMP, no permits under the following acts were required for the operational phase of the project

- *Environmentally Hazardous Chemicals Act 1985*
- *Heritage Act 1977*
- *National Parks and Wildlife Act 1974*
- *Native Vegetation Act 2003*
- *Noxious Weeds Act 1993*
- *NSW Soil Conservation Act 1938*
- *NSW Threatened Species Conservation Act 1995*
- *Water Act 1912.*

However, following discussion with the EnergyAustralia NSW, a licence for sinking new bores for groundwater monitoring was required under the *Water Management Act 2000*. As such, EnergyAustralia NSW obtained licences for sinking boreholes D15, D16, D17, D18 and D19. License details from the NSW Office of Water (NOW) are provided in Table 4.

Table 4 – Borehole licences

Bore	Licence #	Valid from	NOW Ref
D15	10BL605213	09/07/2012	E3-1
D16 D18 D17	10BL605216	09/07/2012	E3-2 E3-6 E3-3
D19	10BL605215	09/07/2012	E3-7
Not used *	10BL605214 10BL605214 10BL605217 10BL605216	09/07/2012	E3-4 E3-5 E3-8 E3-9

Note: Licences for three additional boreholes was obtained, but drilling of the bores was unsuccessful so the bores were not used

No Commonwealth permits, licences or approvals have been identified for the Project.

4.3 Status of compliance

The audit found that the operation of Lamberts North was generally undertaken in accordance with the requirements of the Conditions of Approval.

Relevant licences have been obtained and works are being undertaken generally in accordance with the requirements of the licences.

Two partial compliances and three areas of improvement relating to the Conditions of Approval were identified and are summarised in Table 5.

Table 5 – Summary of Conditions of Approval 22(b) partial compliances and areas of improvement

Ref	Partial Compliances	Recommendation
3.1	Condition of Approval B10 requires the Proponent to establish and maintain a website for the provision of electronic information associated with the project. A project website is available for the Lamberts North Project[1] which includes a link to the Planning and Environment website, which hosts the Environmental Assessment, Submissions report and Conditions of Approvals. However no other information relating to the project progress, for example the OEMP and newsletters is available	It is recommended that non-confidential project related documentation is added to the website to ensure full compliance with this condition.
3.2	Condition of Approval B11 requires that prior to the construction of the project, a 24 hour contact number(s), a postal address for written complaints and enquiries and an email address be available, which would then be available during construction and operation. Currently only a 24 hour contact number is available on the project website.	It is recommended that the postal address and email address be added to the project website to ensure full compliance with this condition. It is acknowledged that an email and postal address was available during construction while the project was managed by Delta Electricity and that the information from the Delta Electricity website is still being transferred onto the EnergyAustralia website.
Ref	**Areas of improvement**	**Recommendation**
3.3	Condition of Approval B11 requires that a Community Information Plan be prepared, which sets out the community communications and consultation processes to be undertaken during construction and operation of the project. The *Lamberts North Ash Placement Stakeholder Communications Plan* was prepared specifically for the project; however the document still references Delta Electricity and lists the Delta Electricity email address and website.	The Communication Information Plan should be updated to reflect the new owners and ensure that all references to Delta Electricity and the previous Delta websites, email addresses are removed and replaced with relevant EnergyAustralia NSW information. It is acknowledged that EnergyAustralia NSW has an active Community Forum and that the community are aware of the main EnergyAustralia NSW contact person with regards to community issues.
3.4	Condition of Approval D2 requires that the Proponent prepares and implements an Operational Environmental Management Plan (OEMP) to detail an environmental management framework, practices and procedures to be followed during operation of the project. An OEMP was prepared for the project and approved by the Department of Planning while still under the management of Delta Electricity. The OEMP still reflects the Delta Electricity information, in particular websites and email addresses.	It is recommended that the OEMP be updated to reflect the new owners and ensure that all references to Delta Electricity and the previous websites are updated.

[1] http://www.energyaustralia.com.au/about-us/what-we-do/projects/mt-piper-and-wallerawang

Ref	Areas of improvement	Recommendation
3.5	Condition of Approval E2 refers to emergency situations when ash placement operations can occur outside of standard workings hours. E3 to E6 outlines the reporting requirements in the event that emergency ash haulage is required.	Lend Lease has an Emergency Plan within their Environmental Management Plan which covers emergencies related to the ash and dust plant, however it does not specifically include the procedure for out of hours operation. It is recommended that an emergency plan specifically related to ash placement outside regular hours be developed and includes a flow chart within Lend Lease document *"Ash Placement Area Emergency Procedure MP-PC-736*" covering the conditions of approval E2 – E6 to make the procedure easier to follow.

5. Assessment of Predicted and Actual Impacts

5.1 Condition E22(c) – Actual versus predicted impacts

Condition E22(c) requires the audit to "*assess the environmental performance of the project against the predictions made and conclusions drawn in the documents referred to under condition A1 of this approval".*

Table B1 in **Appendix B** provides a review of the predicted impacts against the actual impacts.

The photographs referred to in the text have been provided in **Appendix D**.

5.2 Summary of findings

In general, the impacts predicted by the Environmental Assessment were found to consistent with actual impacts based on a brief review of the available data and documentation and following the site inspection.

5.2.1 Air quality

Air quality monitoring is undertaken on a continuous basis. A TEOM (TSP/PM_{10} data) (see Plate 1) is located at the northern end of Lambert North and five dust gauges (See Plate 2) are located at various locations around the Mt Piper site and near Lamberts North.

TEOM data for the period from 01/01/2012 to 31/08/2014 and dust gauge data for the five gauges was reviewed for the period 01/09/2013 to 31/08/2014, which covers the first year of Lamberts North operation.

Ambient air quality monitoring data has shown that that the particulate emissions are generally well within the average annual TSP concentration of 90 µg/m^3 predicted in the Environmental Assessment. The daily and monthly data suggest that the actual impact on the sensitive receivers is no more than what was predicted. This is applicable to both the TEOM (TSP/PM_{10} data) and the dust disposition gauges

5.2.2 Noise impacts

Two noise reports have been prepared for the first year of operation, with a third noise monitoring program planned for 14-15 September 2014.

The results from both reports show that the attended noise measurement levels are generally in line with the predicted levels under both neutral and adverse conditions for both noise monitoring locations. The noise level at Location 1 during the September 2013 monitoring was found to be 2 dBA higher than the level predicted during adverse conditions, but the noise level during the March 2014 monitoring program was recorded as being 1 dBA less than level predicted during adverse conditions.

Evening and night time limits are also included in Conditions of Approval E7 D3a(ii), however no operations are permissible after 18:00, unless in an emergency. No emergency ash haulage was required during the first year of operation.

Both reports confirm that the operational noise resulting from the operation of equipment and mobile plant at the Lamberts North site comply with the OEMP noise limits at the representative residential receivers at Location 1 and Location 2.

5.2.3 Groundwater

There are a number of boreholes around the Mt Piper site, including boreholes D15, D16, D17, D18 and D19 which were installed to assess the potential impacts from Lamberts North operations. Groundwater is sampled and analysed on a monthly basis. The analytical suite includes pH, conductivity, Alkalinity, Cl, SO_4, TPS, DO (in field), temperature, turbidity, NOx, TP, TKN and total metals, and total filtered metals. Monthly data for these boreholes was sighted.

The Environmental Assessment predicted that the on-going monitoring and modelling studies would show that the main contribution to elevated water quality parameters in Neubecks Creek is due to past, underground coal mining activities rather than the existing ash placement works at Area 1 or the operation of Mt Piper Power Station. An annual groundwater review is required in accordance with the approved OEMP. The first of these reports is due in November 2014 and as such was not available for review during the audit. The review will assess the groundwater quality and any notable trends since the boreholes were installed. At the time of writing the report, the audit team was unable to make any comment about actual performance against the predicted impacts provided in the Environmental Assessment. The groundwater review will be included in the AEMR.

5.2.4 Surface water

Surface water quality at LDP1, NC01 and WX22 is analysed as part of the quarterly aquatic ecology monitoring program. The *Neubecks Creek - Ecological Monitoring Project Aquatic Ecosystem Annual Report 2012-2013* states that several water quality parameters have been monitored, to establish a 'baseline' and to identify any changes in water quality that may occur. The report states that some water quality parameters tend to be high, and are sometimes above the ANZECC (2000) Guidelines for freshwater ecosystem protection (for the protection of 95% of freshwater species).

The Environmental Assessments (SKM, 2010) also concluded that the main contribution to elevated levels of some water quality parameters in Neubecks Creek is the past underground coal mining activities, rather than the existing ash placement works or the operation of Mt Piper Power Station.

Surface water monitoring will continue to be undertaken as required for the Mt Piper Power Station operation and will be reported in the quarterly ecology reports. The most recent ecology monitoring report[2] prepared by GHD states that, of the in situ the water quality variables measured for this study, none can be identified to be impacting Neubecks Creek as a result of changes in the catchment land use such as site operations or ash placement.

Surface water monitoring results will also be included in the AEMR report, which is not available until November 2014, and as such was not available for review during the audit.

5.2.5 Visual

The Environmental Assessment suggested that there would a high visual impact on Location 3 due to the close proximity of the sensitive receiver to the proposed ash placement areas. Plate 3 shows the current rehabilitation efforts on the Lamberts North embankment closest to Castlereagh Highway with screening trees in the background. These efforts have minimised the visual impact from Location 3.

[2] GHD (2014): Neubecks Creek - Ecological Monitoring Project Aquatic Ecosystem Report Autumn 2014 (dated September 2014)

5.2.6 Other

The Environmental Assessment suggested that Lamberts North would not impact significantly on:

- matters of National Environmental Significance (NES)
- on local populations of threatened species, endangered communities or their habitats
- items of Aboriginal and non-Aboriginal significance
- local traffic in the area
- landuse.

The impacts from the Lamberts North during the first year of operation is consistent with the land use for the area (ie power generation, coal extraction) and the actual impacts, appear to be consistent with the predicted impacts.

6. Environmental Management

6.1 Condition E22(d) – Environmental management and mitigation

In accordance with Condition E22(d), the audit must "*review the effectiveness of the environmental management of the project, including any environmental impact mitigation works".*

A range of environmental controls were outlined in the Environmental Assessment, Conditions of Approval and in the OEMP. The OEMP suggests that the system for reviewing the environmental performance of the project activities will be based on regular inspections, audits, sound environmental monitoring programs, and an efficient complaints management system. This has been assessed in Table C1 in **Appendix C**.

The photographs referred to in the text have been provided in **Appendix D**.

6.2 Summary of findings

In general, the environmental management and mitigation measures appear to have been effective based on a brief review of the available documentation and site inspection.

6.2.1 Noise impacts

As discussed previously, the two noise reports prepared for the first year of operation have confirmed that the noise resulting from the operation of equipment and mobile plant at the Lamberts North site complies with the OEMP noise limits at the representative residential receivers at Location 1 and Location 2.

In addition to this, no noise complaints relating to the Lamberts North operations have been recorded during the first year of operation, suggesting that the measures in place are effective.

6.2.2 Groundwater

As previously discussed, an annual groundwater review is required in accordance with the approved OEMP. The first of these reports is due in November 2014 and as such was not available for review at the time of writing this report. The audit team is therefore unable to make any comment about whether the measures in place are effective for the management of impacts on groundwater. It is also noted that it may be challenging to ascertain the incremental impacts of Lamberts North on the groundwater given the current and previous mining activities on and adjacent to the site and the Mt Piper Area 1.

However evidence was provided to support a number of the proposed measures outlined in the OEMP and others measures were sighted during the inspection. For example:

- Measures to ensure the dirty water is contained within Lamberts North ash placement area and clean water (eg runoff from batters, stormwater from surrounding areas) is diverted away (See Plate 9 and Plate 10).
- Records of percentage compaction achieved when placing ash to minimise infiltration were sighted. The compaction targets have been achieved for the first year of operation.
- Chemical storage was found to be in accordance with current standards and refuelling is only undertaken in the designated area.
- No waste (ie fabric filters) is currently being placed within Lamberts North.

- A lined pond located in the southern section of Lamberts North collects surface water from Lamberts North ash placement area (See Plate 8) as required by the Soil and Surface Water Management Plan (SWWMP).

6.2.3 Surface water

Surface water monitoring results will also be included in the AEMR report, which is not available until November 2014, and as such was not available for review during the audit. The audit team is therefore unable to make any comment about whether the measures in place are effective for the management of impacts on surface water.

However evidence was provided to support a number of the proposed measures outlined in the OEMP and others measures were sighted during the inspection. For example:

- Drainage channels separating clean and dirty water and the presence of surface water collection ponds.
- Design and management of the slopes and batters appear to be effective with minimal erosion impacts evident.
- Rehabilitation on the embankments has commenced using mulch and tree planting (See Plate 3). There was no evidence of excessive erosion during the inspection.
- Lend Lease are experimenting with contouring batters on Mt Piper Area 1 embankments to reduce flow of water to minimise potential sheet wash and for better slope control
- Daily, weekly and monthly inspections are being undertaken.
- Wet weather inspection checksheets (MP-SF-729A) for a 10.5ml wet weather event on 26/07/2014 and a 5.5 ml wet weather event on 18/08/2014 were sighted.

6.2.4 Air quality

Sprinklers and compaction are used to minimise fugitive dust from the Lamberts North ash placement area. Water trucks are used to manage fugitive dust from the haul roads. No fugitive ash was evident during the site inspections and no complaints related to air quality issues arising from Lamberts North operation have been received during the first year of operation.

The vehicle maintenance log was sighted, with vehicles being regularly serviced, inspected and cleaned.

Review of the dust deposition and TEOM data and observations during the site visit suggest that the environmental measures in place are effective.

6.2.5 Landscape revegetation and Rehabilitation

A high level strategic plan is in place for future capping and rehabilitation (Drawing MPA0314) of Lamberts North and will be reviewed as required. A more detailed Revegetation Strategy Plan for Lamberts North is not likely to be required for 2-3 years when Lamberts North has reached a level where it can be contoured in with the batters on Mt Piper Area 1.

Lend Lease has commenced rehabilitation on the north east embankment. Progressive revegetation will occur on the batters and laybacks as required as ash placement commences. The current rehabilitation practices appear to be effective with no evidence of major erosion issues on the embankments and laybacks (see Plate 3).

6.2.6 Waste management

Only waste types listed in the EPL are disposed of in the restricted waste disposal area of the Mt Piper ash placement area (see Plate 13 and Plate 14). Currently only ash is being disposed of at Lamberts North and no other waste types are likely to be disposed of in the area in the near future. All other waste types are handled by Cleanaway waste removal.

Current waste management procedures are considered to be effective. The site was clean with no litter present.

6.3 Recommendations

Table 6 – Summary of areas of improvement applicable to environmental management

Ref	Area of Improvement	Recommendation
6.1	The Environmental Assessment states that no Aboriginal sites would be affected at Lamberts North or Lamberts South study areas as part of the Mt Piper Ash Placement Project. The proximity of the two previously recorded sites will require the use of appropriate measures to avoid any inadvertent impact.	The Environmental Assessment (SKM, August 2010) lists AHIMS sites that have been labelled with “permit to destroy”. The Land Management Plan (23/01/2014) also includes a list of AHIMS items; however these sites were not identified by site number and it unclear whether these are the same sites previously identified. It is prudent to ensure that the sites are correctly identified and consistent with what was identified in the Environmental Assessment to ensure that the sites are no inadvertently impacted in the future.
6.2	The Environmental Assessment states that Locations 1, 2 and 4 would experience no visual impact, and that visual impacts from Locations 5 and 6 would be low to moderate, given their proximity to the proposed development and existing land use.	Figure 5.1 in the OEMP currently includes the locations for dust gauges, boreholes, surface water monitoring sites and two noise monitoring locations. It is recommended that this figure also displays all visual impact locations. These are identified as viewpoints 1-6 in the Environmental Assessment.

7. Complaints Management

7.1 Condition E22(e) – Complaints management

In accordance with Condition E22(e), the audit must "*review the adequacy of the Proponent's response to any complaints made about the project identified in the Complaints Register".*

7.2 EnergyAustralia NSW complaints management system

EnergyAustralia NSW uses the Ellipse software which forms part of the Environmental Management System (EMS) for the management of complaints and incidents, both environmental and safety. In accordance with Conditions of Approval B11 and B12 this system is also used for the management of complaints related specifically to Lamberts North operations.

