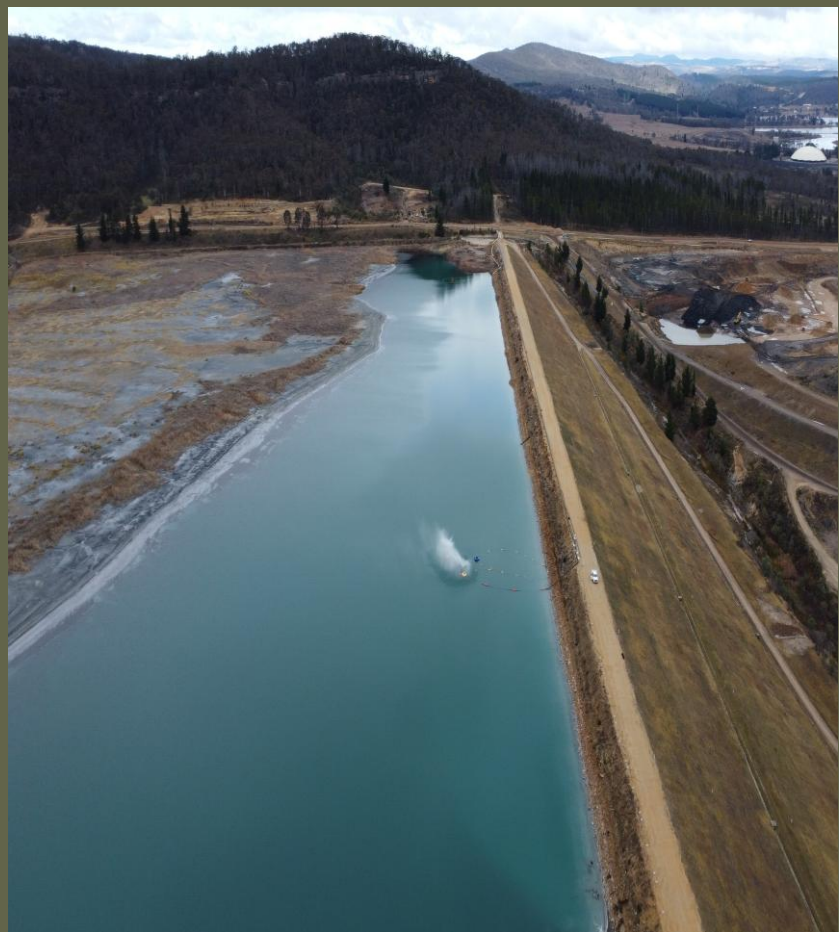



Construction Environmental Management Plan

Lidsdale Ash Repository 2026



GPM

Document control

Title	Construction Environmental Management Plan - Lidsdale Ash Repository 2025
Approved by GPM Environment Manager	John Pola
Signed	
Dated	31 st March 2026

Version control

Revision	Date	Description	Author	Reviewer	Approval
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Rev 02	11/10/2023	Final Draft	C. Alvim	T. Edwards	
Rev 03	10/01/2023	Incorporating Mod 2	T. Edwards	J. Pola	J. Pola
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Rev 06	31/03/2026	Final	N. Eisenlohr	T. Doczy	J. Pola

List of emergency and key contacts

Position	Name	Phone
EPA pollution hotline	General Number	131 555
Fire and Rescue NSW	General Number	000 (for pollution incidents that present an immediate threat to human health or property) 1300 729 579 (for pollution incidents that do not present an immediate threat to human health or property)
Lithgow Hospital	General Number	63502300
SafeWork NSW	General Number	131 050
24-hour community information line	General Number	1800 817 711
Environment Manager	John Pola	0429 205 290
Financial Controller & Company Secretary	Diane Dibben	0412 773 255
Managing Director	David Wood	0484 623 220
Western Region Manager	Paul Glasson	0418 708 113
Engineering Project Officer	Timothy Edwards	0413 446 686
Engineering Project Officer	Julian MacPhee	0427 094 014
Environmental Representative	David Bone	0407 461 092
Lithgow City Council	General Number	02 6354 9999
Wallerawang Police	General Number	02 6355 1303
Lithgow Police	Chris Sammut	02 6352 8399

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Glossary/Abbreviations

Abbreviation	Expanded text
AEMR	Annual Environmental Management Report
Approval	Approval Modification MP07_005-Mod 2
CESCP	Construction Erosion and Sediment Control Plan
CEMP	Construction Environmental Management Plan
CIP	Caustic Injection Plant
CLM Act	NSW <i>Contaminated Land Management Act 1997</i>
CNMP	Construction Noise Management Plan
Compliance audit	Verification of how implementation is proceeding with respect to a Construction Environmental Management Plan (CEMP) (which incorporates the relevant approval conditions).
CoAs	Conditions of approval
Minister, the	Minister of the NSW Department of Planning and Environment (or delegate)
DPE	Department of Planning and Environment (now DPHI)
DPHI	NSW Department of Planning, Housing and Infrastructure (formally DPE)
DS Act	NSW <i>Dams Safety Act 2015</i>
EA	Kerosene Vale Stage 2 Ash Repository Area Environmental Assessment (Parsons Brinckerhoff, 2008)
Ecologically sustainable development	Using, conserving and enhancing the community's resources so that the ecological processes on which life depends are maintained and the total quality of life now and in the future, can be increased (Council of Australian Governments, 1992)
EPA	NSW Environment Protection Authority
EPBC-CoA	Federal Conditions of Approval under the EPBC Act
EMS	Environmental Management System
EMMs	Environmental Management Measures as outlined in the project EIS documentation.
ENM	Excavated Natural Material
Environmental aspect	Defined by AS/NZS ISO 14001:2015 as an element of an organisation's activities, products or services that can interact with the environment.
Environmental impact	Defined by AS/NZS ISO 14001:2015 as any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organisation's environmental aspects.
Environmental incident	A set of circumstances that causes or threatens to cause material harm to the environment, and/or breaches or exceeds the limits or performance measures/criteria in this approval.

Environmental objective	Defined by AS/NZS ISO 14001:2015 as an overall environmental goal, consistent with the environmental policy, that an organisation sets itself to achieve.
Environmental policy	Statement by an organisation of its intention and principles for environmental performance.
Environmental target	Defined by AS/NZS ISO 14001:2015 as a detailed performance requirement, applicable to the organisation or parts thereof, that arises from the environmental objectives and that needs to be set and met in order to achieve those objectives.
ER	Environmental Representative: A suitably qualified and experienced person independent of project design and construction personnel employed for the duration of construction. The principal point of advice in relation to all questions and complaints concerning environmental performance.
EP&A Act	<i>Environmental Planning and Assessment Act 1979 (NSW)</i>
EPA	NSW Environment Protection Authority
EPL	Environment Protection Licence
ESCP	Erosion and Sediment Control Plan
GPM	Generator Property Management Pty Ltd
KPI	Key Performance Indicator
KVAD	Kerosene Vale Ash Dam
KVAR	Kerosene Vale Ash Repository (dry stacked as on top of KVAD)
LADR	Lidsdale Ash Dam Repository
MEX	MEX Maintenance Software – an asset management system used to track work order, action and compliance
Non-compliance	An occurrence, set of circumstances or development that is a breach of this approval but is not an incident.
OEMP	Operational Environmental Management Plan
PESCP	Progressive Erosion and Sediment Control Plan
PIRMP	Pollution Incident Response Management Plan
Principal, the	GPM
POEO Act	<i>Protection of the Environment Operations Act 1997 (NSW)</i>
REMM	Revised Environmental Management Measure
Roads and Maritime	Roads and Maritime Services (now TfNSW)
SAP	Sensitive Area Plan
Secretary	Secretary of the Department of Planning or their Nominee
SoC	Statement of Commitments
SSCAD	Sawyers Swamp Creek Ash Dam

SEAR's	Secretary's Environmental Assessment Requirements
SPIR	Submission and Preferred Infrastructure Report
SWMS	Safety & Environmental work method statement
TfNSW	Transport for New South Wales (formally RMS)
TMP	Construction and Operational Transport Management Plan
VENM	Virgin Excavated Natural Material
VMP	Voluntary Management Plan under the the <i>Contaminated Land Management Act 1997</i>
WPS	Wallerawang Power Station

1 Introduction

This Construction Environmental Management Plan (CEMP) has been prepared to satisfy relevant Conditions of Approval (CoAs) for MP07_0005-Mod 2 (Approval) relating to Lidsdale Ash Dam Repository (LADR). The CEMP has also been developed in accordance with relevant requirements of Environment Protection Licence 21185 (EPL) and the Statement of Commitments (SoC) presented in the submissions Report (Parsons Brinkerhoff, 2008).

The LADR, formerly known as the Wallerawang Ash Repository, is located at Skelly Road, Lidsdale NSW (the Site) and is approximately 15 kilometres (km) northwest of Lithgow and 2.5 km north-east of Wallerawang Power Station. The Site comprises an area of approximately 528 hectares (ha) and is situated primarily on Lot 5 of Deposited Plan (DP) 829137.

The Site includes several distinct components, including:

- the Kerosene Vale Dry Ash Repository (KVAR) and underlying former Kerosene Vale Ash Dam (KVAD)
- Sawyers Swamp Creek Ash Dam (SSCAD)
- Lidsdale Cut and adjacent asbestos landfills
- WPS Asbestos demolition landfill south of the SSCAD.

The site location and general layout are shown in Figure 1.1.

The Site has been used since the 1950s to store ash and other wastes generated by the Wallerawang Power Station (WPS). Site operations started prior to the commencement of the *Environmental Planning and Assessment Act 1979* (EP&A Act), when the WPS and associated facilities were owned by the NSW Government.

Ownership and responsibility for the Site was transferred from Energy Australia NSW Pty Ltd to Generator Property Management Pty Limited (GPM) in September 2020. GPM's objectives at the Site include closure of the operational facilities and the rehabilitation and management of the site in general including the Kerosene Ash Repository (KVAR) and the Sawyers Swamp Creek Ash Dam (SSCAD).

Final closure of the site into a long-term rehabilitated state requires works to be undertaken to stabilise the KVAR and the SSCAD. Undertaking these works, including construction of reinforcement berms and a material delivery area and internal roads as well as rearrangement of water flows and reinstatement of environmental controls for historic landfill areas, are identified as construction activities and therefore need to be specifically managed.

This CEMP has been developed to ensure these activities are carried out responsibly and in accordance with the relevant CoAs and any other requirements.

GPM and its contractors are also undertaking the care and maintenance of the site and these operational activities are being managed under the Site's Operational Environmental Management Plan (OEMP).

1.1 Background to the Lidsdale Ash Repository

The Lidsdale Site was originally farmland that was gradually turned into mining premises during the late 1800s into the early 20th century. The Kerosene Vale mines were originally a series of open cut operations that changed to underground mines using portals driven under the northern escarpment.

The original ash placement operations were at the KVAD. The mining void was filled with ash transported from the WPS as a slurry (i.e. wet ash placement). When the KVAD was full, it was capped with a clay capping and then ash placement operations began at the SSCAD, which saw wet ash placement take place from 1980 to 2003. The SSCAD is still used to manage site water requirements with water levels managed by irrigation for dust suppression and other onsite water uses to prevent discharge to Sawyers Swamp Creek (SSC). When required, water is transferred for treatment via a CIP (Caustic Injection Plant), clarified and discharged through a licenced discharge point (LDP3). The SSCAD is a declared dam under the NSW [Dams Safety Act 2015 No 26](#) (DS Act) and is subject to regular surveillance and monitoring by certified engineers in accordance with the DS Act.

The need to further develop the KVAR area to maintain power-generation operations at WPS was identified in 2001. The existing wet ash storage area (i.e. the SSCAD) was approaching its design capacity and the placement of dry ash at the KVAR was identified as a viable alternative. Conversion from wet to dry ash placement aimed to minimise environmental and social impacts potentially resulting from heavy metal accumulation.

It is noted that the Site has recently been formally Declared under the *Contaminated Land Management Act* (CLM Act) by the EPA and is subject to a Voluntary Management Plan (VMP) requiring detailed and extensive investigations that will guide long term works on the SSCAD and may require additional works on the Site that would be subject to further approval.

1.2 Relevant project approval

In 2002, Project Approval was granted by the then Minister of Planning to change from wet to dry ash-producing activities and to use the KVAR area for dry ash storage.

The placement of ash on the Repository was developed in two stages:

- Stage 1: Comprises about one third of the area associated with the repository site and located on the south-western section of the site, this area was designed to operate for a period of 5 years and reached its design capacity and has been capped.
- Stage 2: Comprises the remainder the repository site, covering an area from the open face of the Stage 1 area to the edge of the original storage area. This stage was designed to operate about 10 years, depending on actual ash production rates.

On 26 November 2008, Project Approval (07_0005) was granted by the then Minister of Planning for the extension of the existing KVAR area to permit the continued disposal of ash generated by the WPS under Part 3A (now repealed) of the EP&A Act. The KVAR Stage 1 placement works were completed and capped in February 2009. The KVAR Stage 2 placement works commenced soon after in April 2009.

In January 2014, WPS's Unit 7 was removed from service and deregistered from the market; whilst in March 2014, Unit 8 was placed in long term storage. However, in November 2014, EnergyAustralia NSW announced that Unit 8 was to be removed from service and the WPS deregistered from the market.

WPS ceased energy production in April 2014 and is currently being decommissioned and dismantled. The bulk transport and disposal of ash to the KVAR ceased following the closure of the WPS. The Lidsdale Ash Repository is currently being managed in a care and maintenance arrangement. Environmental studies and investigations are currently underway to support GPM's safe decommissioning, demolition, rehabilitation and management of ongoing regulatory and contractual obligations associated with the Lidsdale Ash Repository area.

Modification 1 to 07_005 was approved on 9 August 2018 under section 75W of the EP&A Act. This was to allow for the importation of clean fill (virgin excavated natural material (VENM) and excavated natural material (ENM)) for use of capping of KVAR and SSCAD over two years. This modification included a revised project area that extended the originally approved project to include the area covered by SSCAD.

Modification 2 to 07_005 was approved on 13 October 2023 under section 96(1A) of the EP&A Act. This was to allow for the importation of fill over an additional 10 years (i.e. until 13 October 2033).

The most complete description of the onsite activities was provided in the original *Kerosene Vale Stage 2 Ash Repository Area Environmental Assessment* (the EA) prepared by Parsons Brinckerhoff in April 2008. This focused on the ongoing ash management without providing any details of site rehabilitation requirements when the power station closed. However, it did include the realignment of a section of Sawyers Swamp Creek to allow the structural earthworks required to achieve an acceptable factor of safety against failure of the ash stockpiles during earthquakes. The subsequent modification applications focussed on the potential impacts of the importation of fill material, rather than on activities within the Site where the material would be utilised.

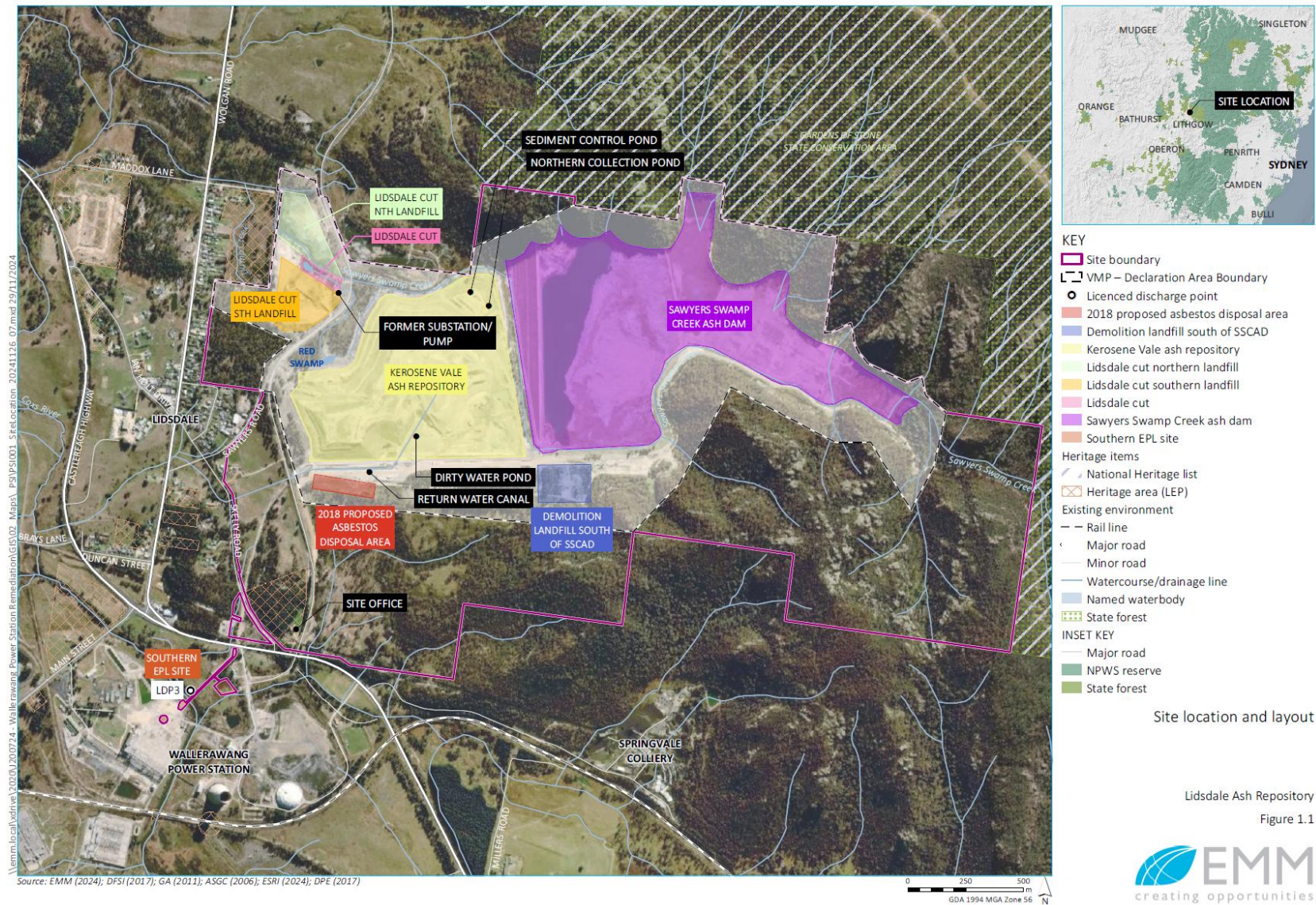


Figure 1.1 Site location and layout

1.3 Construction and Operational Environmental Management Plans

CoA 6.2 requires the applicant to develop CEMP that outlines the environmental management practices and procedures to be followed during construction, while CoA 6.3 requires the preparation and implementation of the following plans as part of the CEMP:

- Construction Traffic Management Plan (CTMP)
- Construction Noise Management Plan (CNMP)
- Construction Erosion and Sediment Control Plan (CESCP).

Given the requirement to develop these additional plans in conjunction with the CEMP, these plans are identified as sub-plans to this CEMP.

CoA 6.4 requires the applicant to also prepare and implement an Operational Environmental Management Plan (OEMP). This is a separate document to the CEMP that covers the routine operations of the site outside the specific construction activities identified Section 1.2 of this Plan. As part of the OEMP, CoA 6.5 requires the preparation and implementation of the following plans:

- Operational Noise Management Plan (ONMP)
- Operational Groundwater Management Plan (OGMP)
- Operational Surface Water Management Plan (OSWMP)
- Operational Landscape / Revegetation Plan (OLRMP)
- Operational Transport Management Plan (OTMP).

Consistent with the CEMP, these additional plans are treated as Sub-plans to the OEMP.

Table 1.1 provides a high-level overview of the proposed activities that are covered by the CEMP and those covered by the OEMP. Further information on the scope of this CEMP is provided in section 1.4.

Table 1.1 Activities covered by the CEMP and OEMP

Environmental Management Plan	Activities covered
CEMP – construction activities	<ul style="list-style-type: none"> • Construction of reinforcement berms around the perimeter of the KVAR • Sawyers Swamp Creek realignment • Sediment control and water storage works associated with construction on the edge of the KVAR and realignment of the creek • Excavation of the former pine plantation area • Establishment of access roads onto the surface of the SSCAD and associated roads across the dam surface • Establishment of freshwater collection ponds on the northern edge of SSCAD • Rearrangement of water flows around the KVAR • Reinstatement of environmental controls for historic landfill areas including capping of slumped areas, reprofiling for water management and control of sediment runoff during these activities. • Vegetated cover, stabilisation activities.

Environmental Management Plan	Activities covered
OEMP – care and maintenance operations	<ul style="list-style-type: none"> • Capping and Material Delivery <ul style="list-style-type: none"> ○ Approved under Modification 2 until October 2033. ○ Ongoing capping and rehabilitation of SSCAD and KVAR, using VENM, ENM, and EPA-approved recovered materials. ○ Transport via WPS entrance (Castlereagh Highway) / internal haul roads & managed in accordance with Operational Transport Management Plan (OTMP). • Management of contaminated surface and groundwater (SSCAD, KVAR, KVAD, Lidsdale Cut). • Operation of water treatment plants (discharge via LDP3)/ Use of stormwater ponds for dust suppression, rehabilitation, and firefighting/ conduct regular water quality monitoring. • Rehabilitation to return land to a safe, stable, and non-polluting condition. <ul style="list-style-type: none"> ○ stabilise landforms, install vegetative cover, and undertake weed control. ○ topsoil placement, seeding, planting, monitoring, and maintenance (slashing, weed control). ○ The final rehabilitation design to be developed in accordance with the EPA (Contamination) Voluntary Management Plan (expected 2027).

1.4 Environmental Management System Overview

GPM's Environmental Management System (EMS) is based on AS/NZS ISO 14001. The ISO 14001 standard provides best practice specifications for the implementation of an EMS. An EMS provides a framework for managing the company's environmental responsibilities so that they are integrated into overall operations. The standard approach integrates environmental management and supports the company's compliance with legislated and voluntary environmental requirements, as well as continuously improving their overall environmental performance.

The relevant environmental standard ensures a consistent approach is undertaken to integrate environmental management at all levels of the organisation by:

- identifying and maintaining awareness of relevant environmental legislation
- assignment of roles and responsibilities
- establishment of procedures for internal and external communications
- establishment of procedures for monitoring and measuring environmental performance
- setting and reviewing objectives and targets for improving environmental performance
- monitoring and measuring environmental compliance and community inquiries
- setting and reviewing management system programs for achieving objectives and targets
- provision of environmental training aligned to skill requirements
- review of EMS performance for continual improvement
- identifying and maintaining awareness of relevant environmental legislation
- assignment of roles and responsibilities

- establishment of procedures for internal and external communications
- establishment of procedures for monitoring and measuring environmental performance
- setting and reviewing objectives and targets for improving environmental performance
- monitoring and measuring environmental compliance and community inquiries
- setting and reviewing management system programs for achieving objectives and targets
- provision of environmental training aligned to skill requirements
- review of EMS performance for continual improvement.

This CEMP has been developed to be consistent with the relevant provisions of GPM’s EMS, including approvals and licenses as noted above.

A summary of the EMS and its interactions with the CEMP and OEMP is provided in Figure 1.2. This plan, the CEMP, is outlined in Figure 1.2. The OEMP will also be consistent with the EMS.

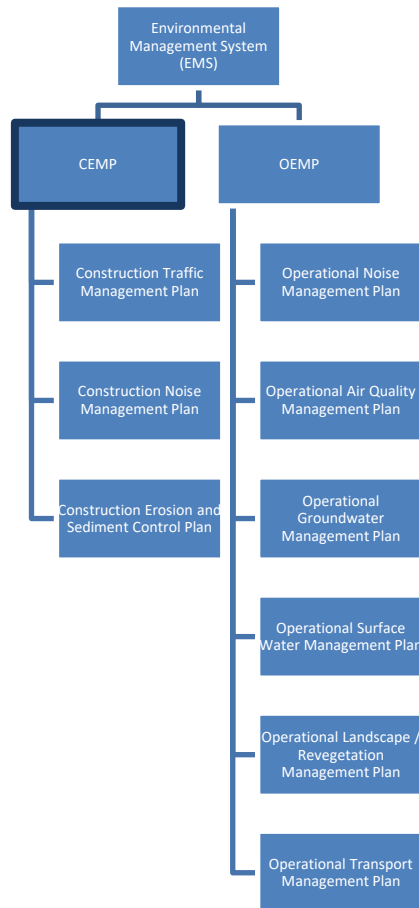


Figure 1.2 Environmental Management System flowchart

1.5 Scope of CEMP

The CEMP outlines the environmental management practices and procedures to be followed during construction activities in each area of the site. The CEMP addresses the specific issues that arise when undertaking construction necessary to secure the long-term stability of the Lidsdale Ash Repository Site.

The closure works for the site involve a range of activities that fall within the definition of construction, given that the power station is no longer operating and there is no longer any routine placement of fly ash. Some of these closure activities were foreshadowed in the application of the first approval modification (Mod1), to allow the importation of clean fill materials into the Lidsdale Ash Repository Areas.

As identified in section 1.2, a further modification was granted on 13 October 2023 (Mod2).

This CEMP has been prepared to cover the environmental management of the construction activities to be undertaken to enable the long-term closure of the site in an environmentally safe manner.

Specific construction activities to be undertaken in accordance with this plan are shown in Figure 1.3 and listed below:

- Construction of reinforcement berms around the perimeter of the Kerosene Vale Ash Repository (KVAR).
- Sawyers Swamp Creek realignment – as detailed in CoA 2.26 of the Project Approval.
- Sediment control and water storage works associated with the construction on the edge of the KVAR and realignment of the creek.
- Establishment of access roads onto the surface of the Sawyers Swamp Creek Ash Dam (SSCAD), and associated roads across the dam surface.
- Establishment of freshwater collection ponds on the northern edge of SSCAD to meet EPA objectives and required by EPL 21185.
- Rearrangement of water flows around the KVAR, including reconfiguration of the sediment control, northern, and dirty water ponds to achieve separation of clean and contaminated water streams.
- Reinstatement of environmental controls for historic landfill areas containing asbestos, general waste, building demolition materials that exist around the site and outside the Project Area. This includes capping over slumped areas, reprofiling for water management and control of sediment runoff during these activities.

The operational aspects of the site are largely associated with managing water to ensure that no contaminated water leaves the site, as well as ensuring the maintenance of roads, vegetation, drainage and the necessary operational activities associated with the SSCAD. These activities are different to the civil engineering works associated with construction and will need to continue beyond the necessary construction works. These daily routine works are managed under the Site's OEMP for this reason.

Contractors have been engaged by GPM to support GPM's care and maintenance and construction activities. Relevant terms and conditions stipulated in the contractual arrangements between the Contractors and GPM have been considered in the development of this CEMP to ensure consistency.

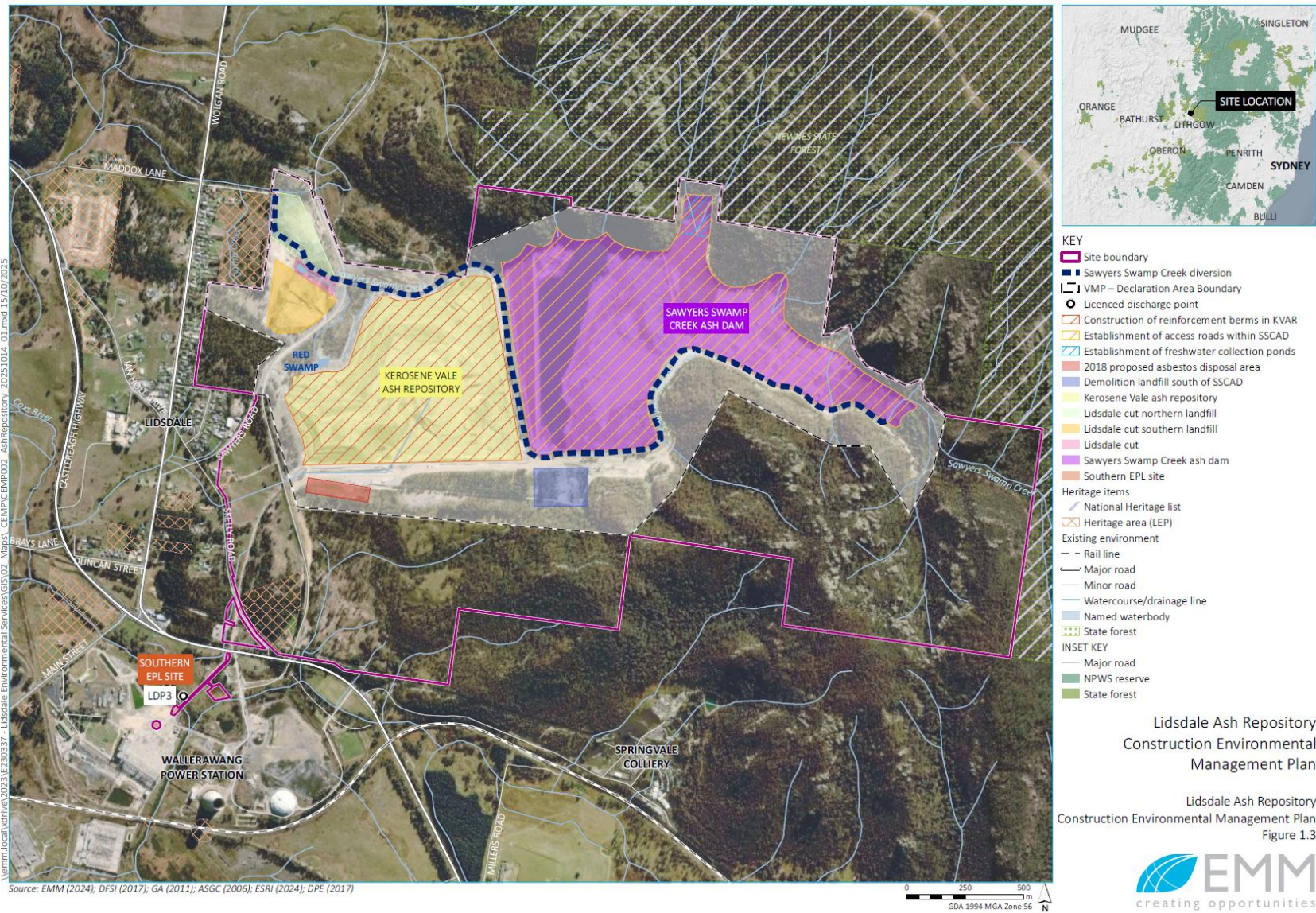


Figure 1.3 Construction areas

1.6 Objectives of CEMP

The objective of the CEMP is to ensure full environmental, planning and regulatory compliance of approved construction activities. These objectives have been developed with consideration of key performance outcomes for each key issue. The objectives are consistent with GPM's environmental policy and set the basis for the detail contained within this CEMP. This is discussed in greater detail in section 2.3.