7.2.1 Complaints register

Each complaint or incident recorded in Ellipse includes as a minimum:

- Person responsible for recording the incident/complaint
- Date and time of the complaint/incident
- Close out of the complaint or incident
- Personal details of the complainant that were provided, or if no details were provided a note to that effect
- Incident type ie complaint, environmental, work incident
- Time taking to respond to the complaint – this is determined by the date the complaint or incident was recorded and the date the complaint or incident was closed out.
- Any investigations and actions taken by EnergyAustralia NSW in relation to the complaint or incident
- Who should be notified for example, police, EPA inspector, media etc.
- Any follow up contact with, and feedback from the complainant.

7.2.2 Managing complaints

EnergyAustralia NSW staff are trained in the Ellipse system and are required to record all incidents, both environmental or safety and also any complaints that are received. The 24 hour telephone number goes to reception during office hours and goes to the gate house outside of office hours. The complaint will be passed onto the shift manager who will determine what action is required. In the event of an immediate environmental emergency, the Environmental Manager or delegate will be notified.

Any environmentally-related complaint from the public will be investigated in accordance with the tasks identified in Ellipse and in accordance with the EMS complaints/incident procedure. The Monthly Environmental Compliance Report prepared by Lend Lease for submission to EnergyAustralia NSW will document any complaints, actions and outcomes made in the reporting period.

There have been no reported complaints related to the Lamberts North project since ash placement commenced.

7.2.3 Community involvement

A Community Information Plan (CIP) for the project was prepared.

The Western Community Reference Group (CRG) was established in 2007. The CRG allows EnergyAustralia NSW to better understand community expectations and opinions. Meetings are held every three months (February, May, August and November) and involve representatives and relevant stakeholders from the local community, as well as EnergyAustralia NSW senior management. Minutes of the meetings are taken and are uploaded to the EnergyAustralia NSW community website.

http://www.energyaustralia.com.au/about-us/what-we-do/generation-assets/wallerawang-mtpiper-power-station/community

Progress of the Lamberts North project has been discussed at these meetings.

7.3 Summary of findings

EnergyAustralia NSW has an effective tool for recording complaints and incidents. No complaints or incidents directly related to the operation of Lamberts North were recorded during the first year of operation.

8. Conclusion

The audit was carried out generally in accordance with the requirements of ISO 19011:2002 Guidelines for Quality and or Environmental Management Systems Auditing.

The audit found that the operation of Lamberts North was generally in compliance with the requirements of the approval and with the other licences and approvals that are applicable to the project. Two partial compliances were identified. These indicate that EnergyAustralia NSW is generally compliant with a Condition of Approval, but requires some modification to ensure full compliance is obtained. The partial compliances can be characterised as administrative issues which can be easily rectified. It is acknowledged that EnergyAustralia NSW are still transitioning the website and documents which were prepared when Delta Electricity was the proponent.

While the environmental performance of the project against the predictions made in the Environmental Assessment were found to be generally in agreement for most aspects, ie with impacts being no worse than what was predicted, it is noted that given the interactions between the Lamberts North ash placement activities, Mt Piper Area 1 ash placement and mining activities, it may be challenging to determine the actual impacts on groundwater, surface water and air quality as a result of ash placement in Lamberts North, as well as assessing the effectiveness of the environmental management measures to minimise potential impacts on groundwater and surface water.

However, the environmental management of the project, including environmental impact mitigation works were generally found to be effective. No complaints or incidents related to the Lambert North ash placement have been reported during the first year of operation. Lend Lease has commenced rehabilitation of the northern embankment and minimal erosion of the embankments were sighted. The audit found that both Lend Lease and EnergyAustralia NSW have well established inspection schedules and the information was readily available during the audit. Monitoring programs as required by the OEMP and Conditions of Approval are in place and monitoring data is available.

EnergyAustralia NSW has an effective tool for recording complaints and incidents. Although no complaints or incidents related to the operation of Lamberts North were recorded during the first year of operation. The audit did review the adequacy of the EnergyAustralia NSW's response to other complaints and incidents recorded in the Complaints Register. The responses and the timing to close out the complaint or incident were found to be adequate.

The recommendations provided in this report will assist EnergyAustralia NSW to further improve compliance with their approval requirements.

Appendix A
Compliance with Project Approval and other licences

Table A1: Part A – Administrative Conditions (only those applicable to operation)

Ref.	Description	Comment	Date of Completion	Status
Limits of Approval				
A5.	This approval shall lapse five years after the date on which it is granted, unless the works that are the subject of this approval are physically commenced on or before that time.	Construction works on ash placement site commenced on 07/01/2013, following approval of the CEMP by the DPE in December 2012.	Works commenced 07/01/2013	Complies
Statutory Requirements				
A6.	The Proponent shall ensure that all licences, permits and approvals are updated and/or obtained as required by law and maintained as required with respect to the project. No condition of this approval removes the obligation for the Proponent to obtain, renew or comply with such licences, permits or approvals.	See Section 4.2 for details on licences and permits.	ongoing	
Staging				
A7.	Where the Proponent intends to construct and operate the project in discrete stages (ie Lamberts North and Lamberts South) it may comply with the requirements in conditions B4, B5, D2, D3 and D4 separately for each stage.	Compliance with this condition is addressed in Table A2 below. An OEMP for operation of Lamberts North was approved by the DPE on 07/05/2013.	ongoing	Addressed in Table A2

Table A2: Part B – Preconstruction (only those applicable to operation)

Ref.	Description	Comment	Date of Completion	Status
Pre-construction				
B1	**Environmental Representative** Prior to the commencement of any construction activities, or as otherwise agreed by the Director-General, the Proponent shall nominate for the approval of the Director- General a suitably qualified and experienced Environmental Representative(s). The Proponent shall engage the Environmental Representative(s) during any construction activities, and throughout the life of the project, or as otherwise agreed by the Director- General.	An Environmental Representative has been appointed and was approved on 30/11/2012 by Department of Planning. Letter from the Department of Planning dated 30/11/12 was sighted	30/11/2012	Complies
B10	**Community Information and Complaints Management Provision of Information** Prior to the construction of the project, the Proponent shall establish and maintain a website for the provision of electronic information associated with the project. The Proponent shall, subject to confidentiality, publish and maintain up-to-date information on this website or dedicated pages including, but not necessarily limited to: a) the documents referred to under condition A1 of this approval; b) this project approval, Environment Protection Licence and any other relevant environmental approval, licence or permit required and obtained in relation to the project; c) all strategies, plans and programs required under this project approval, or details of where this information can be viewed; d) information on construction and operational progress; and e) the outcomes of compliance tracking in accordance with the requirements of this project approval.	A project website is available for the Lamberts North Project (sighted 01/09/2014). http://www.energyaustralia.com.au/about-us/what-we-do/projects/mt-piper-and-wallerawang A link to the DPE website, which hosts the Environmental Assessment, Submissions report and approvals is available, however other information relating to the project progress including the OEMP, newsletters etc are not available. **Recommendation** Non confidential project related documentation, for example OEMP, newsletters relating to project progress, should be added to the website.	Ongoing	Partial compliance **Recommendation**

Ref.	Description	Comment	Date of Completion	Status
B11.	**Complaints and Enquiries Procedure** Prior to the construction of the project, the Proponent shall ensure that the following are available for community complaints and enquiries during construction and operation: a) a 24 hour contact number(s) on which complaints and enquiries about construction and operational activities may be registered; b) a postal address to which written complaints and enquiries may be sent; and c) an email address to which electronic complaints and enquiries may be transmitted.	The Ellipse software (See Section 6) handles environmental, safety incidents, complaints and audits. A 24-hour number is available on the EnergyAustralia but a postal address and email address specific to Mt Piper projects was not displayed on the website. Ellipse raises tasks to ensure that the incident or complaint is closed out. **Recommendation** Postal address and email address for the project should be included on the website. **Post Audit Comment** It is understood that the website is managed by EnergyAustralia corporate. Mt Piper staff have followed up with corporate to ensure this information is made available.	Ongoing	Partial compliance **Recommendation**
B12	The Proponent shall record the details of complaints received through the means listed under condition B11 of this approval in a Complaints Register.	Ellipse is used to manage complaints. In addition Lend Lease produce a monthly compliance report which includes a record of any complaints received. Sighted complainant personal details in Ellipse system. Last Complaint was recorded in April 2012 prior to the Lamberts North project,	ongoing	Complies
B13	**Community Information Plan (CIP)** Prior to the commencement of construction of the project, the Proponent shall prepare and implement a Community Information Plan which sets out the community communications and consultation processes to be undertaken during construction and operation of the project.	The *Lamberts North Ash Placement Stakeholder Communications Plan* (dated September 2012) was prepared specifically for the project. Michelle Blackley is the nominated point of contact for Community issues. A CIP dated 23/10/2013 was also prepared. **Recommendation** The Communication Plan should be updated to reflect the new owners and ensure that all references to Delta Electricity and the previous Delta websites are removed and replaced with relevant EnergyAustralia information.	23/10/2013	Complies **Recommendation**

Table A3: Part D – Prior to Operation

Ref.	Description	Comment	Date of completion	Compliant
Environmental Management Plan				
D2.	The Proponent shall prepare and implement an **Operational Environmental Management Plan** (OEMP) to detail an environmental management framework, practices and procedures to be followed during operation of the project. The Plan shall be prepared in consultation with Lithgow City Council and relevant government agencies, and shall be consistent with the Guideline for the Preparation of Environmental Management Plans (DIPNR 2004) and shall include, but not necessarily be limited to: The Plan shall be submitted for the approval of the Director-General no later than four weeks prior to the commencement of operation of the project, unless otherwise agreed by the Director-General. Operation shall not commence until written approval has been received from the Director-General. Nothing in this approval precludes the Proponent from incorporating the requirements of the Operational Environmental Management Plan into existing environmental management systems and plans administered by the Proponent.	The OEMP prepared by CDM Smith and dated May 2103 was sighted. The OEMP still refers to Delta Electricity as the proponent and not Energy Australia and also includes references to the Delta Electricity website. The OEMP was approved by the Department of Planning on 07/05/2013 (Sighted letter signed by Chris Wilson DG Nominee) The OEMP includes a table of consultation activities with the following agencies. These are also relevant to the individual management plans discussed in Item D3. • Department of Planning and Infrastructure • Department of Primary Industries (Fisheries) • NSW Office of Water • Environmental Protection Authority • Sydney Catchment Management Authority • Office of Environment and Heritage (EPA) • Lithgow City Council **Recommendation** The OEMP should be updated to reflect the new owners and ensure that all references to Delta Electricity and the previous websites are updated.	07/05/2013	Complies **Recommendation**
D3.	As part of the OEMP for the project, required under condition D2 of this approval, the Proponent shall prepare and implement the following Management Plans: a) an **Operational Noise Management Plan** to detail measures to mitigate and manage noise during operation of the project. The Plan shall be prepared in consultation with the EPA.	The **Noise Management and Monitoring Plan** is included in Section 6.3 of the approved OEMP. Mitigation measures are included in Table 6-3 and a noise monitoring program is included in Table 6-5.	07/05/2013	Complies
	b) a **Groundwater Management Plan** to detail measures to mitigate and manage groundwater impacts. The Plan shall be prepared in consultation with the NOW and the SCA.	The **Groundwater Management and Monitoring Plan** is included in Section 6.4 of the approved OEMP. Mitigation measures are included in Table 6-11 and the groundwater monitoring summary is included in Table 6-12.	07/05/2013	Complies

Ref.	Description	Comment	Date of completion	Compliant
	c) a **Soil and Surface Water Management Plan** to outline measures that will be employed to manage water on the site, to minimise soil erosion and the discharge of sediments and other pollutants to lands and/or waters throughout the life of the project. The Plan shall be based on best environmental practice and shall be prepared in consultation with the NOW and the SCA and DPI (Fisheries).	The **Soil and Surface Water Management Plan** is included in Section 6.5 of the approved OEMP. Mitigation measures are included in Table 6-20 and monitoring is included in Table 6-21.	07/05/2013	Complies
	d) an **Air Quality Management Plan** to outline measures to minimise impacts from the project on local air quality. The Plan shall be prepared in consultation with NSW Health and the EPA.	The **Air Quality Management Plan** is included in Section 6.6 of the approved OEMP. Mitigation measures are included in Table 6-25 and the air quality monitoring program is included in Section 6.6.6.	07/05/2013	Complies
	e) a **Landscape/Revegetation Plan** to outline measures to minimise the visual impacts of the ash placement areas and ensure the long-term stabilisation of the site and compatibility with the surrounding landscape and land use.	The **Landscape revegetation and Rehabilitation Plan** is included in Section 6.7 of the approved OEMP. Rehabilitation and revegetation measures are included in Table 6-34 and the monitoring program is included in Section 6.7.5.	07/05/2013	Complies
	f) a **Site Rehabilitation Management Plan** to outline measures to stabilise and rehabilitate the site following project completion. The Plan shall be prepared in consultation with the SCA.	The Site Rehabilitation Management Plan was included in the Landscape revegetation and Rehabilitation Plan.	07/05/2013	Complies
Groundwater Quality and Geotechnical Impacts				
D4	Prior to commencement of operation the Proponent shall submit a geotechnical report prepared by a suitably qualified expert that demonstrates the site has been engineered as being suitable for ash placement. The report must also provide an evaluation of groundwater levels once re-profiling has been completed.	The Geotechnical report prepared by CDM Smith and dated 11/10/2012 was sighted.	11/10/2012	Complies

Table A4: Part E – During Operation

Ref.	Description	Comment	Completion Date	Status
Operational Hours				
E1	Operational activities associated with the project shall only be undertaken from 6.00 am to 8.00 pm Monday to Friday and 6.00am to 5.00pm Saturday and Sunday.	Works only occurs during working hours. Ash haul truck logs were sighted.	Ongoing	Complies
E2	Operations outside the hours stipulated in condition E1 of this approval are only permitted in the following emergency situations: a) where it is required to avoid the loss of lives, property and/or to prevent environmental harm; or b) breakdown of plant and/or equipment at the ash placement areas or the Mt Piper Power Station and the proposed Mt Piper Power Station Extension project with the effect of limiting or preventing ash storage at the power station outside the operating hours defined in condition E1; or c) a breakdown of an ash haulage truck(s) or the conveyor preventing haulage during the operating hours stipulated in condition E1 combined with insufficient storage capacity at the Mt Piper Power Station including the proposed Mt Piper Power Station Extension to store ash outside of the project operating hours; or d) in the event that the Australian Energy Market Operator (AEMO), or a person authorised by AEMO, directs the Proponent (as a licensee) under the National Electricity Rules to maintain, increase or be available to increase power generation for system security and there is insufficient ash storage capacity at the Mt Piper Power Station to allow for the ash to be stored. In the event of conditions E2b) or E2c) arising, the Proponent is to take all reasonable and feasible measures to repair the breakdown in the shortest time possible.	No emergencies requiring out of hours operation have occurred to date. Lend Lease has an Emergency Plan within the *PL-700 Environmental Management Plan (EMP) (Version 7, dated 6 December 2013*) and *MP-PL-0003 EMP (Version 10b, dated August 2014)*, which covers the operation and maintenance of ash and dust handling systems for Mt Piper (including Lamberts North operations). The emergency response does not specifically address for emergency situations. **Recommendation** It is recommended that an emergency plan specifically for ash placement at Lamberts North outside regular hours be developed and includes a flow chart within Lend Lease document *"Ash Placement Area Emergency Procedure MP-PC-736*" covering the conditions of approval E2 – E6 to make the procedure easier to follow.	Ongoing	Not applicable to the first year of operation **Recommendation**

Ref.	Description	Comment	Completion Date	Status
E3	In the event that an emergency situation as referred to under condition E2b) or E2c) occurs more than once in any two month period, the Proponent shall prepare and submit to the Director-General for approval a report including, but not limited to: a) the dates and a description of the emergency situations; b) an assessment of all reasonable and feasible mitigation measures to avoid recurrence of the emergency situations; c) identification of a preferred mitigation measure(s); and d) timing and responsibility for implementation of the mitigation measure(s). The report is to be submitted to the Director-General within 60 days of the second emergency situation occurring. The Proponent shall implement all reasonable and feasible mitigation measures in accordance with the requirements of the Director-General.	No emergencies requiring out of hours operation have occurred during the first year of operation.	As required	Not applicable to the first year of operation
E4.	The Proponent shall notify the EPA prior to undertaking any emergency ash haulage or placement operations outside of the hours of operation stipulated in condition E1 of this approval and keep a log of such operations.	No emergencies requiring out of hours operation have occurred during the first year of operation.	As required	Not applicable to the first year of operation
E5.	The Proponent shall notify the Director-General in writing within seven days of undertaking any emergency ash haulage or placement operations outside of the hours of operation stipulated in condition E1 of this approval.	No emergencies requiring out of hours operation have occurred during the first year of operation.	As required	Not applicable to the first year of operation
E6.	The Proponent shall notify nearby sensitive receivers (as defined in the Operational Noise Management Plan required under condition D3(a) of this approval) prior to8.00 pm where it is known that emergency ash haulage or placement operations will be required outside of the hours of operation stipulated in condition E1 of this approval.	No emergencies requiring out of hours operation have occurred during the first year of operation.	As required	Not applicable to the first year of operation