1.7 Structure of CEMP

The structure of the CEMP has been developed to be consistent with the elements of AS/NZA ISO 14001 as well as complying with the general requirements and objectives stipulated within the *Guideline for the Preparation of Environmental Management Plans* (DIPNR 2004).

The CEMP comprises the following sections:

Section 1: Describes the Lidsdale Ash Repository background, the CEMP purpose and format, the key construction activities and lists the key reference documents surrounding the CEMP.

Section 2: Establishes the environmental management framework for implementing the CEMP including roles and responsibilities for managing operations and adhering to environmental regulations.

Section 3: Describes the environmental controls applicable to the Lidsdale Ash Repository and a summary of the environmental aspects, impacts and associated mitigation measures outlined in the relevant sub-plans.

Section 4: Describes the inspection, monitoring, reporting and auditing requirements of this CEMP

Appendix A: Site inspection checklist.

Appendix B: Complaints register

Appendix C: Sensitive Area Plan

Appendix D: Master compliance checking spreadsheet

Appendix E: Construction and Operational Transport Management Plan

Appendix F: Construction Noise Management Plan

Appendix G: Construction Erosion and Sediment Control Plan

Appendix H: ER Endorsement

1.8 Interactions with other management plans and strategies

This CEMP has the following interrelationships with other management plans and documents:

- Sensitive Area Plan (SAP) – identify sensitive receivers (Appendix C)
- Construction and Operational Transport Management Sub-plan – identifies the management measures to minimise traffic and transport impacts during construction and operation (Appendix E)
- Construction Noise Management Sub-plan – identifies management measures to minimise impacts associated with noise generated by construction (Appendix F)
- Construction Erosion and Sediment Control Sub-plan (Appendix G)

1.9 Reference documents

The CEMP incorporates the obligations and criteria outlined in the following documents:

- Consolidated Project Approval 07_0005 (NSW Department of Planning)
- Submission Report (Parsons Brinckerhoff 2008)

- Environmental Assessment Mod 1 (Aurecon 2018)
- Mod 1 Submissions Report (Aurecon 2018a)
- Modification 2 Report (EMM 2023)
- Mod 2 Submissions Report (EMM 2023)
- Environment Protection Licence 21185 (NSW Environment Protection Authority)
- Works Approval (Water Mgt Act 2000)

1.10 Endorsement and approval

1.10.1 Internal approval of CEMP and Sub-plans

The CEMP and associated sub-plans, strategies and monitoring programs undergo ongoing review by the GPM team. Following the ongoing review and revision process, internal signoff will be provided.

1.10.2 External endorsement and approval of CEMP and sub-plans

Once internal approval is received, the documents will be provided to the Environmental Representative (ER) for review against the CoA requirements prior to submission to DPHI for review and approval.

Table 1.2 below provides a summary of the relevant authority(s), council(s) and agencies that require consultation during preparation of the CEMP sub-plans and monitoring programs in accordance with the conditions of approval.

A copy of the ER Endorsement of the CEMP is included in Appendix H of this Plan.

Table 1.2 Consultation requirements

Report	Consultation required	Relevant CoA
Construction Environmental Management Plan	Submit to Secretary for approval	6.2
Construction Traffic Management Plan	TfNSW Lithgow City Council	6.3 a)
Construction Noise Management Plan	EPA	6.3 b)
Erosion and Sediment Control Plan	N/A	6.3 c)

2 Environmental Management Framework

2.1 Preparation and availability of the CEMP

This CEMP has been prepared in accordance with requirements of the *Guideline for the Preparation of Environmental Management Plans* (DIPNR 2004) and GPM's Environmental Policy. It incorporates all requirements of all relevant licences, permits and approvals for the project.

The environmental policy is displayed on the GPM website and at the site office as well as being communicated to staff and other interested parties via inductions and ongoing awareness programs.

The CEMP will be submitted to the Secretary for approval at least four weeks prior to the commencement of any construction work associated with the project (or stage as relevant), unless otherwise agreed by the Secretary. Construction shall not commence until written approval has been received from the Secretary.

2.2 Planning

2.2.1 Environmental Risk Assessment

This section provides a framework for the environmental risks associated with the activities associated with the Construction activities on the Lidsdale Ash Repository. In order to calculate and assess the likelihood, consequences and risk rating of these environmental risks and others that may emerge as remediation of the Lidsdale Ash Repository progresses, Contractors in consultation with GPM, must incorporate the risk assessment framework outlined in this section with the relevant environmental aspects and impacts prior to undertaking works.

A task-specific risk assessment is to be undertaken by the Contractor in consultation with GPM and the Environmental Representative as individual activities are undertaken in order to assess environmental issues and mitigate potential risks in a practical manner.

The following tables outline the risk assessment process using three steps to identify the appropriate management measures required.

- Use the Likelihood criteria table to determine the likelihood that the aspect will have an impact on the environment or the reputation of the Lidsdale Ash Repository once control have been put in place.
- Use Consequence criteria table to determine how severe the potential impact will be with controls in place.
- Then determine the level of risk utilising the Risk Rating and Raking tables. This will determine the type and level of environmental protection measures that will be required. Where a significant risk to the environment has been identified, environmental protection measures must be introduced to reduce the risk to an acceptable level. Aspects with a medium or low risk should also have practicable management measures implemented if these can further reduce risk.

Table 2.1 Likelihood criteria

Level	Occurrence	Frequency	Probability
Almost certain	Already happened or is expected to occur in most circumstances.	Once per month or more.	90% or greater chance of occurrence.
Likely	May probably occur in most circumstances.	Once per year up to once per month.	66% up to 90% chance of occurrence.
Possible	Not unusual and might occur in the foreseeable future.	Once in 10 years up to once per year.	10% up to 33% of occurrence.
Unlikely	Could occur at some time but unlikely in the foreseeable future.	Once in 10 years up to once in 3 years.	10% up to 33% chance of occurrence.
Rare	Is expected to occur only in exceptional or extreme occurrences.	Less than once in 10 years.	Less than 10% chance of occurrence.

Table 2.2 Consequence criteria

Consequence (impact)	Environmental, legal and/or reputation impact
Insignificant	Environmental – Limited and localised, environmental consequence is limited to weeks. Reputation – Potential to cause negligible level of impact.
Minor	Environmental – On-site release immediately contained by local personnel, short-term. Temporary environmental impact, environmental consequence is less than 12 months. Reputation – Potential to cause a low level of impact.
Moderate	Environmental – On-site release contained with assistance from personnel not based at the works location. Medium term environmental impact, environmental consequence 1-2 years. Reputation – Potential to cause a medium level of impact.
Major	Environmental – Off-site release or pollution with a medium to long-term environmental impact, environmental consequence 2-5 years. Reputation – Potential to cause a high level of impact.
Catastrophic	Environmental – Toxic pollution and off-site contamination, permanent or long-term environmental impact, environmental consequence >5 years. Reputation – Potential to cause a severe level of impact.

Table 2.3 Risk rating.

		Likelihood				
		Rare	Unlikely	Possible	Likely	Almost certain
Impact	Insignificant	Low	Low	Medium	Medium	Medium
	Minor	Low	Medium	Medium	High	High
	Moderate	Medium	Medium	High	High	Severe
	Major	Medium	High	High	Severe	Severe
	Catastrophic	High	High	Severe	Severe	Severe

Table 2.4 Risk ranking.

Risk ranking	Management required
Severe	Immediate management action required
High	Priority management action warranted
Medium	Management action warranted
Low	Management action should be considered, particularly for low level impacts which nevertheless occur on a continual basis

GPM shall determine how the risks can be remedied to ensure sound environmental management. This may include updating the CEMP to cover any further identified management measures and mitigation strategies.

It is the responsibility of the Site Manager, Project Engineers and the Environment Manager to ensure that all personnel are aware of the nature and implications of any changes to the operational activities during the Lidsdale Ash Repository works.

2.3 Environmental objectives and targets

As a means of assessing environmental performance during the construction of the Project, environmental objectives and targets have been established. These objectives and targets have been developed with consideration of key performance outcomes for each key issue, as specified in the Project Approval. The objectives and targets are consistent with the GPM's environmental policy and set the basis for the development of the CEMP and the OEMP.

The performance of the Project will be monitored against the objectives and targets. Project performance monitoring will be documented in the Key Performance Indicators (KPIs) and other relevant documents and be reviewed at least on an annual basis as part of the management review.

Environmental objectives and targets for the Project are incorporated into relevant environmental management sub plans, and a summary is provided in Table 2.5.

Table 2.5 Environmental Objectives and Targets

Objective	Target	Measurement tool
Construction of the Project in accordance with environmental approvals.	Full compliance with statutory approvals.	Audits, construction compliance reporting, management view.
Compliance with legal requirements.	No regulatory infringements (Provisional Improvement Notices (PINs) or prosecutions).	No formal regulatory warning. Internal audits, construction compliance reporting, management view.
Implement a rigorous and comprehensive EMS that meets the requirements of AS/NZS ISO 14001.	Address non-conformances and corrective actions within specific timeframes.	Internal audits, management reviews.
Engage with the affected and broader community, minimise complaints and respond to any complaints within a suitable timeframe.	Disseminate regular Project updates and other information through the Project website and other tools identified in the Community Engagement Strategy. Record and respond to complaints within the timeframe specified in the Community Engagement Strategy.	Review complaints register, construction compliance report, audits.
Continuously improve environmental performance.	Develop and maintain a program of ongoing environmental training. Capture lessons learnt from environmental incidents to minimise repeat issues. Encourage and reward innovation and effort throughout the workforce.	Construction compliance report, management review.

2.4 Regulatory requirements and compliance

The Project's construction works must be carried out in accordance with:

- the conditions of approval as per Project Approval (07_0005), including the Environmental Assessment and Submissions Report
- all written directions from the Planning Secretary as they relate to the Project Approval (07_0005)
- this CEMP and sub-plans.

2.4.1 Lidsdale Ash Repository approval

The Environmental Assessment (EA) for the Kerosene Vale Stage 2 Ash Repository works was prepared to satisfy the requirements of Part 3A (now repealed) of the Environmental Planning and Assessment Act 1979 (EP&A Act). The EA was assessed by the then Department of Planning and Environment (DPE) in consultation with other relevant Authorities.

The EA went on public exhibition on 2 April 2008 for a period of 30 days and received the KVAR Stage 2 Approval from the Minister for Planning in December 2008.

The Statement of Commitments (SoC) included in the Submissions Report, which was amended as a result of the submissions received during the public exhibition period, to allow for a comprehensive management approach to minimise the environmental impacts associated the operation of Kerosene Vale Stage 2 Ash Repository.

KVAR Stage 2 Approval (07_0005) has been subject to two modifications that have been approved, the first was on the 9 August 2018 under section 75W of the EP&A Act and the second was approved 13 October 2023.

The modifications provide authority to import virgin excavated natural material (VENM) and excavated natural material (ENM) to be used as capping material at the Lidsdale Ash Repository. These materials are defined by the EPA Waste Guideline Classification Guidelines 2014 and referred to as capping material in the EA. The OEMP and CEMP has been prepared to satisfy the SoC, and the modified Lidsdale Ash Repository Approval conditions.

Relevant CoAs are provided in Table 2.6.

Table 2.6 CoA requirements for CEMP.

CoA number	Requirement	Relevant CEMP Section
2.3	<p>Construction activities associated with the project shall only be undertaken during the following hours:</p> <ul style="list-style-type: none"> a) 7:00 am to 6:00 pm, Mondays to Fridays, inclusive; b) 8:00 am to 1:00 pm on Saturdays; and c) c) at no time on Sundays or public Holidays 	Section 2.7 - Working Hours
2.4	<p>Activities resulting in impulsive or tonal noise emission (such as rock breaking or rock hammering) shall be limited to 8:00 am to 12:00 pm, Monday to Saturday and 2:00 pm to 5:00 pm, Monday to Friday. The Applicant shall not undertake such activities for more than three continuous hours and must provide a minimum one-hour respite period.</p>	Section 2.7 - Working Hours
2.5	<p>Construction outside the hours stipulated in condition 2.3 of this approval is permitted in the following circumstances:</p> <ul style="list-style-type: none"> a) where construction works do not cause audible noise at any sensitive receiver; or b) for the delivery of materials required outside these hours by the Police or other authorities for safety reasons; or c) where it is required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm. 	Section 2.7 - Working Hours
2.6	<p>The hours of construction activities specified under condition 2.3 of this approval may be varied with the prior written approval of the Secretary. Any request to alter the hours of construction specified under condition 2.3 shall be:</p> <ul style="list-style-type: none"> a) considered on a case-by-case basis; b) accompanied by details of the nature and need for activities to be conducted during the varied construction hours; and c) accompanied by any information necessary for the Secretary to reasonably determine that activities undertaken during the varied construction hours will not adversely impact on the acoustic amenity of sensitive receivers in the vicinity of the site. 	Section 2.7 - Working Hours

CoA number	Requirement	Relevant CEMP Section
2.7	<p>The construction noise objective for the project is to manage noise from construction activities (as measured by a LA10 (15 minute) descriptor) so as not to exceed the background LA90 noise level by more than 10 dB(A) at any sensitive receiver.</p> <p>Any activities that have the potential for noise emissions that exceed the objective must be identified and managed in accordance with the Construction Noise Management Plan (as referred to under condition 6.3b) of this approval). The Applicant shall implement all reasonable and feasible noise mitigation measures with the aim of achieving the construction noise objective.</p>	<p>Appendix F - Construction Noise Management Sub-Plan</p> <p>Section 4.3 - Environmental monitoring</p>
2.26	<p>The Applicant shall prepare and submit to the Secretary for approval a Rehabilitation Plan addressing the restoration of the in-stream area (i.e. bed and bank) of Sawyers Swamp Creek and the associated riparian corridor at least two months prior to the realignment of the creek, unless otherwise agreed by the Secretary. The Plan shall be developed in consultation with, and to the satisfaction of, Fisheries NSW and shall include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> a) the objectives and outcomes that would be sought through the implementation of the Plan; b) performance criteria for the realigned creek and associated riparian zone against which the impact of the project on the ecological health of Sawyers Swamp Creek will be assessed; c) methodology used in developing the realignment planform; d) details of the final creek realignment including bank, meander, depth and slope characteristics (including pool riffle sequences), flow and channel capacity characteristics, scour potential, and in stream vegetation; e) timing of the creek realignment; f) a description of the proposed riparian zone and restoration works along the entire length of the creek realignment, including details of plant species to be used in rehabilitation; g) details of any proposed riparian and in stream controls to be implemented in the reach upstream of the alignment to ensure the effectiveness of the proposed creek realignment and rehabilitation; h) a description of the initial and ongoing weed control measures; i) the methodology and timing of post realignment monitoring of the hydrology and ecological health of the aquatic and riparian vegetation as required under conditions 3.6 and 3.7 of this approval, respectively; j) mitigation measures to be implemented in the event of an identified decline in ecosystem health as a direct result of the realignment of the creek or construction or operation of the project, including a timetable for implementation; 	<p>The Sawyers Swamp Creek Realignment Progressive Rehabilitation Plan has been submitted to DPHI for review.</p>

CoA number	Requirement	Relevant CEMP Section
	<p>k) program for ongoing maintenance of the realigned creek system and associated riparian zone;</p> <p>l) any compensatory measures to offset the impacts of the project on the aquatic habitat and local waterways, if and as required by Fisheries NSW and</p> <p>m) provisions for periodic reporting of monitoring results to Fisheries NSW.</p> <p>The Applicant shall not commence any construction work that would result in the disturbance of Sawyers Swamp Creek until the Rehabilitation Plan has been approved by the Secretary.</p>	
2.27	The rehabilitation and restoration of Sawyers Swamp Creek and associated riparian zone are to be consistent with the <i>Works and Watercourse Design Guideline</i> (DWE, April 2007) and <i>Guidelines for Controlled Activities: Vegetation Management Plans</i> (DWE, February 2008).	The Sawyers Swamp Creek Realignment Progressive Rehabilitation Plan has been submitted to DPHI for review.
2.28	A riparian zone consisting of local native plant species shall be established and maintained in and adjacent to Swayers Swamp Creek, for the entirety of the site and be a minimum width of 20 m on both sides of the creek. Seed and propagule sources are to be from local botanical provenance and same general habitat.	The Sawyers Swamp Creek Realignment Progressive Rehabilitation Plan has been submitted to DPHI for review.
2.29	The riparian zone referred to under condition 2.28 of this approval shall be maintained for a period of at least five years after final planting.	The Sawyers Swamp Creek Realignment Progressive Rehabilitation Plan has been submitted to DPHI for review.
2.30	<p>The Applicant shall take all reasonable and feasible measures to prevent discharge of sediments and pollutants from the construction and operation of the project entering waterways.</p> <p>Note: Section 120 of the <i>Protection of the Environment Operations Act 1997</i> prohibits the pollution of water except where expressly provided by an Environment Protection Licence.</p>	Appendix G – Construction erosion and sediment control plan
2.31	Earthworks not associated with the realignment of Sawyers Swamp Creek shall not be undertaken within 50 m of the creek where reasonable and feasible.	Appendix G – Construction erosion and sediment control plan
2.32	All equipment, machinery and vehicles associated with the construction and operation of the project shall be operated and maintained in a manner that minimises the potential for oil and grease spills/leaks.	Appendix G – Construction erosion and sediment control plan

CoA number	Requirement	Relevant CEMP Section
2.33	The Applicant shall construct and operate the project in a manner that minimises dust impacts generated by construction works and operational activities, including wind-blown and traffic-generated dust, on the receiving environment. All activities on the site shall be undertaken with the objective of preventing visible emissions of dust from the site. Should such visible dust emissions occur at any time, the Applicant shall identify and implement all practicable dust mitigation measures, including cessation of relevant works, as appropriate, such that emissions of visible dust cease.	Section 3.2, Table 3.1
2.35	The Applicant shall take all practicable measures to mitigate off-site lighting impacts from the project and ensure all external lighting associated with the project complies with <i>Australian Standard AS4282 1997 – Control of the Obtrusive Effects of Outdoor Lighting</i> .	Section 3.2, Table 3.1
2.36	The Applicant shall ensure that construction vehicles associated with the project: <ul style="list-style-type: none"> a) minimise the use of local roads (though residential streets and town centres) to gain access to the site b) adhere to any nominated haulage routes identified in the Construction Traffic Management Plan as referred to in condition 6.3a) of this approval; and c) adhere to a Construction Vehicle Code of Conduct prepared to manage driver behaviour along the local road network to address traffic impacts (and associated noise) along nominated haulage routes. 	Appendix E - Construction and Operational Transport Management Plan
2.36A	The Applicant must: <ul style="list-style-type: none"> a) not import more than 100 heavy vehicle loads of capping material to the site per day; b) cover all heavy vehicle loads of capping material; c) not transport capping material on local roads in the Lithgow local government area; d) notify the Department before commencing the importation of capping material from sources outside of the Lithgow local government area; and e) not import capping material to the site for more than 10 years following the date of approval of Modification application 07_0005 Mod 2. 	Appendix E - Construction and Operational Transport Management Plan
2.36B	The Applicant must implement warning signage on the Castlereagh Highway on the approaches to the Castlereagh Highway/Wallerawang Power Station Haul Road intersection prior to importing capping material to the site from sources outside of the Lithgow local government area to the satisfaction of TfNSW.	Appendix E - Construction and Operational Transport Management Plan

CoA number	Requirement	Relevant CEMP Section
2.37	The Applicant shall ensure that all construction personnel are educated on their obligations in respect of the protection of Aboriginal and non-indigenous heritage sites and items.	Section 2.6.2 - Toolbox talks training and awareness Section 3.2, Table 3.1
2.38	If any previously unidentified heritage sites or items (Aboriginal and/or non-indigenous) are discovered during construction works or operational activities, all work likely to affect the heritage sites or item(s) is to cease immediately and the discovery of the objects shall be reported to Heritage NSW or the Department as relevant.	Section 2.9 - Emergency and incident planning Section 3.2, Table 3.1
2.39	All waste materials shall be assessed, classified, managed and disposed of in accordance with the <i>EPA's Waste Classification Guidelines</i> (or its latest version).	Section 3.2, Table 3.1
2.40	All waste materials removed from the site shall only be directed to a waste management facility lawfully permitted to accept the materials.	Section 3.2, Table 3.1
2.41	The Applicant 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 <i>Protection of the Environment Operations Act 1997</i> , if such a licence is required in relation to that waste.	Section 3.2, Table 3.1
3.1	<p>The Applicant shall prepare and implement a Construction Noise Monitoring Program to confirm the predictions of the noise assessment detailed in the document referred to under condition 1.1 of this approval and assess compliance against the construction noise criterion stipulated in condition 2.7 of this approval. The noise monitoring program shall be prepared in consultation with, and to the satisfaction of the EPA. The monitoring program shall form part of the Construction Noise Management Plan referred to in condition 6.3b) of this approval and must include monitoring of the construction noise generated during:</p> <ul style="list-style-type: none"> a) the realignment Sawyers Swamp Creek; b) construction of the stabilisation berm; c) excavation of the former pine plantation area; d) relocation and construction of surface water management structures; and e) concurrent construction activities. <p>The Applicant shall forward to the EPA and the Secretary a report containing the results of each noise assessment and describing any non-compliance within 14 days of conducting a noise assessment.</p>	Appendix F - Construction Noise Management Plan

CoA number	Requirement	Relevant CEMP Section
3.7	<p>The Applicant shall prepare an Ecological Monitoring Program, in consultation with, and to the satisfaction of, Fisheries NSW, to monitor and quantify the impacts of the realignment of Sawyers Swamp Creek on the ecology and ecosystems of the creek and the associated riparian environment. The Program shall include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> a) a sampling, data collection and assessment regime to establish baseline ecological health and for ongoing monitoring of ecological health of the in-stream environment during construction and throughout the life of the project; b) at least one in-stream sampling period prior to the realignment of Sawyers Swamp Creek and at least two (2) sampling periods following the realignment of Sawyers Swamp Creek; and c) an assessment regime for monitoring the ecological health of the riparian environment for a period of at least five (5) years after final planting. <p>The monitoring program shall form part of the Rehabilitation Plan for the project as referred to in condition 2.26 of this approval.</p>	<p>The Sawyers Swamp Creek Realignment Progressive Rehabilitation Plan has been submitted to DPHI for review.</p>
4.1	<p>Prior to each of the events listed below, the Applicant shall certify in writing to the satisfaction of the Secretary that it has complied with all conditions of this approval applicable prior to that event:</p> <ul style="list-style-type: none"> a) commencement of any construction works on the land subject of this approval; and b) commencement of operation of the project. 	<p>Section 4.1 – Compliance tracking Appendix D</p>

CoA number	Requirement	Relevant CEMP Section
4.2	<p>The Applicant shall develop and implement a Compliance Tracking Program for the project, prior to commencing operations, to track compliance with the requirements of this approval and shall include, but not necessarily limited to:</p> <ul style="list-style-type: none"> a) provisions for periodic review of the compliance status of the project against the requirements of this approval and the Statement of Commitments detailed in the document referred to in condition 1.1c) of this approval; b) provisions for periodic reporting of the compliance status to the Secretary; c) a program for independent environmental auditing in accordance with the Independent Audit Post Approval Requirements (NSW Government 2020); d) procedures for rectifying any non-compliance identified during environmental auditing or review of compliance; e) mechanisms for recording incidents and actions taken in response to those incidents; f) provisions for reporting incidents to the Secretary during construction and operation; and g) provisions for ensuring all employees, contractors and sub-contractors are aware of, and comply with, the conditions of this approval relevant to their respective activities. <p>The Compliance Tracking Program shall be implemented prior to operation of the project with a copy submitted to the Secretary for approval within four weeks of commencement of the project, unless otherwise agreed by the Secretary.</p>	<p>Section 4.1 – Compliance tracking Appendix D</p>
4.3	<p>Nothing in this approval restricts the Applicant from utilising any existing compliance tracking programs administrated by the Applicant to satisfy the requirements of condition 4.2. In doing so, the Applicant must demonstrate to the Secretary how these systems address the requirements and/or have been amended to comply with the requirements of the condition.</p>	<p>Section 4.1 – Compliance tracking Appendix D</p>
4.4	<p>The Applicant shall meet the requirements of the Secretary in respect of the implementation of any measure necessary to ensure compliance with the conditions of this approval, and general consistency with the documents listed under condition 1.1 of this approval.</p>	<p>Section 4.1 – Compliance tracking Appendix D</p>

CoA number	Requirement	Relevant CEMP Section
5.1	<p>Prior to the commencement of the project, the Applicant shall establish and maintain a website for the provision of electronic information associated with the project. The Applicant shall, subject to confidentiality, publish and maintain up-to-date information on this website or dedicated pages including, but not necessarily limited to:</p> <ul style="list-style-type: none"> a) the documents referred to under condition 1.1 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; a) e) the outcomes of compliance tracking in accordance with the requirements of this project approval. 	Section 2.8.3 – Community liaison and/or notification
5.2	The Applicant shall make all documents required to be provided under condition 5.1 of this approval publicly available.	Section 2.8.3 – Community liaison and/or notification
5.3	<p>Prior to the commencement of the project, the Applicant shall ensure that the following are available for community complaints and enquiries during construction and operation:</p> <ul style="list-style-type: none"> 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. <p>The telephone number, postal address and email address shall be published in a newspaper circulating in the local area prior to the commencement of the project. The above details shall also be provided on the website required by condition 5.1 of this approval.</p>	Section 2.8.4 - Complaints management

CoA number	Requirement	Relevant CEMP Section
5.4	<p>The Applicant shall record the details of all complaints received through the means listed under condition 5.3 of this approval in an up-to-date Complaints Register. The Register shall record, but not necessarily be limited to:</p> <ul style="list-style-type: none"> a) the date and time of the complaint; b) the means by which the complaint was made (e.g. telephone, email, mail, in person); c) any personal details of the complainant that were provided, or if no details were provided a note to that effect; d) the nature of the complaint e) the time taken to respond to the complaint f) any investigations and actions taken by the Applicant in relation to the complaint; g) any follow-up contact with, and feedback from, the complainant; and h) if no action was taken by the Applicant in relation to the complaint, the reason(s) why no action was taken. <p>The Complaints Register shall be made available for inspection by the Secretary upon request.</p>	Section 2.8.4 - Complaints management
6.1	<p>Prior to the commencement of any construction or operational activities, or as otherwise agreed by the Secretary, the Applicant shall nominate for the approval of the Secretary a suitably qualified and experienced Environmental Representative(s) independent of the design, construction and operation personnel. The Applicant shall engage the Environmental Representative(s) during any construction activities, and throughout the life of the project, or as otherwise agreed by the Secretary. The Environmental Representative(s) shall:</p> <ul style="list-style-type: none"> a) oversee the implementation of all environmental management plans and monitoring programs required under this approval, and advise the Applicant upon the achievement of these plans/programs; b) have responsibility for considering and advising the Applicant on matters specified in the conditions of this approval and the Statement of Commitments in the EA; c) oversee the implementation of the environmental auditing of the project in accordance with the requirements of condition 4.2 of this approval and all relevant project Environmental Management System(s); and a) d) be given the authority and independence to recommend to the Applicant reasonable steps to be taken to avoid or minimise unintended or adverse environmental impacts, and, failing the effectiveness of such steps, to recommend to the Applicant that relevant activities are to be ceased as soon as reasonably practicable if there is a significant risk that an adverse impact on the environment will be likely to occur. 	Section 2.5.1.1 – Environmental Representative

CoA number	Requirement	Relevant CEMP Section
6.2	<p>Prior to the commencement of construction work, the Applicant shall prepare and implement a Construction Environmental Management Plan (CEMP). The CEMP shall outline the environmental management practices and procedures to be followed during construction. The CEMP shall be prepared in accordance with <i>Guideline for the Preparation of Environmental Management Plans (DIPNR, 2004)</i>.</p> <p>The Construction Environmental Management Plan for the project (or any stage of the project) shall be submitted to the Secretary for approval at least four weeks prior to the commencement of any construction work associated with the project (or stage as relevant), unless otherwise agreed by the Secretary. Construction shall not commence until written approval has been received from the Secretary.</p>	This plan
6.3	<p>As part of the Construction Environmental Management Plan for the project, the Applicant shall prepare and implement the following plans:</p> <ul style="list-style-type: none"> a) a Construction Traffic Management Plan, prepared in consultation with TfNSW, the relevant Council and emergency services to manage the construction traffic impacts of the project, including but not limited to: <ul style="list-style-type: none"> i. identifying construction vehicle volumes (construction staff vehicles, heavy vehicles and oversized loads) and haulage routes; ii. identifying any road closures and/or traffic detours during the haulage of oversized loads as agreed to by the relevant roads authority; iii. detailing a Construction Vehicle Code of Conduct to set driver behaviour controls to minimise impacts on the land uses along haulage routes (including noise minimisation measures); and iv. complying with the document Procedures for Use in the Preparation of a Traffic Management Plan (RTA, 2001). 	<p>This plan</p> <p>Appendix E - Construction and Operational Transport Management Plan</p>

CoA number	Requirement	Relevant CEMP Section
	<p>b) a Construction Noise Management Plan to detail how construction noise impacts would be minimised and managed. The Strategy shall be developed in consultation with, and to the satisfaction of, the EPA and shall include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> i. details of construction activities and an indicative schedule for construction works; ii. identification of construction activities that have the potential to generate noise impacts on sensitive receivers, iii. procedures for assessing noise levels at sensitive receivers and compliance; iv. details of the reasonable and feasible actions and measures to be implemented to minimise noise impacts and, if any noise exceedance is detected, how any non-compliance would be rectified; and v. procedures for notifying sensitive receivers of construction activities that are likely to affect their noise amenity. 	<p>Appendix F - Construction Noise Management Plan</p>
	<p>c) an Erosion and Sediment Control Plan to detail measures to minimise erosion and the discharge of sediment and other pollutants to land and/or water during construction works. The Plan must include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> i. identification of the construction activities that could cause soil erosion or discharge sediment or water pollutants from the site; ii. a description of the management methods to minimise soil erosion or discharge of sediment or water pollutants from the site, including a strategy to minimise the area of bare surfaces, stabilise disturbed areas, and minimise bank erosion; and iii. demonstration that the proposed erosion and sediment control measures will conform with, or exceed, the relevant requirements of Managing Urban Stormwater: Soils and Construction (Landcom, 2004). 	<p>Appendix G - Erosion and Sediment Control Plan</p>

CoA number	Requirement	Relevant CEMP Section
6.6	<p>Within three months of:</p> <ul style="list-style-type: none"> a) the submission of an incident report under condition 7.1; b) the submission of an Annual Review under condition 7.3; c) the submission of an Independent Environmental Audit under condition 4.2); or d) the modification of the conditions of this approval (unless the conditions require otherwise), <p>the Applicant must review and, if necessary, revise the studies, strategies or plans required under the conditions of approval to the satisfaction of the Secretary.</p> <p>Where this review leads to revisions in any such document, then within 4 weeks of the review Non-Compliance Notification the revised document must be submitted to the Secretary for approval, unless otherwise agreed with the Secretary.</p> <p><i>Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the development.</i></p>	Section 4.6 – Review and improvement
7.1	<p>The Secretary must be notified in writing via the Major Projects website immediately after the Applicant becomes aware of an incident. The notification must identify the development (including the application number and the name of the development if it has one) and set out the location and nature of the incident. Subsequent notification requirements must be given, and reports submitted in accordance with the requirements set out in Appendix 3.</p>	Section 2.10.3 – Incident response
7.2	<p>The Secretary must be notified in writing via the Major Projects website within seven days after the Applicant becomes aware of any non-compliance. A non-compliance notification must identify the development and the application number for it, set out the condition of approval that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.</p> <p><i>Note: A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.</i></p>	Section 2.10.1 – Non-compliance

2.4.2 Environment Protection Licence

EPL 21185 regulates the operation of the Kerosene Vale Ash Repositories (also known as the Lidsdale Ash Repository), including portions of the former Wallerawang Power Station.