<table>
<tr><th>Ref.</th><th>Description</th><th>Comment</th><th>Completion Date</th><th>Status</th></tr>
<tr><td colspan="5">Operational Noise</td></tr>
<tr><td>E7.</td><td>The cumulative operational noise from the ash placement area and ash haulage activity shall not exceed the following $L_{Aeq(15\ minute)}$ dB(A):
<table>
<tr><th>Location</th><th>Day (7am to 6pm)</th><th>Evening (6pm to 10pm)</th><th>Night (10pm to 7am)</th></tr>
<tr><td>All private sensitive receivers within the township of Blackmans Flat</td><td>42</td><td>38</td><td>35</td></tr>
<tr><td>All other sensitive receivers</td><td>42</td><td>38</td><td>35</td></tr>
</table></td><td>Noise criteria have been included in Table 6-4 of the approved OEMP.</td><td>Ongoing</td><td>Complies</td></tr>
<tr><td></td><td>This noise criteria set out above applies under all meteorological conditions except for any of the following:
a) wind speed greater than 3 m/s at 10 m above ground level;
b) stability category F temperature inversion conditions and wind speed greater than 2 m/s at 10 m above ground level; and
c) stability category G temperature inversion conditions.
This criteria does not apply where the Proponent and an affected landowner have reached a negotiated agreement in regard to noise, and a copy of the agreement has been forwarded to the Director-General and the EPA.</td><td>Meteorological conditions to which the above criteria apply have been included in Section 6.3.5.3 of the approved OEMP</td><td>Ongoing</td><td>Complies</td></tr>
<tr><td>E8.</td><td>To determine compliance with the $L_{Aeq(15\ minute)}$ noise limits, the noise monitoring equipment must be located at the most affected point:
a) within 30 m of a dwelling façade where any dwelling on the property is situated more than 30 m from the property boundary that is closest to the premises; or
b) approximately on the boundary where any dwelling is situated 30 m or less from the property boundary that is closest to the premises.</td><td>Addressed in Section 6.3.5.4 of the approved OEMP.</td><td>Ongoing</td><td>Complies</td></tr>
</table>

Ref.	Description	Comment	Completion Date	Status
E9	For the purposes of monitoring noise from the premises to determine compliance with the noise limits: a) Class 1 or 2 noise monitoring equipment as defined by AS IEC61672.1- 2004 and ASIEC61672.2-2004, or other noise monitoring equipment accepted by the EPA in writing, must be used; b) the modification factors in Section 4 of the NSW Industrial Noise Policy must be applied, as appropriate, to the noise levels measured by the noise monitoring equipment; c) the meteorological data to be used for determining meteorological conditions is the data recorded by the meteorological weather station at the premises; and d) stability category temperature inversion conditions are to be determined by the sigmatheta method referred to in Part E4 of Appendix E to the NSW Industrial Noise Policy.	Addressed in Section 6.3.5.4 of the approved OEMP.	As required	Complies
E10	The Proponent shall implement measures to ensure noise attenuation of trucks. These measures may include, but are not necessarily limited to, installation of residential class mufflers, engine shrouds, body dampening, speed limiting, fitting of rubber stoppers to tail gates, limiting the use of compression braking, and ensuring trucks operate in a one-way system at the ash placement areas where feasible.	The plant and equipment mitigation measures have been included in items 9 to 15 of Table 6-3. No noise complaints have been received for the first year of operation of Lamberts North.	Ongoing	Complies
Operational Noise Review				
E11	Within 60 days of the commencement of operation of the project, unless otherwise agreed to by the Director-General, the Proponent shall submit to the Director General an **Operational Noise Review** to confirm the operational noise impacts of the project. The Operational Noise Review shall be prepared in consultation with the EPA. The Review shall: a) identify the appropriate operational noise objectives and levels for sensitive receivers; b) describe the methodologies for noise monitoring, including the frequency of measurements and location of monitoring sites; c) document the operational noise levels at sensitive receivers as ascertained by the noise monitoring program;	The *Operation Review Report* prepared by Aurecon and dated 8 October 2013 was sighted. The report was submitted to Planning and Environment on 09/10/2013 (letter sighted) and the EPA on 10/10/2013 (letter sighted) for review. Comments were received back from EPA in a letter dated 29/11/2013 was also sighted. Section 3 of the Operation Review Report. Section 4 of the Operation Review Report. Section 5 of the Operation Review Report.	09/10/2013	Complies

Ref.	Description	Comment	Completion Date	Status
	d) assess the noise performance of the project against the noise criteria specified in condition E7 of this approval and the predicted noise levels as detailed in the report referred to under condition A1(b) of this approval; and e) provide details of any entries in the Complaints Register relating to noise impacts.	Addressed in Section 5 of the Operation Review Report. No complaints regarding noise from Lamberts North in the first year of operation have been recorded.		
	Where monitoring indicates noise levels in excess of the operational noise criteria specified in condition E7 of this approval, the Proponent shall prepare a report as required by condition E13 of this approval.	The report concluded that the operational noise resulting from the operation of equipment and mobile plant at the Lamberts North site comply with the criteria specified in condition E7 at the representative residential receivers at Location 1 and Location 2. No report was required to be prepared.	NA	Not applicable to the first year of operation
Ongoing Operational Noise Monitoring				
E12.	The Proponent shall prepare and implement an **Operational Noise Monitoring Program** to assess compliance against the operational noise criteria stipulated in condition E7 of this approval, throughout the life of the project. The noise monitoring program shall be prepared in consultation with the EPA and must include the proposed frequency of monitoring and as a minimum must include monitoring when there are any significant changes in work locations or processes. The noise monitoring program shall be prepared in accordance with the requirements of the *New South Wales Industrial Noise Policy* (EPA, 2000) and shall include, but not be limited to: a) monitoring at Lamberts North, Lamberts South and Blackmans Flat during ash placement activities; and b) monitoring of the effectiveness of any noise mitigation measures implemented under condition D3(a) of this approval, against the noise criteria specified in condition E7 of this approval.	A noise monitoring program is included in Table 6-5 of the approved OEMP. Six monthly monitoring is required – generally in March and September of each year. The first 6 monthly report prepared by Aurecon and dated March 2014 was sighted. Compliance with criteria was shown in Table 7 (page 13) of the report. The maximum predicted noise was 38 dBA at Blackman's Flat and 33 dBA at Wallerawang – both below the day time limit of 42 dBA. Noise monitoring was planned to be undertaken on 14-15 September for the next 6-monthly report. Monitoring is also required to investigate any complaints. No complaints have been received in the first year of operation. The two closest sensitive receivers are identified as being at Blackmans Flat and Wallerawang and are located within 3.3 km of Lamberts North site. Monitoring has been undertaken at the locations in accordance with the OEMP. Predicted noise contributions are included in Section 5 of the March 2014 report.	07/05/2013 (as part of the approved OEMP)	Complies

Ref.	Description	Comment	Completion Date	Status
	The Proponent shall forward to the EPA and the Director-General a report containing the results of any non-compliance within 14 days of conducting a noise assessment. The monitoring program shall form part of the Operational Noise Management Plan referred to in condition D3 (a) of this approval.	The March 2014 report states that the operational noise resulting from the operation of equipment and mobile plant at the Lamberts North site complies with the criteria specified under condition E7 at the representative residential receivers at Location 1 and Location 2. As such no non-compliance was reported to the Director General.	NA	Not applicable for the first year of operation
E13.	Where noise monitoring including as required by condition E11 and E12 of this approval identifies any non-compliance with the operational noise criteria specified under condition E7 of this approval the Proponent shall prepare and submit to the Director-General a report including, but not limited to: a) an assessment of all reasonable and feasible physical and other mitigation measures for reducing noise at the source; b) identification of the preferred measure(s) for reducing noise at the source; c) feedback from directly affected property owners and the EPA on the proposed noise mitigation measures; and d) location, type, timing and responsibility for implementation of the noise mitigation measure(s). The report is to be submitted to the Director-General within 60 days of undertaking the noise monitoring which has identified exceedances of the operational noise identified under condition E7, unless otherwise agreed to by the Director- General. The Proponent shall implement all reasonable and feasible mitigation measures in accordance with the requirements of the Director-General.	The March 2014 report states that the operational noise resulting from the operation of equipment and mobile plant at the Lamberts North site complies with the criteria specified under condition E7 at the representative residential receivers at Location 1 and Location 2. No additional assessment of non-compliance was required.	NA	Not required during the first year of operation
E14.	If after the implementation of all reasonable and feasible source controls, as identified in the report required by condition E13, the noise generated by the project continues to exceed the criteria stipulated in condition E7 the Proponent shall implement at the receiver reasonable and feasible noise mitigation measures, such as double glazing, insulation, air conditioning and or other building acoustic treatments, in consultation with and with the agreement of the affected landowner.	The March report states that the operational noise resulting from the operation of equipment and mobile plant at the Lamberts North site comply with the criteria specified under condition E7 at the representative residential receivers at Location 1 and Location 2. No additional assessment of non-compliance was required.	NA	Not required during the first year of operation

Ref.	Description	Comment	Completion Date	Status
Groundwater Monitoring				
E15	The Proponent shall prepare and implement a **Groundwater Monitoring Program** to monitor the impacts of ash placement activities on local groundwater quality and hydrology. The Program shall be developed in consultation with the SCA, and shall describe the location, frequency, rationale and procedures and protocols for collecting groundwater samples as well as the parameters analysed and methods of analysis. The monitoring program shall be ongoing for the operation of the project and for a minimum of 5 years following project completion and include, but not be limited to:	The Groundwater Monitoring Program has been included in Section 6.4.3 of the approved OEMP.	07/05/2014 (part of the approved OEMP)	Complies
	a) monitoring at established bore sites (or replacement bore sites in the event that existing sites are damaged or lost) as described in the Groundwater Management Plan as per condition D3(b); and	Five new borehole sites were established for the project. These are identified as D15, D16, D17, D18 and D19. Licences for the boreholes were obtained and are discussed in more detail in Section 4.2. Monitoring data for boreholes D15-D19 was sighted.	09/07/2012	Complies
	b) a schedule for periodic monitoring of groundwater quality, depth and flow at all monitoring sites, at an initial frequency of no less than once every month for the first 12 months of operation.	The monitoring programme states that monitoring will be undertaken monthly for first 12 months to establish baseline data, then every 3 months thereafter. Monthly monitoring data for the above boreholes was sighted.	07/05/2013 (part of the approved OEMP)	Complies
	The monitoring program shall form part of the Groundwater Management Plan referred to in condition D3(b) of this approval.	The Groundwater Monitoring Program has been included in the Groundwater Management Plan which is included in Section 6.4 of the approved OEMP.	07/05/2014 (part of the approved OEMP)	Complies
Surface Water Quality Monitoring				
E16	The Proponent shall prepare and implement a **surface water quality monitoring program** to monitor the impacts of the ash placement activities on Neubecks Creek and Lamberts Gully. The Program shall be developed in consultation with the DPI (Fisheries) and the SCA, and shall describe the location, frequency, rationale and the procedures and protocols for collecting water samples as well as the parameters analysed and methods of analysis. The program shall include, but not necessarily be limited to:	The Soil and Surface Water Management Plan is included in Section 6.5 of the approved OEMP. The plan includes a monitoring programme which is included in Table 6.21 of the approved OEMP.	07/05/2014 (part of the approved OEMP)	Complies

Ref.	Description	Comment	Completion Date	Status
	a) monitoring at the existing water quality monitoring sites as described in the document referred to under condition A1b); b) monitoring at surface water discharge points from Lamberts Gully Creek; c) monitoring at surface water discharge points into Neubecks Creek;	Flow and water quality monitoring is undertaken at LDP01, the final holding pond monitoring station to Neubecks Creek, (as required by the EPL) and at NC01 and WX22 as required by the OEMP. Monthly monitoring data for LDP01, NC01 and WX22 was sighted.	07/05/2014 (part of the approved OEMP) Ongoing	Complies
	d) wet weather monitoring with a minimum of two events recorded within the first 12 months operation of the project; and	Two high rainfall measurements were recorded in March 2014 and October 2013. Monitoring data for these two months was sighted,	23/10/2013 05/03/2014	Complies
	e) a schedule for periodic monitoring of surface quality at all sites throughout the life of the project, at an initial frequency of no less than once every month for the first 12 months and must include, but not be limited to, monitoring of dissolved oxygen, turbidity, sulphates, salinity, boron, manganese, iron chloride, total phosphorus and total nitrogen.	Surface water monitoring is undertaken LDP01, NC01 and WX22. Monitoring data shows that monitoring of turbidity, sulphates, salinity, boron, manganese, iron chloride, total phosphorus and total nitrogen and additional trace elements are recorded on a monthly basis at all three sites.	Ongoing	Complies
Hydrological Monitoring Program				
E17.	A **Hydrological Monitoring Program** to assess and quantify the impacts and effectiveness of the transformed section of Huons Creek into a sub-surface drainage line in consultation with the DPI (Fisheries). Monitoring is to be undertaken for a period of five (5) years upon completion of the creek transformation. The program must include sampling for identified pollutants before and after the transformation works and include a sampling site downstream of the sub-surface section of Huons Creek. In the first 12 months following completion of the transformation, monitoring is to be undertaken at least every three (3) months upon completion of the creek transformation and after any heavy wet weather event.	Huons Creek was filled when construction of the Lambert North commenced and as such was not developed as a sub surface drain as was originally proposed in the EA. A Consistency Report (June 2012) for the change in design was prepared by SKM. The report states that the groundwater modelling undertaken during construction of Lamberts North demonstrated that the water in Huons drain was largely groundwater as a result of the Huon Void intersecting the groundwater table. Based on this the hydrological monitoring was included in the Groundwater Management Plan. The consistency report was submitted to the Department of Planning on 30/07/2012.	NA	Not applicable
	The monitoring program shall form part of the **Soil and Surface Water Management Plan** referred to in condition D3(c) of this approval.	See comment above. Hydrological monitoring has been incorporated into the Groundwater Management Plan.	NA	Not applicable

Ref.	Description	Comment	Completion Date	Status
Air Quality Monitoring				
E18.	The Proponent shall prepare an **Air Quality Monitoring Program**, in consultation with the EPA and NSW Health. The Program shall include, but not necessarily be limited to, monitoring for dust. Monitoring sites shall be identified as per condition D3 (d).	The Air Quality Monitoring Program is included in Section 6.6.6 of the approved OEMP. A TEOM station is located near the northern embankment of Lamberts North (See Plate 1) and four dust gauges are located in the vicinity of Lamberts North (DG22, DG 24, DG23 and DG19). Plate 2 shows DG23.	07/05/2014 (part of the approved OEMP)	Complies
	The air quality monitoring program shall be ongoing for the life of the project, and during final rehabilitation and stabilisation of the site.	The Air Quality Monitoring Program states that air quality monitoring will be undertaken for the life of the project. The first 12 months of operation will determine whether additional monitoring stations are required as a result of the project. Monthly TEOM data and monthly dust gauge data was sighted.	Ongoing	Complies
	The monitoring program shall form part of the Air Quality Management Plan referred to in condition D3(d) of this approval.	The Air Quality Monitoring Program is included in Section 6.6 of the approved OEMP, which is the Air Quality Management Plan.	07/05/2014 (part of the approved OEMP)	Complies
Environmental Incident Reporting				
E19.	The Proponent shall notify the Director-General of any environmental incident within 12 hours of becoming aware of the incident. The Proponent shall provide full written details of the incident to the Director-General within seven days of the date on which the incident occurred.	Environmental incident response procedure is covered in Section 3.9.2 of the approved OEMP. The procedure requires that following a major (reportable) incident, the ER, EPA and Planning and Environment will be notified immediately and a full written report is provided within 7 days. No environmental incidences or complaints associated with Lamberts North have been recorded in the first year of operation.	Ongoing	Not applicable for the first year of operation
E20.	The Proponent shall meet the requirements of the Director-General to address the cause or impact of any environmental incident, as it relates to this approval, reported in accordance with condition E19 of this approval, within such period as the Director-General may require.	As Above	Ongoing	Not applicable for the first year of operation

Ref.	Description	Comment	Completion Date	Status
Annual Performance Reporting				
E21.	The Proponent shall, throughout the life of the project, prepare and submit to the Director-General, an **Annual Environmental Management Report (AEMR)**. The AEMR shall review the performance of the project against the Operation Environmental Management Plan (refer to condition D2 of this approval) and the conditions of this approval.	The AEMR for the first year of operation is due in November 2014 and as such was not available for review during the audit	Due November 2014	Not available at the time of the audit
E21.	The Proponent shall submit a copy of the AEMR to the Director-General every year, with the first AEMR to be submitted no later than fourteen months after the commencement of operation of the project unless otherwise agreed by the Director-General. The Director-General may require the Proponent to address certain matters in relation to the environmental performance of the project in response to the Director-General's review of the Annual Environmental Management Report. Any action required to be undertaken shall be completed within such period as the Director-General may require. The Proponent shall make copies of each AEMR available for public inspection on request. Copies of the AEMR shall be sent to the EPA and the SCA.	The AEMR for the first year of operation is due in November 2014 and as such was not available for review during the audit	Due November 2014	Not available at the time of the audit
Independent Environmental Auditing				
E22	Within 12 months of commencement of operation of Lamberts North and Lamberts South and then as may be directed by the Director-General, the Proponent shall commission an independent person or team to undertake an Environmental Audit of the project. The independent person or team shall be approved by the Director-General prior to the commencement of the Audit. The Audit shall: a) be carried out in accordance with ISO 19011:2002 - Guidelines for Quality and or Environmental Management Systems Auditing; b) assess compliance with the requirements of this approval, and other licences and approvals that apply to the project; c) assess the environmental performance of the project against the predictions made and conclusions drawn in the documents referred to under condition A1 of this approval; d) review the effectiveness of the environmental management of the project, including any environmental impact mitigation works; and e) review the adequacy of the Proponent's response to any complaints made about the project identified in the Complaints Register.	This report addresses this Conditions of Approval. See Section 3 of the report. See Section 4 and Appendix A of this report. See Section 5 and Appendix B of this report. See Section 6 and Appendix C of this report. See Section 7 of this report.	26/09/2014	Complies

Ref.	Description	Comment	Completion Date	Status
	The Environmental Audit Report shall be submitted to the Director-General within two months of the completion of the Audit, detailing the findings and recommendations of the Audit and including a detailed response from the Proponent to any of the recommendations contained in the Report.	The report was submitted to Planning and Environment on 26/09/2014.	26/09/2014	Complies
Waste Generation and Management				
E23.	All waste materials removed from the site shall only be directed to a waste management facility lawfully permitted to accept the materials.	All material not licenced for disposal under the EPL is managed by Cleanaway waste contractor and is managed by EnergyAustralia. Lend Lease waste is also managed in the same way. A waste register from Cleanaway was sighted.	Ongoing	Complies
E24.	The Proponent shall not cause, permit or allow any waste generated outside the site to be received at the site for storage, treatment, processing, reprocessing, or disposal on the site, except as expressly permitted by a licence under the Protection of the Environment Operations Act 1997, if such a licence is required in relation to that waste.	All material not licenced for disposal under the EPL is managed by Cleanaway waste contractor. A waste register from Cleanaway was sighted.	Ongoing	Complies
E25.	The Proponent shall ensure that all liquid and / or non-liquid waste generated and / or stored on the site is assessed and classified in accordance with the Waste Classification Guidelines (DECC, 2008), or any future guideline that may supersede that document.	All material not licenced for disposal under the EPL is managed by Cleanaway waste contractor. A waste register from Cleanaway was sighted. The waste is classified in accordance with the EPA Guidelines.	Ongoing	Complies

Appendix B
Environmental performance against predictions

Table B1: Predicted environmental impacts of operations

Item		Predicted environmental impact for operations	Results / Discussion
Aspect: Air Quality			
1.	Totals Suspended Solids	• Predicted annual average TSP concentrations show that the annual 90 µg/m^3 criterion contour does not extend beyond the site boundary for the proposal. • All sensitive receivers are predicted to experience an incremental increase in the annual TSP concentration of less than 6 µg/m^3, with the highest TSP concentration (5.3 µg/m^3) occurring at sensitive receptor one (1). • These results are well below DECCW criterion of 90 µg/m^3, even when added to the assumed annual average background TSP concentration of 32 µg/m^3. • The model predictions suggest that there will be no adverse impacts, in terms of TSP concentrations, on the nearest sensitive receivers.	TEOM data for the period from 01/01/2012 to 31/08/2014 was reviewed. There was one daily exceedance of the 90 µg/m^3 criteria 14/02/2012, which occurred before Lamberts North was operational. The monthly average data is well below the 90 µg/m^3 criteria. The daily and monthly data suggests that the actual impact on the sensitive receivers is no more than what was predicted. The average monthly data for the 01/01/2012 to 20/08/2013 was estimated to be about 14 µg/m^3 while the average monthly data from the commencement of ash placement at Lamberts North to 31/08/2014 was estimated to be about 11.4 µg/m^3 and are well below OEH (was DECCW) criterion of 90 µg/m^3
2.	Particulate matter (PM_{10})	• Predicted maximum 24-hour average concentrations show that the 50 µg/m^3 criterion contour may extend beyond the site boundary for the proposed expansion at Lamberts South. • Sensitive Receiver 1 is predicted to experience the highest maximum 24-hour average concentration of 15.6 µg/m^3, which is well below the criterion. • No sensitive receivers are predicted to exceed 34 µg/m^3, taking this conservative approach. • Predicted annual average PM_{10} concentrations indicate that the 30 µg/m^3 criterion contour slightly exceeds the Lamberts North boundary.	TEOM data for the period from 01/01/2012 to 31/08/2014 was reviewed. From the time that Lamberts North was operational (20/08/2013), there were three days when the daily criteria of 50 µg/m^3 was exceeded. The monthly average data was well below the 50 µg/m^3 criteria. The daily and monthly data suggest that the actual impact on the sensitive receivers is no more than what was predicted.

Item		Predicted environmental impact for operations	Results / Discussion
3.	Particulate matter (PM_{10})	• All sensitive receivers are predicted to experience an annual PM_{10} concentration of less than 30 µg/m^3 with the highest incremental increase predicted to be 4.5 µg/m^3 at sensitive receiver 1.	TEOM data for the period from 01/01/2012 to 31/08/2014 was reviewed. From the time that Lamberts North was operational (20/08/2013) the average monthly data was found to be well below the 30 µg/m^3 criteria. The daily and monthly data suggest that the actual impact on the sensitive receivers is no more than what was predicted.
4.	Deposited dust	• Predicted annual average dust deposition results indicate that the 2 g/m^2/month contour (maximum increase) extends slightly beyond the site boundary, east of Lamberts North and Lamberts South. • All sensitive receivers are predicted to experience less 2 g/m^2/month of deposited dust due to the proposal. • The 4 g/m^2/month (maximum total) criterion contour is within the site boundary. When the assumed background concentration of 1.2 g/m^2/month is added to the predicted concentration at the sensitive receivers it can be seen that all sensitive receivers experience a deposited dust concentration well below the 4 g/m^2/month (maximum total). • These model predictions suggest that there will be no adverse impacts on sensitive receivers, in terms of dust deposition.	The OEMP identifies dust gauges (DG) #19, #22, #23 – Castlereagh Highway between Boulder road and Blackmans flat Village, GD#20 on the corner of Boulder Rd/ Castlereagh Highway and DG#21 at the Mt Piper entrance on Boulder Road. The dust collected in the dust gauges is classified into insoluble, ash and combustibles in order to determine whether the ash placement impacts the dust deposition in the area. A review of the dust gauge data from 01/09/2013 to 31/08/2014 for the five nominated dust gauges has suggested the total dust mass measured at each gauge has been well below the 4 g/m^2/month (maximum total). The total dust deposition mass in DG#21 and DG#22 exceed the 2 g/m^2/month in February 2014 and November 2013 respectively, but following classification of the dust, the ash content was shown to also be below the 2 g/m^2/month criteria. Based on this data, the actual impacts appear to be consistent with what was predicted in the Environmental Assessment and that there will be no adverse impacts on sensitive receivers, in terms of dust deposition. In addition no complaints related to dust issues have been recorded.
5.	Odour	• The project emissions are unlikely to cause exceedances of air quality criteria for ash contaminant and odour at all ground-level locations.	Brine has a distinctive odour, which is sometimes obvious during placement however no odour issues and / or complaints have been recorded.

<table>
<tr><th>Item</th><th></th><th>Predicted environmental impact for operations</th><th>Results / Discussion</th></tr>
<tr><td colspan="4">Aspect: Noise</td></tr>
<tr><td>6.</td><td>Predicted noise levels at sensitive receiver locations Lamberts North – neutral condition

Predicted noise levels at sensitive receiver locations Lamberts North – adverse conditions</td><td>Under neutral weather conditions, the operation of the ash placement areas for Lamberts North indicate that compliance with the noise goals would generally be expected for both day time and evening periods.
<table>
<tr><th>Receiver</th><th>Assessment Period</th><th>Noise Goal dB(A)</th><th>Initial Stage</th><th>Mid Stage</th><th>Final Stage</th></tr>
<tr><td>Location 1</td><td>Daytime
Evening</td><td>49
38</td><td>37</td><td>37</td><td>38</td></tr>
<tr><td>Location 2</td><td>Daytime
Evening</td><td>38
38</td><td>34</td><td>35</td><td>35</td></tr>
</table>
At Lamberts North, the predicted noise levels under adverse meteorological conditions indicate general compliance during the daytime for both locations, with a marginal exceedance possible during the latter stages at Location 2.
<table>
<tr><th>Receiver</th><th>Assessment Period</th><th>Noise Goal dB(A)</th><th>Initial Stage</th><th>Mid Stage</th><th>Final Stage</th></tr>
<tr><td>Location 1</td><td>Daytime
Evening</td><td>49
38</td><td>39</td><td>40</td><td>41</td></tr>
<tr><td>Location 2</td><td>Daytime
Evening</td><td>38
38</td><td>37</td><td>38</td><td>39</td></tr>
</table>
The same result is again expected at Location 2 for the evening period, although an exceedance of up to about 3 dB(A) is possible at Location 1 during this time.</td><td>The table below compares the monitoring/predicted results of the attended noise monitoring undertaken in September 2013 and March 2014

Table B1-1
<table>
<tr><th>Receiver</th><th>Monitoring Day time (7:00-18:00)</th><th>Predicted neutral conditions</th><th>Predicted adverse conditions</th></tr>
<tr><td>Limit</td><td>42 dBA</td><td></td><td></td></tr>
<tr><td colspan="4">March 2014</td></tr>
<tr><td>Location 1</td><td>38</td><td>37</td><td>39</td></tr>
<tr><td>Location 2</td><td>33</td><td>34</td><td>37</td></tr>
<tr><td colspan="4">September 2013</td></tr>
<tr><td>Location 1</td><td>41</td><td>37</td><td>39</td></tr>
<tr><td>Location 2</td><td>36</td><td>34</td><td>37</td></tr>
</table>
As there were no activities during evening and night time periods, background noise measurement undertaken during the site visits are shown below:

Table B1-2
<table>
<tr><th>Location</th><th>Evening (6pm to 10pm)</th><th>Night (10pm to 7am)</th></tr>
<tr><td colspan="3"></td></tr>
<tr><td colspan="3">March 2014</td></tr>
<tr><td>Location 1</td><td>33</td><td>35</td></tr>
<tr><td>Location 2</td><td>36</td><td>41</td></tr>
<tr><td colspan="3">September 2013</td></tr>
<tr><td>Location 1</td><td>41</td><td>41</td></tr>
<tr><td>Location 2</td><td>45</td><td>44</td></tr>
</table>
Noise emissions from operational activities must not exceed the criteria defined in Conditions of Approval E7 D3a(ii). The criteria are also listed in Tables B1-1 and B1-2.

The results shown in these tables are based on the worst case scenario, which includes six pieces of equipment operating simultaneously at Lamberts North. Noise levels were calculated (based on sound propagation through geometric spreading) at a distance based on worst case noise emission levels (i.e. maximum sound power levels) without considering any barrier effects from the undulating surrounding terrain.

The attended noise measurement show that the noise levels are generally in line with the predicted levels under neutral and adverse conditions for both locations. The September 2013 level at location 1 was found to be 2 dBA higher than the level predicted during adverse conditions, but the March level was however recorded as being 1 dBA less than level predicted during adverse conditions. Evening and night time limits are also included in Conditions of Approval E7 D3a(ii), however no operations are permissible after 18:00, unless in an emergency.

Both the September 2013 and March 2014 reports confirm that the operational noise resulting from the operation of equipment and mobile plant at the Lamberts North site comply with the OEMP noise limits at the representative residential receivers at Location 1 and Location 2.</td></tr>
</table>

Item		Predicted environmental impact for operations	Results / Discussion
Aspect: Surface and groundwater management			
7.	Water availability due to reduced catchments	The water balance modelling predicts there will be suitable water availability to supply the rehabilitation and dust suppression demand for the proposed ash placement facility by the water harvested from the disturbed areas of the sites.	There is currently enough water available for ash placement operations. Cooling water is currently used for dust suppression, but other sources of irrigation water include the coal plant settling ponds and the ash settling and washdown ponds located adjacent to the cooling towers within the Mt Piper Power Station site.
8.	Groundwater quality	Water quality in the groundwater is due primarily to the existing water quality from coal mine workings. Sulphate, boron, nickel, manganese and iron are naturally elevated in the area due to the local mineralisation. Elevated trace elements concentrations are particularly evident at bores which are adjacent to areas of mine coal pillars (goaf). The effect of the underground mine water quality is reflected in the values for the groundwater collection basin, notably in the higher sulphate and boron. Trace elements such as nickel and zinc are also elevated in these areas	Groundwater quality continues to be assessed on an annual basis for the Mt Piper site and a groundwater assessment specifically to assess the groundwater quality in boreholes D15, D16, D17, D18, D19 and potential impacts from Lamberts North will be available in early November 2014 and as such was not available for review during the audit.
9.		Chloride is regarded as an indicator of brine leachates, and the low chloride concentrations in the groundwater bores indicate no significant effects on the local groundwater from the existing brine conditioned ash;	No brine conditioned ash is currently being placed on Lamberts North and is not likely to be placed there for the foreseeable future. However, the chloride will continue to be monitored as part of the groundwater monitoring program to assess if there are any changes in the groundwater quality as a result of the ash placement activities.

Item		Predicted environmental impact for operations	Results / Discussion
10.	Water quality – the ash placement facility would generate water contaminated by sediment	Site water management system would be designed to manage the water from the site and minimise the risk of affecting the water quality of Neubecks Creek and Coxs River: • Separating clean water from undisturbed catchments and dirty water on the site • Managing the dirty water generated on site, based on the contaminants including sediment dams for runoff containing sediment laden water and a dirty water area for water containing runoff from the exposed ash placement areas • Allowing no regular controlled releases from the site • Reusing the water generated on site to satisfy the demands for rehabilitation and dust suppression • Allowing water releases from sedimentation dams only in large rainfall events after the water has been treated through the dams.	Measures are in place to: • Separate clean water from undisturbed catchments and dirty water on the site. See Plate 10and Plate 11 showing drainage channels and batters. • Sediments basins/clean water ponds are also used on site Plate 8. • No controlled releases of water have occurred during the first year of operation. • Water is generally reused on site as note in item 16 above.
11.	Flooding regime of the local creeks	Flooding regime of the local creeks modified due to changes in landform of the area to include the proposed ash placement facility The site water management system would include diversion drains to separate clean water from undisturbed catchments upstream of the proposed ash placement facility. The diversion drains would be designed to convey the 100 year ARI flood event.	No issues with flooding have been identified during the first year of operation.
12.	Groundwater – water quality in bores	On-going monitoring and modelling studies show that the main contribution to elevated water quality parameters in Neubecks Creek is due to past, underground coal mining activities rather than the existing ash placement works at Area 1 or the operation of Mt Piper Power Station.	The Environmental Assessment (SKM, 2010) identified that there were elevated levels of sulphate, boron, nickel, manganese and iron, and there were effects of underground mining on the water quality in Huons Void. Groundwater quality continues to be assessed on an annual basis for the Mt Piper site and a groundwater assessment specifically to assess the groundwater quality in boreholes D15, D16, D17, D18, D19 and potential impacts from Lamberts North will be available in early November 2014 and as such was not available for review during the audit.