The licence was issued by the EPA to GPM under the provisions of the Protection of the Environment Operations Act 1997 (POEO Act) in September 2020 and has been updated several times since.

GPM, as the licensee, must comply with the conditions of this licence, and must submit annual returns. The Annual Return must include a Statement of Compliance and a summary of any monitoring required by the licence (including the recording of complaints) and be submitted to the EPA within 60 days after the end of each reporting period.

2.4.3 Safety and Environmental Procedures

Safety and Environmental Procedures are to be prepared to manage and control all high-risk activities and others that have the potential to negatively impact on the environment as well as the employee/ contractor's health. It will be prepared prior to the commencement relevant construction activities and will incorporate relevant mitigation measures and controls, including those from relevant management sub plans. They also identify key Safe Work Method Statements (SWMS), provided by contractors, to be used concurrently with the procedures. They are specifically designed to communicate requirements, actions, processes and controls to construction personnel using plans, diagrams, and simply written instructions.

Procedures will be prepared for high-risk activities, including but not limited to:

- Working on Ash.
- Environmental Routine Inspection.
- Ground Disturbance.
- High-risk work.
- Unexpected Asbestos Containing Material (ACM) finds.
- Hot work.
- Working at height.

It will include at least the following elements:

- Description of the work activity, including any plant and equipment to be used.
- Outline the sequence of tasks for the activity, including interfaces with other construction activities.
- Identification of any environmental and/or socially sensitive areas, sites or places.
- Identification of potential environmental risks/impacts due to the work activity.
- Mitigation measures to reduce the identified environmental risk, including assigned responsibilities to site management personnel.
- Process for assessing the performance of the implemented mitigation measures.

All construction personnel and sub-contractors undertaking a task governed by a specific procedure must have read the procedure and acknowledge that they have read and understood their obligations by signing onto the SWMS prior to commencing work.

Regular monitoring, inspections and auditing of compliance will be undertaken by the Safety Advisor and environmental personnel to ensure that all controls are being followed and any non-conformances will be recorded and corrective actions implemented.

2.5 Resources, responsibilities, and authority

The key environmental management contact details for the construction phase of the Project are described below.

GPM Lidsdale Office

02 63523884

Mr Marlon Frost

Western Region Manager

M: 0423 127 030

E: marlon.frost@gpmco.com.au

Mr John Pola

GPM Environment Manager

M: 0429 205 290

E: john.pola@gpmco.com.au

2.5.1 Roles and responsibilities

The responsibilities for the implementation of this CEMP and associated sub-plans are described below.

2.5.1.1 Environmental Representative

CoA 6.1 requires that prior to the commencement of construction or operational activities, or as otherwise agreed by the Secretary, GPM will nominate for the approval of the Secretary a suitably qualified and experienced Environmental Representative(s)(ER) independent of the design, construction, and operation personnel. GPM will engage the ER during any construction activities, and throughout the life of the project, or as otherwise agreed by the Secretary. The ER will:

- oversee the implementation of all environmental management plans and monitoring programs required under this approval and advise the Proponent upon the achievement of these plans/programs
- have responsibility for considering and advising GPM on matters specified in the conditions of this approval and the Statement of Commitments in the EA
- oversee the implementation of the environmental auditing of the project in accordance with the requirements of condition 4.2 of this approval and all relevant project EMS(s)
- be given the authority and independence to recommend to GPM reasonable steps to be taken to avoid or minimise unintended or adverse environmental impacts, and, failing the effectiveness of such steps, to recommend to GPM that relevant activities are to be ceased as soon as reasonably practicable if there is a significant risk that an adverse impact on the environment will be likely to occur.

GPM has appointed an ER in accordance with this requirement and has submitted the details of this appointment to the Secretary for approval. Should the need arise to change the ER during the course of the Project this notification will be updated.

2.5.1.2 Site Manager

The environmental responsibilities of the Site Manager include (but are not limited to) the following:

- Ensure all works comply with relevant regulatory and Project requirements.
- Ensure the requirements of this CEMP are fully implemented, and in particular, that environmental requirements are not secondary to other construction requirements.
- Endorse and support the Project's environmental policy.
- Liaise with the Environmental Representative and other government authorities as required.
- Participate and provide guidance in the regular review of this CEMP and supporting documentation.
- Provide adequate resources (personnel, financial and technological) to ensure effective development, implementation and maintenance of this CEMP.
- Ensure that all personnel receive appropriate induction training, including details of the environmental and community requirements.
- Ensure that complaints are investigated to ensure effective resolution.
- Stop work immediately if an unacceptable impact on the environment is likely to occur.

2.5.1.3 Environmental Manager

The environmental responsibilities of the Environmental Manager include, but are not limited to, the following:

- Overall responsibility for the implementation of environmental matters on the Project.
- Development, implementation, monitoring and updating of the CEMP and sub plans in accordance with ISO14001.
- Report to Project Manager and other senior managers on the performance and implementation of the CEMP.
- Ensure management reviews of the CEMP are undertaken annually, documented and actions implemented.
- Ensure environmental risks of the Project are identified and appropriate mitigation measures implemented.
- Identify where environmental measures are not meeting the targets set and where improvement can be achieved.
- Ensure environmental protocols are in place and managed.
- Ensure environmental compliance.
- Obtain and update all environmental licences, approvals and permits as required.
- Liaise with Environmental Representative and approval authorities.
- Develop environmental document control, reporting, inductions and training.
- Manage environmental reporting within the Project team and to the regulatory authorities.
- Oversee site monitoring, inspections and audits.
- Manage all subcontractors and consultants with regards to environmental matters, including assessing their environmental capabilities and overseeing the submission of their environmental documents.

- Prepare and/or distribute environment awareness notes.
- Develop and facilitate induction, toolbox talks and other training programs regarding environmental requirements for all site personnel.
- Notify relevant authorities in the event of an environmental incident and manage close-out of these.
- Stop activities where there is an actual or immediate risk of harm to the environment, or to prevent environmental non-conformities, and advise the Site Manager, Sub-Contractor Manager and Engineering Project Officer.
- Assist the Communications Manager to resolve environment-related complaints.

2.5.1.4 Engineering Project Officer

The environmental responsibilities of the Engineering Project Officer include (but are not limited to) the following:

- Ensure the requirements of this CEMP are fully implemented.
- Ensure construction personnel manage construction works in accordance with statutory and approval requirements.
- Support the Environmental Manager in achieving the project environmental objectives.
- Ensure environmental and WHS management procedures and protection measures are implemented.
- Ensure all Project personnel attend an induction prior to commencing works.
- Liaise with TfNSW, the ER and other government authorities as required.
- Maintain the 24-hour complaints hotline.
- Record and provide written reports to the construction Environmental Manager of non-conformances or corrective actions with the CEMP. This may include the need to implement additional, or revise existing, mitigation measures.
- Assist in preparing the CEMP (including any future revisions) in accordance with all relevant requirements.
- Develop PESCP in consultation with Site Manager, Environment Manager and other relevant site personnel, as required.
- Manage environmental document control, reporting, inductions and training.
- Stop work immediately if an unacceptable impact on the environment is likely to occur.

2.5.1.5 Stakeholder Communications Plan Manager (Pursuit Communications)

The environmental responsibilities of the Stakeholder Communications Manager includes, but are not limited to, the following:

- Ensure that all community consultation activities are carried out.
- Report any environmental issues to the Environmental Manager raised by stakeholders or members of the community.
- Communicate general Project progress, performance and issues to stakeholders including the community.

2.5.1.6 Contractor's Managers

The environmental responsibilities of the contractors undertaking Construction Works include (but are not limited to) the following:

- Communicate with all personnel and sub-contractors regarding compliance with the CEMP and site-specific environmental issues.
- Ensure all site workers attend an environmental induction prior to the commencement of works.
- Co-ordinate the implementation of the CEMP.
- Co-ordinate the implementation and maintenance of pollution control measures.
- Identify resources required for implementation of the CEMP.
- Support the Environmental Manager in achieving the project environmental objectives, including on-ground implementation of the SWMS and ESCP.
- Report any activity that has resulted, or has the potential to result, in an environmental incident immediately to the Site Manager / Engineering Project Officers.
- Co-ordinate action in emergency situations and allocate required resources.
- Stop activities where there is an actual or immediate risk of harm to the environment and advise the Site Manager and Environmental Manager.

2.5.1.7 Wider project team (including sub-contractors)

The environmental responsibilities of the wider project team (including sub – contractors) include (but are not limited to) the following:

- Comply with the relevant requirements of the CEMP, or other environmental management guidance as instructed by a member of the Project's management.
- Participate in the mandatory Project/site induction program.
- Report any environmental incidents to the foreman immediately or as soon as practicable if reasonable steps can be adopted to control the incident.
- Undertake remedial action as required to ensure environmental controls are maintained in good working order.
- Stop activities where there is an actual or immediate risk of harm to the environment and advise the Site Manager, Engineering Project Officer and Sub-Contractor Manager.

2.5.2 Selection and management of subcontractors

All sub-contractors are required to work in accordance with the approved CEMP.

All sub-contractors are required to attend Project and/or site inductions where the requirements and obligations of the CEMP are communicated. A record of all sub-contractors inducted will be maintained as part of the Site induction, Take 5 (Informal Risk Assessment) and Daily pre-start meetings.

A standard monitoring form will be developed that will be used to assess:

- The sub-contractor's general work practices.
- The effectiveness of the sub-contractor's environmental protection measures.
- The sub-contractor's compliance with the requirements of this CEMP.
- The maintenance of environmental measures.

Relevant documentation submitted by contractors will be subject to review and approval by GPM staff to ensure compliance before works may begin.

Environmental requirements and responsibilities are to be specified to sub-contractors in the contract documentation. As part of the selection process, consideration will also be given to their past environmental performance.

2.6 Competence, training, and awareness

To ensure that this CEMP is effectively implemented, each level of management is responsible for ensuring that all personnel reporting to them are aware of the requirements of this CEMP.

GPM requires all staff members to comply with the job description for each position and provide specific training for skills improvement. Staff training certificates and curriculum are saved on GPM's server and MEX, which is an asset management system used by GPM to track work orders and actions.

Additionally, training is provided for contractors such as toolbox talks, pre-start meetings, take 5 (informal risk assessment) and internal WHS and Environmental audits are carried out, in order to achieve continuous improvement. Training documents are checked during internal audits as well as during pre-start meetings.

2.6.1 Site induction

Before starting work on-site, all personnel (including contractors) must undergo a site induction that covers environmental aspects. This is necessary to ensure that everyone involved in various projects is aware of the CEMP requirements and other relevant regulations.

Short-term visitors to the site undertaking inspections / entering the site (such as regulators) will be required to be accompanied by inducted personnel at all times.

Temporary visitors to the site for purposes such as deliveries will be required to be accompanied by inducted personnel at all times.

The environmental component of the induction would include, as a minimum:

- Relevant details of the site.
- Requirements of due diligence and duty of care, including obligations in respect of the protection of Aboriginal and non-indigenous heritage sites and items. This will also include stop work requirements in the event of an unexpected suspected/ actual heritage find.
- Potential environmental emergencies on Site and the emergency response procedures.
- Reporting and notification requirements for pollution and other environmental incidents.
- Incident response and reporting requirements.
- The existence of SWMS for high-risk activities.
- Information relating to the location and constraints.

A record of all inductions will be maintained and kept on the Sinepro website, which is a contractor and visitor management system. Each induction has 2 years of duration. Possible reasons for changes to the induction may be Project modifications, legislative changes or amendments to any relevant documentation.

2.6.2 Toolbox talks, training and awareness

Toolbox talks will be one method of raising awareness and educating personnel on issues related to all aspects of construction, including environmental issues. The toolbox talks are used to ensure environmental awareness continues throughout construction.

Toolbox talks will include details of environmental management for relevant personnel. Toolbox talks will also be tailored to specific environmental issues relevant to upcoming works.

Relevant environmental issues include (but are not limited to):

- Erosion and Sedimentation Control.
- Dewatering.
- Emergency and Spill Response.
- Aboriginal and Non-Aboriginal Heritage.
- Environmental Sensitive areas and clearing procedure.
- Weed Management.
- Dust control.
- Noise control.
- Traffic management.

Toolbox talk attendance is mandatory and attendees of toolbox talks are required to sign an attendance form and the records maintained.

Targeted environmental awareness training will be provided to individuals or groups of workers with a specific authority or responsibility for environmental management or those undertaking an activity with a high risk of environmental impact. Topics covered may include those detailed above, or others deemed necessary in the lead up to or during construction.

Another way to inform construction personnel will be through the development and distribution of awareness notes. These will typically take the form of a poster, booklet, or similar and will be distributed to engineers, leading hands, foreman and others with a responsibility for managing specific work locations or activities. This documentation will be used to inform the broader workforce through either daily pre-start meetings or provision in worker crib sheds/break facilities.

A Training Register is kept by each contractor.

2.6.3 Daily Pre-Start Meetings

The pre-start meeting is a tool for informing the workforce of the day's activities, safe work practices, environmental protection practices, work area restrictions, activities that may affect the works, coordination issues with other trades, hazards and other information that may be relevant to the day's work.

The supervisor will conduct a daily pre-start meeting with the site workforce before the commencement of work each day (or shift) or where changes occur during a shift. Daily pre-start meetings are generally succinct in nature and take approximately 10-15 minutes.

The environmental component of pre-starts will be determined by GPM personal staff and/or contract managers and will include any environmental issues that could potentially be impacted by, or impact on, the day's activities. All attendees will be required to sign on to the pre-start and acknowledge their understanding of the issues explained.

Pre-start topics, dates delivered, and a register of attendees will be recorded and kept by each contractor.

2.7 Working hours

Approved working hours on this construction project are:

- a. 7:00 am to 6:00 pm, Mondays to Fridays.
- b. 8:00 am to 1:00 pm on Saturdays.
- c. At no time on Sundays or public holidays.

Activities resulting in impulsive or tonal noise emission (such as rock breaking or rock hammering) will be limited to 8:00 am to 12:00 pm, Monday to Saturday and 2:00 pm to 5:00 pm, Monday to Friday. GPM will not undertake such activities for more than three continuous hours and will provide a minimum one-hour respite period.

Construction outside the hours stipulated in CoA 2.3 of this approval is permitted in the following circumstances:

- a. where construction works do not cause audible noise at any sensitive receiver; or
- b. for the delivery of materials required outside these hours by the Police or other authorities for safety reasons; or
- c. where it is required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm.

The hours of construction activities specified under CoA 2.3 may be varied with the prior written approval of the Secretary, in accordance with CoA 2.6.

Approvals for any changes will be included and attached to this CEMP.

2.8 Communication

2.8.1 Internal Communication

Clear lines of communication throughout all levels and functions (eg management, staff and sub-contracted service providers), is key to minimising environmental impacts and achieving continual improvements in environmental performance.

The GPM staff members will meet monthly to discuss any issues with work, health and safety issues and concerns, environmental management on-site, any amendments to plans that might be required or any new changes to construction activities.

Further internal communications regarding environmental issues and aspects will be through awareness training.

The type of internal communication might include, but is not limited to:

- WHS and Environmental meetings
- Weekly toolbox training sessions
- Internal newsletters.

2.8.2 Liaison with EPA, government authorities or other relevant stakeholders

The Environment Manager has the responsibility to report on the ongoing performance and progress of the Project to the EPA.

The Managing Director and Site Manager are 24-hour contacts. They have the authority to halt the progress of the works if necessary. They are the key emergency response personnel during an environmental site emergency.

The Environment Manager is the authorised contact person for communications with the EPA on environmental matters.

2.8.3 Community liaison and/or notification

GPM maintains a website for the provision of electronic information associated with the Lidsdale Ash Repository at <https://gpmco.com.au/environment/>. GPM will, subject to confidentiality, publish and maintain up to-date information on this website including:

- a link to the Major Projects Wallerawang Ash Repositories Application 07_0005 Environmental Assessment including:
- Appendices prepared by Parsons Brinckerhoff (April 2008)
- Submissions Report prepared by Parsons Brinckerhoff (May 2008)
- the Conditions of Approval (CoA) issued by the Department of Planning
- relevant strategies, plans and programs required under the CoA, or details of where this information can be viewed
- the outcomes of compliance tracking undertaken in accordance with the project approval
- community updates in relation to the Lidsdale Ash Repository area.

The intention is to ensure that these key pieces of information are made publicly available to promote community and stakeholder engagement.

GPM will continue to use the measures for communication established for Lidsdale Ash Repository activities to ensure all community complaints and enquiries received are managed in an appropriate manner. The measures include:

- 24-hour community information and complaints line
- an online electronic form in which complaints and enquires can be transmitted.
- a postal address to which written complaints and enquiries may be sent

Specific contact details such as the 24-hour complaints line, the postal address and the online enquiry form can be found on the website here: <https://gpmco.com.au/contact/>

GPM established the Kerosene Vale Community Consultation Group (KVAR CCG) in late 2023 to keep the community informed of the planning and execution of the safe closure of the Kerosene Vale Ash Repository and the Sawyers Swamp Creek Ash Dam. Members of the community were invited to apply as a member of the KVAR CCG.

2.8.4 Complaints management

GPM's Compliance Policy is consistent with *AS 4269: Complaints Handling* and the requirements of CoA 4.2.

All community inquiries and complaints related to the site activities will be referred to the 24-hour community information line (1800 817 771). A postal address 110 Skelly Road, Lidsdale NSW 2790 and email address info@gpmco.com.au has been provided for receipt of complaints and enquiries. The telephone number, the postal address and the email address was published in newspapers circulating in the local area prior to the commencement of construction and is provided on the Project website.

GPM records the details of all complaints received in a Complaints Register. The register includes:

- Date and time of the complaint.
- Method by which the complaint was made.
- Any personal details of the complainant.
- The nature of the complaint.
- Action taken in relation to the complaint and any follow up.
- If no action taken, reasons why.

This information will be included in the KPI data. In accordance with CoA 5.4, the Complaints Register will be provided to the Secretary upon request. A snapshot of the register at the time of updating this CEMP is included in Appendix B..

Attempts will be made to resolve all complaints in accordance with the community engagement strategy. An initial response to complaints will be provided within 24 hours of a complaint being received. A further detailed response, including steps taken to resolve the issue(s) that led to the complaint, will be provided within 10 days. All complaints will be closed off in the stakeholder database. At all times, the stakeholder will be kept informed of when they will receive a response.

The Engineering Project Officer will apply an adaptive approach to ensure that corrective actions are applied in consultation with the appropriate construction staff to allow modifications and improvements in the management of any environmental issues resulting in community complaints.

2.9 Emergency response

GPM has an Emergency Response Plan available through QR Codes at various locations on the site. There is a hard copy available at the demountable as well as in the emergency box.

This plan includes:

- Combat agency involvement including firefighting equipment available onsite and their locations.
- Key emergency contact including a list of internal personnel & external agencies names, numbers & specific responsibilities for emergency planning and response.

The Plan is available on GPM's website and reviewed every year. Additionally, a desktop exercise is executed with GPM Staff and relevant contractors.

2.10 Environmental incidents and non-compliance management

2.10.1 Non-compliance

The approval defines non-compliance as:

An occurrence, set of circumstances or development that is a breach of the approval but is not an incident.

Non-compliances or potential non-compliances may be identified in any of the following situations:

- as part of internal site inspections, supervision or monitoring of normal activities
- during external audits
- following significant verbal or written third party complaints.

All non-compliances will be recorded in the appropriate registers and stored electronically i.e. site inspection checklists, auditing reports, complaints register. Corrective actions will be recorded on the site inspection checklist as per Appendix A.

In accordance with CoA 7.2, DPHI will be notified in writing via the Major Projects website within seven days of GPM becoming aware of any non-compliance. The non-compliance notification will include the following information:

- identify the development and the application number for it,
- set out the condition of approval that the development is non-compliant with,
- the way in which it does not comply and the reasons for the non-compliance (if known); and
- what actions have been, or will be, undertaken to address the non-compliance.

The non-compliance will be investigated and managed by the Environment Manager (or delegate) until compliance is achieved.

2.10.2 Incidents

The approval defines an incident as:

A set of circumstances that causes or threatens to cause material harm to the environment, and/or breaches or exceeds the limits or performance measures/criteria in this approval.

Examples of environmental incidents include (but are not limited to):

- discharge of sediment or polluted water to Sawyers Swamp Creek or Cox’s River
- collapse of ash steep slopes
- collapse of bunds, capping or surface water control measures
- exposure of suspected contaminated materials in areas outside known landfills and repositories
- significant dust or noise impacts on surrounding community
- spills of chemicals, fuel or oil.

2.10.3 Incident response procedure

All site staff must communicate any environmental incident that occurs on the Lidsdale Ash Repository site (including near misses) to the Site Manager or Environment Manager. All staff shall follow direction of GPM to resolve the issue as soon as practicably possible. Environmental incidents that have caused or have the potential to cause a pollution event will be managed in accordance with the Site Pollution Incident Response Management Plan (PIRMP) and the Site Emergency Response Plan.

A list of the incident categories and appropriate actions is provided in Table 2.7.

Table 2.7 Incident categories

Incident type	Incident characteristics	Action required
Near-miss	<p>A near- miss is when there is:</p> <ul style="list-style-type: none"> • potential for but no actual pollution • general environmental hazards (such as hazardous substances not stored in secured locations) • handling mishaps with fuels, oil, lubricants and/or hazardous substances not resulting in spillage • loss of control of equipment not resulting in damage to vegetation or property • inefficient or lacking traffic and access controls that almost resulted in an incident. 	<p>Contractor staff must report incident to the Site Manager immediately. GPM must then be notified within 24 hours and be provided with an incident notification record. Contractor must advise suitable controls to be implemented in future situations to prevent recurrence.</p>
Minor	<p>A minor environmental incident has occurred when material has been spilled or released to the environment (land, air, water, people affected), causing no material pollution and no material harm to the environment. Its consequence/impact are measured as minor and includes some or all of the following aspects:</p> <ul style="list-style-type: none"> • material easily contained and recovered • is confined to work site boundaries • involves minimal or minor interruption to work activities • complaints easily handled at the work site • has no external or regulatory involvement (community, Council, emergency services, media, other relevant authorities). 	<p>Contractor staff must report incident to the Site Manager immediately. GPM review incident against PIRMP and record an incident notification record. The Environment Representative will be notified of the incident. GPM to review incident and controls in place or to be implemented to prevent a recurrence.</p>

Incident type	Incident characteristics	Action required
Major	<p>Any incident with actual or potential material impacts on the biophysical environment and/or off-site impacts on people and includes some or all of the following aspects:</p> <ul style="list-style-type: none"> • actual or potential breach of environmental legislation or permit/licence/consent/ approval condition • actual or potential material environmental harm involves or has the potential to involve community, media or regulatory authorities. 	<p>Contractor staff must report incident to the Site Manager immediately. GPM review incident against PIRMP and record an incident notification record. The Environment Representative will be notified of the incident.</p> <p>DPHI will be notified of the incident in accordance with CoA 7.1 and Appendix 3 of the Planning Approval. DPHI notification and reporting requirements are outlined further below.</p> <p>GPM to review incident and controls in place or to be implemented to prevent a recurrence. Notifications under the PIRMP are to be undertaken and recorded.</p> <p>The POEO Act requires the occupier of premises, the employer or any person carrying out an activity which has caused a pollution incident to immediately notify each relevant authority when material harm to the environment is caused or threatened. EPA will be notified immediately of pollution incidents via the EPA Environment Line (telephone 131 555).</p> <p>GPM will provide incident report to the Secretary of the DPHI and EPA within 7 days of the incident occurring.</p>

Incident type	Incident characteristics	Action required
Disaster	<ul style="list-style-type: none"> • National press coverage • regulatory investigation and significant penalties/fines incurred and potential or actual loss of licence • major community impacts (for example whole suburb) • major and long-term consequence on environment. Extensive clean-up required with external assistance. 	<p>Contractor staff must report incident to the Site Manager immediately. GPM review incident against PIRMP and record an incident notification record. The Environment Representative will be notified of the incident.</p> <p>DPHI will be notified of the incident in accordance with CoA 7.1 and Appendix 3 of the Planning Approval. DPHI notification and reporting requirements are outlined further below.</p> <p>GPM to review incident and controls in place or to be implemented to prevent a recurrence.</p> <p>EPA will be notified immediately of pollution incidents via the EPA Environment Line (telephone 131 555).</p> <p>Notifications under the PIRMP are to be undertaken and recorded GPM shall provide an incident report to the Secretary of DPHI and EPA within 7 days of the incident occurring. Work on site to cease during external incident investigation.</p>

All near misses and incidents must be actioned, reported, and recorded. In the event of an environmental incident occurring that is above the 'near-miss' category and which cannot be managed by equipment on-site, the most senior person on site at the time of the incident must immediately obtain assistance from GPM.

GPM may engage and coordinate external service providers, such as the State Emergency Services, to assist in the response.

Where an incident involves a potential impact to an Aboriginal site, the Office of Environment and Heritage, and relevant Registered Aboriginal Parties will be notified, and their input sought in closing out the incident.

The Environment Manager must be notified as soon as possible in order to address the cause or impact of the environmental incident and to ensure procedures are undertaken in accordance with this CEMP and GPM's existing emergency response system.

2.10.3.1 DPHI incident notification and reporting requirements

In accordance with CoA 7.1, notification to DPHI must be in writing via the Major Projects website immediately after GPM becomes aware of an incident. The notification must identify the project (including the Planning Approval number and the name of the project) and set out the location and nature of the incident. Subsequent notification and reporting requirements in accordance with Appendix 3 of the Planning Approval are listed below:

- A follow-up written incident notification must be submitted to the Secretary via the Major Projects website within seven days after the Applicant becomes aware of an incident. This follow-up notification is required even if the notification required under CoA 7.1 was not given or, having given such notification, GPM subsequently forms the view that an incident has not occurred
- The written notification must contain the following details:
 - identify the project and application number;
 - provide details of the incident (date, time, location, a brief description of what occurred and why it is classified as an incident);
 - identify how the incident was detected;
 - identify when the Applicant became aware of the incident;
 - identify any actual or potential non-compliance with conditions of approval;
 - describe what immediate steps were taken in relation to the incident;
 - identify further action(s) that will be taken in relation to the incident; and
 - identify a project contact for further communication regarding the incident.
- Within 30 days of the date on which the incident occurred or as otherwise agreed to by the Secretary, GPM must provide the Secretary and any relevant public authorities (as determined by the Secretary) with a detailed report on the incident addressing all requirements below, and such further reports as may be requested. The Incident Report must include:
 - a summary of the incident;
 - outcomes of an incident investigation, including identification of the cause of the incident;
 - details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence; and
 - details of any communication with other stakeholders regarding the incident.

2.10.4 Incident investigation

The Environment Manager must be involved in the investigative process as an independent observer with a collaborative effort made to ensure that the cause of the incident is identified in order to establish the most suitable methods for preventing recurrence.

All major and above incident reports will be provided to DPHI and the EPA establishing full details including causes and the mitigation measures implemented, as outlined in Section 2.10.3.1.

2.11 Environmental records

GPM is responsible for maintaining all environmental management documents and records as current at the point of use. Types of documents and records include:

- All monitoring, inspection and compliance reports/records.

- Correspondence with public authorities.
- Induction and training records.
- Reports on environmental incidents, other environmental non-conformances, complaints and follow-up action.
- Community engagement information.
- WHS and environmental meeting minutes.
- CEMP and sub-plans.
- OEMP and sub-plans.

All environmental management documents are subject to ongoing review and continual improvement. This includes times of change to scheduled activities or to legislative or licensing requirements.

Only GPM staff have the authority to change any of the environmental management documentation.

2.12 Document control

GPM will coordinate the preparation, review and distribution, as appropriate, of the environmental documents and records listed above. During the Project, the environmental documents and records will be stored at the main site compound.

GPM will implement a document control procedure to control the flow of documents within and between stakeholders and contractors. The procedure will also ensure that documentation is:

- developed, reviewed and approved prior to issue
- issued for use
- controlled and stored for the legally required timeframe
- removed from use when superseded or obsolete
- archived.

Should the consistency assessment determine that a Project modification may be required, ie. the impacts are of a nature and scale that it is not considered consistent with the Project approval, the Environmental Representative will be informed and modification application under Section 115ZI(2) of the EP&A Act 1979 prepared and lodged to the Secretary for determination.

3 Construction Environmental Management

3.1 Aspect specific sub-plans

The Approval requires a number of environmental management sub-plans support the CEMP. Condition 6.2 requires the preparation of this CEMP, and also requires the following Plans are to be prepared as part of the CEMP:

- Construction and Operational Transport Management Plan (Appendix E) – required by CoA 6.3(a)
- Construction Noise Management Plan (Appendix F) – required by CoA 6.3(b)
- Erosion and Sediment Control Plan (Appendix G) – required by CoA 6.3(c)

These documents have been provided as separate Sub-Plans for ease of access and useability.

3.1.1 Construction and Operational Transport Management Plan

The Lidsdale Ash Dam Areas – Construction and Operational Transport Management Plan (TMP) was prepared by EMM Consulting in April 2022 to satisfy the development Condition 6 as part of the modification to the development approval by the Minister of Planning as part of the Environmental Planning and Assessment Act 1979 for the project at Lidsdale Ash Repository (Application No. 07_0005) approved on 09 August 2018.

The TMP has been updated by EMM Consulting in 2025 for inclusion in this CEMP. It outlines the framework of the transport movements to/from and within the project area associated with the importation of capping material for operations and construction materials for construction. S construction and operation occur simultaneously on the Site, the construction and operational traffic management aspects have been addressed within the same plan.

The TMP has been prepared in consultation with Transport for NSW, the state emergency service and Lithgow City Council. It will be a live document and will be reviewed and updated periodically, if required, by authorised personnel.

3.1.2 Erosion and Sediment Control Plan

A Soil and Water Management Plan (SWMP) for Wallerawang Ash Dam Areas – Skelly Road, Lidsdale NSW Generator Property Management PTY LTD Rev. 02 was completed by Environmental Earth Sciences in June 2023. It addressed soil and water management aspects for operation as well as erosion and sediment control for construction works.

A new Construction Erosion and Sediment Control Plan (CESCP) has been prepared by EMM Consulting in 2025 for inclusion in this CEMP, that only addresses erosion and sediment controls for construction works. Separate surface water and ground water management plans have been developed for operations and form part of the OEMP.

3.1.3 Construction Noise Management Plan

A Construction Noise Management Plan (CNMP) has been prepared by EMM Consulting in 2025 for inclusion in this CEMP. The plan details how construction noise impacts would be minimised and managed.

The CNMP is stored in GPM servers and necessitates periodic reviews and enhancements to ensure compliance with the continuously evolving legislative and licensing requirements, as well as modifications to scheduled activities.

3.1.4 Other relevant plans

In order to ensure the effective delivery of construction activities through the application of this CEMP collaboration and interaction with activities governed by other plans is inevitable. These other plans can have a significant impact on the construction activities.

It is important to maintain a comprehensive list of backup plans to ensure that any potential issues can be resolved swiftly and effectively. Other Plans include:

- Operational Environmental Management Plan and its sub-plans
- Bushfire Management Plan
- Asbestos Management Plan

Regular review and collaboration with other plans can help to identify potential risks and enable proactive measures to be taken, resulting in better outcomes for the CEMP.

3.2 General management and mitigation measures

General construction and environmental management controls not covered by the aspect specific sub-plans are provided in Table 3.1.

Table 3.1 General construction environmental management controls

Ref	Environmental management control	Person responsible	Timing	Reference	How Addressed
G1	All equipment, machinery and vehicles associated with the construction and operation of the project will be operated and maintained in a manner that minimises the potential for oil and grease spills/leaks.	Site contractor	Construction	CoA 2.32	Site inspection checklist Maintenance records in MEX system
Air Quality					
G2	Construction works will be undertaken in a manner that minimises dust impacts, including wind-blown and traffic-generated dust, on the receiving environment. All activities on the site shall be undertaken with the objective of preventing visible emissions of dust from the site. Should such visible dust emissions occur at any time, GPM will identify and implement all practicable dust mitigation measures, including cessation of relevant works, as appropriate, such that emissions of visible dust cease.	Site contractor	Ongoing throughout construction	CoA 2.32	Monitored through regular site inspections and work activities. Dust suppression measures may include: <ul style="list-style-type: none"> Using water carts or polymer sprays to control dust Covering stockpiles to minimise wind erosion Monitoring weather forecasts for dust risk factors (e.g. high winds, hot or dry conditions) and adjusting construction activities accordingly.
Lighting					
G3	GPM will take all practicable measures to mitigate off-site lighting impacts from the project and ensure all external lighting associated with the project complies with <i>Australian Standard AS4282 1997 – Control of the Obtrusive Effects of Outdoor Lighting</i> .	Site contractor	Ongoing throughout construction	CoA 2.35	Visual assessment will be conducted against <i>AS4282 1997</i> requirements and noted in contractor site diary.

Ref	Environmental management control	Person responsible	Timing	Reference	How Addressed
Heritage					
G4	GPM will ensure that all construction personnel are educated on their obligations in respect of the protection of Aboriginal and non-indigenous heritage sites and items.	Site contractor, GPM Environment Manager	Construction	CoA 2.37	See Section 2.6 – Induction/ toolbox talks shall be developed to include Heritage protection and management measures.
G5	If any previously unidentified heritage sites or items (Aboriginal and/or non-indigenous) are discovered during construction works or operational activities, all work likely to affect the heritage sites or item(s) will cease immediately and the discovery of the objects will be reported to Heritage NSW or the Department as relevant.	Site contractor, GPM Environment Manager	Construction	CoA 2.38	See Section 2.6 – Induction/ toolbox talks shall be developed to include stop work requirements.
Waste					
W1	All waste materials shall be assessed, classified, managed and disposed of in accordance with the EPA's Waste Classification Guidelines (or its latest version).	Site contractor	Construction	CoA 2.39	Waste tracking records will be kept detailing type of waste and disposal location.
W2	All waste materials removed from the site will only be directed to a waste management facility lawfully permitted to accept the materials.	Site contractor	Construction	CoA 2.40	Waste tracking records will be kept detailing type of waste and disposal location.
W3	GPM will 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.	Site contractor	Construction	CoA 2.41	Material tracking records kept to ensure all material received on site is permitted under the EPL.

4 Monitoring, inspections and auditing

4.1 Compliance Tracking

GPM has developed and implemented a Compliance Tracking Program for the project, in accordance with CoA 4.2, to track compliance with the requirements of this approval and as detailed in Table 4.1.

This program was implemented prior to operation of the project and will be used to track compliance of construction works in addition to operational compliance.

Reporting against the Compliance Tracking Program is conducted on a yearly basis as part of the Annual Environmental Management Report (AEMR). The AEMR is provided to the Secretary for approval and demonstrates how GPM has satisfied CoA 4.2 for the relevant financial year.

Table 4.1 Compliance tracking program

CoA number	Requirement	Where addressed
4.2 (a)	Provisions for periodic review of the compliance status of the project against the requirements of this approval and the Statement of Commitments detailed in the document referred to in condition 1.1c) of this approval	Section 4.2 Environmental Inspections Section 4.4 Reporting
4.2 (b)	Provisions for periodic reporting of the compliance status to the Secretary	Section 4.4 Reporting
4.2 (c)	A program for independent environmental auditing in accordance with the Independent Audit Post Approval Requirements (NSW Government 2020)	Section 4.5 Independent Audit
4.2 (d)	Procedures for rectifying any non-compliance identified during environmental auditing or review of compliance	Section 2.10.1 Non-compliance management
4.2 (e)	Mechanisms for recording incidents and actions taken in response to those incidents	Section 2.10 Environmental Incident and Non-compliance Management
4.2 (f)	Provisions for reporting incidents to the Secretary during construction and operation	Section 2.10 Environmental Incident and Non-compliance Management
4.2 (g)	Provisions for ensuring all employees, contractors and sub-contractors are aware of, and comply with, the conditions of this approval relevant to their respective activities.	Section 2.6 Competence, training and awareness

Compliance reporting under the Compliance Tracking Program will document how the Conditions of Approval (CoA) and associated requirements have been met. A master tracking sheet (Appendix D) details the required compliance reporting for the construction phase, as mandated by CoA 6.3. All actions are monitored and tracked against the relevant CoA requirements.

Prior to commencing any construction works under Planning Approval 07_0005, GPM will certify in writing to the Secretary's satisfaction that all applicable CoA have been met, in accordance with CoA 4.1. GPM will also implement any measures required by the Secretary to ensure ongoing compliance with the approval conditions and consistency with the documents listed under Condition 1.1, as required by CoA 4.4.

GPM will carry out all activities in compliance with the Conditions of Approval, any written directions issued by the Secretary, and in general accordance with the Environmental Assessment (EA) and defined project area. The Secretary retains the authority to issue written directions regarding the content, implementation, and management of any plans, programs, reports, or correspondence prepared under this approval. These may apply to both new and previously approved documents to maintain compliance and ensure effective project management.

In the event of any inconsistency or ambiguity between the Approval, the Secretary's directions, or documents referenced in the EA, the Conditions of Approval and the Secretary's directions will prevail. Where inconsistencies exist between referenced documents, the most recent version will take precedence.

Approval Validity and Regulatory Compliance

The project approval will lapse five years from the date of issue unless physical works associated with the approval have commenced within that period. GPM will ensure that all necessary licences, permits, and approvals required by law are obtained and maintained for the duration of the project. This includes the ongoing obligation to obtain, renew, and comply with all relevant regulatory requirements, irrespective of any conditions contained within this approval.

4.2 Environmental inspections

The environmental inspections are listed below:

- Monthly Compliance Checklist (Appendix D)
- Macquarie Geotech 3X Weekly Dam Inspection
- Surveillance Intermediate Inspection
- Containment Ponds Quarterly Inspection
- Daily Pond Checks
- Environmental Daily Flow checks
- Monthly Environmental Inspection
- Roads Inspections
- Asbestos Dumps inspections.

4.2.1 Weekly and post-rainfall site inspections

The Engineering Project officers will undertake weekly and post-rainfall inspections of the work sites to evaluate the effectiveness of sediment and erosion controls. Post-rainfall inspections would be undertaken after more than 20 mm of rain in a 24-hour period. Inspection checklist form will record findings on-site.

If any maintenance and/or deficiencies in environmental controls or in the standard of environmental performance are observed, they will be recorded on the checklist form. Records will also include details of any maintenance required, the nature of the deficiency, any actions required and an implementation priority. Actions will be closed out in accordance with the identified priority, and evidence of close-out will be kept on file.

4.2.2 Pre-start checks

Prior to the commencement of work on each shift, an inspection will be carried out and will include a check of relevant environmental controls and resources required to ensure effective operation and maintenance. Works are not to commence unless inspections are found to be satisfactory.

Contractors will undertake the inspections.

4.3 Environmental monitoring

Monitoring will be undertaken to validate the impacts predicted for the Project, to measure the effectiveness of environmental controls and implementation of this CEMP, and to address approval requirements. The monitoring requirements for required aspects are included in Table 4.2.

Table 4.2 Construction phase environmental monitoring.

Aspect	Locations	Parameters	Frequency	Technique	Reporting	Responsibility	CEMP reference
Noise normal conditions	Location A: Skelly Road Location B: Corner Sawyers Road and Skelly Road Location C: End of Nuebeck Street Location D: End of Maddox Lane	Noise levels shall not exceed an LAeq of 40dB(A) at the nearest most affected receiver	During daytime (7:00 am-6:00 pm) and evening time (6:00 pm-10:00 am). Every 3 months or more frequent if adverse trends are noted.	Short-term attended noise monitoring	Three monthly noise monitoring report.	Specialist Consultant on behalf of GPM	Appendix F
Noise emergency conditions	At the complainant's property or nearest available representative location	Noise levels shall not exceed an LAeq of 40dB(A) at the nearest most affected receive	As required	Attended monitoring using handheld sound level meter	Six monthly noise monitoring report	Specialist Consultant on behalf of GPM	Appendix F
Lighting	Site	No light spill from external to neighbouring properties during construction works	Weekly during works that require lighting	Visual assessment in accordance with AS2482 1997	Site Diary notes	Site Manager	Section 0
Erosion and sediment control	Construction work areas	Erosion and sediment controls intact as per CЕСSCP	Weekly Pre and post rainfall (≥20 mm of rain in a 24-hour period)	Visual assessment	Site diary	Site Manager	Appendix G

The Environmental Representative will be advised of any construction phase non-compliances from monitoring and details reported through email on the day of the incident and in the incident register.

Where a non-compliance is detected or monitoring results are outside of the expected range and are directly attributable to the Project (ie are influenced by factors under the direct control of the Project, eg noise from construction equipment), the further investigation and a new action plan will be requested. Steps in the process will include:

- a site inspection by the Engineering Project Officer or delegate
- advising relevant personnel of the problem
- identifying and agreeing on actions to resolve or mitigate the non compliance
- implementing corrective actions to rectify or mitigate the non compliance
- updating incident register
- informing and promoting preventative compliance result through Toolbox Talks.

The timing for any improvement will be agreed between the relevant sub-contractor manager and Site Manager based on the level of risk (eg a significant risk will require immediate action).

All environmental monitoring equipment shall be maintained and calibrated according to manufacturer’s specifications and appropriate records kept.

4.4 Reporting

Prior to, during and following construction, various reports will be prepared to fulfil reporting needs and requirements under the Project approval. Table 4.3 below sets out the reporting requirements applicable to the Project, the timing of the reporting, who is responsible for managing the preparation of the reports and the intended recipient(s).

Table 4.3 Reporting requirements.

Report	Requirement	Timing	Responsibility	Recipient
Monthly Environmental Representative compliance report	For incorporation in Project Monthly Reports including environmental statistics (ie incidents, regulatory action, complaints on environmental issues), regulatory and authority considerations, monitoring program performance and key environmental issues.	Within 10 working days of the end of each calendar month.	Environmental Representative	GPM
EPL annual returns	Report on compliance with EPL.	Within 60 days of the anniversary of the EPL.	Environment Manager/ Engineering Project Officer	EPA
Inspection report	Report of site environmental performance following routine inspections.	Monthly	Engineering Project Officer	GPM
Environmental risk assessment	Conducted for each construction stage, Project changes and significant issues.	Prior to construction during development of CEMP and as	Environment Manager	GPM

Report	Requirement	Timing	Responsibility	Recipient
		required thereafter.		
Monitoring results	Report on monitoring data recorded and potential exceedances against criteria.	As required.	Environment Manager / Site Manager	GPM
EPA environmental inspection reports	Response to matters raised in EPA site inspections.	As required.	Environment Manager / Site Manager	EPA
Incident report	The Secretary will be notified in writing immediately after GPM becomes aware of an incident	As required.	Environment Manager / Site Manager	Secretary of the Department of Planning, Housing and Infrastructure
Annual Environmental Management Report	Review the performance of the project against the CoAs	Annual	Environment Manager	Secretary of the Department of Planning, Housing and Infrastructure
Independent Environmental Audit	Periodic review of the compliance status of the project against CoAs and the Statement of Commitments detailed in the Environmental Assessment (Parsons Brinckerhoff Australia 2008).	Every three years.	Environment Manager	Site Manager, Managing Director

4.4.1 Annual Environmental Management Report

Throughout the life of the project, GPM will prepare and submit for the approval of the Secretary, an Annual Environmental Management Report (AEMR). The AEMR shall review the performance of the project against Compliance Tracking Program (Section 4.1). The AEMR shall include, but not necessarily be limited to:

- details of compliance with the conditions of the approval
- a copy of the Complaints Register for the preceding twelve-month period, and details of how these complaints were addressed and resolved
- identification of any circumstances in which the environmental impacts and performance of the project during the year have not been generally consistent with the environmental impacts and performance predicted in the documents listed under condition 1.1 of the approval, with details of additional mitigation measures applied to the project to address recurrence of these circumstances
- results of all environmental monitoring required under conditions 3.3 to 3.8 of the approval, including interpretations and discussion by a suitably qualified person
- a list of all occasions in the preceding twelve-month period when environmental goals/objectives/impact assessment criteria for the project have not been achieved, indicating the reason for failure to meet the criteria and the action taken to prevent recurrence of that type of failure.

In response to the Secretary’s review of the AEMR, if required by the Secretary, GPM will address certain matters in relation to the environmental performance of the project. Any action required to be undertaken will be completed within such period as the Secretary may require. GPM will make copies of each AEMR available for public inspection on request. The development of the AEMR contains a mechanism to audit the project against all CoAs in line with the Compliance Tracking Program.

4.5 Auditing

GPM performs two types of audits to ensure compliance with relevant legislation (detailed in Table 4.4). An internal audit is conducted by the Safety Advisor and Environment Manager (or delegate), while an external independent audit is performed by an independent contractor. Audits will review the following to ensure compliance:

- This CEMP and associated sub-plans.
- Approval requirements (CoAs).
- Any relevant legal and other requirements (eg licenses, permits, regulations).

Internal auditing will be undertaken generally on a fortnightly basis throughout the Project.

The Environmental Representative carries out an independent audit every month on the site of works. The ER checks that construction works are done in compliance of this CEMP. Reports are saved to the GPM server and non-compliances are noted and acted on.

Table 4.4 Contractor and Independent Audit requirements.

Audit	Requirement	Timing	Responsibility	Recipient
Internal audit	Verify compliance with approval and legal requirements and construction documentation	Fortnightly	Environment Manager/ Safety Advisor	Site Manager, Managing Director
ER audit	Verify compliance with approval and legal requirements, construction documentation and any other commitments	Monthly	Environment Manager, Environmental Representative	Site Manager, Managing Director
Independent Environmental Audit	Periodic review of the compliance status of the project against CoAs and the Statement of Commitments detailed in the Environmental Assessment (Parsons Brinckerhoff Australia 2008).	Every three years	GPM	Site Manager, Managing Director

4.6 Review and improvement

4.6.1 CEMP Revision

A review of the CEMP, sub-plans and monitoring programs will be undertaken to determine the efficiency of the plans and monitoring programs and whether any changes are required to ensure compliance.

Circumstances which may trigger a review include:

- changes to design, construction, work methods, legislation, or policy

- incidents, complaints or non-compliance
- changes identified by continuous improvement
- changes to key management plans that are relevant
- where additional monitoring measures are identified in annual reviews or audits.

In addition, and in accordance with CoA 6.6, GPM will review and, if necessary, revise the studies, strategies and plans required under the conditions of approval to the satisfaction of the Secretary within three months of:

- the submission of an incident report under CoA 7.1
- the submission of an Annual Review under CoA 7.3
- the submission of an Independent Environmental Audit under CoA 4.2
- the modification of the conditions of this approval (unless the CoAs require otherwise).

Where this review leads to revisions in any such document, then within 4 weeks of the review, GPM will submit the revised document to the Secretary for approval, unless otherwise agreed with the Secretary. If the updates are minor in nature, The Environmental Representative can approve the update to the CEMP. Minor changes would typically include those that:

- Are editorial in nature eg staff and agency/authority name changes.
- Do not increase the magnitude of impacts on the environment when considered individually or cumulatively.
- Do not compromise the ability of the Project to meet approval or legislative requirements.

Where the Environmental Representative or the Secretary deems it necessary, the amended CEMP will be discussed with the relevant external stakeholders including the Lithgow Council, Transport for NSW, EPA Fisheries etc and then forwarded to the Secretary for approval.

Revised versions of the CEMP will be made available through the processes on the GPM website.

4.6.2 Changes to the Project

Refinements to the Project may result from detailed design refinements or changed circumstances throughout construction. This is a possibility given the EPA driven CLM Act investigations being undertaken under the Voluntary Management Plan is one example.

Any design changes or changes in scope of works must be communicated to the Environmental Manager and Site Manager. The Engineering Project Officer will then undertake an additional environmental assessment and consistency assessment in consultation with relevant authorities to determine if a Project modification may be required.

Appendix A Site Inspection Checklist

Daily environmental site inspection

Week start & end date:	Contractor / Name:			Work Order # (if applicable):			
Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date							
Time inspection completed:							
Weather Conditions							
Temperature (°C):							
Rainfall (mm)							
Humidity (%):							
Wind Speed (km/h):							
Sediment and erosion controls							
Site sediment controls are in place in accordance with the PESCP for the activity and effective.	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No
*If no provide more information in corrective actions list below.							
Drainage lines when flowing are stable and not eroding. Erosion controls surrounding all stockpiles and ash placement zones working effectively.	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No
*If no provide more information in corrective actions list below.							

Week start & end date:	Contractor / Name:			Work Order # (if applicable):			
Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date							
Time inspection completed:							
Sediment basin levels below discharge levels.	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No
Basin discharging?	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No
Dust Suppression							
All dust suppression measures such as irrigation systems and pumps are fully functional and in effective locations?	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No
Water cart in use?	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No
Environmental monitoring locations are secure with equipment in good working condition	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No
Site roads not generating visible dust	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No
Waste Management							
Condition of equipment, vehicles and plant to control spills and leaks	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No
All waste materials have been disposed of in an appropriate matter	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No

Week start & end date:	Contractor / Name:			Work Order # (if applicable):	Friday	Saturday	Sunday
Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date							
Time inspection completed:							
All chemicals and fuels are being stored within bunded areas and clear of drainage lines	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No
Community							
Have any complaints been received?	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No
If yes have they been recorded and actioned in accordance with the compliance reporting requirements							
Corrective action(s) if required							
Day	Action(s) required					Completion date	
Monday	_____ / _____ / _____					_____ / _____ / _____	
Tuesday	_____ / _____ / _____					_____ / _____ / _____	
Wednesday	_____ / _____ / _____					_____ / _____ / _____	
Thursday	_____ / _____ / _____					_____ / _____ / _____	
Friday	_____ / _____ / _____					_____ / _____ / _____	

Monthly monitoring checklist

Month:

Date inspection completed:

Weather Conditions (monthly range)

Temperature (°C):

Rainfall (mm)

Humidity (%):

Wind Speed (km/h):

Sediment and erosion controls

Comments / Actions required

PESCP for the activities being undertaken are effective. Yes / No

*If no provide more information in corrective actions list below.

Drainage lines stable and not eroding. working effectively. Yes / No

*If no provide more information in corrective actions list below.

Sediment basin levels as per design requirements on ESCP. Yes / No

EPL discharge points labelled and operational.

Dust Suppression

Comments / Actions required

Month:

All dust suppression measures such as irrigation systems and pumps are fully functional and in effective locations for upcoming works? Yes / No

Water cart fill point in good working order? Yes / No

Environmental monitoring locations are secure with equipment in good working condition Yes / No

Site roads in good condition Yes / No

Waste Management

Comments / Actions required

Spill kits full and adequate for current operations Yes / No

All waste materials have been disposed of in an appropriate matter Yes / No

All chemicals and fuels are being stored within bunded areas and clear of drainage lines. Storage areas adequate for current and upcoming works Yes / No

Community

Comments / Actions required

Have any complaints been received? Yes / No

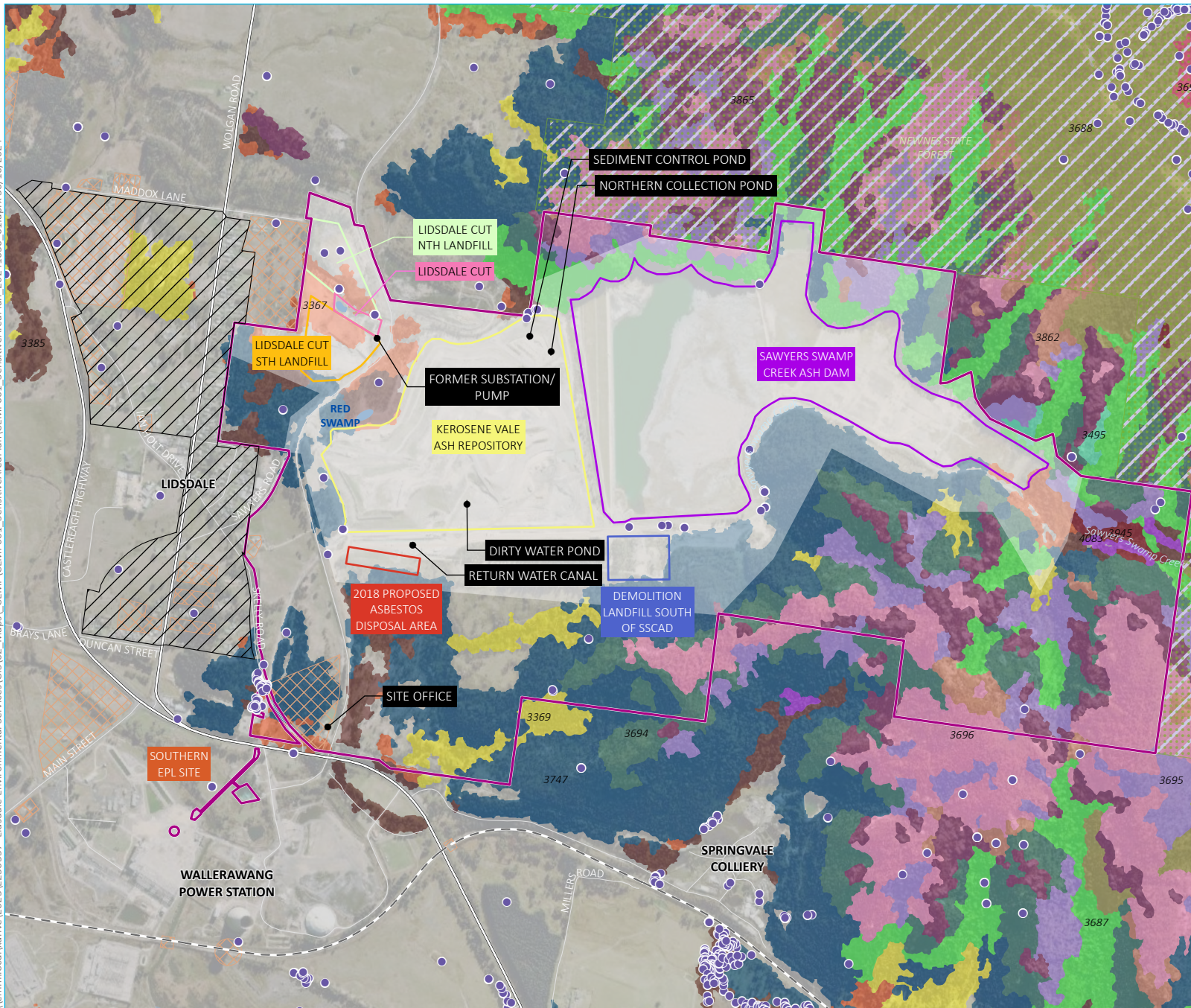
If yes have they been reported externally where required

Appendix B Complaints Register

Link to complaints register: <https://gpmco.com.au/lidsdale/>

Appendix C Sensitive Area Plan

\\emm.local\drive\2023\230337 - Lidsdale Environmental Services\GIS\02 - Maps\CEMP\CEMP001 - SensitiveAreaPlan\CEMP001 - SensitiveAreaPlan_20241030_01.aprx 30/10/2024



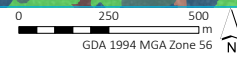
- KEY**
- Site boundary
 - Nearest sensitive (residential) receivers
 - 2018 proposed asbestos disposal area
 - Demolition landfill south of SSCAD
 - Kerosene Vale ash repository
 - Lidsdale cut northern landfill
 - Lidsdale cut southern landfill
 - Lidsdale cut
 - Sawyers Swamp Creek ash dam
 - Southern EPL site
 - Environmentally sensitive areas
 - Threatened species record
 - National Heritage list
 - Heritage area (LEP)
 - Plant community type
 - 3367- Central Tableland Granites Grassy Box Woodland
 - 3369- Central Tableland Ranges Peppermint-Gum Grassy Forest
 - 3385- Southern Tableland Creekflat Swamp Woodland
 - 3495- Western Blue Mountains Monkey Gum Gully Forest
 - 3687- Newnes Plateau Peppermint-Ash Tall Forest
 - 3688- Newnes Plateau Silvertop Ash Woodland
 - 3691- Upper Blue Mountains Fringing Swamp Woodland
 - 3694- Upper Blue Mountains Ridgetop Woodland
 - 3695- Western Blue Mountains Peppermint Sheltered Forest
 - 3696- Western Blue Mountains Rocky Scribbly Gum Woodland
 - 3747- Southern Tableland Western Hills Scribbly Gum Forest
 - 3862- Newnes Plateau Rockplate Heath
 - 3865- Western Blue Mountains Pagoda Scrub
 - 3945- Newnes Plateau Shrub Swamp
 - 4083- Southeast Tableland Rocky Riparian Scrub
 - Not native vegetation
 - Existing environment
 - Rail line
 - Major road
 - Minor road
 - Watercourse/drainage line
 - Named waterbody