Item		Predicted environmental impact for operations	Results / Discussion
13.		Present disposal practices require the brine conditioned ash to be placed 35-40 m above the water table (at 946 m AHD). Groundwater quality results and modelling suggest that this practice is sufficient to ensure brine does not leach through to the groundwater.	There has been no placement of brine conditioned ash at Lamberts North. It is also unlikely that this will be required at least for the foreseeable future.
14.		Continuing this practice of placing brine conditioned ash at an appropriate height would allow for groundwater quality to be unaffected by ash placement in Lamberts North (at 946m AHD) and Lamberts South (956m AHD).	There has been no placement of brine conditioned ash at Lamberts North. It is also unlikely that this will be required at least for the foreseeable future.
15.	Surface water impacts	The management of works at the existing Area 1 is appropriate to minimise the risk of a discharge from the construction and operation of the active ash placement areas. A continuation of these practices in the Lamberts North would be enough to ensure that ash placement has limited if any effects on the water quality of Neubecks Creek.	Lend Lease has used the same ash placement techniques as that used on Mt Piper Area 1 to minimise surface water impacts. The AEMR report was not available for the first year of operation, no information was readily available regarding the potential impacts on Neubecks Creek.

<table>
<tr><th>Item</th><th></th><th>Predicted environmental impact for operations</th><th>Results / Discussion</th></tr>
<tr><td>16.</td><td></td><td>Water quality monitoring concentrations would be in accordance with the ANZECC/ARMCANZ (2000) guidelines for protection of aquatic ecosystems.
Electrical conductivity can be elevated at all sites, although immediately downstream of the existing ash Area 1 it falls within guidelines;
Chloride ion levels are consistently low where measured;
Metal concentrations are often below criteria, but are shown to be elevated in Neubecks Creek immediately downstream of the existing ash area (particularly silver, arsenic, cadmium, chromium, copper and zinc), at the site upstream of the existing ash area (silver and aluminium) and at downstream sites associated with the existing mine operations (manganese and zinc). The increased manganese and zinc indicated that the flow in Neubecks Creek was dominated by groundwater inflows during the dry weather rather than catchment runoff. The local groundwater is elevated in these metals due to the acid sulphate conditions in the local underground mine waters.</td><td>Water quality in the three sites was also analysed for the six monthly aquatic ecology monitoring program. The Neubecks Creek - Ecological Monitoring Project Aquatic Ecosystem Annual Report 2012-2013 states that several water quality parameters have been monitored, to establish a ‘baseline’ and to identify any changes in water quality that may occur. The report states that some water quality parameters tend to be high, and are sometimes above the ANZECC (2000) Guidelines for freshwater ecosystem protection (for the protection of 95% of freshwater species).

The Environmental Assessments (SKM,2010) concluded that the main contribution to elevated levels of some water quality parameters in Neubecks Creek is the past underground coal mining activities, rather than the existing ash placement works or the operation of Mt Piper Power Station, however, surface water monitoring will continue to be undertaken as required for the Mt Piper Power Station operation and will be reported in the quarterly ecology reports.

The AEMR report was not available for the first year of operation so no additional information was readily available regarding the potential impacts on Neubecks Creek. However a quick review of the surface monitoring locations ie LDP01, NC01 and WC22 against the surface water ANZECC guidelines provided in the OEMP was undertaken. Only the data shown in the table below was reviewed, but monitoring of various trace elements is also undertaken as part of the ongoing monitoring program.

From the table below, it appears that water quality is within the specified ANZECC guidelines.
<table>
<tr><th></th><th>ANZECC</th><th>LDP01</th><th>NC01</th><th>WX22</th></tr>
<tr><td>pH</td><td>6.8 to 8</td><td>7.8</td><td>7</td><td>7.2</td></tr>
<tr><td>Conductivity</td><td>2200</td><td>425</td><td>360</td><td>684</td></tr>
<tr><td>TDS</td><td>1500</td><td>278</td><td>218</td><td>462</td></tr>
<tr><td>Cl</td><td>350</td><td>11</td><td>11</td><td>31</td></tr>
<tr><td>SO4</td><td>1000</td><td>120</td><td></td><td></td></tr>
</table>
NOTE: EnergyAustralia NSW will undertake a more detailed assessment of the data and will prepare the necessary reports in accordance with the Conditions of Consent and EPL requirements.</td></tr>
<tr><td colspan="4">Aspect: Ecology</td></tr>
<tr><td>17.</td><td>Threatened species, endangered communities or their habitats</td><td>The proposed ash placement of the Mt Piper power station into areas included in the field surveys is unlikely to impose a ‘significant impact’ on local populations of threatened species, endangered communities or their habitats. This conclusion is based on consideration of the extent of comparable habitat available to local populations of the threatened species.</td><td>The Land Management Plan, dated 23/01/2014, includes a chapter about ecology and management of ecology. Works have not imposed a ‘significant impact’ on local populations of threatened species, endangered communities or their habitats and as such the actual impacts are consistent with what was predicted in the Environmental Assessment.</td></tr>
</table>

Item		Predicted environmental impact for operations	Results / Discussion
18.	Matter of NES	The proposal would not impact significantly on nationally threatened species or International migratory species or World Heritage Areas as listed under the EPBC Act in areas included in the field survey.	The *Land Management Plan,* (dated 23/01/2014) includes a chapter about ecology and management of ecology. Works have not impacted significantly on nationally threatened species or International migratory species or World Heritage Areas. The actual impacts are consistent with the predicted impacts.
19.	Offsets	An appropriate mitigation measure would be to provide a habitat offset of 1:1 which would contain a habitat of similar structure and complexity to that being removed.	A *Biodiversity Offset Management Plan* was submitted to the Planning and Environment but was rejected in May 2013. EnergyAustralia are currently working on 1:1 offset as determined by OEH. No due date specified.
Aspect: Heritage			
20.	Aboriginal heritage	No Aboriginal sites would be affected at Lamberts North or Lamberts South study areas as part of the Mt Piper Ash Placement Project. The proximity of the two previously recorded sites will require the use of appropriate measures to avoid any inadvertent impact.	As actual impacts on Aboriginal sites will be no greater than impacts assessed in the Environmental Assessment. It is noted however, that the Environmental Assessment (SKM, August 2010) lists AHIMS sites that have been labelled with “permit to destroy”. The Land Management Plan (23/01/2014) also includes a list of AHIMS items. However these sites were not identified by site number and it unclear whether these are the same sites previously identified. It is prudent to ensure that the sites are correctly identified and consistent with what was identified in the Environmental Assessment to ensure that the sites are no inadvertently impacted in the future. **Recommendation** It is recommended that the Land Management Plan is updated with most up to date record of AHIMS sites.
21.	Non-Aboriginal heritage	Given the high levels of disturbance of the Lamberts North and South Study Areas, it was expected that no items of non-Indigenous items of heritage would remain. The lack of non-Indigenous heritage items at this location is consistent with the fact that while Europeans have settled the general region for nearly 200 years (section 5.1), the area has since been extensively mined.	No new listings of non-Aboriginal heritage items within Lamberts North and South Study Areas have been identified which is consistent with the predicted impacts.
Aspect: Visual			
22.		It is evident that high visual impact would result on key location 3 due to the close proximity of the sensitive receiver to the proposed ash placement areas, although opportunities to mitigate this impact would include the planting of screening trees.	The Environmental Assessment suggested that there would a high visual impact on Location 3 due to the close proximity of the sensitive receiver to the proposed ash placement areas. Plate 3 shows the current rehabilitation efforts on the Lamberts North embankment closest to Castlereagh Highway with screening trees in the background. These efforts have minimised the visual impact from Location 3 therefore the actual impact is unlikely to be any worse than what was predicted.

Item		Predicted environmental impact for operations	Results / Discussion
23.		Locations 1, 2 and 4 would experience no visual impact, given that the proposed ash placement areas would not be viewed from these locations. Visual impacts from locations 5 and 6 would be low to moderate, given their proximity to the proposed development and existing land use.	The actual impacts on Locations 1, 2, 4, 5 and 6 is unlikely to be any worse than what was predicted in the Environmental Assessment. **Recommendation** It is however recommended that Figure 5.1 in the approved OEMP displays all visual impact locations. These are identified as viewpoints 1-6 in the original Environmental Assessment.
24.		For the finished profile of the sites, the ash placement areas are expected to appear greyish in colour from the viewpoint locations.	Currently, due to the ash placement being primarily below the level of the embankments within the Lamberts North, ash is not visible from Castlereagh Highway. The current view of Mt Piper Area 1 which appears greyish in colour from a distance suggests that the finished profiles of Lamberts North would be consistent with the predicted impacts.
Aspect: Other			
25.	Traffic	The road network surrounding the Mt Piper Power Station has significant spare capacity. The potential traffic impacts of the proposal relate to the movement of staff and construction equipment to and from the site and these impacts would be negligible.	No change to traffic movement or impact on road network has been experienced from that predicted in the original Environmental Assessment. In addition there have been no complaints from the local community regarding issues with vehicles from the Lambert North project.
26.	Landuse	Effectively there would be no change in land use at the sites and the land use proposed is consistent with the general land uses within the area – power generation, coal extraction. Residential development exists close to the proposed ash site at Lamberts North and the proposed development would not have any further effect on that existing land use.	The current Lamberts North operation is consistent with the land use for the area (ie power generation, coal extraction) and does not impact on the residential land use of Blackmans Flat and Wallerawang. This is consistent with what was predicted in the original Environmental Assessment.
27.	Operational waste	Waste generated from the operation of the ash placement activities would include: • Used oils, tyres, rags, packaging, oil drums and discarded components associated with on-site vehicle maintenance; • Paper and associated stationery waste associated with office activity.	Lend Lease small vehicle maintenance is conducted offsite in Portland. The large vehicles required for ash placement activities are serviced on site by Komatsu. All waste generated by these services are removed from site by Komatsu for appropriate disposal. Lend Lease maintain a waste register for material which can be disposed of within Mt Piper ash repository. Current operations are consistent with what was predicated in the original Environmental Assessment. These items are removed from site by Cleanaway in accordance EnergyAustralia NSW's requirements. A waste register from Cleanaway was sighted.

Appendix C
Effectiveness of Environmental Management

Table C1: Effectiveness of implemented mitigation measures and safeguards

Item	Control	Description	Effectiveness
Aspect: Operational Noise Mitigation Measures			
1.	Time of day operations	Operational activities associated with the project shall only be undertaken during the following hours (unless otherwise approved by the Director-General): • 6.00 am to 8.00 pm, Mondays to Fridays, inclusive; and • 6.00 am to 5.00 pm on Saturdays, Sundays and public holidays	This is a requirement of the Conditions of Approval. The daily operations sheet was sighted. The register indicates that of haulage of ash has occurred out of the operational hours. Hours of operation are also included in the Lend Lease induction. No noise complaints have been received regarding the Lamberts North ash placement operations.
2.	Noise monitoring	Ongoing noise monitoring shall be carried at a 6 month frequency from commencement of operation by a qualified noise specialist in accordance with Conditions of Approval E7, E8 and E9 and the EPA approved Operational Noise monitoring program.	Noise monitoring is being undertaken on a 6-monthly basis and is being undertaken by a qualified noise specialist. • *Lamberts North – Operational Noise Assessment September 2013 (Aurecon)* • *Lamberts North – Operational Noise Assessment March 2014 (Aurecon)* The next noise assessment is due to be undertaken 14-15 September 2013. The reports confirm that the operational noise resulting from the operation of equipment and mobile plant at the Lamberts North site comply with the OEMP noise limits at the representative residential receivers at Location 1 and Location 2. No noise complaints have been received regarding the Lamberts North ash placement operations.
3.	Records	Operation logs and control system data shall be kept to indicate hours of ash haulage.	Daily operation sheet for 31/08/2014 and 29/08/2014. Both sheets showed a start and end time for ash haulage. This is backed up by the control room operation logs.
4.		A complaints register including noise shall be maintained	Ellipse is used to monitor all incidents and complaints. This system has been discussed in more detail in Section 7.
5.	Training/inductions	Site inductions and ongoing training shall include information on potential noise issues of current operations.	Noise aspects, including sensitive receivers, noise limits and hours of operation for Lamberts North has been are included in the Lend Lease site induction
6.	Noise barriers	Where possible, noise barriers will be used to reduce noise impacts to sensitive receivers this may include but not limited to noise reducing benching.	The noise monitoring reports have indicated compliance with Conditions of Approval E7 noise limits. In addition no noise complaints regarding the Lamberts North operations have been recorded. As such no noise barriers have been required.

Item	Control	Description	Effectiveness
7.	Plant and equipment	All plant and equipment used on the Project shall meet the typical noise levels presented in Table A1 of AS 2436 • All equipment shall be adequately maintained and kept in good operating order. • All equipment shall be operated in an appropriate and efficient manner. • Use of rubber-tyred equipment where appropriate. • Maintenance of plant reversing alarms at the minimum safe level or alternate methods described in AS 2436, Section 3.5. • Noise reduction equipment will be applied to ash trucks where necessary as described in AS 2436, Section 4.5.3. • Drivers shall obey all existing haul road speed limits enforceable by either the principle contractor or EnergyAustralia NSW • Trucks will be routinely inspected and maintained to ensure the operational efficiency and implement the noise reduction devices or equipment as per point no. #14 of this sub plan.	Maintenance logs sighted. All vehicle maintenance is recorded in the MEX database which ensures that vehicles are maintained annually but also when defects are logged. Large ash haulage equipment (ie excavators, trucks etc) are maintained by Komatsu who are qualified contractors. Small vehicles are maintained off site in Portland. No noise complaints for Lamberts North operations have been recorded.
8.	Reporting	An Operational Noise Review shall be carried out to confirm the operational impacts of the project in consultation with the EPA. This shall be carried out in accordance with the Condition E11. To be completed with 60 days of commencement of operations.	An operational noise review was undertaken in September 2013 and confirmed that the Lamberts North operation comply with the limits set out in Conditions of Approval E7.
9.		A noise report shall be provided by a qualified noise specialist to identify results of noise monitoring survey – a report will be prepared for every noise monitoring survey.	Aurecon noise consultants were engaged to undertake the noise monitoring survey.
10.		EnergyAustralia NSW shall forward to the NSW EPA and the Director-General a report containing any non-compliance in relation to noise within 14 days of conducting the noise assessment.	Not applicable. Both the September 2013 and March 2014 reports indicate that the Lamberts North operations comply with operation comply with the limits set out in Conditions of Approval E7. Due to this no non-compliance has been reported.

Item	Control	Description	Effectiveness
11.	Emergency operations	EnergyAustralia NSW shall notify the EPA prior to undertaking any emergency ash haulage or placement operations outside the hours of operation (stipulated in section 1.3.1 of this plan). A log must be recorded and kept for any emergency ash haulage or ash placement activities.	To date, no emergency ash haulage has been required. It is notes that Lend Lease has an Emergency Plan within their Environmental Management Plans, however the emergency response does not specifically address for emergency situations where ash haulage will be required out of hours. Emergency incidents are logged through EnergAustralia NSW's Ellipse system. Lend Lease also maintain a record of any complaints received. **Recommendation** It is recommended that emergency ash haulage is included in the existing emergency plan to specially address items identified in Conditions of Approval E2-E6. This has been addressed in Table A4, item E2.
12.		EnergyAustralia NSW shall notify the Director-General in writing within seven days or undertaking any emergency ash haulage or operation stipulated in the condition E1 and Point #2 of this table	To date, no emergency ash haulage has been required therefore no reporting has occurred.
13.		EnergyAustralia NSW shall notify the nearby sensitive receivers as defined by this plan, prior to 8.00pm where it is known that emergency ash haulage or placement operations will be required outside the hours of operation.	EnergyAustralia NSW are responsible for communicating with the local community, and would address this requirement in the event that emergency ash haulage is required.
14.		In an emergency situation that involves a breakdown of plant and/or equipment in the ash placement areas, that will limit or prevent ash storage from Mt Piper power station, EnergyAustralia NSW shall then notify the Director-General in writing within seven days of undertaking any emergency haulage or placement operations outside the hours of operation stipulated in condition E1 or point #2 of this plan.	An emergency placement procedure is discussed at each weekly meeting. There are various options in place in the event that there is a breakdown in equipment. This includes the availability of the ash silo's (See Plate 6) which can hold enough ash for a night shift if required), ash can be placed in Mt Piper Area 1 etc. All these avenues would be followed first before proceeding with out of hours operation. **Recommendation** It is recommended that emergency ash haulage is included in the existing emergency plan to specially address items identified in Conditions of Approval E2-E6. Addressed in Table A4, item E2.
Aspect: Groundwater Mitigation Measures			
15.	Containment of surface water	Groundwater quality will be managed by the containment of surface water. Control of surface water flows, drainage and erosion will be managed by the implementation of the Soil and Surface Water Management Plan.	Water management involves the separation of clean and dirty water. Dirty water is contained within Lamberts North ash placement area and clean water (eg runoff from batters, stormwater from surrounding areas) is diverted away. See Plate 9 and Plate 10.