Sensitive area plan

Lidsdale Ash Dam Repository
Construction Environmental
Management Plan
Figure 3



Source: EMM (2024); DFSI (2017); GA (2011); ASGC (2006); ESRI (2024); DPE (2017)



Appendix D Master Compliance Checking Spreadsheet

Compliance Tracking Monitoring

Approval requirement	Requirement	Relevant OEMP Section	Relevant CEMP Section	Relevant Plan of Action or Procedure
1. ADMINISTRATIVE CONDITIONS				
Terms of Approval				
CoA 1.1-1.3	1.1 - The Applicant must carry out the project: a) in compliance with the conditions of this approval; b) in accordance with all written directions of the Secretary; c) generally in accordance with the EA; and d) generally in accordance with the project area.	n/a	n/a	As stated in CoA and responsibility of GPM Staff
	1.2 - Consistent with the requirements in this approval, the Secretary may make written directions to the Applicant including in relation to: a) the content of any strategy, study, system, plan, program, review, audit, notification, report or correspondence submitted under or otherwise made in relation to this consent, including those that are required to be, and have been, approved by the Secretary; and b) the implementation of any actions or measures contained in any such document referred to in condition 1.2a).	n/a	n/a	As stated in CoA and responsibility of GPM Staff
	1.3 - The conditions of this approval and directions of the Secretary prevail to the extent of any inconsistency, ambiguity or conflict between them and the document/s listed in condition 1.1c). In the event of an inconsistency, ambiguity or conflict between any of the document/s listed in condition 1.1c), the most recent document prevails to the extent of the inconsistency, ambiguity or conflict.	n/a	n/a	As stated in CoA and responsibility of GPM Staff
Limits of Approval				
CoA 1.4	1.4 - 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.	n/a	n/a	As stated in CoA and responsibility of GPM Staff
Statutory requirements				
CoA 1.5	1.5 - The Applicant shall ensure that all licences, permits and approvals are obtained as required by law and maintained as required with respect to the project. No condition of this approval removes the obligation for the Applicant to obtain, renew or comply with such licences, permits or approvals.	n/a	n/a	As stated in CoA and responsibility of GPM Staff
2. SPECIFIC ENVIRONMENTAL CONDITIONS				
Ash Management				
CoA 2.1 - 2.2	2.1 - The Applicant shall prepare a long-term ash management strategy including a program for investigation and assessment of alternative ash management measures with a goal of 40% reuse of ash by 31 December 2013. The report shall be submitted to the Secretary within six months of the commencement of operations. The Applicant shall report on the status and outcomes of its investigations to the Secretary every two years from the commencement of the operation of the project, unless otherwise agreed by the Secretary.	1.1 - Background to the Lidsdale Ash repository	1.1	As per MP07_0005-Mod 1 and Mod 2 EPL 21185 - L4.1 - Excavated Natural material and virgin excavated natural material to be received at the premises for the purposes associated with the capping of the Kerosene Vale Ash Repositories

Approval requirement	Requirement	Relevant OEMP Section	Relevant CEMP Section	Relevant Plan of Action or Procedure
	<p>2.2 - To facilitate assessment of the viability of coal resources in the project area and provide a finite opportunity for their extraction, the Applicant shall undertake revised staging of ash placement activities as described in the document referred to in condition 1.1.c) of this approval.</p>	n/a	n/a	-
Noise Impacts - Construction Hours				
CoA 2.3-2.6	<p>2.3 - Construction activities associated with the project shall only be undertaken during the following hours: a) 7:00 am to 6:00 pm, Mondays to Fridays, inclusive; b) 8:00 am to 1:00 pm on Saturdays; and c) at no time on Sundays or public Holidays</p>	n/a	2.7 - Working Hours	-
	<p>2.4 - Activities resulting in impulsive or tonal noise emission (such as rock breaking or rock hammering) shall be limited to 8:00 am to 12:00 pm, Monday to Saturday and 2:00 pm to 5:00 pm, Monday to Friday. The Applicant shall not undertake such activities for more than three continuous hours and must provide a minimum one-hour respite period.</p>	n/a	2.7 - Working Hours	-
	<p>2.5 - Construction outside the hours stipulated in condition 2.3 of this approval is permitted in the following circumstances: a) where construction works do not cause audible noise at any sensitive receiver; or b) for the delivery of materials required outside these hours by the Police or other authorities for safety reasons; or c) where it is required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm.</p>	n/a	2.7 - Working Hours	-
	<p>2.6 - The hours of construction activities specified under condition 2.3 of this approval may be varied with the prior written approval of the Secretary. Any request to alter the hours of construction specified under condition 2.3 shall be: a) considered on a case-by-case basis; b) accompanied by details of the nature and need for activities to be conducted during the varied construction hours; and c) accompanied by any information necessary for the Secretary to reasonably determine that activities undertaken during the varied construction hours will not adversely impact on the acoustic amenity of sensitive receivers in the vicinity of the site.</p>	n/a	2.7 - Working Hours	-
Noise Impacts - Construction Noise				
CoA 2.7	<p>2.7 - The construction noise objective for the project is to manage noise from construction activities (as measured by a LA10 (15 minute) descriptor) so as not to exceed the background LA90 noise level by more than 10 dB(A) at any sensitive receiver. Any activities that have the potential for noise emissions that exceed the objective must be identified and managed in accordance with the Construction Noise Management Plan (as referred to under condition 6.3b) of this approval). The Applicant shall implement all reasonable and feasible noise mitigation measures with the aim of achieving the construction noise objective.</p>	n/a	Section 3.3 Noise Control Appendix F Construction Noise Management Sub-Plan 2.10.4 - Environmental monitoring	-
Noise Impacts - Operational Hours				

Approval requirement	Requirement	Relevant OEMP Section	Relevant CEMP Section	Relevant Plan of Action or Procedure
CoA 2.8-2.14	2.8 - Operational activities associated with the project shall only be undertaken from 7.00 am to 10.00 pm Monday to Sunday.	2.3.1 - Hours of operation	n/a	EPL - L6.1
	2.9 - Within six months of commencement of operation of the project the Applicant shall prepare and submit to the Secretary a review of the logistical arrangements for ash haulage and placement to determine the feasibility of reducing the hours of operation. If, as a result of the review, it is determined that ash haulage and placement times can commence later and/or finish earlier, the Applicant shall aim to observe the reduced hours whenever possible.	2.2 - Extent of stage 2 Ash placement 2.3.2 - Ash Delivery	n/a	Due to the closure of the WPS, ash is no longer required to be delivered to the Lidsdale Ash Repository
	2.10 - Operations outside the hours stipulated in condition 2.8 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) <i>breakdown of plant and/or equipment at the repository or the Wallerawang Power Station with the effect of limiting or preventing ash storage at the power station outside the operating hours defined in condition 2.8; or</i> c) <i>a breakdown of an ash haulage truck(s) preventing haulage during the operating hours stipulated in condition 2.8 combined with insufficient storage capacity at the Wallerawang Power Station to store ash outside of the project operating hours; or</i> d) <i>in the event that the National Electricity Market Management Company (NEMMCO), or a person authorised by NEMMCO, directs the Applicant (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 Wallerawang Power Station to allow for the ash to be stored.</i> <i>In the event of conditions 2.10b) or 2.10c) arising, the Applicant is to take all reasonable and feasible measures to repair the breakdown in the shortest time possible.</i>	2.3.1 (ii) - Abnormal or emergency operation conditions	n/a	EPL - L6.2
	2.11 - <i>In the event that an emergency situation as referred to under condition 2.10b) or 2.10c) occurs more than once in any two month period, the Applicant shall prepare and submit to the Secretary for approval a report including, but not limited to:</i> a) <i>the dates and a description of the emergency situations;</i> b) <i>an assessment of all reasonable and feasible mitigation measures to avoid recurrence of the emergency situations;</i> c) <i>identification of a preferred mitigation measure(s); and</i> d) <i>timing and responsibility for implementation of the mitigation measure(s).</i> <i>The report is to be submitted to the Secretary within 60 days of the second exceedance occurring. The Applicant shall implement all reasonable and feasible mitigation measures in accordance with the requirements of the Secretary.</i>	n/a	n/a	EPL L6.2
	2.12 - <i>The Applicant shall notify the EPA prior to undertaking any emergency ash haulage or placement operations outside of the hours of operation stipulated in condition 2.8 of this approval and keep a log of such operations.</i>	n/a	n/a	EPL - L6
	2.13 - <i>The Applicant shall notify the Secretary in writing within seven days of undertaking any emergency ash haulage or placement operations outside of the hours of operation stipulated in condition 2.8 of this approval.</i>	n/a	n/a	EPL - L6

Approval requirement	Requirement	Relevant OEMP Section	Relevant CEMP Section	Relevant Plan of Action or Procedure
	<p>2.14 - The Applicant shall notify nearby sensitive receivers (as defined in the Operational Noise Management Plan required under condition 6.5a) of this approval) prior to 8.00 pm where it is known that emergency ash haulage or placement operations will be required outside of the hours of operation stipulated in condition 2.8 of this approval.</p>	n/a	n/a	EPL - L6
Noise Impacts - Operational Noise				
CoA 2.15-2.18	<p>2.15 - The cumulative operational noise from the ash placement area and ash haulage activity shall not exceed an LAeq (15 minute) of 40 dB(A) at the nearest most affected sensitive receiver during normal operating hours as defined in condition 2.8 of this approval. This noise criterion applies under the following meteorological conditions:</p> <p>a) wind speeds up to 3 m/s at 10 metres above ground; and/or b) temperature inversion conditions of up to 3°C/100 m and source to receiver gradient winds of up to 2 m/s at 10 m above ground level.</p> <p>This criterion does not apply where the Applicant and the affected landowner have reached a negotiated agreement in regard to noise, and a copy of the agreement has been forwarded to the Secretary and the EPA.</p>	Noise and vibration management subplan	n/a	EPL - L5.1-L5.3
	<p>2.16 - The Applicant 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 repository where feasible.</p>	Noise and vibration management subplan	n/a	EPL - L5.2
	<p>2.17 - The Applicant shall liaise with the owner/operator of Angus Place Coal Mine with the aim of preparing a protocol which provides for a co-operative approach for the management and mitigation of noise impacts associated with coal and ash truck movements along the private haul road.</p>	Noise and vibration management subplan	n/a	

Approval requirement	Requirement	Relevant OEMP Section	Relevant CEMP Section	Relevant Plan of Action or Procedure
	<p>2.18 - Where noise monitoring (as required by conditions 3.2 or 3.3 of this approval) identifies any non-compliance with the operational noise criterion specified under condition 2.15 of this approval the Applicant shall prepare and submit to the Secretary for approval a report including, but not limited to:</p> <ul style="list-style-type: none"> a) an assessment of all reasonable and feasible physical and other mitigation measures for reducing noise at the source including, but not limited to - <ul style="list-style-type: none"> i) construction of a noise barrier along the haulage road, ii) alternative ash haulage routes, and iii) alternative methods of ash conveyance to the repository; and 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). <p>The report is to be submitted to the Secretary within 60 days of undertaking the noise monitoring which has identified exceedances of the operational noise criterion specified under condition 2.15, unless otherwise agreed to by the Secretary. The Applicant shall implement all reasonable and feasible mitigation measures in accordance with the requirements of the Secretary.</p>	Noise and vibration management subplan	n/a	EPL - L5

Noise Impacts - Additional Noise Mitigation Measures

CoA 2.19	<p>2.19 - If, after the implementation of all reasonable and feasible source controls, as identified in the report required by condition 2.18, the noise generated by the project exceeds the criterion stipulated in condition 2.15 at:</p> <ul style="list-style-type: none"> a) any sensitive receiver in existence at the date of this approval; or b) any residential dwelling for which an approval has been sought or obtained under the Environmental Planning and Assessment Act 1979 no later than six months after the confirmation of operational noise levels; upon receiving a written request from an affected landowner (unless that landowner has acquisition rights under condition 2.20 of this approval and has requested acquisition) the Applicant shall implement additional noise mitigation measures such as double glazing, insulation, air conditioning and or other building acoustic treatments at any residence on the land, in consultation with the landowner. <p>For the purpose of this condition and condition 2.20, confirmation of operational noise levels means:</p> <ul style="list-style-type: none"> a) completion of the operational noise review required under condition 3.2 of this approval; and b) implementation of any source controls, as required under condition 2.18 of this approval, should the operational noise review indicate noise levels in excess of the operational noise criterion specified in condition 2.15; and c) monitoring of operational noise levels, as required under condition 3.3b) of this approval, following the implementation of any source controls. The additional mitigation measures must be reasonable and feasible. If within three months of receiving this request from the landowner the Applicant and landowner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Director-General for resolution, whose decision shall be final. 	Noise and vibration management subplan		
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Noise Impacts - Land Acquisition Criteria

Approval requirement	Requirement	Relevant OEMP Section	Relevant CEMP Section	Relevant Plan of Action or Procedure
	<p>2.20 - If, after the implementation of all reasonable and feasible source controls, as identified in the report required by condition 2.18, the noise generated by the project exceeds the criterion stipulated in condition 2.15 by more than 5 dB(A):</p> <p>a) at a sensitive receiver in existence at the date of this approval; or b) at any residential dwelling for which an approval has been sought or obtained under the Environmental Planning and Assessment Act 1979 prior to the landholder receiving written notification that they are entitled to land acquisition rights, as per condition 2.25 of this approval; or</p> <p>c) over 25% or more of the area of a vacant allotment in existence at the date of this approval, and where a dwelling is permissible under the Environmental Planning and Assessment Act 1979 at that date, with the exception of land that is currently used for industrial or mining purposes; the Applicant shall, upon receiving a written request for acquisition from the landowner, acquire the land in accordance with the procedures in conditions 2.22 to 2.24 of this approval. Any landowner that has agreed to, or property that has been the subject of, the application of additional noise mitigation measures under condition 2.19 of this approval waives the right to land acquisition.</p>	Noise and vibration management subplan		
	<p>2.21 - The land acquisition rights under condition 2.20 of this approval do not apply to landowners who have sought approval to subdivide their land after the date of this approval, unless the subdivision is created pursuant to condition 2.24 of this approval.</p>			
CoA 2.20-2.25	<p>2.22 - Within three months of receiving a written request from a landowner with acquisition rights under condition 2.20 of this approval, the Applicant shall make a binding written offer to the landowner based on:</p> <p>(a) the current market value of the landowner's interest in the property at the date of this written request, as if the property was unaffected by the project which is the subject of the project application, having regard to the: i) existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and</p> <p>ii) presence of improvements on the property and/or any approved building or structure which has been physically commenced at the date of the landowner's written request, and is due to be completed subsequent to that date, but excluding any improvements that have resulted from the implementation of condition 2.19 of this approval;</p> <p>(b) the reasonable costs associated with:</p> <p>i) relocating within the Lithgow local government area, or to any other local government area determined by the Secretary;</p> <p>ii) obtaining</p>			

Approval requirement	Requirement	Relevant OEMP Section	Relevant CEMP Section	Relevant Plan of Action or Procedure
	<p>legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is required; and (c) reasonable compensation for any disturbance caused by the land acquisition process.</p> <p>However, if at the end of this period, the Applicant and landowner cannot agree on the acquisition price of the land, and/or the terms upon which the land is to be acquired, then either party may refer the matter to the Secretary for resolution. Upon receiving such a request, the Secretary shall request the President of the NSW Division of the Australian Property Institute to appoint a qualified independent valuer or Fellow of the Institute, to consider submissions from both parties, and determine a fair and reasonable acquisition price for the land, and/or terms upon which the land is to be acquired.</p> <p>Within 14 days of receiving the independent valuer's determination, the Applicant shall make a written offer to purchase the land at a price not less than the independent valuer's determination. If the landowner refuses to accept this offer within six months of the date of the Applicant's offer, the Applicant's obligations to acquire the land shall cease, unless otherwise agreed by the Secretary.</p>			
	<p>2.23 - The Applicant shall bear the costs of any valuation or survey assessment requested by the independent valuer or the Secretary and the costs of determination referred to above.</p>			
	<p>2.24 - If the Applicant and landowner agree that only part of the land shall be acquired, then the Applicant shall pay all reasonable costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of the plan at the Office of the Registrar-General.</p>			
	<p>2.25 - The Applicant shall provide written notice to all landowners that are entitled to rights under conditions 2.19 and 2.20 within 21 days of determining the landholdings where additional noise mitigation measures or land acquisition apply. For the purpose of condition 2.20b), this condition only applies where operational noise levels have been confirmed in accordance with the definition in condition 2.19.</p>			

Approval requirement	Requirement	Relevant OEMP Section	Relevant CEMP Section	Relevant Plan of Action or Procedure
CoA 2.26-2.29	<p>2.26 - The Applicant shall prepare and submit to the Secretary for approval a Rehabilitation Plan addressing the restoration of the in-stream area (i.e. bed and bank) of Sawyers Swamp Creek and the associated riparian corridor at least two months prior to the realignment of the creek, unless otherwise agreed by the Secretary. The Plan shall be developed in consultation with, and to the satisfaction of, Fisheries NSW and shall include, but not necessarily be limited to:</p> <p>a) the objectives and outcomes that would be sought through the implementation of the Plan;</p> <p>b) performance criteria for the realigned creek and associated riparian zone against which the impact of the project on the ecological health of Sawyers Swamp Creek will be assessed;</p> <p>c) methodology used in developing the realignment planform;</p> <p>d) details of the final creek realignment including bank, meander, depth and slope characteristics (including pool-riffle sequences), flow and channel capacity characteristics, scour potential, and in-stream vegetation;</p> <p>e) timing of the creek realignment;</p> <p>f) a description of the proposed riparian zone and restoration works along the entire length of the creek realignment, including details of plant species to be used in rehabilitation;</p> <p>g) details of any proposed riparian and in-stream controls to be implemented in the reach upstream of the alignment to ensure the effectiveness of the proposed creek realignment and rehabilitation;</p> <p>h) a description of the initial and ongoing weed control measures;</p> <p>i) the methodology and timing of post realignment monitoring of the hydrology and ecological health of the aquatic and riparian vegetation as required under conditions 3.6 and 3.7 of this approval, respectively;</p> <p>j) mitigation measures to be implemented in the event of an identified decline in ecosystem health as a direct result of the realignment of the creek or construction or operation of the project, including a timetable for implementation;</p> <p>k) program for ongoing maintenance of the realigned creek system and associated riparian zone;</p> <p>l) any compensatory measures to offset the impacts of the project on the aquatic habitat and local waterways, if and as required by Fisheries NSW and</p> <p>m) provisions for periodic reporting of monitoring results to Fisheries NSW. The Applicant shall not commence any construction work that would result in the disturbance of Sawyers Swamp Creek until the Rehabilitation Plan has been approved by the Secretary.</p>	-	-	SSC rehab plan
	<p>2.27 - The rehabilitation and restoration of Sawyers Swamp Creek and associated riparian zone are to be consistent with the Works and Watercourse Design Guideline (DWE, April 2007) and Guidelines for Controlled Activities: Vegetation Management Plans (DWE, February 2008).</p>	-	-	

Approval requirement	Requirement	Relevant OEMP Section	Relevant CEMP Section	Relevant Plan of Action or Procedure
	2.28 - A riparian zone consisting of local native plant species shall be established and maintained in and adjacent to Swayers Swamp Creek, for the entirety of the site and be a minimum width of 20 m on both sides of the creek. Seed and propagule sources are to be from local botanical provenance and same general habitat.	-	-	
	2.29 - The riparian zone referred to under condition 2.28 of this approval shall be maintained for a period of at least five years after final planting.	-	-	
Surface Water Quality - Water Quality				
CoA 2.30-2.32	2.30 - The Applicant shall take all reasonable and feasible measures to prevent discharge of sediments and pollutants from the construction and operation of the project entering waterways.		Erosion and sediment control plan	
	2.31 - Earthworks not associated with the realignment of Sawyers Swamp Creek shall not be undertaken within 50 m of the creek where reasonable and feasible.		Erosion and sediment control plan	
	2.32 - All equipment, machinery and vehicles associated with the construction and operation of the project shall be operated and maintained in a manner that minimises the potential for oil and grease spills/leaks.		Erosion and sediment control plan	
Air Quality Impacts				
CoA 2.33-2.34	2.33 - The Applicant shall construct and operate the project in a manner that minimises dust impacts generated by construction works and operational activities, including wind-blown and traffic-generated dust, on the receiving environment. All activities on the site shall be undertaken with the objective of preventing visible emissions of dust from the site. Should such visible dust emissions occur at any time, the Applicant shall identify and implement all practicable dust mitigation measures, including cessation of relevant works, as appropriate, such that emissions of visible dust cease.	Air Quality management subplan		EPL - O3
	2.34 - The Applicant shall ensure that the load carrying compartment(s) of all ash haulage trucks are covered at all times except when loading or unloading ash material.	n/a	n/a	EPL - O3.4
Lighting Emissions				
CoA 2.35	2.35 - The Applicant shall take all practicable measures to mitigate off-site lighting impacts from the project and ensure all external lighting associated with the project complies with <i>Australian Standard AS4282 1997 – Control of the Obtrusive Effects of Outdoor Lighting</i> .	4.1.4 - Relevant legislation, regulations and guidelines		-
Construction Traffic and Transport Impacts				

Approval requirement	Requirement	Relevant OEMP Section	Relevant CEMP Section	Relevant Plan of Action or Procedure
CoA 2.36	<p>2.36 - The Applicant shall ensure that construction vehicles associated with the project:</p> <p>a) minimise the use of local roads (though residential streets and town centres) to gain access to the site;</p> <p>b) adhere to any nominated haulage routes identified in the Construction Traffic Management Plan as referred to in condition 6.3a) of this approval; and</p> <p>c) adhere to a Construction Vehicle Code of Conduct prepared to manage driver behaviour along the local road network to address traffic impacts (and associated noise) along nominated haulage routes.</p>	Operational transport management subplan OEMP - 2.3.3 - Capping material delivery	Appendix E Construction Traffic Management Plan	-
Capping Material Transport Impacts				
CoA 2.36A-2.36B	<p>2.36A - The Applicant must:</p> <p>(a) not import more than 100 heavy vehicle loads of capping material to the site per day;</p> <p>(b) cover all heavy vehicle loads of capping material;</p> <p>(c) not transport capping material on local roads in the Lithgow local government area;</p> <p>(d) notify the Department before commencing the importation of capping material from sources outside of the Lithgow local government area; and</p> <p>(e) not import capping material to the site for more than 10 years following the date of approval of Modification application 07_0005 Mod 2.</p> <p>2.36B - The Applicant must implement warning signage on the Castlereagh Highway on the approaches to the Castlereagh Highway/Wallerawang Power Station Haul Road intersection prior to importing capping material to the site from sources outside of the Lithgow local government area to the satisfaction of TfNSW.</p>	Operational transport management subplan OEMP - 2.3.3 - Capping material delivery	Appendix E Construction Traffic Management Plan	-
		2.4 - Operational transport management subplan	Appendix E Construction Traffic Management Plan	-
Heritage Impacts				
CoA 2.37-2.38	<p>2.37 - The Applicant shall ensure that all construction personnel are educated on their obligations in respect of the protection of Aboriginal and non-indigenous heritage sites and items.</p> <p>2.38 - If any previously unidentified heritage sites or items (Aboriginal and/or non-indigenous) are discovered during construction works or operational activities, all work likely to affect the heritage sites or item(s) is to cease immediately and the discovery of the objects shall be reported to Heritage NSW or the Department as relevant.</p>	3.4 - Environment awareness training and site inductions	2.6.2 - toolbox talks training and awareness	Wallerawang Power Station Heritage issues Site induction
		4.1.4 - Relevant legislation, regulations and guidelines	2.9 - Emergency and incident planning	Wallerawang Power Station Heritage issues Site induction
Waste Management				
CoA 2.39-2.41	<p>2.39 - All waste materials shall be assessed, classified, managed and disposed of in accordance with the EPA's <i>Waste Classification Guidelines</i> (or its latest version).</p> <p>2.40 - All waste materials removed from the site shall only be directed to a waste management facility lawfully permitted to accept the materials.</p> <p>2.41 - The Applicant 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 <i>Protection of the Environment Operations Act 1997</i>, if such a licence is required in relation to that waste.</p>	OEMP waste management sub-plan	2.3.2 - Lidsdale ash repository approval	EPL - L4.1 Table of approved wastes
		OEMP waste management sub-plan		
		OEMP waste management sub-plan		EPL - L4.1

Approval requirement	Requirement	Relevant OEMP Section	Relevant CEMP Section	Relevant Plan of Action or Procedure
3. ENVIRONMENTAL MONITORING				
Construction Noise Monitoring				
CoA 3.1	<p>3.1 - The Applicant shall prepare and implement a Construction Noise Monitoring Program to confirm the predictions of the noise assessment detailed in the document referred to under condition 1.1 of this approval and assess compliance against the construction noise criterion stipulated in condition 2.7 of this approval. The noise monitoring program shall be prepared in consultation with, and to the satisfaction of the EPA. The monitoring program shall form part of the Construction Noise Management Plan referred to in condition 6.3b) of this approval and must include monitoring of the construction noise generated during:</p> <ul style="list-style-type: none"> a) the realignment Sawyers Swamp Creek; b) construction of the stabilisation berm; c) <i>excavation of the former pine plantation area</i>; d) relocation and construction of surface water management structures; and e) concurrent construction activities. 	n/a		-
Operational Noise Review				
CoA 3.2	<p>3.2 - Within 60 days of the commencement of operation of the project, unless otherwise agreed to by the Director-General, the Applicant shall submit for the approval of the Secretary an Operational Noise Review to confirm the operational noise impacts of the project. The Operational Noise Review must be prepared in consultation with, and to the satisfaction of, the EPA. The Review shall:</p> <ul style="list-style-type: none"> a) identify the appropriate operational noise objectives and level 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; d) assess the noise performance of the project against the noise criterion specified in condition 2.15 of this approval and the predicted noise levels as detailed in the report referred to under condition 1.1 of this approval; and e) provide details of any entries in the Complaints Register (as required under condition 5.4 of this approval) relating to noise impacts. Where monitoring indicates noise levels in excess of the operational noise criterion specified in condition 2.15 of this approval, the Applicant shall prepare a report as required by condition 2.18 of this approval. 	Noise and vibration management subplan	n/a	
Ongoing Operational Noise Monitoring				

Approval requirement	Requirement	Relevant OEMP Section	Relevant CEMP Section	Relevant Plan of Action or Procedure
CoA 3.3	<p>3.3 - The Applicant shall prepare and implement an Operational Noise Monitoring Program to assess compliance against the operational noise criterion stipulated in condition 2.15 of this approval, throughout the life of the project. The noise monitoring program shall be prepared in consultation with, and to the satisfaction of, the EPA. The noise monitoring program shall be prepared in accordance with the requirements of the NSW Noise Policy for Industry (EPA, 2017) (or its latest version) and must include, but not be limited to:</p> <p>a) monitoring during ash placement in the far western area of the site adjacent to the haul road; and</p> <p>b) monitoring of the effectiveness of any noise mitigation measures implemented under condition 2.18 of this approval, against the noise criterion specified in condition 2.15 of this approval. Noise from the project is to be measured at the most affected point on or within the residential boundary, or at the most affected point within 30 metres of a dwelling where the dwelling is more than 30 metres from the boundary, to determine compliance with the noise criterion stipulated in condition 2.15 of this approval. Where it can be demonstrated that direct measurement of noise from the project is impractical, the EPA may accept alternative means of determining compliance and the modifying factors shall also be applied to the measured noise levels where applicable in accordance with the NSW Noise Policy for Industry (EPA, 2017) (or its latest version).</p> <p>The Applicant shall forward to the EPA and the Secretary a report containing the results of any non-compliance within 14 days of conducting a noise assessment. Where monitoring indicates noise levels in excess of the operational noise criterion specified in condition 2.15 of this approval, approval, the Applicant shall prepare a report as required by condition 2.18 of this approval.</p> <p>The monitoring program shall form part of the Operational Noise Management Plan referred to in condition 6.5a) of this approval.</p>	Noise and vibration management subplan	Noise and vibration management subplan	EPL-L5.2

Groundwater Monitoring

Approval requirement	Requirement	Relevant OEMP Section	Relevant CEMP Section	Relevant Plan of Action or Procedure
CoA 3.4	<p>3.4 - The Applicant 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, and to the satisfaction of, WaterNSW, 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 life of the project and include, but not be limited to:</p> <p>a) monitoring at established bore sites (or replacement bore sites in the event that existing sites are damaged or lost) as described in the document referred to under condition 1.1 of this approval; and</p> <p>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.</p> <p>The monitoring program shall form part of the Groundwater Management Plan referred to in condition 6.5b) of this approval.</p>	Groundwater management subplan	n/a	EPL P1.2, M2.2, R4.1 6 monthly report, U1.1 Groundwater characterisation report (Complete), U2.1 (Complete), U2.2 (Complete), U2.3 (Complete), U2.4 (Complete), U2.5 (Complete), U2.6 (Complete), U2.7 Long term measures 1/10/24, U2.8 Completion report 15/10/24
Surface Water Quality Monitoring				
CoA 3.5	<p>3.5 - The Applicant is to implement a surface water quality monitoring program to monitor the impacts of the ash placement activities on, and the realignment of, Sawyers Swamp Creek. The Program shall be developed in consultation with and to the satisfaction of Fisheries NSW and WaterNSW, 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:</p> <p>a) monitoring at the four existing water quality monitoring sites as described in the document referred to under condition 1.1 of this approval;</p> <p>b) monitoring downstream of the realigned section of Sawyers Swamp Creek;</p> <p>c) monitoring at groundwater discharge points into Sawyers Swamp Creek;</p> <p>d) wet weather monitoring with a minimum of two events recorded within the first 12 months of both the operation of the project and post realignment of Sawyers Swamp Creek; and</p> <p>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, dissolved oxygen, turbidity, total phosphorus and total nitrogen. The monitoring program shall form part of the Surface Water Management Plan referred to in condition 6.5c) of this approval.</p>	CoA 3.5 Not referenced in OEMP or subplan	n/a	EPL - M2
Sawyers Swamp Creek Realignment Monitoring				