Item	Control	Description	Effectiveness
16.	Infiltration control measures	The potential for changed groundwater levels and quality due to infiltration from exposed ash to the groundwater system shall be controlled by: • Limiting the area of the ash face exposed at any one time. • Control of rainfall runoff away from possible accession location of groundwater levels • Ensuring appropriate compaction is undertaken. Placement and compaction of fly ash will conform to the requirements for compact ash to an in-place dry density of at least 95% of its maximum dry density and at moisture content within 0% to 4% of the optimum moisture content in accordance with AS 1289.5.1.1. • Capping and rehabilitation of completed sections is undertaken as soon as practicable.	Groundwater modelling has been previously undertaken. The EMP includes drawings which indicate groundwater flows around the ash placement area. Five new bores were installed to monitor the ground water for potential impacts. A groundwater assessment is required to be undertaken in accordance with the Conditions of Consent and will be included in the AEMR in November 2014. As such no information was available regarding the potential changes to the groundwater in the vicinity of Lamberts North. Compaction testing is done on a monthly basis. The Lend Lease July monthly review to EnergyAustralia NSW show compaction test results for January to July 2014. Average compaction of at least 95% was achieved for all the months, also sighted the compaction report for August (dated 26/08/2014) which showed an ash compaction of 96.2%. The area of ash being exposed is not limited, rather a large surface area of compacted ash has been placed (See Plate 9) with drains located around the perimeter to minimise pooling of water and to remove excess surface water from the ash. Rehabilitation has commenced on the embankments facing Castlereagh Highway (See Plate 3). Capping and rehabilitation will only commence once a fully integrated plan for Mt Piper Area 1 and Lamberts North has been determined and when Lamberts North has reached RL927. There was no evidence of erosion gullies on the embankments.
17.	Hazardous chemicals storage	All hazardous chemicals shall be stored in designated covered storage areas outside Lamberts North, underlain with concrete floor and away from concentrated stormwater flow. They should also be appropriately bunded or contained in accordance with AS 1940-2004 Storage and handling of flammable and combustible liquids.	Chemical are stored near the Mt Piper ash placement areas, which services both Area 1 and Lamberts North ash placement. The chemicals are stored in accordance to standards and in general very few chemicals were used on site. (See Plate 5)
18.	Refuelling / materials storage	No material will be stored at Lamberts North, and no refuelling will occur within the site. Loading of chemicals and refuelling shall be undertaken in a designated area away from concentrated stormwater flow and outside drainage paths. Project site design prevents stormwater runoff entering chemical storage areas.	No refuelling occurs at Lamberts North, only in designated fuelling area which is located near the ash silo and the chemical storage areas (See Plate 5)
19.	Waste management	Waste shall be managed in accordance with the Waste Management sub plan (WMP).	Waste management is in accordance with EPL. An area on Mt Piper Area 1 is the designated area for the disposal of fabric filters and other waste which is permitted by the EPL to be placed within the ash emplacement (See Plate 13 and Plate 14). . No waste is currently being placed within Lamberts North.
20.	Sediment ponds	All sediment ponds shall be managed in accordance with the Soil and Surface Water Management Plan to prevent infiltration into groundwater.	A lined pond is located in the southern section of Lamberts North footprint and collects surface water from Lamberts North ash placement (See Plate 8) as required by the Soil and Surface Water Management Plan.

Item	Control	Description	Effectiveness
21.	Groundwater monitoring	Groundwater monitoring shall be undertaken in accordance with the Groundwater Monitoring Program in 6.4 of this plan. Assessment on trends and results shall be undertaken as part of a site management review process. The procedure for exceedances is as identified in Section 6.4.1.4.	Ongoing groundwater monitoring is undertaken as required. Five new bores were installed to monitor the ground water for potential impacts from Lamberts North and monthly data is collected. An annual groundwater management review will be undertaken after 12 month of operation. This report is due in November 2014. As such no information was available regarding the potential changes to the groundwater in the vicinity of Lamberts North. Lend Lease report groundwater elevations on a monthly basis to EnergyAustralia NSW. EnergyAustralia NSW are responsible for the groundwater monitoring data collection and assessment.
22.	Reporting	An annual groundwater (and surface water) quality report shall be undertaken to review and consolidate data obtained throughout the year. This information shall be included in the Annual Environmental Management Review (AEMR)	The annual ground water and surface water quality report is due in November 2014 and as such was not available for review. This information will also inform the AEMR which is also due in November 2014.
23.	Reporting	EnergyAustralia NSW shall issue the latest monitoring data to the SCAs upon their request, at any time during the life of the project.	No requests from the SCA have been received.
24.	Ceasing operations	In the unlikely event that the Environmental Representative directs the contract administrator to cease operations due to a potentially adverse environmental threat to groundwater, EnergyAustralia NSW shall notify and seek advice (if necessary) from the SCA or NOW.	Operations of the ash placement activities have not had to be halted by Environmental Representative due to groundwater threats or any other environmental incidents.
25.	Location of monitoring wells	No monitoring wells shall be installed or left in service in the ash placement area. All monitoring wells shall remain on the outer perimeter of the ash placement area at all times.	Five new boreholes have been installed outside of the ash placement area. This is addition to the existing boreholes which monitor the groundwater from Mt Piper Area 1.
26.		If D1 is found to have a significant increase in the depth of groundwater, then investigation will be carried out that may include but is not limited to rerunning the groundwater model. If necessary, a sump will be established adjacent to D1 and water shall be pumped into a suitable surface water storage location e.g. sediment pond	The monitoring records have shown that D1 has remained stable. The July monthly review report to EnergyAustralia NSW indicated that the level had reduced to 2.07m
Aspect: Surface Water Mitigation Measures			
27.	Ash placement design	All surface water contaminant ponds shall be engineered to ensure their location and size is designed in accordance with the geotechnical specifications for the site.	The surface water ponds appear to be suitably engineered (Plate 8). Sighted the Geotechnical report, prepared by CDM Smith and dated 11/10/2012

Item	Control	Description	Effectiveness
28.		The ash repository will be designed accordingly, to mitigate any long-term effects of stormwater.	In the short term, the stormwater management principles appear to be effective. This includes drainage channels separating clean and dirty water, surface water collection ponds (See Plate 8, Plate 10 and Plate 11).
29.		Slopes and batters will be properly engineered to control surface water runoff including the management and maintenance of surface drainage lines;	Slopes and batters appear to be effective with minimal erosion impacts evident during the site inspections.
30.		Locations and sizes of ponds shall be included in the Repository Management Plan.	The Repository Management Plan includes the locations and size of the ponds but these are the concept design and the report plan needs to be updated with “as constructed” drawings.
31.	Water-retention system	Clean water collected from permanently capped batters or laybacks, will be collected in a strategically located ponds and either utilised for dust suppression and/or released to Neubecks Creek when required.	Surface water from Lamberts North is collected in the lined pond (See Plate 8). This pond will be used for future dust suppression and a network of pipes and pump will be installed for this purpose.
32.	Sediment ponds	Dirty water will be collected in sediment ponds strategically located within the ash placement site	Currently water management involves the separation of clean and dirty water. Dirty water is contained within Lamberts North ash placement area and clean water (eg runoff from batters, stormwater from surrounding areas) is diverted away. See Plate 9 and Plate 10.
33.		Sediment from clean water containments will be removed, when necessary as a part of standard maintenance practice	Will be undertaken if required. This has not been required in the first year of operation.
34.		Dust suppression and irrigation water will be sourced from dirty and clean water ponds respectively, and various ponds available from Mt Piper Power Station to facilitate water reuse where possible	Cooling water is currently used for dust suppression, but other sources of irrigation water include the coal plant settling ponds and the ash settling and washdown ponds located adjacent to the cooling towers within the Mt Piper Power Station site.
35.	Erosion and sedimentation control	Erosion and sediment control measures will conform with, or exceed the relevant requirements of the Managing urban stormwater; soils and construction (Landcom 2004). Sediment control techniques such as sediment control fences will be installed in areas prone to erosion Establish and implement procedures for the maintenance of temporary and permanent silt and sediment control structures. The contractor shall implement protocols and procedures to access the effectiveness of erosion and sediment control on site during operations. Once implemented any negative findings shall be correctly managed to avoid any future problems.	Rehabilitation on the embankments has commenced using mulch and tree planting (See Plate 3). There was no evidence of erosion gullies during the inspection. There were no areas prone to erosion and as such no sediment fences were sighted during the inspection. Lend Lease are also experimenting with contouring batters on Mt Piper ash placement embankments to reduce flow of water, and minimise potential sheet wash and for better slope control. Batters and rehabilitation are monitored as part of the weekly inspections and after week weather events.

Item	Control	Description	Effectiveness
36.	Compaction of batters	Erosion of batters will be minimised by compaction, design length and finally mulching and vegetation.	As above. There was no evidence of erosion gullies during the inspection.
37.	Emergency procedures for major erosion events	The contractor shall establish an erosion and sediment emergency procedure that can be used during an unlikely major erosion event. All staff working on site will be made aware of this plan.	Inspections are required after any rainfall events of greater than 5 ml. Wet weather inspection checksheets (MP-SF-729A) for a 10.5ml wet weather event on 26/07/2014 and a 5.5 ml wet weather event on 18/08/2014 were sighted. Damage is repaired as soon as practicable, which could entail a dozer being brought in to replace and compact material or the addition of dry ash where ash has become soft.
38.	Rehabilitation	Once the ash surface area has been capped this area shall be rehabilitated, as soon as practical to minimise erosion.	This is not currently applicable for the first year of operation. Revegetation will occur once the ash placement is capped. Rehabilitation of the Lamberts North embankments has commenced (See Plate 3).
39.	Geotechnical analysis	Geotechnical analysis will be performed on constructed dam to test for permeability, any recommendations will determine suitability for surrounding or lining.	The embankment design is characteristic of the type of material available at the site.
Aspect: Air Quality (dust and emissions) Mitigation Measures			
40.	Visual monitoring	Visual monitoring of the site, haul roads and stockpiles for dust generation will be undertaken during operation activities to identify excessive dust generation. In the event of visible dust emissions, personnel shall notify the Contractor immediately, who will direct the water cart to spray the area and review the location and application rate of the sprinkler system.	Daily visual monitoring is undertaken and weather conditions are monitored. When wind is more than 25 km/hr and more than 25°C the irrigation system is implemented. No fugitive ash was evident during the site inspections ash placement was occurring on 02/09/2014 but not on 03/09/2014.
41.	Dust suppression	Water shall be primarily sourced from Lamberts North sediment or catchment ponds. Secondary water supplies maybe sourced from Mt Pipers Power Station's existing water ponds located throughout the station precinct.	Cooling water is currently used for dust suppression, but other sources of irrigation water includes the coal plant settling ponds and the ash settling and washdown ponds located adjacent to the cooling towers within the Mt Piper Power Station site.
42.		Adequate dust suppression shall be ensured on a continuous basis, even outside operational hours.	Water trucks, sprinklers and compaction are used to minimise fugitive dust from the ash placement. No fugitive ash was evident during the site inspections and no complaints related to air quality issues arising from Lamberts North have been received.
43.		The contractor shall use suitable dust suppression equipment/machinery onsite. This equipment/ machinery shall be regularly serviced and maintained.	Water carts are used when required. These trucks are regularly serviced. Sighted the vehicle services database and records. Sprinklers are used within the ash placement area.

Item	Control	Description	Effectiveness
44.	Traffic on haul roads	Haul road and auxiliary roads shall be regularly watered to ensure dust suppression is maintained. Speed limits will be enforced by EnergyAustralia NSW.	Water carts are used when required and vehicles are required to adhere to the speed limits within the site.
45.	Weather conditions	In the event of meteorological conditions which increase the risk of a dust episode, additional suppression techniques will be used as per section 6.6.4.3 of this plan.	Daily visual monitoring is undertaken and weather conditions are monitored. When wind is more than 25 km/hr and more than 25°C the irrigation system is implemented. Daily inspections determine control. No fugitive ash was evident during the site inspections. The irrigation system was operational during the site inspection.
46.	Complaints	In the event of dust complaint, the contractor shall provide site activity log of their daily/ weekly operations as part of EnergyAustralia NSW investigations. The log shall include, but is not limited to; sprinkler management, daily water application rates, daily climatic conditions, haulage truck movements and hours of operation.	No air quality complaints for Lamberts North operations have been recorded which suggests that the dust suppression procedure is adequate.
47.	Complaints	In the event of exceeded dust levels at the sensitive receiver locations, EnergyAustralia NSW shall carry out an investigation of TSP and/or PM_{10} to determine whether operations at Lamberts North were the potential cause of this exceedance. Specific criterion for PM_{10} and TSP has been provide in Table 6-24 performance indicators	No air quality complaints for Lamberts North operations have been recorded. Contents of the dust gauges are assessed on a monthly basis to determine whether there are any impacts from the ash placement – 4 g/m^3 is the trigger for further assessment.

Item	Control	Description	Effectiveness
48.	irrigation operating protocol	Sprinklers systems: • Establish an optimum irrigation rate; and • Monitor sprinkler application and irrigation to access achievement of the optimum irrigation rate. Sprinkler application may be determined using the following calculations: • Quantity of sprinklers required per hectare Area (m^2) (non-working face) divided by the individual coverage of each sprinkler (m^2). Other actions include: • Designate areas for dust suppression, and assess and apply suitable dust suppression techniques that will achieve optimal results; • Monitor climatic conditions daily and adjust water application rates so they exceed evaporation rates; • Undertake daily risk assessment of predicted meteorological conditions in the early hours of the morning to provide a risk ranking i.e. low, medium or high, This shall be used to determine the application rates required for the day ahead; • Visual inspections of the ash repository shall be undertaken daily (mid-morning) and assessed against the predicted meteorological climatic conditions. Water application rates shall be modified where necessary and records maintained; • Ensure that protocols relating to the layout and spacing of the sprinklers across the site have been implemented; • Establish monitoring procedures for water use; • Establish operational procedures for abnormal conditions relating to water application, for example, maintaining adequate dust suppression in the event of a pipe break impacting sprinkler systems.	Section 6.1 in *MP-IN-708 - Technical Specification for ash Placement at Mt Piper (Version 20, dated 15/07/2014)* provides the protocol for dust suppression. The following tables in *MP-IN-708* provide more specific details for the dust suppression protocols. • Table 7 identifies the critical aspects for dust management for fly ash, furnace ash, haul roads, and for the management of ash spillage. • Table 8 identifies the operation guidelines for managing potential weather conditions (ie high wind, evaporation) • Sprinkler technical information (conversions of mm to litres to hours) is included in Table 9. No air quality complaints for Lamberts North operations have been recorded which suggests that the dust suppression procedure is adequate.
49.	Machinery and vehicles	Vehicles not directly involved in ash placement or suppression activities will be restricted to haul and auxiliary roads and will obey speed limit at all times.	CCTV cameras are located around the Mt Piper site and speed limits are in place throughout the power station and ash placement sites. All vehicles, ash haul trucks and smaller vehicles appeared to be adhering to the speed limits during the site inspection.
50.		The contractor will ensure that all vehicles are regularly serviced, inspected and cleaned.	The vehicle maintenance log was sighted. Vehicles are regularly serviced, inspected and cleaned.