Approval requirement	Requirement	Relevant OEMP Section	Relevant CEMP Section	Relevant Plan of Action or Procedure
CoA 3.6-3.7	<p>3.6 - The Applicant is to implement a Hydrological Monitoring Program to assess and quantify the impacts and effectiveness of the realigned section of Sawyers Swamp Creek in consultation with and to the satisfaction of Fisheries NSW. Monitoring is to be undertaken for a period of five (5) years upon completion of the creek realignment and is to include scour and erosion monitoring. The program must include sampling before and after the realignment works and include a sampling site downstream of the realigned section of creek. In the first 12 months following completion of the realignment, monitoring is to be undertaken at least every three (3) months upon completion of the creek realignment and after any wet weather/bankful flow event.</p> <p>The monitoring program shall form part of the Rehabilitation Plan for the project as referred to in condition 2.26 of this approval.</p>			n/a at current time as realignment works have not commenced
	<p>3.7 - The Applicant shall prepare an Ecological Monitoring Program, in consultation with, and to the satisfaction of, Fisheries NSW, to monitor and quantify the impacts of the realignment of Sawyers Swamp Creek on the ecology and ecosystems of the creek and the associated riparian environment. The Program shall include, but not necessarily be limited to:</p> <p>a) a sampling, data collection and assessment regime to establish baseline ecological health and for ongoing monitoring of ecological health of the in-stream environment during construction and throughout the life of the project;</p> <p>b) at least one in-stream sampling period prior to the realignment of Sawyers Swamp Creek and at least two (2) sampling periods following the realignment of Sawyers Swamp Creek; and</p> <p>c) an assessment regime for monitoring the ecological health of the riparian environment for a period of at least five (5) years after final planting.</p> <p>The monitoring program shall form part of the Rehabilitation Plan for the project as referred to in condition 2.26 of this approval.</p>			n/a at current time as realignment works have not commenced
Air Quality Monitoring				
CoA 3.8	<p>3.8 - The Applicant shall prepare an Air Quality Monitoring Program, in consultation with, and to the satisfaction of, the EPA. The Program shall include, but not necessarily be limited to, monitoring for dust at the monitoring sites identified in the document referred to under condition 1.1 of this approval. The air quality monitoring program shall be ongoing for the life of the project, including final rehabilitation and stabilisation of the site.</p> <p>The monitoring program shall form part of the Air Quality Management Plan referred to in condition 6.5d) of this approval.</p>	Air quality management subplan	Air quality management subplan	EPL - O3
4. COMPLIANCE TRACKING AND MONITORING				

Approval requirement	Requirement	Relevant OEMP Section	Relevant CEMP Section	Relevant Plan of Action or Procedure
CoA 4.1-4.4	<p>4.1 - Prior to each of the events listed below, the Applicant shall certify in writing to the satisfaction of the Secretary that it has complied with all conditions of this approval applicable prior to that event:</p> <p>a) commencement of any construction works on the land subject of this approval; and b) commencement of operation of the project.</p>	3.6 - Compliance tracking program - environmental inspections	2.10.6 - Construction phase compliance tracking	Compliance tracking monitoring spreadsheet
	<p>4.2 - The Applicant shall develop and implement a Compliance Tracking Program for the project, prior to commencing operations, to track compliance with the requirements of this approval and shall include, but not necessarily limited to:</p> <p>a) provisions for periodic review of the compliance status of the project against the requirements of this approval and the Statement of Commitments detailed in the document referred to in condition 1.1c) of this approval; b) provisions for periodic reporting of the compliance status to the Secretary; c) a program for independent environmental auditing in accordance with the Independent Audit Post Approval Requirements (NSW Government 2020); d) procedures for rectifying any non-compliance identified during environmental auditing or review of compliance; e) mechanisms for recording incidents and actions taken in response to those incidents; f) provisions for reporting incidents to the Secretary during construction and operation; and g) provisions for ensuring all employees, contractors and sub-contractors are aware of, and comply with, the conditions of this approval relevant to their respective activities.</p> <p>The Compliance Tracking Program shall be implemented prior to operation of the project with a copy submitted to the Secretary for approval within four weeks of commencement of the project, unless otherwise agreed by the Secretary.</p>	3.6 - Compliance tracking program - environmental inspections	2.10.6 - Construction phase compliance tracking	Program to be implemented
	<p>4.3 - Nothing in this approval restricts the Applicant from utilising any existing compliance tracking programs administrated by the Applicant to satisfy the requirements of condition 4.2. In doing so, the Applicant must demonstrate to the Secretary how these systems address the requirements and/or have been amended to comply with the requirements of the condition.</p>	n/a	n/a	As stated in CoA and responsibility of GPM Staff
	<p>4.4 - The Applicant shall meet the requirements of the Secretary in respect of the implementation of any measure necessary to ensure compliance with the conditions of this approval, and general consistency with the documents listed under condition 1.1 of this approval.</p>	n/a	n/a	As stated in CoA and responsibility of GPM Staff

5. COMMUNITY INFORMATION AND COMPLAINTS MANAGEMENT

Provision of Information

Approval requirement	Requirement	Relevant OEMP Section	Relevant CEMP Section	Relevant Plan of Action or Procedure
CoA 5.1-5.2	<p>5.1 - Prior to the commencement of the project, the Applicant shall establish and maintain a website for the provision of electronic information associated with the project. The Applicant shall, subject to confidentiality, publish and maintain up-to-date information on this website or dedicated pages including, but not necessarily limited to:</p> <p>a) the documents referred to under condition 1.1 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; e) the outcomes of compliance tracking in accordance with the requirements of this project approval.</p>	3.3.3 - Community and stakeholder communications		https://gpmco.com.au/environment/
	5.2 - The Applicant shall make all documents required to be provided under condition 5.1 of this approval publicly available.	3.3.3 - Community and stakeholder communications		https://gpmco.com.au/environment/
Complaints and Enquiries Procedure				
	<p>5.3 - Prior to the commencement of the project, the Applicant shall ensure that the following are available for community complaints and enquiries during construction and operation:</p> <p>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.</p> <p>The telephone number, postal address and email address shall be published in a newspaper circulating in the local area prior to the commencement of the project. The above details shall also be provided on the website required by condition 5.1 of this approval.</p>	3.5 - Complaints management process	2.8.4 - complaints management	https://gpmco.com.au/contact/

Approval requirement	Requirement	Relevant OEMP Section	Relevant CEMP Section	Relevant Plan of Action or Procedure
CoA 5.3-5.4	<p>5.4 - The Applicant shall record the details of all complaints received through the means listed under condition 5.3 of this approval in an up-to-date Complaints Register. The Register shall record, but not necessarily be limited to:</p> <ul style="list-style-type: none"> a) the date and time of the complaint; b) the means by which the complaint was made (e.g. telephone, email, mail, in person); c) any personal details of the complainant that were provided, or if no details were provided a note to that effect; d) the nature of the complaint; e) the time taken to respond to the complaint; f) any investigations and actions taken by the Applicant in relation to the complaint; g) any follow-up contact with, and feedback from, the complainant; and h) if no action was taken by the Applicant in relation to the complaint, the reason(s) why no action was taken. <p>The Complaints Register shall be made available for inspection by the Secretary upon request.</p>	3.5 - Complaints management process	2.8.4 - complaints management	Complaints register
6. ENVIRONMENTAL MANAGEMENT				
Environmental Representative				

Approval requirement	Requirement	Relevant OEMP Section	Relevant CEMP Section	Relevant Plan of Action or Procedure
CoA 6.1	<p>6.1 - Prior to the commencement of any construction or operational activities, or as otherwise agreed by the Secretary, the Applicant shall nominate for the approval of the Secretary a suitably qualified and experienced Environmental Representative(s) independent of the design, construction and operation personnel. The Applicant shall engage the Environmental Representative(s) during any construction activities, and throughout the life of the project, or as otherwise agreed by the Secretary. The Environmental Representative(s) shall:</p> <p>a) oversee the implementation of all environmental management plans and monitoring programs required under this approval, and advise the Applicant upon the achievement of these plans/programs;</p> <p>b) have responsibility for considering and advising the Applicant on matters specified in the conditions of this approval and the Statement of Commitments in the EA;</p> <p>c) oversee the implementation of the environmental auditing of the project in accordance with the requirements of condition 4.2 of this approval and all relevant project Environmental Management System(s); and</p> <p>d) be given the authority and independence to recommend to the Applicant reasonable steps to be taken to avoid or minimise unintended or adverse environmental impacts, and, failing the effectiveness of such steps, to recommend to the Applicant that relevant activities are to be ceased as soon as reasonably practicable if there is a significant risk that an adverse impact on the environment will be likely to occur.</p>			
Construction Environmental Management				
	<p>6.2 - Prior to the commencement of construction work, the Applicant shall prepare and implement a Construction Environmental Management Plan (CEMP). The CEMP shall outline the environmental management practices and procedures to be followed during construction. The CEMP shall be prepared in accordance with <i>Guideline for the Preparation of Environmental Management Plans (DIPNR, 2004)</i>. The Construction Environmental Management Plan for the project (or any stage of the project) shall be submitted to the Secretary for approval at least four weeks prior to the commencement of any construction work associated with the project (or stage as relevant), unless otherwise agreed by the Secretary. Construction shall not commence until written approval has been received from the Secretary.</p>	n/a	CEMP	-
	<p>6.3 - As part of the Construction Environmental Management Plan for the project, the Applicant shall prepare and implement the following plans:</p>	n/a	CEMP	-

Approval requirement	Requirement	Relevant OEMP Section	Relevant CEMP Section	Relevant Plan of Action or Procedure
CoA 6.2-6.3	<p>a) a Construction Traffic Management Plan, prepared in consultation with TfNSW, the relevant Council and emergency services to manage the construction traffic impacts of the project, including but not limited to:</p> <ul style="list-style-type: none"> i) identifying construction vehicle volumes (construction staff vehicles, heavy vehicles and oversized loads) and haulage routes; ii) identifying any road closures and/or traffic detours during the haulage of oversized loads as agreed to by the relevant roads authority; iii) detailing a Construction Vehicle Code of Conduct to set driver behaviour controls to minimise impacts on the land uses along haulage routes (including noise minimisation measures); and iv) complying with the document Procedures for Use in the Preparation of a Traffic Management Plan (RTA, 2001). 	n/a		-
CoA 6.2-6.3	<p>b) a Construction Noise Management Plan to detail how construction noise impacts would be minimised and managed. The Strategy shall be developed in consultation with, and to the satisfaction of, the EPA and shall include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> i) details of construction activities and an indicative schedule for construction works; ii) identification of construction activities that have the potential to generate noise impacts on sensitive receivers, iii) procedures for assessing noise levels at sensitive receivers and compliance; iv) details of the reasonable and feasible actions and measures to be implemented to minimise noise impacts and, if any noise exceedance is detected, how any non-compliance would be rectified; and v) procedures for notifying sensitive receivers of construction activities that are likely to affect their noise amenity. 	n/a		-
CoA 6.2-6.3	<p>c) an Erosion and Sediment Control Plan to detail measures to minimise erosion and the discharge of sediment and other pollutants to land and/or water during construction works. The Plan must include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> i) identification of the construction activities that could cause soil erosion or discharge sediment or water pollutants from the site; ii) a description of the management methods to minimise soil erosion or discharge of sediment or water pollutants from the site, including a strategy to minimise the area of bare surfaces, stabilise disturbed areas, and minimise bank erosion; and iii) demonstration that the proposed erosion and sediment control measures will conform with, or exceed, the relevant requirements of Managing Urban Stormwater: Soils and Construction (Landcom, 2004). 	n/a		

Approval requirement	Requirement	Relevant OEMP Section	Relevant CEMP Section	Relevant Plan of Action or Procedure
	<p>6.4 - The Applicant shall prepare and implement an Operational Environmental Management Plan to detail an environmental management framework, practices and procedures to be followed during operation of the project. The Plan shall be consistent with Guideline for the Preparation of Environmental Management Plans (DIPNR 2004) and shall include, but not necessarily be limited to:</p> <p>a) identification of all statutory and other obligations that the Applicant is required to fulfil in relation to operation of the project, including all approvals, licences, approvals and consultations;</p> <p>b) a description of the roles and responsibilities for all relevant employees (including contractors) involved in the operation of the project;</p> <p>c) overall environmental policies and principles to be applied to the operation of the project;</p> <p>d) standards and performance measures to be applied to the project, and a means by which environmental performance can be periodically reviewed and improved, where appropriate;</p> <p>e) management policies to ensure that environmental performance goals are met and to comply with the conditions of this approval;</p> <p>f) the additional plans listed under condition 6.5 of this approval;</p> <p>g) the environmental monitoring requirements outlined under conditions 3.3 to 3.5 inclusive and 3.8 of this approval.</p> <p>The Plan shall be submitted for the approval of the Secretary no later than four weeks prior to the commencement of operation of the project, unless otherwise agreed by the Secretary. Operation shall not commence until written approval has been received from the Secretary.</p> <p>Nothing in this approval precludes the Applicant from incorporating the requirements of the Operational Environmental Management Plan into existing environmental management systems and plans administered by the Applicant.</p>	OEMP	n/a	-
	<p>6.5 - As part of the Operation Environmental Management Plan for the project, required under condition 6.4 of this approval, the Applicant shall prepare and implement the following Management Plans:</p>	OEMP	n/a	-

Approval requirement	Requirement	Relevant OEMP Section	Relevant CEMP Section	Relevant Plan of Action or Procedure
	<p>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, and to the satisfaction of, the EPA and include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> i) procedures to ensure that all reasonable and feasible noise mitigation measures are applied during operation of the project; ii) identification of all relevant sensitive receivers and the applicable criteria at those receivers commensurate with the noise limit specified under condition 2.15 of this approval; iii) identification of activities that will be carried out in relation to the project and the associated noise sources; iv) noise monitoring procedures (as referred to in condition 3.3 of this approval) for periodic assessment of noise impacts at the relevant receivers against the noise limits specified under this approval and the predicted noise levels as detailed in the report referred to under condition 1.1 of this approval; v) details of all management methods and procedures that will be implemented to control individual and overall noise emissions from the site during operation; vi) procedures and corrective actions to be undertaken if non-compliance against the operational noise criteria is detected; and vii) provisions for periodic reporting of results to EPA. 	Noise and Vibration management sub-plan	n/a	-
	<p>b) a Groundwater Management Plan to detail measures to mitigate and manage groundwater impacts. The Plan shall be prepared in consultation with, and to the satisfaction of, WaterNSW and include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> i) baseline data on groundwater quality, depth and flow in the project area; ii) groundwater objectives and impact assessment criteria; iii) a program to monitor groundwater flows and groundwater quality in the project area as required by condition 3.4 of this approval; iv) a protocol for the investigation of identified exceedances of the groundwater impact assessment criteria; v) a response plan to address potential exceedances and groundwater quality impacts; and vi) provisions for periodic reporting of results to WaterNSW. 	Groundwater management sub-plan	n/a	-

Approval requirement	Requirement	Relevant OEMP Section	Relevant CEMP Section	Relevant Plan of Action or Procedure
CoA 6.4-6.5A	<p>c) a 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, and to the satisfaction of, WaterNSW and Fisheries NSW. The Plan shall include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> i) baseline data on the water quality and flow in Sawyers Swamp Creek up ii) to the date of this approval; iii) water quality objectives and impact assessment criteria for Sawyers Swamp Creek; iv) a program to monitor surface water quality in Sawyers Swamp Creek as referred to in condition 3.5 of this approval; v) a protocol for the investigation of identified exceedances in the impact assessment criteria; vi) a response plan to address potential adverse surface water quality exceedances; vii) a site water management strategy identifying clean and dirty water areas for Stages A, B and C of the project and the associated water management measures including erosion and sediment controls and provisions for recycling/reuse of water and the procedures for decommissioning water management structures on the site; and viii) provisions for periodic reporting of results to the Fisheries NSW and WaterNSW. 	Surface water management sub-plan	n/a	-
	<p>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, and to the satisfaction of, the EPA and include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> i) baseline data on dust deposition levels; ii) air quality objectives and impact assessment criteria; iii) an air quality monitoring program as referred to in condition 3.8 of this approval; iv) <i>an assessment of alternative methods of ash placement to minimise the exposure of active placement areas to prevailing winds;</i> v) <i>mitigation measures to be incorporated during emplacement activities and haulage of ash;</i> vi) an operating protocol for the repository irrigation system including activation rates, application rates and area of coverage; vii) a protocol for the investigation of visible emissions from the repository area; viii) a response plan to address visible emissions from the repository area; and ix) provisions for periodic reporting of results to the EPA. 	Air quality management subplan	n/a	-

Approval requirement	Requirement	Relevant OEMP Section	Relevant CEMP Section	Relevant Plan of Action or Procedure
	<p>e) a Landscape/Revegetation Plan to outline measures to minimise the visual impacts of the repository and ensure the long-term stabilisation of the site and compatibility with the surrounding land fabric and land use. The Plan shall include, but not necessarily be limited to:</p> <p>(i) identification of design objectives and standards based on local environmental values, vistas, and land uses;</p> <p>(ii) a description of short- and long-term revegetation measures;</p> <p>(iii) a schedule of species to be used in revegetation;</p> <p>(iv) timing and progressive implementation of revegetation works as placement areas are completed, including landscape plans; and</p> <p>(v) procedures and methods to monitor and maintain revegetated areas during the establishment phase and long-term. Revegetation works must incorporate the use of local native species.</p>	Landscape and revegetation management sub-plan	n/a	-
	<p>f) an Operational Transport Management Plan for the project, which must:</p> <p>(i) be prepared in consultation with TfNSW and Council, prior to importing capping material from sources outside of the Lithgow local government area;</p> <p>(ii) detail the route to be used to transport capping material;</p> <p>(iii) detail the measures that would be implemented to minimise traffic safety issues for other road users (including cyclists), including:</p> <ul style="list-style-type: none"> • notifying the community about project-related traffic impacts; • a procedure to address complaints about project-related traffic; • minimising potential traffic conflicts with school buses and during local school drop-off and pick-up times; • scheduling heavy vehicle movements to minimise convoy length or platoons; • responding to local climate conditions that may affect road safety such as fog, dust, wet weather; and • responding to emergency repair or maintenance requirements; and <p>(iv) include a Driver Code of Conduct, which addresses:</p> <ul style="list-style-type: none"> • travelling speeds; • driver fatigue; • adherence to the designated transport route; and • safe driving practices. 	Operational transport management sub- plan	n/a	-

Approval requirement	Requirement	Relevant OEMP Section	Relevant CEMP Section	Relevant Plan of Action or Procedure
	<p>6.5A -The Applicant shall update the Operation Environment Management Plan (as referred to in condition 6.4 of this approval) and associated monitoring programs (as referred to in conditions 3.4 to 3.8 inclusive) prior to the importation of capping material to the site from sources outside of the Lithgow local government area, to the satisfaction of the Secretary. The updated plan and associated monitoring programs must reflect all operational activities, monitoring and management practices for the Kerosene Vale Ash Dam and the Sawyers Swamp Creek Ash Dam.</p>	OEMP	n/a	-
Revision of Strategies, Plans and Programs				
CoA 6.6	<p>6.6 - Within three months of:</p> <p>a) the submission of an incident report under condition 7.1;</p> <p>b) the submission of an Annual Review under condition 7.3;</p> <p>c) the submission of an Independent Environmental Audit under condition 4.2); or</p> <p>d) the modification of the conditions of this approval (unless the conditions require otherwise),</p> <p>the Applicant must review and, if necessary, revise the studies, strategies or plans required under the conditions of approval to the satisfaction of the Secretary. Where this review leads to revisions in any such document, then within 4 weeks of the review Non-Compliance Notification the revised document must be submitted to the Secretary for approval, unless otherwise agreed with the Secretary.</p> <p><i>Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the development.</i></p>		2.12 cemp/Sub-plan revision and changes to the project	
7. ENVIRONMENTAL REPORTING				
Incident Notification				
CoA 7.1	<p>7.1 - The Secretary must be notified in writing via the Major Projects website immediately after the Applicant becomes aware of an incident. The notification must identify the development (including the application number and the name of the development if it has one) and set out the location and nature of the incident. Subsequent notification requirements must be given, and reports submitted in accordance with the requirements set out in Appendix 3.</p>	3.7 - Environmental incident reporting		As stated in CoA and responsibility of GPM Staff
Non Compliance Notification				
CoA 7.2	<p>7.2 - The Secretary must be notified in writing via the Major Projects website within seven days after the Applicant becomes aware of any non-compliance. A non-compliance notification must identify the development and the application number for it, set out the condition of approval that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.</p> <p><i>Note: A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance .</i></p>	3.6.2 - Non compliance		As stated in CoA and responsibility of GPM Staff
Annual Performance Reporting				

Approval requirement	Requirement	Relevant OEMP Section	Relevant CEMP Section	Relevant Plan of Action or Procedure
CoA 7.3	<p>7.3 - The Applicant shall, throughout the life of the project, prepare and submit for the approval of the Secretary, an Annual Environmental Management Report (AEMR). The AEMR shall review the performance of the project against the Operation Environmental Management Plan (refer to condition 6.4 of this approval) and the conditions of this approval. The AEMR shall include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> a) details of compliance with the conditions of this approval; b) a copy of the Complaints Register (refer to condition 5.4 of this approval) for the preceding twelve-month period (exclusive of personal details), and details of how these complaints were addressed and resolved; c) identification of any circumstances in which the environmental impacts and performance of the project during the year have not been generally consistent with the environmental impacts and performance predicted in the documents listed under condition 1.1 of this approval, with details of additional mitigation measures applied to the project to address recurrence of these circumstances; d) results of all environmental monitoring required under conditions 3.3 to 3.8 of this approval, including interpretations and discussion by a suitably qualified person; and e) a list of all occasions in the preceding twelve-month period when environmental goals/objectives/impact assessment criteria for the project have not been achieved, indicating the reason for failure to meet the criteria and the action taken to prevent recurrence of that type of failure. The Applicant shall submit a copy of the AEMR to the Secretary every year, with the first AEMR to be submitted no later than twelve months after the commencement of operation of the project. The Secretary may require the Applicant to address certain matters in relation to the environmental performance of the project in response to review of the Annual Environmental Report. Any action required to be undertaken shall be completed within such period as the Secretary may require. The Applicant shall make copies of each AEMR available for public inspection on request. 			<p>Compliant as stated in CoA and responsibility of GPM Staff https://gpmco.com.au/environment/</p>

Appendix E Construction and Operational Transport Management Plan

Lidsdale Ash Dam Areas

Construction and Operational Transport Management Plan

Prepared for Generator Property Management Pty Ltd

March 2026

Lidsdale Ash Dam Areas

Construction and Operational Transport Management Plan

Generator Property Management Pty Ltd

E230337 RP3

March 2026

Version	Date	Prepared by	Reviewed by	Comments
V1	14 December 2021	Baqir Husain	Dr. Tim Brooker	Draft for TfNSW review
V2	29 April 2022	Baqir Husain	Dr. Tim Brooker	Final addressing TfNSW comments of 8 March 2022
V3	11 October 2024	Sofia Stergio	John Pola	Minor updates to incorporate MOD2
V4	11 February 2025	Nadia Eisenlohr	Abdullah Uddin	Updates following TfNSW comments from 24/01/25
V5	15 August 2025	Zainab Ahmed	Nadia Eisenlohr	Updated to address TfNSW comments
V6	19 September 2025	Zainab Ahmed	Nadia Eisenlohr	Updated to address DPHI comments
V7	31 March 2026	Zainab Ahmed	Nadia Eisenlohr	Final

Approved by



John Pola

GPM Environment Manager

31 March 2026

This report has been prepared in accordance with the brief provided by Generator Property Management Pty Ltd and, in its preparation, EMM has relied upon the information collected at the times and under the conditions specified in this report. All findings, conclusions or recommendations contained in this report are based on those aforementioned circumstances. This report is to only be used for the purpose for which it has been provided. Except as permitted by the Copyright Act 1968 (Cth) and only to the extent incapable of exclusion, any other use (including use or reproduction of this report for resale or other commercial purposes) is prohibited without EMM's prior written consent. Except where expressly agreed to by EMM in writing, and to the extent permitted by law, EMM will have no liability (and assumes no duty of care) to any person in relation to this document, other than to Generator Property Management Pty Ltd (and subject to the terms of EMM's agreement with Generator Property Management Pty Ltd).

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ABN: 28 141 736 558

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1 Introduction

This document describes the Construction and Operational Transport Management Plan (TMP) that will be implemented by Generator Property Management (GPM) and its contractors during the construction, operation and maintenance of the Lidsdale Ash Repository. The Lidsdale Ash Repository (the site) is located at Skelly Road, Lidsdale NSW and is approximately 15 kilometres (km) north-west of Lithgow and 2.5 km north-east of Wallerawang Power Station (WPS). The site comprises an area of approximately 528 hectares (ha) and is situated primarily on Lot 5 in Deposited Plan (DP) 829137 (refer to Figure 1.1).

The site includes:

- the Kerosene Vale Dry Ash Repository (KVAR) and underlying former Kerosene Vale Ash Dam (KVAD)
- Sawyers Swamp Creek Ash Dam (SSCAD)
- Lidsdale Cut and adjacent asbestos landfills
- demolition landfill south of the SSCAD.

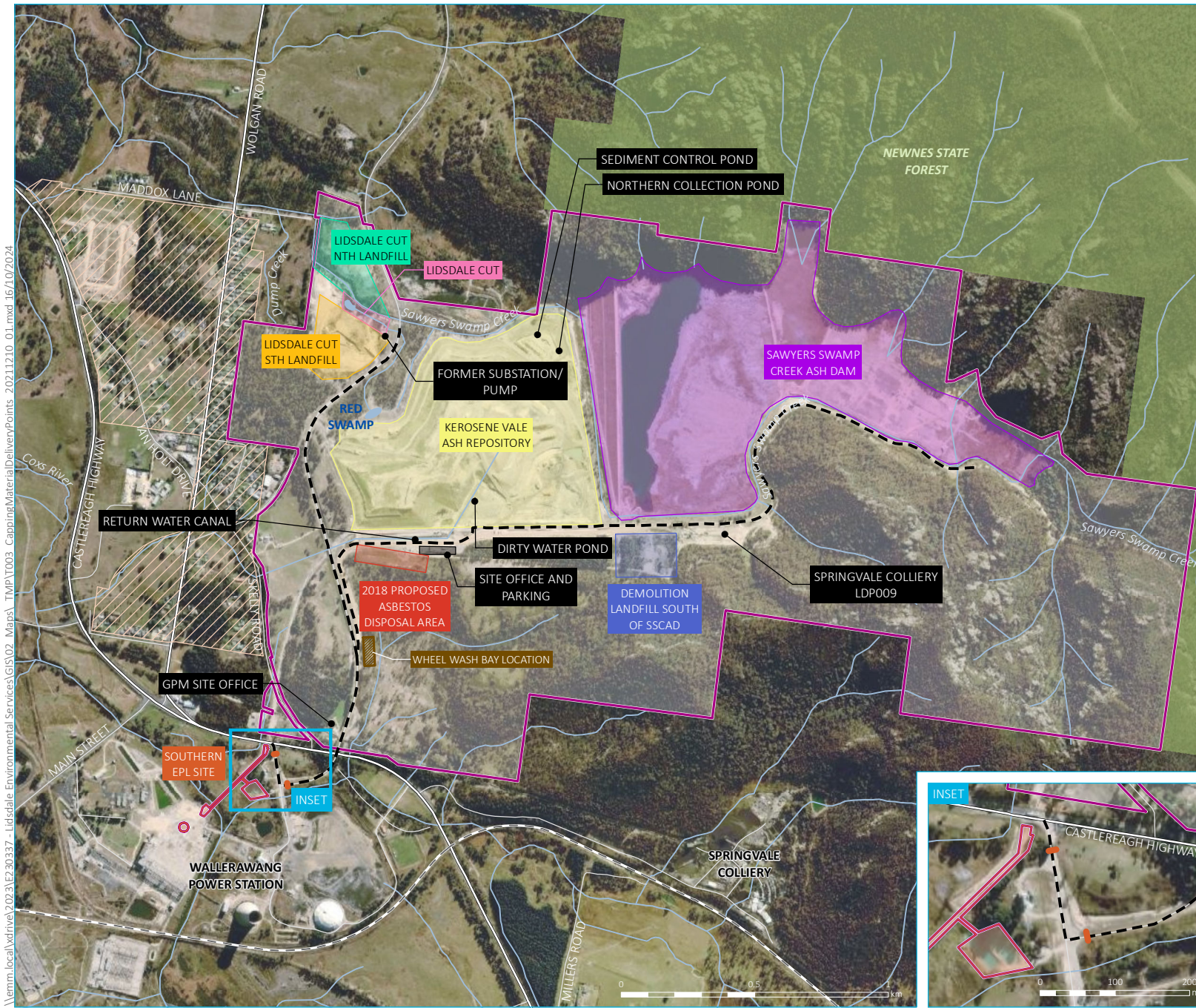
This TMP has been prepared to satisfy the conditions of approval as part of the modification (MOD 2) to the development approval by Minister of Planning as part of the *Environmental Planning and Assessment Act 1979* for the project at Lidsdale Ash Repository (Application No. 07_0005) approved on 13 October 2023. This TMP outlines the framework of the transport movements to/from and within the project area associated with the importation of material required for construction and operations.