Item	Control	Description	Effectiveness
51.	Diesel exhausts	Where necessary, the effect of diesel emissions should be considered as part of air quality. Consequently, Diesel fuelled equipment will be regularly serviced and cleaned to ensure compliance with appropriate design emission standards for in-service vehicles.	The vehicle maintenance log was sighted. The large ash haulage vehicles are serviced by Komatsu.
52.		Diesel powered stationary plant will be serviced maintained and upgraded as required to minimize air emissions as far as possible and to ensure licenced levels of air emissions are not exceeded.	The vehicle maintenance log was sighted. The large ash haulage vehicles are services by Komatsu.
53.	Ash placement / moisture content / Compaction	Ash will be placed in layers and the conditioning of fly ash with water shall be undertaken, ensuring that the moisture content sits at a target rate of 15-20% (or as otherwise determined by climatic conditions and compaction requirements). Optimal moisture content (OMC) for compaction will be maintained to achieve the target compaction ratio. Records of ash moisture content at placement and water usage for ash conditioning will be maintained.	The Lend Lease July 2014 monthly report to EnergyAustralia indicated an ash moisture content of 19% which is within the recommended ash content. The ash appeared to be compact and no areas of pooling of excessive water/excessively wet ash was evident during the site inspection. Ash moisture content records were sighted.
54.	Capping and rehabilitation	To achieve permanent dust suppression on external batters, a permanent capping layer of no less than 0.75m shall be applied. Consequently, capping will occur progressively as each area reaches its design height in accordance with the ash placement strategy.	200 mm of overburden material is used for permanent capping of batters and laybacks. If required temporary capping can be used when water use for dust suppression is not considered appropriate
55.	Capping and rehabilitation	Dust suppression techniques shall be maintained after capping until vegetation has been adequately established.	This is not applicable for the first year of operation, although the embankments have been adequately capped and hydro mulch has been used to assist with 1m thick capping
56.	Reporting	Details of any air quality/dust management, monitoring and any complaints will be provided in a Monthly Environmental Report.	Air quality/dust management, monitoring and any complaints are recorded in the monthly reports from Lend Lease to EnergyAustralia NSW. The Lend Lease July 2014 monthly report to EnergyAustralia NSW was sighted. Average weather data provided. The static dust results suggest that the fine components comprised grey and small material and the coarse material comprised brown, black and green dust. No incidents and no complaints were recorded in the July 2014 report.

Item	Control	Description	Effectiveness
57.		An Annual Air Quality review will be undertaken to review the past year's air quality data, analysis of any trends and make recommendations based on investigations. This report will include a review of annual PM_{10} exceedances of 20.5 μ/m^3 which is predicted at sensitive receiver 1 as described in the EA-Table 7-3 of Appendix A (SKM, 2010). This report will be made available to NSW Public Health Unit and the EPA upon request, unless received as part of the Annual Environmental Management Report (AEMR) for the project.	The annual report is due in November 2014.
Aspect: Landscape revegetation and Rehabilitation			
58.	Progressive landscaping	Landscape rehabilitation and revegetation shall be progressive, and will be initiated as soon as practicable and/or as after final capping.	Lend Lease has commenced rehabilitation on the north east embankment. Progressive revegetation will occur on the batters and layback as required as ash placement commences. See Plate 3.
59.	Capping	Areas that have been capped will be defined on a plan in preparation for revegetation.	A high level strategic plan is in place for future capping and rehabilitation. This will be reviewed as required.
60.	Capping	The ash will be capped with a minimum of 0.75m mine overburden or other. Erosion and sediment control measures will conform with, or exceed the relevant requirements of managing urban stormwater, soils and construction (Landcom, 2004).	200 mm of overburden material is used for capping of batters and laybacks. Lend Lease are also experimenting with contouring batters on Mt Piper ash placement embankments to reduce flow of water, and minimise potential sheet wash and for better slope control.
61.	North east face capping first	Works, rehabilitation and revegetation will be concentrated on the north east face during the initial ash placement stages in order to screen operations and establish growing vegetation as quickly as possible.	Lend Lease has commenced rehabilitation on the north east embankment. See Plate 3.
62.		Experimentation and adaptation of successful practices will be key strategies to manage the successful establishment of primary vegetation on batters and benches.	Lend Lease has conducted experiments/trials on planting regimes and have tailored technique to achieve successful revegetation for the geological conditions at the site.

Item	Control	Description	Effectiveness
63.	Revegetation strategy plan	A revegetation strategy plan will be developed to establish a method to achieve permanent groundcover that conserves the soil and is sustained with minimal intervention. This will be Strategy will follow the principles and recommendations provided in Section 6.7.4.3 of this plan. Note: the Revegetation strategy shall ensure that locally native species endemic to the Lithgow Local Government Area are used in revegetated areas (where possible and feasible depending on soil conditions). Species selection shall be carried out using a qualified expert ie. Ecologist, botanist or agronomist. This is required within 12 first months of operation or prior to carrying out the first rehabilitation phase on Lamberts North, whichever comes first	A high level strategic plan is in place for future capping and rehabilitation (Drawing MPA0114 – Lend Lease's *MP-PL-701 – Ash & Dust repository & Brine Management Plan*). This will be reviewed as required. A more detailed Revegetation Strategy Plan for Lamberts North is not likely to be required for 2-3 years when Lamberts North has reached a level where it can be contoured in with the batters on Mt Piper Area 1. Section 4.6.5 of Lend Lease's *MP-PL-701 – Ash and Dust Repository and Brine Management Plan for Mt Piper Power Station* (Version 08A) includes species selection and sowing rates. The revegetation on Mt Piper batters (See Plate 15 and Plate 16) and the Lamberts North embankment (Plate 3) were inspected. The current rehabilitation methods appear to be effective as no erosion gullies were sighted.
64.	Progressive landscaping	All new batters shall be rehabilitated as soon as practically possible using capping material sourced from onsite materials and stockpiles.	All capping is sourced from material found on site. Seeding of local plants is also undertaken at the site.
65.	Concave slope profiles	Concave slope profiles will be developed where possible to mimic natural slopes and minimise erosion. The benches will be sloped inwards to minimise down slope run off, and will have a rough surface to slow and spread water movement.	As above, Lend Lease are experimenting with contouring batters on Mt Piper ash placement batters to reduce flow of water, and minimise potential sheet wash and for better slope control.
66.	Rock mulching to minimise erosion	Rock mulch will be applied on and integrated into batters and benches to minimise erosion and provide structural and ecological complexity where necessary.	Hydro mulch was applied on the north eastern embankment to assist with the success rates of new plantings. This appears to be effective as no excessive erosion was evident.
67.	Reporting	Revegetation and rehabilitation activities and progress will be included in the Monthly Environment Report once revegetation has been established	Revegetation and rehabilitation activities are included in monthly environment report from Lend Lease to EnergyAustralia NSW.

Item	Control	Description	Effectiveness
Aspect: Waste management			
68.	EPL 13007 Requirements	EnergyAustralia NSW or its contractors shall not cause, permit or allow any waste generated outside the premises (Mount Piper Power Station) to be received at the premises for storage, treatment, processing reprocessing or disposal unless allowed under EPL 13007. Any waste generated at the premises shall not be disposed of at the premises unless expressly permitted by EPL 13007 (see condition below).	Only waste types listed on EPL are disposed of on site. Plate 13 and Plate 14 show the restricted waste disposal area in Mt Piper Area 1. No waste is being disposed of at Lamberts North currently and is not likely to be in the near future. All other waste types are handled by Cleanaway waste removal. A waste register was sight. Current waste management procedures are considered to be effective. The site was clean with no litter present.
69.	Waste classification	EnergyAustralia NSW and its contractors shall ensure that all liquid and/or non-liquid waste generated and /or stored on the site is assessed and classified in accordance with the Waste Classification Guidelines (DECC, 2008) or any future guideline that may supersede that document.	A waste register from Cleanaway was sighted. The waste is being classified in accordance with EPA guidelines. Current waste management procedures appear to be effective. The site was clean with no litter present.
70.	Signposts for Restricted Waste Disposal Area	The area where permitted waste will be disposed of will be clearly designated and signed posted as a Restricted Waste Disposal Area.	Sighted on 03/09/2014 site inspection. See Plate 13 and Plate 14
71.	Records	EnergyAustralia NSW or its contractors shall ensure any waste that is not permitted to be disposed of in the ash repository is disposed of lawfully in an appropriate waste facility.	Cleanaway removes all other waste not permitted to be disposed of in the ash placement area. Vehicle waste resulting from maintenance undertaken by Komatsu is removed by Komatsu. All smaller vehicles are serviced off site.
72.		Materials such as scrap metal, paper, cardboard generated on site, shall be processed within EnergyAustralia NSW existing waste regime which includes recycling.	The waste register from Cleanaway was sighted. The register includes recycling of cardboard and paper, waste oil, waste timber, ferrous metal, non-ferrous metal, 200 and 20 litre drums, toner cartridge etc.
73.		Any waste received at Lamberts North, which comply with the EPL 13007, must be recorded prior to its disposal in a designated area.	Lend Lease maintain a waste register for material which can be disposed of within Mt Piper ash repository. This currently comprises primarily of fabric filters.
74.	Reporting	The AEMR will demonstrate that the contractor has complied with this Waste management plan.	The AEMR will include this information. The report is only due in November 2014
75.	Contractors waste management plan	Contractors must demonstrate that they have established and have implemented a waste management plan for Lamberts North including recycling opportunities.	A waste management for the restricted waste area is addressed in Section 5.1.2 of the *MP-PL-701 – Ash and Dust Repository and Brine Management Plan for Mt Piper Power Station* (Version 08A). Other waste is managed by Cleanaway as part of EnergyAustralia NSW's waste management procedures.

Table C2: Monitoring program

Item	Control	Description	Frequency	Comment
General Environmental Management requirements ie Inspections, audits, reporting				
1.	Inspections	Potential impacts listed in environmental plans and the environmental risk assessment	• Daily site inspection report	Undertaken by Lend Lease. A daily operation sheet (*MP-SF-713B*) showing inspections for 16/08/2014 to 27/08/2014 was sighted.
			• Weekly environmental inspection checklist	Undertaken by Lend Lease. The *MP-SF-713G APA Site Inspection Record* recoded drainage, bunds, batters etc. EnergyAustralia NSW. weekly inspection records were also sighted.
			• Monthly report	Monthly reports are prepared by Lend Lease and incorporate incidents and complaints. EnergyAustralia NSW review the reports as part of the monthly compliance meetings
2.	Inspections	Erosion and sedimentation control – potential surface water pollutions	• After a significant rainfall event (e.g. >25mm in 24 hours)	Inspections are required after any rainfall events of greater than 5 ml. Wet weather inspection checksheets (MP-SF-729A) for a 10.5ml wet weather event on 26/07/2014 and a 5.5 ml wet weather event on 18/08/2014 were sighted.
3.	Inspection	General air, noise and water impacts	• Weekly environmental inspection checklist and periodic monitoring reports	As above
4.	Audits	An audit will be conducted within 12 months of the commencement of operations. The audit will review Contractor compliance with project environmental commitments specified in this OEMP and sub-plans, and any other licences or approvals that are obtained for the Project.	• Once off requirement	This audit fulfils this obligation.
5.	Audits	Six-monthly internal audits of the Contractors performance will also be undertaken in accordance with the Contractor's EMS.	• Each 6 months	EnergyAustralia NSW undertook an internal audit of Lend Lease EMS on June 2014. A number of action items were identified and have been addressed (Sighted July 2014 monthly report from Lend Lease)
6.	Non-compliances and corrective actions	All non-conformances will be recorded in the appropriate report, form, checklist, or complaints register. Corrective actions will be recorded, and the Contractor is responsible for ensuring that the necessary corrective actions are satisfactorily completed.	• As required	Incidents, non-conformances and corrective actions are managed by the Ellipse system. Non-conformances can only be closed out if the corrective actions have been signed off. No non-conformances have been raised at Lambert North ash placement.

Item	Control	Description	Frequency	Comment
7.	Environmental incident management	All near misses and incidents must be actioned, reported and recorded. All incidents will be documented, investigations conducted and action plans established in order that the event does not occur again. The investigation must include the ER as an independent observer.	• As required	As above, incidents, near misses etc are managed by the Ellipse system. Incidents can only be closed out if an investigation has occurred and the incident signed off. No incidents have been raised at Lamberts North ash placement.
8.	Environmental risk assessment	The contractor, in consultation with EnergyAustralia, will continually review the potential for an impact to cause harm, and maintain a risk assessment register.	• As required	A risk register and environmental impacts and aspects register has been prepared and is included in *MP-PL-0003 – Environmental Management* Plan *(Version 10)*. Impacts and aspects register is currently being updated to include Lamberts North site specific requirements. This was a recommendation from the internal audit undertaken by the EnergyAustralia NSW.
Aspect: Noise Monitoring				
9.	Operational Noise review (E11 & E7)	• Assessed LAeq, LA10, Aa90 and LAMax Noise levels shall not exceed criteria stipulated in Conditions of Approval E7.	• Once off monitoring required	The operational noise review was undertaken in September 2014.
10.	Operational noise monitoring program (E11 & E12)	• Implement ongoing noise monitoring program for project	• Every 6 monthly – April and November each year	The first six monthly review was undertaken in March 2014. The second six monthly review was planned for 14-15 September 2014.
Aspect: Groundwater monitoring				
11.	Groundwater quality monitoring (E15 (a) (B))	• Analytical suite- PH, conductivity, Alkalinity, Cl, So4, TPS, DO (in field) Temperature, turbidity, NOx, TP, TKN and total metals and Total Filtered Metals • Depth and Flow	• Monthly for first 12 month • Three monthly after that • Annual Groundwater Review report	Monthly monitoring data for boreholes D15 to D19 was sighted. This includes the analytical suite listed here. The annual groundwater review will be undertake in November 2014 and will be included in the AEMR which is due at the same time.
Aspect: Surface water monitoring				
12.	Surface water inspections	• Site inspections with regards to surface water shall be recorded daily. Areas of concern shall be appropriately actioned and a completion date recorded.	• Daily	As above, daily checks are undertaken by Lend Lease. A daily operation sheet (*MP-SF-713B*) showing inspections for 16/08/2014 to 27/08/2014 was sighted.

Item	Control	Description	Frequency	Comment
13.	Visual monitoring	Visual monitoring of the Project site shall be undertaken for evidence of soil erosion. Indicators include: • Degradation of surface water quality on site. • Scouring in drains. • Build-up of sediment in sediment and erosion control devices. • Uncontrolled discharge from the site. • Damaged or failed erosion control devices.	• Daily	As above, daily checks are undertaken by Lend Lease. A daily operation sheet (*MP-SF-713B*) showing inspections for 16/08/2014 to 27/08/2014 was sighted.
14.	Surface quality monitoring (E16 (a)) - Flow and water quality monitoring	• Analytical suite - PH, conductivity, Alkalinity, CI, So4, TPS, DO (in field) Temperature, turbidity, NOx, TP, TKN and total metals and Total Filtered Metals • Depth and Flow	• Surface Water Quality will be reported as part of the Quarterly Ecological Monitoring Program.	Monitoring data for the analytical suite listed here was sighted. Water quality is included in the ecology reports as required.
15.		• LDP1 – at upstream Discharge point	• Monthly (Year 1) including two rainfall events • Quarterly thereafter	Surface water monitoring at is being undertaken at LDP1, NC01 and WX22 on a monthly basis. Monitoring data was sighted.
16.		• NC1 – mid stream	• Monthly (Year 1) • Quarterly thereafter for remaining life of the project	
17.		• WX22 – downstream	• Monthly (Year 1) Including two rainfall events • Quarterly thereafter for remaining life of the project.	