1.1 Background

The Lidsdale Ash Repository is owned and operated by GPM with the site having a long history of being used for disposal of waste from the WPS. GPM took ownership of the site in September 2020 from Energy Australia NSW. The site was used for ash disposal in conjunction with the WPS since the late 1950s but since the closure of WPS in 2014, the Lidsdale Ash Repository has been placed in care and maintenance.

Project Approval MP07_0005- Mod 2 contains a number of conditions that need to be complied with by GPM Co NSW, as the proponent, at different stages of the Project. Condition 6.3 (a) and 6 (f) of Project Approval MP07_0005- Mod 2 requires an TMP be developed prior to the commencement of construction and operations at the site. This document has been prepared to comply with this requirement.

Site contractors have been engaged by GPM to support GPM's care and maintenance activities and management of ongoing regulatory and contractual obligations associated with the Lidsdale Ash Repository area.



- KEY**
- Site boundary
 - Haul route
 - Gate (refer to inset)
 - Rail line
 - Major road
 - Minor road
 - Watercourse/drainage line
 - Named waterbody
 - State forest
 - Nearest sensitive (residential) receivers
 - Proposed approximate wheel wash bay location
 - 2018 proposed asbestos disposal area
 - Demolition landfill south of SSCAD
 - Kerosene Vale ash repository
 - Lidsdale cut northern landfill
 - Lidsdale cut southern landfill
 - Lidsdale cut
 - Sawyers Swamp Creek ash dam (SSCAD)
 - Southern EPL site
 - Site office and car parking
- INSET KEY**
- Major road
 - NPWS reserve

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Source: EMM (2021); DFSI (2017); GA (2011); ASGC (2006)



Site location

Lidsdale Ash Repository
Construction and Operational
Transport Management Plan
Figure 1.1



GDA 1994 MGA Zone 56

1.2 Construction and Operational Environmental Management Plans

CoA 6.2 requires the applicant to develop a construction environmental management plan (CEMP) that outlines the environmental management practices and procedures to be followed during construction. CoA 6.3 requires the preparation and implementation of the following sub-plans included as part of the CEMP:

- Construction Traffic Management Plan (CTMP)
- Construction Noise Management Plan (CNMP)
- Construction Erosion and Sediment Control Plan (CESCP).

CoA 6.4 requires the applicant to prepare and implement an Operational Environmental Management Plan (OEMP). As part of the OEMP, CoA 6.5 requires the preparation and implementation of the following plans:

- Operational Noise Management Plan (ONMP)
- Operational Groundwater Management Plan (OGWMP)
- Operational Surface Water Management Plan (OSWMP)
- Operational Air Quality Management Plan (OAQMP)
- Operational Landscape / Revegetation Management Plan (OLRMP)
- Operational Transport Management Plan.

These plans are included as sub-plans to the OEMP.

Table 1.1 provides a high-level overview of the proposed activities that are covered by the two plans. Further information on the scope of this Construction and Operational Transport Management Plan is provided in Section 2.

Table 1.1 Activities covered by the CEMP and OEMP

Environmental Management Plan	Activities covered
OEMP – care and maintenance operations	<ul style="list-style-type: none"> • ash management • management of on-site water systems • capping material haulage, placement and management • landscaping and revegetation/rehabilitation of the site • upgrading and maintaining internal access roads in the project area

Environmental Management Plan	Activities covered
CEMP – construction activities	<ul style="list-style-type: none"> • Sawyers Swamp Creek realignment • construction of stability berms around the perimeter of the KVAR • excavation of the former pine plantation area • sediment controls and surface water dams associated with construction of the KVAR stability berm and realignment of the Sawyers Swamp Creek • establishment of freshwater collection ponds and diversion pipes/drains on the northern edges of SSCAD • rearrangement of water flows around the KVAR • establishment of access roads onto the surface of the SSCAD and associated roads across the dam surface • reinstatement of environmental controls for historic landfill areas including capping of slumped areas, reprofiling for water management and control of sediment runoff during these activities • concurrent construction activities.

The CEMP and OEMP form part of GPM’s Environmental Management System (EMS), which is based on AS/NZS ISO 14001. A summary of the EMS and its interaction with the CEMP, OEMP and this document (outlined) is provided in Figure 1.2.

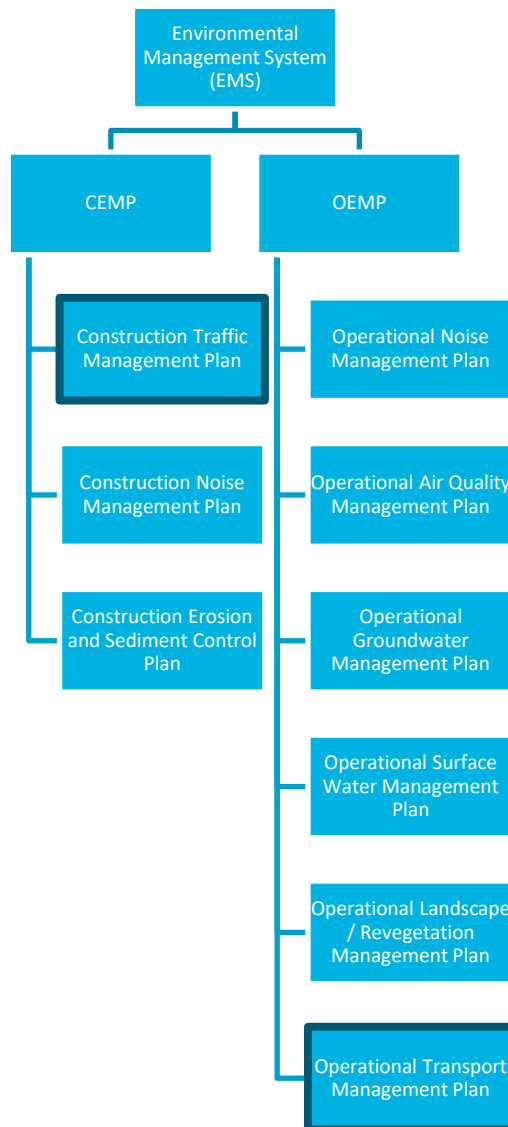


Figure 1.2 Environmental Management System flowchart

1.3 Scope

This Construction and Operational Transport Management Plan covers all traffic from construction and operations activities at the Lidsdale Ash Dam Repository.

Construction traffic movements will involve the transport of materials for landform shaping and other civil works.

Operational traffic movements will involve the transport of materials for capping, landscaping and revegetation works.

1.4 Purpose and objectives

The purpose of this Construction and Operational Transport Management Plan is to manage potential traffic impacts of the site in line with the conditions of approval. This plan also includes a Construction vehicle and Driver Code of Conduct.

The objectives of this plan are to meet the approval conditions, as summarised in Section 1.6. This plan has been prepared in accordance with Procedures for Use in the Preparation of a Traffic Management Plan (RTA, 2001).

1.5 Operating hours

Approved construction hours are:

- a) 7:00 am to 6:00 pm, Mondays to Fridays.
- b) 8:00 am to 1:00 pm on Saturdays.
- c) At no time on Sundays or public holidays.

Approved hours of operation are 7:00 am to 10:00 pm Monday to Sunday.

1.6 Approval conditions

The relevant approval conditions and where they are addressed in this report are provided in Table 1.2.

Table 1.2 Relevant approval conditions

Condition No	Relevant condition of approval	Relevant report section
Construction Traffic and Transport Impacts		
2.36	The Applicant shall ensure that construction vehicles associated with the project:	
	a) minimise the use of local roads (though residential streets and town centres) to gain access to the site;	Section 2.1
	b) adhere to any nominated haulage routes identified in the Construction Traffic Management Plan as referred to in condition 6.3a) of this approval; and	Section 2.6
	c) adhere to a Construction Vehicle Code of Conduct prepared to manage driver behaviour along the local road network to address traffic impacts (and associated noise) along nominated haulage routes.	Chapter 3
Capping Material Transport Impacts		
2.36A	The Applicant must:	

Condition No	Relevant condition of approval	Relevant report section
	a) not import more than 100 heavy vehicle loads of capping material to the site per day;	Section 2.10
	b) cover all heavy vehicle loads of capping material;	Section 3.8
	c) not transport capping material on local roads in the Lithgow local government area;	Section 2.6
	d) notify the Department before commencing the importation of capping material from sources outside of the Lithgow local government area; and	The Department was notified of this prior to September 2020.
	e) not import capping material to the site for more than 10 years following the date of approval of Modification application 07_0005 Mod 2.	Section 2.10
2.36B	The Applicant must implement warning signage on the Castlereagh Highway on the approaches to the Castlereagh Highway/Wallerawang Power Station Haul Road intersection prior to importing capping material to the site from sources outside of the Lithgow local government area to the satisfaction of TfNSW.	Section 2.4
Construction Environmental Management		
6.3 a)	a Construction Traffic Management Plan , prepared in consultation with TfNSW, the relevant Council and emergency services to manage the construction traffic impacts of the project, including but not limited to:	Section 1.7
	i) identifying construction vehicle volumes (construction staff vehicles, heavy vehicles and oversized loads) and haulage routes;	Section 2.10
	ii) identifying any road closures and/or traffic detours during the haulage of oversized loads as agreed to by the relevant roads authority;	Section 2.6
	iii) detailing a Construction Vehicle Code of Conduct to set driver behaviour controls to minimise impacts on the land uses along haulage routes (including noise minimisation measures); and	Chapter 3
	iv) complying with the document Procedures for Use in the Preparation of a Traffic Management Plan (RTA, 2001).	Section 1.4.
Operational Environmental Management		
6.5 f)	(i) be prepared in consultation with TfNSW and Council, prior to importing capping material from sources outside of the Lithgow local government area;	Section 1.7
	(ii) detail the route to be used to transport capping material;	Section 2.6
	(iii) detail the measures that would be implemented to minimise traffic safety issues for other road users (including cyclists), including: <ul style="list-style-type: none"> • notifying the community about project-related traffic impacts • a procedure to address complaints about project-related traffic • minimising potential traffic conflicts with school buses and during local school drop-off and pick-up times • scheduling heavy vehicle movements to minimise convoy length or platoons • responding to local climate conditions that may affect road safety such as fog, dust, wet weather • responding to emergency repair or maintenance requirements; and 	The proponent shall notify the community about the project in due course. Sections 2.12, 3.11, 2.7, 3.6, 3.10, 3.2, 0, 3.5 and Table 1.3.
	(iv) include a Driver Code of Conduct, which addresses: <ul style="list-style-type: none"> • travelling speeds • driver fatigue 	Chapter 3

Condition No	Relevant condition of approval	Relevant report section
	<ul style="list-style-type: none"> adherence to the designated transport route safe driving practices. 	

1.7 Consultation

Approval Condition 6.3 (a) and 6.5 (f) stipulates that this TMP be prepared in consultation with Transport for New South Wales (TfNSW) and Lithgow City Council (LCC). This draft has been provided to TfNSW, SES and LCC for comment. The TMP will be a live document and will be reviewed periodically and updated if required.

Comments provided by TfNSW are addressed in Table 1.3. LCC has reviewed the plan and provided no comments. SES was also consulted and provided recommendations that have been incorporated into the TMP. These are detailed in Table 1.3 and Table 1.4.

TfNSW, SES and Council correspondences are included in Attachment A

1.7.1 TfNSW

Revision 1 of the plan was provided to TfNSW in early 2022 for comment. TfNSW provided a letter dated 8 March 2022 which outlined a number of traffic related comments.

Revision 3 of the plan was provided to TfNSW on 7 January 2025. TfNSW has returned comments in a letter dated 24 January 2025.

TfNSW's comments and EMM responses are provided in Table 1.3.

Table 1.3 TfNSW comments and EMM responses

Item no	Comments	Responses
8 March 2022		
1.	Section 2.9 of the TMP states the number of truck movements will be dictated by the capping material source but on average there would be 6-7 truck movements per hour with a maximum peak of 12 trucks per hour and 40 light vehicle trips per day. TfNSW notes Section 2.6 of the TMP states the haulage routes will be identified as capping material sources are identified. As per condition 6.5 (ii) of Consent 07_0005 the TMP must detail the routes to be used to transport capping material. The TMP needs to be updated to identify the proposed routes and associated traffic volumes as the current TMP only shows the proposed access point to the site.	<p>The location of the sites where the materials will be collected from is unknown at this stage. However, the haulage routes will predominately use the arterial road networks.</p> <p>If the haulage routes follow any council controlled local road, the relevant council will be notified in due course.</p>
2.	The TMP does not detail the measures to be implemented to ensure scheduling of heavy vehicle movements to minimise convoy lengths, platoons or interactions with school drop off and pick up times as per Condition 6.5 (f) (iii), this needs to be addressed.	<p>Once a material transport contractor is engaged, the proponent will ensure the convoy lengths, platooning and interaction with the school pick up or drop off times is clearly articulated and appropriately conditioned in the contract to minimise any traffic impact on public roads.</p> <p>The transport contractor/s will follow the drivers code of conduct and any complaints from the road authority or community would be appropriately dealt with in accordance with the complaint management process outlined Section 3.11.</p>
3.	The TMP does not demonstrate any consideration of local climate conditions or climate conditions on transport routes	Drivers will adjust their driving behaviour in accordance with the adverse weather conditions, as

Item no	Comments	Responses
	as per Condition 6.5 (f) (iii). The TMP needs to demonstrate consideration of the climatic conditions on the transport routes including staff accessing and leaving the site and demonstrate how risks associated with the climate conditions will be managed to mitigate the risks.	stated in TfNSW Centre for Road Safety website . Some risk mitigation measures are speed reduction for safe breaking, allowing extra distance to the vehicle in front and use of headlights and fog lights, in accordance with relevant Australian Road Rules.
4	The TMP does not identify a process for notifying the community about project-related traffic impacts as per Condition 6.5 (f) (iii), this needs to be addressed.	No community notification will be undertaken, unless warranted. If the prescribed haulage routes go through the local residential streets, affected councils will be notified prior and appropriate community consultation undertaken as required. Any community complaints will be managed in accordance with the appropriate complaint management procedure, as outlined in Section 3.11 of this report.
5	The TMP does not identify a process to respond to emergency repair or maintenance requirements of TfNSW assets as per Condition 6.5 (f) (iii), this needs to be addressed.	Emergency repair or maintenance procedure has been outlined in Section 0 of this report.
24 January 2025		
1	The COTMP does not provide details on proposed haulage routes to transport the capping material associated with the operations of the development. Whilst the plan states that haulage routes will be provided once engagement with a transport contractor has occurred, it only demonstrates the internal haulage route from the existing site access road. TfNSW are required to assess the potential impacts to the broader classified road network in the context of the proposal. Accordingly, proposed haulage routes should be clearly illustrated in the COTMP in accordance with Condition 6.3(a) within the consent and identify any sensitive land uses (e.g. school zones, residential areas) impacted by the vehicle movements and consider any conditions contained within the existing approval. (i.e. Condition 2.36(a) indicates that no capping material is to be transported via any residential roads within the Lithgow local government area (LGA) during construction and operation phase).	Construction and operations materials are imported to site from a wide variety of sources, primarily along the Great Western Highway, and are transported via the highway and state roads, ultimately entering site via Castlereagh Highway. Section 2.6 has been updated.
2	The COTMP does not identify suitable measures to be implemented to ensure scheduling of heavy vehicles movements to minimise convoy lengths, platoons or interactions with school drop off and pick up times as per Condition 6.5 (f) (iii). A proposed schedule of transport operations, including identification of peak hours during operation and confirmation of maximum average of heavy vehicle movements per hour (currently listed as 12) should be included in the COTMP.	The proponent will work with their transport contractor/s to ensure the convoy lengths, platooning and interaction with the school pick up or drop off times is clearly articulated and appropriately conditioned in their contract to minimise any traffic impact on public roads. The transport contractor/s will follow the Drivers Code of Conduct and any complaints from the road authority or community would be appropriately dealt with in accordance with the complaint management process outlined Section 3.11. Section 2.7 has been added to highlight scheduling requirements.
3	Condition 6.3(a)(i) requires the identification of construction vehicle volumes (including staff vehicles, heavy vehicles and oversized vehicles). The traffic counts provided (using SIDRA) in the COTMP do not appear to differentiate the construction and operational traffic volumes, does not include counts or consider the impact of any oversized vehicles.	Construction and operations activities occur simultaneously within different areas of the site. As such it is difficult to differentiate heavy vehicles carrying construction materials from heavy vehicles carrying operations materials. As per the development consent, the combined total heavy vehicle movements will be less than 100 per day. Section 2.10 has been updated.

Item no	Comments	Responses
4	The COTMP does not identify any alternative routes to be used in the event of road closures and/or traffic detours during haulage as required by Condition 6.3(a)(ii). Furthermore, a process to respond to any emergency road repairs or road maintenance requirements as a result of, ordering haulage, has not been provided in accordance with Condition 6.5 (f)(iii). It is noted that Section 3.9 of the COTMP refers to maintenance of haulage vehicles and does not consider impacts or repairs required to the road environment or any other TfNSW assets.	In the event of road closures or traffic detours, traffic operations to/from the site will cease as there are no alternate routes to site. Section 2.6 has been updated.
5	An appropriate community consultation strategy should be clearly detailed in the COTMP prior to operations commencing in accordance with Condition 6.3(f)(iii).	Section 2.12 has been added to provide further detail about GPM's community and stakeholder communication strategy.
6	The COTMP does not demonstrate any consideration of local climate conditions or climate conditions on transport routes as per Condition 6.5(f)(iii). The COTMP needs to demonstrate consideration of the climatic conditions on the transport routes (e.g. fog, black ice, etc) including staff accessing and leaving the site and demonstrate how risks associated with the climate conditions will be managed to mitigate the risks.	Section 3.6 has been added to the Driver Code of Conduct to provide further guidance in the event of adverse weather conditions.
7	The Code of Conduct could be updated to include clear parameters for the monitoring of driver behaviour through the use of an internal monitoring system that is performance objective based, promotes driver education and can be updated in the event of any changes during transport operations. Additionally, adherence to designated transport haulage routes (including minimising impact on residential areas) in accordance with relevant conditions should be included in the Code of Conduct.	Internal monitoring systems are in place for some trucks servicing the site, particularly trucks that are importing materials from larger operators and quarries. However, as the site received materials from a wide variety of sources and uses a number of different transporters these requirements aren't imposed on all trucks, as there is no requirement in the planning consent for these systems.

07 August 2025

TfNSW reviewed the revised Construction and Operational Traffic Management Plan (TMP) and provided feedback reiterating that the comments related to the following should be considered further:

- the proposed haulage routes – Comment 1
- schedule of transport operations – Comment 2
- differentiation of construction and operational traffic volumes – Comment 3
- alternative routes in the event of road closures – Comment 4

The remaining TfNSW comments are considered closed. The TfNSW letter from 7th of August is included in Attachment A.

1	The COTMP does not provide details on proposed haulage routes to transport the capping material associated with the operations of the development. Whilst the plan states that haulage routes will be provided once engagement with a transport contractor has occurred, it only demonstrates the internal haulage route from the existing site access road. TfNSW are required to assess the potential impacts to the broader classified road network in the context of the proposal. Accordingly, proposed haulage routes should be clearly illustrated in the COTMP in accordance with Condition 6.3(a) within the consent and identify any sensitive land uses (e.g. school zones, residential areas) impacted by the vehicle movements and consider any conditions contained within the existing approval. (i.e. Condition 2.36(a) indicates that no capping material is to be transported via any residential roads within the Lithgow local government area (LGA) during construction and operation phase).	Section 2.6 has been updated to provide further details and to describe the process for determining haulage routes for new suppliers. Example haulage routes of key suppliers have been included as Attachment D.
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Item no	Comments	Responses
2	The COTMP does not identify suitable measures to be implemented to ensure scheduling of heavy vehicles movements to minimise convoy lengths, platoons or interactions with school drop off and pick up times as per Condition 6.5 (f) (iii). A proposed schedule of transport operations, including identification of peak hours during operation and confirmation of maximum average of heavy vehicle movements per hour (currently listed as 12) should be included in the COTMP.	Section 2.7 has been updated to provide further measures to ensure scheduling of heavy vehicles does not interfere with school pick up and drop off.
3	Condition 6.3(a)(i) requires the identification of construction vehicle volumes (including staff vehicles, heavy vehicles and oversized vehicles). The traffic counts provided (using SIDRA) in the COTMP do not appear to differentiate the construction and operational traffic volumes, does not include counts or consider the impact of any oversized vehicles.	Section 2.10 has been updated to state that there is no Over-size Over-mass traffic to site, so therefore has not be included in the traffic counts. If this were to change, OSOM movements would be in accordance with and subject to further approvals as well as NVHR requirements
4	The COTMP does not identify any alternative routes to be used in the event of road closures and/or traffic detours during haulage as required by Condition 6.3(a)(ii). Furthermore, a process to respond to any emergency road repairs or road maintenance requirements as a result of, ordering haulage, has not been provided in accordance with Condition 6.5 (f)(iii). It is noted that Section 3.9 of the COTMP refers to maintenance of haulage vehicles and does not consider impacts or repairs required to the road environment or any other TfNSW assets.	Sections 2.6 and 2.7 have been updated to provide more detail about road closures and the process that will be followed.
5	An appropriate community consultation strategy should be clearly detailed in the COTMP prior to operations commencing in accordance with Condition 6.3(f)(iii).	No further comment from TfNSW. This comment is considered resolved.
6	The COTMP does not demonstrate any consideration of local climate conditions or climate conditions on transport routes as per Condition 6.5(f)(iii). The COTMP needs to demonstrate consideration of the climatic conditions on the transport routes (e.g. fog, black ice, etc) including staff accessing and leaving the site and demonstrate how risks associated with the climate conditions will be managed to mitigate the risks.	No further comment from TfNSW. This comment is considered resolved.
7	The Code of Conduct could be updated to include clear parameters for the monitoring of driver behaviour through the use of an internal monitoring system that is performance objective based, promotes driver education and can be updated in the event of any changes during transport operations. Additionally, adherence to designated transport haulage routes (including minimising impact on residential areas) in accordance with relevant conditions should be included in the Code of Conduct.	No further comment from TfNSW. This comment is considered resolved.

1.7.2 Lithgow City Council

LCC has been contacted to comment on the draft plan. Council has advised that they have no comment on the draft report.

Revision 3 of the plan was provided to LCC on 7 January 2025. Council officers have reviewed the plan and it is considered satisfactory and complies with conditions 6.3(a) and 6(f) of the consent.

1.7.3 NSW State Emergency Service

Revision 4 of the plan was provided to the NSW SES in 2025 for comment. The SES provided a letter dated 13 August 2025 which provided some recommendations for consideration. These recommendations and EMM responses are provided in Table 1.3.

Table 1.4 SES recommendations and EMM responses

Item no	Comments	Responses
1.	Consider the impact of flooding on the infrastructure and people using the roads up to and including the Probable Maximum Flood (PMF), along with the impact of climate change on the flood risks.	The impact of flooding has been considered as part of the Emergency Plan, the SSCAD Dam Safety Emergency Plan and the Surface Water Management Plan
2.	Ensure workers and people using the site and roads during and after the upgrades are aware of any flood risk, for example through site inductions, by using signage and other flood information tools.	Flood planning and response will be included in the site induction as part of emergency preparedness and response
3.	Recommend the Operational Transport Management Plan includes instructions to act early on Severe Weather Warnings issued by the Australian Government Bureau of Meteorology (BoM). The NSW SES does not have the operational capacity to provide individualised flood warnings for each business site. Severe Weather Warnings will be the most likely form of advice about the potential for flood producing storms and rainfall. In addition, coastal system such as tides and tsunami should be included in your plan for this location.	Section 2.7 updated to include this recommendation.
4.	Consider closing the worksite and securing all materials and equipment prior to the start of the working day if there is a risk of riverine flooding, on receipt of advice from the BoM, or when other evidence leads to an expectation of flooding. During site works, check the BoM website prior to start of the workday for any Severe Weather Warnings.	Flood response is considered in the SSCAD Dam Safety Emergency Plan
5.	Advise that any flood response directive issued by the NSW SES or by delegated authority to others acting on its behalf must be followed. This includes any order to evacuate the site or not evacuate the site, irrespective of what decisions have been made by management in accordance with any site emergency response plan.	Flood response is considered in the SSCAD Dam Safety Emergency Plan
6.	Recommend pursuing, if relevant, site design and stormwater management that reduces the impact of flooding and minimises any risk to the community. Any improvements that can be made to reduce flood risk will benefit the community.	Stormwater and surface water management is addressed in the Surface Water Management Plan

2 Traffic management and impacts

2.1 Castlereagh Highway

Castlereagh Highway will be the key road providing access to the site. A description of this key road is presented in Table 2.1.

Table 2.1 Castlereagh Highway

Description	Local road
Road classification and connectivity	State road between Golden Highway, Birriwa (north) and Great Western Highway (south).
Alignment	East-west at the vicinity of site access intersection.
Number of lanes	One lane each way, excluding near intersections
Carriageway type	Sealed road with shoulders
Carriageway width	Varies, approximately between 11 m to 14 m with 3.5 m travel lane each way.
Posted speed limit	80 kilometres per hour (km/h) westbound, 100 km/h eastbound.
Heavy vehicle access	Yes, up to 26 m B-doubles. Up to 19 m B-doubles from Great Western Highway.
Traffic function	Carries local and regional traffic.
Additional comments	Access to the project area is provided via Castlereagh Highway.



Photograph 2.1 Castlereagh Highway (looking eastbound near site entrance)

2.2 Project area access

All vehicular access and egress to the site will be from Castlereagh Highway. Vehicles accessing the site will turn into the site at the Wallerawang Power Station access. The vehicles will then continue to follow haul route within the site. The site access from Castlereagh Highway is shown in Figure 2.1 and Photograph 2.2 and Photograph 2.3 below.



Figure 2.1 Site access from Castlereagh Highway



Source: EMM

Photograph 2.2 Site entrance from Castlereagh Highway



Source: EMM

Photograph 2.3 **Site entrance from within the site**

2.3 Site operation

The site area and site operation details are shown in Figure 1.1.

It is intended that trucks will dump the incoming material in designated locations on the site, turn around and exit via the same incoming route. The material will be further transported to areas by fixed axle trucks until suitable roads are established.

Employee and contractor vehicles will also use the private haul road and park in designated areas. The location of all the incoming material areas, haul routes and car parking areas are shown in Figure 1.1.

Gates at the locations marked in Figure 1.1 will be kept open during operational hours.

A wheel wash bay is located within the site at the location shown in Figure 1.1. On completion of dumping the incoming material, trucks will pass through the wheel wash bay before exiting the site on to public roads.

Drivers entering the site for the first time will go through an induction carried out by an approved member of the facility's staff. It is expected that the majority of drivers will access the site regularly and will become familiar with internal site layout and traffic movements. The trucks will be directed by appropriate signage within the site.

It is anticipated that there will be anywhere between 5 to 30 staff working at the site at any one time. Some staff will be working on tasks unrelated to material haulage and equipment.

2.4 Site safety

Site safety within the site will be ensured by Safe Working Guidelines. The speed limit within the site will be restricted to a maximum of 40 km/h and be dependent on site conditions and activities being undertaken. The warning signage on the Castlereagh Highway on the approaches to the Castlereagh Highway/Wallerawang Power Station Haul Road intersection will be maintained.

Site safety procedures will be signposted at the entrance to the site, including:

- trucks, contractors, visitors must follow safety signs and directional markings at all times
- maximum speed limit 40 km/h inside
- all visitors to park in visitor parking bays only
- any person/s exiting their vehicles on site must wear the correct personal safety equipment at all times
- all exiting trucks must pass through the proposed wheel wash bay
- all trucks, contractors must stop before leaving the site
- all exiting vehicles must stop before approaching the driveway crossover to Castlereagh Highway
- all vehicles will enter and exit the site in a forward direction to/from Castlereagh Highway.

2.5 Queuing on Castlereagh Highway

As mentioned earlier, gates at the entrance and within the site will be kept open during operational hours, hence there will be no queuing or queue overspill on Castlereagh Highway.

2.6 Haulage routes

Construction and operations materials are imported to site from a wide variety of sources, primarily along the Great Western Highway, and are transported via the highway and state roads, ultimately entering site via Castlereagh Highway. As detailed in the Mod2 Modification Report (EMM 2023), material for the site will be sourced from various locations, primarily from infrastructure and other major projects within the Sydney basin. This is due to the availability of suitable material in sufficient quantities has been severely limited, in part due to the deferral or delays in scheduling of major infrastructure projects in areas within a logistically feasible range of the Site. Haulage routes specific to each new supply site are developed when material from that site is first ordered. The haulage routes are determined using the NVHR route planner and are in accordance with the requirements of this TMP and the NVHR. In accordance with CoA 2.36A(c), local roads within the Lithgow Government Area will not be used to transport capping material. Example haulage routes from some of the Site's suppliers have been included in Attachment D. The haulage route within the site is shown in Figure 1.1.

There are no Over-size Over-mass (OSOM) loads required to be transported to site. If this requirement changes, the transport of the OSOM load would be subject to and in accordance with further approvals from the National Heavy Vehicle Regulator (NHVR).

If emergency repair or maintenance is required as a result of construction or operations traffic this will be managed in accordance with GPM's incident and non-compliance procedure outlined in Section 2.12, and in consultation with the road authority.