Item	Control	Description	Frequency	Comment
Aspect: Ecological monitoring				
18.	Aquatic Ecology – Macro-invertebrates Aquatic Habitat	• Macro invertebrate Families • EPT index • SIGNAL2 Index • Habitat and Riparian Assessment • As NCR1 and NCR2	• Autumn and Spring (Year 1) • Spring only (Years 2, 3, 4, 5) for remaining four years. The Conditions of Consent also require that an assessment regime for monitoring the ecological health of the riparian environment for a period of at least five years after final capping.	The following reports have been prepared: • Neubecks Creek - Ecological Monitoring Program Aquatic Ecosystem Baseline Survey - Spring 2012 • Neubecks Creek - Ecological Monitoring Project Aquatic Ecosystem Annual Report 2012-2013 (Spring 2012 and Autumn 2013) • Neubecks Creek - Ecological Monitoring Project Aquatic Ecosystem Report Spring 2013 • Neubecks Creek - Ecological Monitoring Project Aquatic Ecosystem Report Autumn 2014 This will be undertaken as required.
Aspect: Air quality monitoring				
19.	Dust impacts (D3 (d) & E18)	• Dust Deposition of 4mg/m^2/month (annual) • TEOM – for measuring PM_{10} • Ambient monitor (high volume) – AQMS measures PM_{10} and PM $_{2.5}$ • TSP- calculated from dust bottles. • Dust Gauges: - No# 19, 22, 23 – Castlereagh Highway between Boulder road and Blackmans flat Village - No # 20- Cnr Boulder Rd/ Castlereagh Highway - No# 21- MP Entrance on Boulder Road • Other resources - Blackmans Flat AQMS - TEOM - Mt Piper Metrological Station	• Monthly data collection • Air quality review Report (annually)	EnergyAustralia has an established air quality monitoring programme which includes daily monitoring TEOM, PM_{10} and $PM_{2.5}$ and monthly data for dust deposition

Table C3: Performance Targets

Item	Performance Target	Indicator	Comment
Aspect: Groundwater quality			
1.	• The quality of water underlying the site is not impacted by the Lamberts North Ash Placement operations.	• There will be no significant long-term variation in groundwater quality from historical baseline quality values that are attributable to ash placement operations at Lamberts North. • Groundwater Water Quality Monitoring will be analysed at a NATA Accredited Laboratory by a qualified professional.	The groundwater assessment for the first year of operation is due in November 2014. This document will review the trends and variations in groundwater quality. A sample sheet from Nalco Laboratory was sighted. Nalco is a NATA Accredited Laboratory (Accreditation No: 1099)
Aspect: Soil & surface water quality			
2.	• The water quality in Neubecks Creek is not impacted by the Lamberts North Ash Placement operations. • Zero environmental incidents that relate to the pollution of waters at Neubecks Creek. • Erosion does not have any influence and/or impact on surrounding lands outside the boundary of Lamberts North	• Water Quality Results at Neubecks Creek will indicate no significant variations from historical baseline data. • Ecological results at Neubecks Creek will indicate no significant variations from historical baseline data. • No visual evidence of erosion and sedimentation impacts on Neubecks Creek following significant rain events.	The 2012-2013 report identifies the 'baseline' for future monitoring. Macroinvertebrate communities were sampled in November 2012 (spring) and May 2013 (autumn) at the two selected sites (NCR1 and NCR2) in the Neubecks Creek. The 2013-2014 report has been prepared but is still going through the review stage.
Aspect: Air quality			
3.	• The local air quality in the vicinity of Sensitive Receivers identified in the EA will not impacted by the Lamberts North Ash Placement operations	• Evidence of continuous improvement of dust suppression systems (including monitoring) in accordance with operational demands and meteorological conditions.	The irrigation system, along with compaction and moisture conditioning appear to be adequate for dust suppression. An irrigation process is in place to deal with meteorological conditions
4.	• Zero incidence of dust related complaints for	• Complaints register demonstrating zero incidences of dust related complaints.	No dust complaints have been recorded for Lamberts North during the first year of operation.

Item	Performance Target	Indicator	Comment
5.	Lamberts North Ash Repository	• That operational results are below the criteria of: - Increase in TSP by > 2g/m^2/month to a maximum of 3.5 g/m^2/month at dust deposition gauges outside the ash placement area; and	A review of the dust gauge data from 01/09/2013 to 31/08/2014 for the five nominated dust gauges suggests that the total dust mass measured at each gauge has been well below the 4 g/m^2/month (maximum total). The total dust deposition mass in DG#21 and DG#22 exceed the 2 g/m^2/month in February 2014 and November 2013 respectively, but following classification of the dust, the ash content was shown to also be below the 2 g/m^2/month criteria.
6.		- PM_{10} annual average is <30 µg/m^3 and 24 hour maximum does not exceed 50 µg/m^3.	TEOM data for the period from 01/01/2012 to 31/08/2014 was reviewed. From the time that Lamberts North was operational (20/08/2013) the average monthly data was found to be well below the 30 µg/m^3 criteria. There were three days (from ±365 days) when the daily 50 µg/m^3 criteria was exceeded.
Aspect: Landscape, revegetation and rehabilitation			
7.	• Develop and reconstruct landscape to minimise the visual impacts of ash placement area by ensuring long- term stabilisation of the site and compatibility with surrounding landscapes through revegetation	• Site inspections records to confirm ash placement and compaction targets are being achieved.	Site inspections are regularly undertaken and compaction targets have been achieved. Sight inspection sheets and monthly compaction results for January 2014 to July 2014. An average compaction target of 93% was achieved.
8.		• Evidence of a long-term water management plan that integrates the concepts of landscape revegetation and rehabilitation.	Rehabilitation and revegetation has occurred on the ash emplacement embankment. A long term strategy will be developed as the two ash emplacements become integrated.
9.		• Evidence of an established revegetation and monitoring program to meet short and long-term goals.	Rehabilitation and revegetation has occurred on the ash emplacement embankment. Lend Lease are also experimenting on methodologies to improve rehabilitation on the batters and minimise erosion impacts.
10.		• Physical coverage of exposed ash on all external batters and boundaries capped with suitable materials.	No applicable for the first year of operation. All ash placement has occurred with the external north east embankments.

Item	Performance Target	Indicator	Comment
Aspect: Waste			
11.	• To ensure waste at the Lamberts North Ash Repository is managed in accordance with the conditions of EPL13007. • To ensure waste generated on site is recycled or disposed of in accordance with the OEMP Waste Management Plan.	• Records showing all waste disposed of in accordance with Mt Piper EPL licence and the OEMP waste management sub plan.	A waster register from Cleanaway was sighted. This addresses general waste and recyclable waste not going to the restricted waste disposal area. Lend Lease manage a restricted waste register which include disposal of fabric filters at the Mt Piper restricted waste disposal site.
12.		• Evidence of recycling system in use and site-generated waste being disposed of to an appropriate facility.	A waster register from Cleanaway was sighted. This addresses general waste and recyclable waste not going to the restricted waste disposal area. Waste is classified in accordance with the EPA Guidelines.
Aspect: Noise impacts			
13.	• Achieve compliance with the noise criterion stated in the Projects Conditions of Approval E7	• Results of Noise testing carried out in accordance with Noise management sub plan, demonstrating compliance.	• The September 2013 and March 2014 confirm that the operational noise resulting from the operation of equipment and mobile plant at the Lamberts North site comply with the OEMP noise limits at the representative residential receivers at Location 1 and Location 2.t.
14.	• Zero noise complaints relating to the Lamberts North project.	• Complaints register demonstrating zero incidence of noise related complained relating to Lamberts North Operations.	• No noise complaints related to the operation of Lamberts North have been received in the first year of operation.
Aspect: Ash Management			
15.	• Achieve Placement within normal hours of operation for at least 98% of the year (stretch target = 100%) • Achieve compliance with the ash placement and compaction procedures stipulated by this OEMP • Integrate within the concept of ash management a market development program of alternative uses for coal combustion products other than repository storage.	• Operator logs and control system data indicating hours of operation are being met. • Site inspections demonstrate truck movements are confined to approved work zone boundaries. • Daily equipment, machinery and vehicle inspections checklists are completed, ensuring no vehicles are operational unless in compliance with checklist. • Site inspections check sheets that confirm ash handling and compaction procedures and targets are being complied with.	• Operator logs and daily ash placement records were sighted. These logs record time ash placement started and stopped. All were within the standard operating hours. • Approved work boundary and truck movement route on the ash placement were demarcated and sighted during the site inspection (Plate 17 and Plate 18) • Vehicle inspection sheets and maintenance database was sighted. • Checksheets and July monthly report from Lend Lease sighted. Current average compaction results indicate that the compaction target is being complied with.

Appendix D
Photographs

Plate 1: TEOM station located on the north east embankment Lamberts North

Plate 2: Dust deposition gauge 23 located near the Lamberts North emplacement

Plate 3: Current rehabilitation of Lamberts North embankments and screening trees in the background

Plate 4: Screening trees in the background, looking toward Castlereagh Highway

Plate 5: Chemical storage located near the Mt Piper ash placement sites (services Area 1 and Lamberts North)

Plate 6: Ash silo at Mt Piper Power Station, prior to ash being conveyed to the ash silo near the ash placement area

Plate 7: Ash silo near the ash placement area where ash is transferred to ash haul trucks

Plate 8: Lined pond collecting surface water runoff from Lamberts North

Plate 9: View of Lamberts North ash placement

Plate 10: Drainage channels at the northern end of Lamberts North ash placement

Plate 11: Drainage channels at the northern end of Lamberts North ash placement

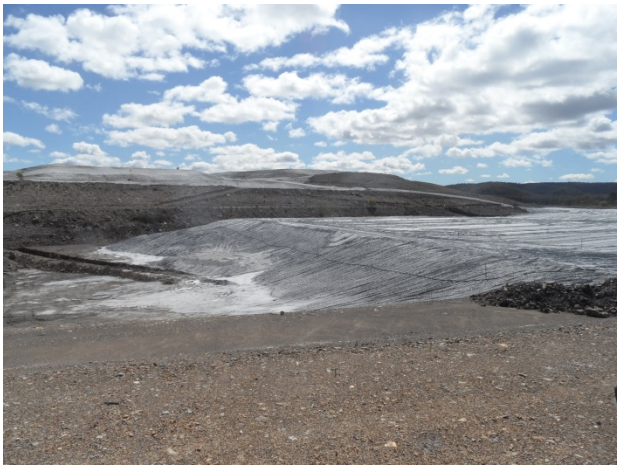

Plate 12: Ash batters with irrigation system and drainage channel

Plate 13: Restricted waste disposal area in Mt Piper Area 1

Plate 14: Fabric filters within the restricted ash disposal area in Mt Piper Area 1

Plate 15: Rehabilitation on Mt Piper batters	Plate 16: Rehabilitation on Mt Piper batters
	
Plate 17: Cones demarcating truck routes and area of ash placement	**Plate 18: Cones demarcating truck routes and area of ash placement**

Appendix E
Audit Meetings and Minutes

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Audit Itinerary

Item	Date	Time	Discussion topic
1	Tuesday 2 September 2014	9:30 – 10:30	Opening Meeting
		10:30 – 12:30	Preliminary site inspection
		12:30 – 17:30	Lunch
			Documentation review
			Interviews
		17:30	Depart site
2.	Wednesday 3 September 2014	8:30	Arrive on site
		8:30 – 10:00	Site inspection if required
		10:00 – 14:30	Documentation review and interviews
		12:30	Lunch
		15:00 – 16:00	Closing Meeting
		16:00	Depart site for Sydney

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Documents Required

Community information plan
Complaints Register / System
Groundwater Quality and Geotechnical Impacts report (CoA D4)
Site Rehabilitation Management Plan
Operational Noise Review (CoA E11)
Contractors waste management plan
Any audit reports applicable to Lamberts North
Aquatic Ecology – Macro-invertebrates / Aquatic Habitat reports
Monitoring data:
▪ Air quality
▪ Noise
▪ Groundwater
▪ Surface water
▪ Weather monitoring
Records and registers:
▪ Incidents registers
▪ Risk register
▪ Operation logs (haulage)
▪ Training register
▪ Waste register and classification
▪ Inspections records ie daily, weekly, monthly
▪ Complaints register
▪ Plant and equipment inspection checks, servicing records
▪ ER weekly inspections
▪ ash moisture content at placement and water usage

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Agenda

Project number	**243370**	Meeting date	**2 September 2014**
Project name	**Lamberts North Environmental Audit**	Recorded by	**HT**
Meeting/subject	**Audit Opening Meeting**	Total pages	**6**

Item	Time	Discussion topic	Speaker
1	9:30	Welcome	HT
2		Introduction to Audit team	HT/MW
3		Confirmation of the following	
		▪ audit scope	HT/MW
		▪ audit timetable	HT
		▪ availability of site staff	HT
		▪ documentation and records required	HT
		▪ current status of operations	HT
		▪ photography for audit purposes	HT
		▪ audit protocols – main site contact etc	HT
		▪ Plant inspections	HT
4		Schedule Closing meeting	HT/EA
5	10:30	Meeting Close	

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– 2/09/2014 +

Opening Meeting – Attendance Record

Closing meeting 03/09/2014

Name	Project Role	Contact Details telephone, email
Heather Tilley	Auditor	heather.tilley@ aurecongroup.com
Michael Wicks	Auditor	michael.wicks@ aurecongroup.com
Coleen Milroy	Env Officer	coleen.milroy@energyaustralia.nsw.au
Jane Aiken.	Env. T/L. Scientist	jane.aiken@lendlease.com
Kelly Gillen	Environ. Rep.	kelly.gillen@energyaustraliansw.com.au
Peter Griffiths	Env Mgr	peter.griffiths@energyaustraliansw.com.au

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Agenda

Project number	**243370**	Meeting date	**3 September 2014**
Project name	**Lamberts North Environmental Audit**	Recorded by	**HT**
Meeting/subject	**Audit Closing Meeting**	Total pages	**6**

Item	Time	Discussion topic	Speaker
1	15:00	Welcome	HT
2		Thanks	HT
3		Findings of the audit	HT/MW
		▪ Observations	
		▪ Non-compliances	
4		Recommendations	HT
5		Final Reporting	HT
		▪ Format and outline of report	
		▪ Timing	
		▪ Confidentiality	
		▪ Distribution and number of copies	
6	16:00	Meeting Close	

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– 2/09/2014 +

Opening Meeting – Attendance Record

Closing meeting 03/09/2014

Name	Project Role	Contact Details telephone, email
Heather Tilley	Auditor	heather.tilley@ aurecongroup.com
Michael Wicks	Auditor	michael.wicks@ aurecongroup.com
Coleen Milroy	Env Officer	coleen.milroy@energyaustralia.nsw.au
Jane Aiken.	Env. T/L. Scientist	jane.aiken@lendlease.com
Kelly Gillen	Environ. Rep.	kelly.gillen@energyaustraliansw.com.au
Peter Griffiths	Env Mgr	peter.griffiths@energyaustraliansw.com.au

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Meeting Record

Project number	**243370**	Meeting date	**3 September 2014**
Project name	**Lamberts North Environmental Audit**	Recorded by	**MW**
Meeting/subject	**Closing Meeting**	Total pages	**2**

Present	Apology	Copy	Name	Organisation	Contact details
☒	☐	☐	Heather Tilley (HT)	Aurecon	Heather.Tilley@aurecongroup.com
☒	☐	☐	Michael Wicks (MW)	Aurecon	Michael.Wicks@aurecongroup.com
☒	☐	☐	Coleen Milroy (CM)	Energy Australia	Coleen.Milroy@energyaustraliansw.com.au
☒	☐	☐	Kelly Gillen (KG)	Energy Australia	Kelly.Gillen@energyaustraliansw.com.au
☒	☐	☐	Peter Griffiths (PG)	Energy Australia	Peter.Griffiths@energyaustraliansw.com.au
☒	☐	☐	Jane Aiken (JA)	Lend Lease	Jane.Aiken@lendlease.com

Item	Topic	Action by	Action due	Action complete
1	The checklists (Appendices A-C) have been completed successfully. Complaints register/system has been sighted.	HT		3 September 2014
2	Predicted vs Actual - Looked good. Energy Australia displayed a comprehensive spreadsheet with all relevant site data, graphs and reports. - Quantitative data still needs to be reviewed to identify any potential compliance issues.	HT		3 September 2014
3	Environmental Management - Sites looks very well managed - Site staff conduct regular inspections to manage issues - Revegetation of batters is ongoing	HT		3 September 2014
4	Complaints - Energy Australia shown good relationship with community - Ellipse software very good tool at handling and addressing complaints	HT		3 September 2014
5	Compliance Summary - 2 Partial non-compliance - 5 Observations	HT		3 September 2014

Item	Topic	Action by	Action due	Action complete
6	Partial Non-compliances - Postal address and email of Mt Piper not displayed on Website. Will be resolved in immediate future. - Non-confidential project related documentation is added to the website to ensure full compliance with this condition	CM	30 October 2014	In progress
7.1	Observations/Recommendations - All references to “Delta” should be changed to Energy Australia, in particular the Operational Environmental Management Plan (OEMP).	CM	30 November 2014	Insert Date
7.2	- Environmental Assessment Report (08/2010) lists AHIMS sites that have been labelled with “permit to destroy”. The Land Management Plan (23/01/2014) has a list of AHIMS items that were not identified by site number. Recommended to update LMP with most up to date record of AHIMS sites.	CM	31 December 2014	Insert Date
7.3	- OEMP Figure 5.1 recommended to display all visual impact locations (1-6).	CM	31 December 2014	Insert Date
7.4	- Recommendation to develop an emergency plan for ash placement outside regular hours. A flow chart included in Lend Lease “Ash Placement Area Emergency Procedure MP-PC-736” covering the Conditions of Approval E2 – E6 should make the procedure easier to follow.	JA	30 October 2014	Insert Date
8	Aurecon to submit Draft audit report to Energy Australia within 2 weeks of site visit	HT	17 September 2014	Insert Date
9	Energy Australia to return Draft audit report to Aurecon with comments in 1 week from receiving document	CM	24 September 2014	Insert Date
10	Aurecon and Energy Australia to discuss confidentiality agreement prior to submitting final report to NSW Department of Planning.	All	30 September 2014	Insert Date
11	Aim to submit final report to NSW Planning and Environment by 30 September 2014	All	30 September 2014	Insert Date

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