In the event of road closures or traffic detours, traffic operations to/from the site will cease as there are no alternate routes to site. The Castlereagh Highway entrance is the only site entrance available to heavy vehicles. If there are closures on the Castlereagh Highway and/or Great Western Highway, then suppliers will be informed and heavy vehicle movements to and from site will cease until the highway is open again.

2.7 Scheduling

Material deliveries for a specific working day are approved in consideration of all daily site activities, both operational and construction. This ensures that the daily truck limit is not exceeded.

Transport contractors and suppliers will be required to adjust scheduling of trucks to ensure:

- minimal interaction with school traffic during local school drop off and pick up times
- convoy lengths and platoons are minimised

Orders are also placed in consideration of the above points. Trucks entering and leaving site are tracked by security and an alert is issued once 80 loads has been reached. The relevant supervisors/project managers are notified, and delivery orders are managed to ensure that the daily truck limit is not exceeded. In the event of a Severe Weather Warning issued by the Bureau of Meteorology (BoM), the site supervisors/project managers will review scheduled deliveries to determine whether cancellation of any deliveries is required.

2.8 Vehicle types

The heavy vehicle type bringing in material would be a 19 m truck and dog or a fixed axle truck. Trucks transporting material within the project area will be fixed axle trucks up to 12.5 m. Smaller vehicles will be 4WD utility vehicles used by employees and contractors.

2.9 Surveyed traffic volumes

The Castlereagh Highway/site access intersection has been surveyed between 7 am and 9 am, as well as between 4 pm and 6 pm, on 2 November 2021. The count data is provided in Attachment B.

The peak traffic hours were determined to be between 7:00 am to 8:00 am and 4:00 pm to 5:00 pm. As the traffic data was less than two years old, it is still considered valid for Mod 2. The 2021 traffic volumes were converted to 2023 volumes by applying 1% linear growth per annum on Castlereagh Highway.

The adjusted 2023 traffic volumes during the AM and PM peak hours are summarised in Figure 2.2.

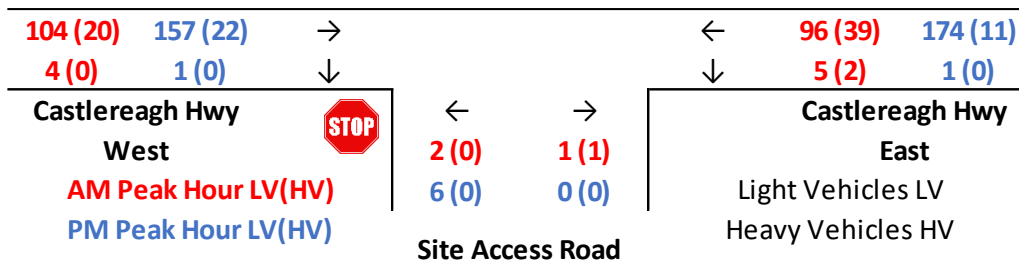


Figure 2.2 2023 peak hour surveyed traffic volumes

2.10 Operational and construction traffic volumes

Condition 2.36A (a) of the DPHI consent (Application No. 07_0005) states that the proponent must not import more than 100 heavy vehicle loads of material per day. The actual number of truck loads will be dictated by the material source but on average there would be 6 to 7 trucks per hour with a peak maximum of 12 trucks per hour based on 100 trucks per day. It is assumed there would be up to 20 light vehicle trips (40 movements) per day for staff at site. For the purposes of this assessment, it has been assumed that peak light and heavy vehicle trips would take place within the same peak hour. In accordance with the conditions of approval, material will not be imported to the site more than 10 years from the date of Mod2 approval (13 October 2023), that is no material will be imported after 13 October 2033, subject to further approval.

On this site construction activities and operational activities occur simultaneously. Construction material imports are required for civil works involved in landform shaping and for activities such as building stability berms and the construction of the creek and dam diversions. The construction works will facilitate the operational work, and conversely, operational work will facilitate further construction. As such trucks coming to site will be both trucks carrying construction materials and trucks carrying operations materials. As per the development consent, the combined total of heavy vehicles for both construction and operations will not be above 100 per day.

As mentioned in Section 2.6, there are no OSOM movements required to or from site, so OSOM traffic has not been included in this assessment.

As per surveyed traffic volume, light vehicle trips are split 50% each in north and south direction.

The combined surveyed and operational/construction traffic volumes are shown in Figure 2.3.

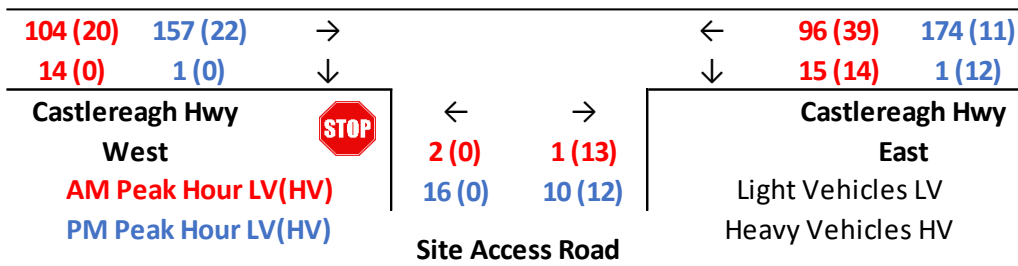


Figure 2.3 Peak hour combined surveyed and operational/construction traffic volumes

2.11 Intersection performance

Castlereagh Highway/Site Access Road intersection has been modelled with the SIDRA Intersection 9.0 software; a micro-analytical tool for individual intersections and linked intersection-network modelling. The modelling is based on the 2023 traffic survey data detailed in Sections 2.9 and 2.10. SIDRA provides the following performance indicators:

- Degree of saturation (DOS) – the total usage of the intersection expressed as a factor of 1 with 1 representing 100% use/saturation (e.g. 0.8 = 80% saturation). In practice the target degrees of saturation of 0.90 for signals, 0.85 for roundabouts and 0.80 for unsignalised intersections are generally agreed to. These are usually called ‘practical degrees of saturation’.
- Average delay (DEL) – the average delay in seconds encountered by all vehicles passing through the intersection. It is often important to review the average delay of each approach as a side road could have a long delay time, while the large free flowing major traffic will provide an overall low average delay.
- Level of service (LOS) – this is a categorisation of average delay, intended for simple reference.
- 95% queue lengths (Q95) – is defined to be the queue length in metres that has only a 5% probability of being exceeded during the analysed time period. It transforms the average delay into measurable distance units.

The LOS is a good indicator of overall performance for individual intersections, with each level summarised in Table 2.2.

Table 2.2 Intersection LOS standards

Level of service	Average delay (seconds per vehicle)	Traffic signals, roundabout	Priority intersection (‘Stop’ and ‘Give Way’)
A	<14	Good operation	Good operations
B	15 to 28	Good with acceptable delays and spare capacity	Acceptable delays and spare capacity
C	29 to 42	Satisfactory	Satisfactory, but accident study required
D	43 to 56	Operating near capacity	Near capacity and accident study required
E	57 to 70	At capacity. At traffic signals, incidents will cause extensive delays. Roundabouts require other control mode.	At capacity; required other control mode
F	>71	Unsatisfactory with excessive queuing	Unsatisfactory with excessive queuing; required other control mode

Source: RTA Guide to Traffic Generating Development (RTA 2002)

SIDRA intersection modelling has been conducted for the following scenarios:

- Baseline traffic (2023): this scenario includes the 2023 adjusted survey traffic volumes only without any operational or construction traffic volumes.
- Baseline + construction/operational traffic (2023): this scenario includes the 2023 adjusted survey traffic volumes combined with construction/operational traffic volumes.
- Baseline + construction/operational traffic (2023) + cumulative traffic: this scenario includes the 2023 adjusted survey traffic volumes combined with construction/operational traffic volumes and cumulative traffic from two projects nearby in their respective construction stages (Great Western BESS and Wallerawang BESS).
- Horizon + construction/operational traffic (2033): this scenario applies 10 years to the 2023 adjusted survey traffic volumes for sensitivity testing combined with construction/operational traffic volumes.

The SIDRA results for the Castlereagh Highway/Site Access Road intersection are presented in Table 2.3.

Table 2.3 SIDRA modelling result for Castlereagh Highway/Site Access Road intersection

Control/ Scenarios	AM peak					PM peak				
	Intersection volume	DEL(s)	LOS	DOS	Q95 in m (approach)	Intersection volume	DEL(s)	LOS	DOS	Q95 in m (approach)
Baseline traffic (2023)	274	9.8	A	0.099	0.3 (west approach)	374	13.2	A	0.139	0.4 (south approach)
Baseline + operational traffic (2023)	318	14.1	A	0.099	2.0 (south approach)	416	14.7	A	0.139	3.0 (south approach)
Baseline + operational traffic (2023) + cumulative traffic	490	24.1	B	0.213	3.3 (south approach)	588	22.6	B	0.185	4.1 (south approach)
Horizon + operational traffic (2033)	344	15.1	A	0.109	2.2 (south approach)	455	16.3	A	0.153	3.2 (south approach)

Key Findings:

- In both the AM and PM peaks, the intersection would perform satisfactorily within capacity with LOS A and of LOS B for all scenarios and DoS <0.15 for most scenarios; and
- overall, the intersection has additional capacity to accommodate the required construction/operational scenario traffic.

Detailed SIDRA results are presented in Attachment C.

2.12 Community and stakeholder communications

GPM maintains a website for the provision of electronic information associated with the Lidsdale Ash Repository. GPM will, subject to confidentiality, publish and maintain up to-date information on this website including:

- a link to the Major Projects Wallerawang Ash Repositories Application 07_0005 Environmental Assessment including:
 - Appendices prepared by Parsons Brinckerhoff (April 2008)
 - Submissions Report prepared by Parsons Brinckerhoff (May 2008)
 - the Conditions of Approval (CoA) issued by the Department of Planning
- relevant strategies, plans and programs required under the CoA, or details of where this information can be viewed
- the outcomes of compliance tracking undertaken in accordance with the project approval
- community updates in relation to the Lidsdale Ash Repository area.

The intention is to ensure that these key pieces of information are made publicly available to promote community and stakeholder engagement.

GPM will continue to use the measures for communication established for Lidsdale Ash Repository activities to ensure all community complaints and enquiries received are managed in an appropriate manner. The measures include:

- 24-hour community information and complaints line
- an online electronic form in which complaints and enquires can be transmitted.

The local community, businesses, schools, and other stakeholders will be notified of upcoming works and traffic impacts prior to commencement via:

- Letterbox drops to affected properties
- Email updates to registered stakeholders
- Project website updates and social media notifications.

2.13 Incidents and non-compliances

The approval defines an incident as:

A set of circumstances that causes or threatens to cause material harm to the environment, and/or breaches or exceeds the limits or performance measures/criteria in this approval.

The Secretary must be notified in writing via the Major Projects website immediately after the Project team becomes aware of an incident in accordance with CoA 7.1. The notification must identify the development (including the application number and the name of the development if it has one) and set out the location and nature of the incident.

Section 2.9 of the CEMP and Section 3.8 of the OEMP provides further details on the management of environmental incidents and the response to environmental emergencies. This includes the reporting, notification and investigation of environmental incidents.

The approval defines non-compliance as:

An occurrence, set of circumstances or development that is a breach of the approval but is not an incident.

The Secretary must be notified in writing via the Major Projects website within seven days after the Project team becomes aware of any non-compliance in accordance with CoA 7.2. A non-compliance notification must identify the development and the application number for it, set out the condition of approval that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.

Section 2.10.4 of the CEMP and Section 3.8.1 of the OEMP provides further details on the Project team's response following the identification of a non-compliance with the CoA, the CEMP/OEMP and Sub-Plans. This includes the reporting, investigation and notification of non-compliances.

2.14 Reporting

Environmental monitoring for the Lidsdale Ash Repository area is designed to comply with the requirements of statutory approvals and provide an analysis of the condition of the environment surrounding the works.

Traffic management will be reported on in the Annual Environmental Management Report (AEMR) which will be submitted to the Secretary each year.

2.15 Review

. A review of the OEMP, sub-plans (including this TMP) and monitoring programs will be undertaken during operations as required. These reviews will be completed to determine the efficiency of the plans and monitoring programs and whether any changes are required to ensure compliance.

Circumstances which may trigger a review include:

- changes to design, construction, work methods, legislation, or policy
- incidents, complaints or non-compliance
- changes identified by continuous improvement
- changes to key management plans that are relevant
- where additional monitoring measures are identified in annual reviews or audits.

In addition and in accordance with CoA 6.6, GPM will review and, if necessary, revise the studies, strategies and plans required under the conditions of approval to the satisfaction of the Secretary within three months of:

- the submission of an incident report under CoA 7.1
- the submission of an Annual Review under CoA 7.3
- the submission of an Independent Environmental Audit under CoA 4.2
- the modification of the CoA (unless the CoAs require otherwise).

Where this review leads to revisions in any such document, then within 4 weeks of the review, GPM will submit the revised document to the Secretary for approval, unless otherwise agreed with the Secretary.

3 Construction vehicle code of conduct and driver code of conduct

3.1 Purpose of the code

The current project approval requires a Construction Vehicle Code of Conduct for construction activities that manages driver behaviour along the external road network to address traffic impacts (and associated noise) along nominated haulage routes and a Driver Code of Conduct applicable for operations that addresses travelling speed, driver fatigue, adherence to the designated transport route and safe driving practices.

This section has been prepared to address a code of conduct that is applicable to both construction and operational activities of the project.

All drivers involved with construction and operations at GPM are to obey required speed limits on all roads, both on and off site, must maintain fit for work practices, adhere to the designated transport and haulage route associated to their project and must always maintain safe driving practices.

3.2 General requirements

Truck drivers accessing the site for construction and operational activities must:

- undertake a site induction carried out by an approved member of the facility's staff or suitably qualified person under the direction of the facility's management
- hold a valid driver's licence for the class of vehicle they are driving
- not travel within 100 m of any school bus when following school buses along Castlereagh Highway, and will not attempt to overtake any school buses
- not drive into any marked cycle lane or road shoulder on the Castlereagh Highway and must give way to any cyclist or pedestrian when turning into or out of the site entry
- operate the vehicle in a safe manner within and external to the site
- strictly adhere to all designated transport routes as specified in their delivery schedules and route plans.

3.3 Heavy vehicle speed

The following speed restrictions apply in relation to travel to/from the site:

- Castlereagh Highway eastbound – speed limit is restricted to 100 km/h
- Castlereagh Highway westbound – speed limit is restricted to 80 km/h
- within the site – speed limit is restricted between 20 km/h to 40 km/h for all vehicles.

Truck drivers are to observe the posted speed limits on all public roads with speed adjusted appropriately to suit the road environment and prevailing weather conditions, to comply with the Australian Road Rules. The vehicle speed must be appropriate to ensure the safe movements of the vehicle based on the vehicle configuration.

In addition, all drivers and truck operators working for GPM are to be made aware of the Three Strikes Scheme (<https://www.aic.gov.au/sites/default/files/2020-05/tandi446.pdf>) introduced by Australian government which applies to all vehicles over 4.5 tonnes.

When a heavy vehicle is detected travelling at 15 km/h or more over the posted or relevant heavy vehicle speed limit by a mobile police unit or fixed speed camera, TfNSW will record a strike against that vehicle. If three strikes are recorded within a three-year period, TfNSW will act to suspend the registration of that vehicle (up to three months). The drivers are required to manage their behaviour along the local road network to address traffic impacts (and associated noise) along nominated haulage routes.

3.4 Driver fatigue

Fatigue is one of the biggest causes of crashes for heavy vehicle drivers. The National Heavy Vehicle Accreditation Scheme (<https://www.nhvr.gov.au/safety-accrreditation-compliance/national-heavy-vehicle-accrreditation-scheme>) allows heavy vehicle operators the choice of operating under three fatigue management schemes: Standard Hours of Operation; Basic Fatigue Management (BFM); and Advanced Fatigue Management (AFM). All heavy vehicle drivers operating at the site are to be aware of their adopted fatigue management scheme and operate within its requirements.

Fatigue includes (but is not limited to) the following:

- feeling sleepy
- feeling physically or mentally tired, weary or drowsy
- feeling exhausted or lacking energy
- behaving in a way consistent with any of the above.

3.5 Safe driving practices

Safe driving practices are essential for keeping the truck drivers and other motorists safe on NSW roads and reducing the risk of crashes. Truck drivers accessing the site must:

- wear a seatbelt while driving. Drivers must not have any part of their body outside the vehicle
- not drive while under the influence of alcohol or drugs, including some over-the-counter and prescription medications as stated in the heavy vehicle driver handbook
- observe speed limits on all public roads
- not use a mobile phone while driving or even when stationary, for example, stopped at lights or stuck in traffic
- not drive a vehicle on a road negligently or at a speed, or in a manner dangerous to the public
- keep enough distance between their vehicle and the vehicle travelling in front so they can, if necessary, stop safely to avoid colliding with the vehicle.

3.6 Adverse weather conditions

All drivers will adjust their driving behaviour in accordance with the adverse weather conditions, following recommendations stated in the TfNSW Centre for Road Safety [website](#). Risk mitigation measures include:

- speed reduction for safe braking. Braking in icy or wet conditions should be gentle to avoid skidding and losing control
- allowing extra distance to the vehicle in front

- the use of headlights and fog lights, in accordance with relevant Australian Road Rules
- in icy conditions, slowing down and watching for ice on roads, especially in shaded or low-lying areas.

3.7 Heavy vehicle control

In order to minimise the impact of noise from truck transport, the following controls will apply to truck operators operating on behalf of GPM:

- compression brakes not to be used in the vicinity of residential areas
- tailgates must be locked and secured to avoid noise or spillage
- always observe the posted speed on site and the local road network
- tailgating is not permitted – a 100 m gap between vehicles is to be observed at all times
- equipment to be used must be fit for the purpose
- drivers to obey the operating hours outlined in Section 1.2.

3.8 Load covering

All loaded vehicles entering the site must be effectively covered for the duration of the trip.

Drivers must ensure that the tailgate is locked before leaving the site.

3.9 Driver conduct

To ensure that the impact of heavy vehicle traffic is minimised to the surrounding community and sensitive land uses, drivers will:

- Minimise the use of compression braking unless it is an emergency
- Ensure no extended periods of idling
- Ensure that there is no littering
- Remain calm and courteous when in contact with members of the public
- Maintain trucks in good working order and a clean and tidy condition
- Not block residential driveways or any other access points
- Adhere to designated haulage routes
- No texting or manual phone operation while driving
- Use of well-maintained vehicles only. Vehicles must comply with relevant noise standards.

3.10 Breakdown and incidents

In the case of a breakdown the vehicle must be towed to the nearest breakdown point as soon as possible. All truck breakdowns within the site must be reported to GPM management and the vehicle protected in accordance with the Heavy Vehicle Drivers handbook.

In the event of emergency road repair or maintenance requirements along a haulage route, immediate action must be taken to ensure the safety of personnel and other road users. If a road is deemed unsafe, transport operations may be suspended temporarily to prevent accidents or further damage. Affected drivers must be notified promptly through appropriate channels such as signage, radio communication, electronic message boards, or direct contact. If required, the relevant road authority must be consulted without delay to assess the situation. Normal operations will only resume once the road has been deemed safe for use.

Emergency contact numbers have been provided in Table 3.1 for reference.

Table 3.1 Emergency contact details

Organisation	Contact details
Transport Management Centre	(02) 8396 1400
Lithgow City Council	(02) 6354 9999
Generator Property Management Pty Ltd	UHF Channel 19 (or as signposted) 0428 853 389
Wallerawang Police Station	(02) 6355 1303

3.11 Complaint management

All complaints will be recorded in GPM's Complaints Register to ensure all complaints are recorded and managed in a timely manner to ensure active community consultation and positive relations are maintained with local residents.

GPM management will ensure that the community relations protocols are communicated to all personnel involved in the complaints process and that appropriate training covering the protocols is established in site inductions. The purpose of this system is to minimise complaints by addressing their concerns upfront and monitor the environmental performance of the site.

3.11.1 Registering complaints

Any enquiries or complaints made by members of the public to site personnel will be directed to the Site Manager.

Complaints may be made to the facility's direct line during business hours (1800 817 711) which will be forwarded to a site representative outside of business hours or for emergencies. This number will be provided on a sign at the site entrance and is available on GPM's website (<https://gpmco.com.au/contact/>).

3.11.2 Complaint response

Any complaint received by GPM regarding driver conduct will be acted on within 24-hours in the following manner:

- Details of the complaint (date, time, specifics, complainants contact details) will be recorded.
- Activities occurring during the complaint period will be investigated.

- Findings of operations during the complaint period will be recorded in the complaints register.
- Relevant management practices will be reviewed as necessary.
- Findings of the review will be communicated to the complainant.

3.11.3 Complaints register

The details of any complaint will be logged in the complaints register, with investigation findings and actions noted. In accordance with CoA 5.4, the Complaints Register will be provided to the Secretary upon request.

Should the complaint be relevant to any of the conditions of the approval, it will be handled as per the approval conditions relevant to that environmental aspect.

3.12 Pedestrian management within the site

There will be minimal pedestrian activity within the site, except for the site employees or truck drivers who will be familiar with the site.

Attachment A

Correspondence from TfNSW, SES and LCC



8/03/2022

SF2018/109889 | WST18/00046/11

Abdullah Uddin
EMM
20 Chandos Street
Sydney NSW 2065

Attention: Abdullah Uddin

Dear Mr Uddin

MP07_0005: Lot 5 DP 829137; Wallerawang Ash Repository, Lidsdale – Operational Transport Management Plan

Thank you for the referral of the subject Operational Transport Management Plan (OTMP) by email dated 28 February 2022 inviting comment from Transport for NSW (TfNSW).

TfNSW understands the OTMP has been prepared to satisfy Condition 6.5 (f) of Development Consent MP07_0005. MP07_0005 involves transportation of 2.3 million cubic metres of capping material to the subject site. Condition 2.36A of consent 07_0005 states that the proponent must not import more than 100 heavy vehicle loads of capping material per day. Vehicular access to the site will be obtained via the existing access Wallerawang Power Plant access from the Castlereagh Highway.

The OTMP has been reviewed, TfNSW requires the following comments to be addressed:

- Section 2.9 of the OTMP states the number of truck movements will be dictated by the capping material source but on average there would be 6-7 truck movements per hour with a maximum peak of 12 trucks per hour and 40 light vehicle trips per day. TfNSW notes Section 2.6 of the OTMP states the haulage routes will be identified as capping material sources are identified. As per condition 6.5 (ii) of Consent 07_0005 the OTMP must detail the routes to be used to transport capping material. The OTMP needs to be updated to identify the proposed routes and associated traffic volumes as the current OTMP only shows the proposed access point to the site.
- The OTMP does not detail the measures to be implemented to ensure scheduling of heavy vehicle movements to minimise convoy lengths, platoons or interactions with school drop off and pick up times as per Condition 6.5 (f) (iii), this needs to be addressed.

- The OTMP does not demonstrate any consideration of local climate conditions or climate conditions on transport routes as per Condition 6.5 (f) (iii). The OTMP needs to demonstrate consideration of the climatic conditions on the transport routes including staff accessing and leaving the site and demonstrate how risks associated with the climate conditions will be managed to mitigate the risks.
- The OTMP does not identify a process for notifying the community about project-related traffic impacts as per Condition 6.5 (f) (iii), this needs to be addressed.
- The OTMP does not identify a process to respond to emergency repair or maintenance requirements of TfNSW assets as per Condition 6.5 (f) (iii), this needs to be addressed.

Should you require further information please contact Hayley Sarvanandan on 02 9983 2372.

Yours faithfully



Alexandra Power
Team Leader Development Services
Development Services West
Regional and Outer Metropolitan

CC:council@lithgow.nsw.gov.au

From: [Leanne Kearney](#)
To: [Abdullah Uddin](#); [Lithgow City Council](#)
Cc: [Amanda Weston](#); [Baqir Husain](#)
Subject: RE: Development at Lidsdale Ash Dam Areas (Application No: 07_0005)
Date: Friday, 4 March 2022 10:59:51 AM
Attachments: [image004.png](#)
[image006.png](#)
[image007.png](#)
[image008.ipq](#)
[image009.png](#)

CAUTION: This email originated outside of the Organisation.

Hi Abdullah

Council officers have reviewed the documents provided, and do not have any concerns that need addressing or included in the OTMP, as the proposal doesn't utilise or impact any Council road (trucks from Castlereagh Highway (TfNSW road) will be accessing private land and using private haul roads).

Please let me know if you need any additional information regarding this matter.

Regards

Leanne Kearney | Assets and Infrastructure Planning Manager
Infrastructure Services | [Lithgow City Council](#)
Phone: (02) 6354 9999

From: Abdullah Uddin <auddin@emmconsulting.com.au>
Sent: Monday, 28 February 2022 3:30 PM
To: Leanne Kearney <leanne.kearney@lithgow.nsw.gov.au>; Lithgow City Council <council@lithgow.nsw.gov.au>
Cc: Amanda Weston <aweston@emmconsulting.com.au>; Baqir Husain <bhusain@emmconsulting.com.au>
Subject: FW: Development at Lidsdale Ash Dam Areas (Application No: 07_0005)

Good afternoon Leanne

Hope you are well.

See the email below which my colleague sent around mid-December 2021. We are yet to receive any response on this.

Just checking, council has any comments on this. We need to wrap up the project now but happy to allow another week to respond.

Could you please respond by Monday, 7 March 2022. Please feel free to call if you have any questions.

Best Regards

Abdullah Uddin

Associate Traffic Engineer, CPEng, RPEQ



T 02 9493 9500
M 0425 478 650
E auddin@emmconsulting.com.au

Connect with us

SYDNEY | Ground floor, 20 Chandos Street, St Leonards NSW 2065



From: Baqir Husain <bhusain@emmconsulting.com.au>
Sent: Wednesday, 15 December 2021 10:51 AM
To: council@lithgow.nsw.gov.au
Cc: Amanda Weston <aweston@emmconsulting.com.au>; Tim Brooker <tbrooker@emmconsulting.com.au>; Abdullah Uddin <auddin@emmconsulting.com.au>
Subject: Development at Lidsdale Ash Dam Areas (Application No: 07_0005)

Attention: Council Traffic Engineer

We have been engaged by Generator Property Management (GPM) to prepare an Operational Transport Management Plan (OTMP) for the Lidsdale Ash Repository.

About the project:

The Lidsdale Ash Repository is owned and operated by GPM with the Site having a long history of being used for disposal of waste from the WPS. GPM took ownership of the Site in September 2020 from Energy Australia NSW. The Site was used for ash disposal in conjunction with the Wallerawang Power Station (WPS) since the late 1950s but since the closure of WPS in 2014, the Lidsdale Ash Repository has been placed in care and maintenance.

Project Approval 07_0005 contains a number of conditions that need to be complied with by GPM Co NSW, as the proponent, at different stages of the Project. Condition 6 (f) of Project Approval 07_0005 requires an OTMP be developed prior to the importation of capping material from sources outside of the Lithgow local government area.

Please find attached the OTMP for the Lidsdale Ash Repository. Approval condition 6.5(f) states the following:

“an Operational Transport Management Plan for the project, which must:

(i) be prepared in consultation with RMS and Council, prior to importing capping material from sources outside of the Lithgow local government area;”

As part of the approval condition, we are seeking Lithgow Council's input to the attached OTMP. I have also attached the development consent for your information.

Given the time of year and a number of public holidays coming up, to ensure this process is kept moving we would appreciate your comments on the OTMP by January 14th 2022.

Please feel free to contact if you have any questions.

Thanks and Regards,

Baqir Husain

Traffic Engineer



T 02 9493 9500

D 02 8413 9505

Connect with us

SYDNEY | Ground floor, 20 Chandos Street, St Leonards NSW 2065

Our offices will be closed from Friday 24 December 2021 and will reopen on Tuesday 4 January 2022.

Please consider the environment before printing my email.

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Building and Development:LGS



15 January 2025

Post Approval Consultation
Major Projects

Dear Sir/Madam,

Wallerawang Power Station - Ash Dam (PAE-79044206) – Construction and Operation Traffic Management Plan Rev 3

Reference is made to the above mentioned subject and to consultation with Council on the Construction and Operation Traffic Management Plan.

Council officers have reviewed the documents provided and advise that the Construction and Operation Traffic Management Plan Rev 3 is considered satisfactory and complies with conditions 6.3(a) and 6(f) on the consent.

Council notes that the proposal does not utilise or impact any of Council road networks (trucks from Castlereagh Highway (TfNSW road) will be accessing private land and using private haul roads). Should any of Council roads be utilised, consultation with Council will need to be undertaken.

If you require any further information in relation to this matter, please contact the undersigned by telephone during normal business hours on (02) 6354 9999 or by email at council@lithgow.nsw.gov.au.

Yours sincerely,

Lauren Stevens
Development Planner

24 January 2025

TfNSW reference: WST25/00003/001 | SF2025/001941

Your reference: MP07_0005-PA-27 | PAE-79044209

Stephen Saladine
Generator Property Management
By Email: steve.saladine@gpmco.com.au.

Review of Wallerawang Power Station – Lidsdale Ash Dam (PAE-79044206) – Construction and Operation Traffic Management Plan

Dear Stephen,

Transport for NSW (TfNSW) is responding to the request for review of a Construction and Operation Traffic Management Plan (COTMP) for the Lidsdale Ash Dam Repositories, as referenced in MP07_0005 (and its modifications). The COTMP has been submitted for TfNSW consultation, via the NSW Major Projects Planning Portal, in accordance with Conditions 2.36, 2.36(a) and 6.3 (a) of the project approval MP07_0005-Mod 2, approved 13 October 2023.

TfNSW has reviewed the COTMP prepared by EMM Consulting dated October 2024, and recommends the following amendments be made to ensure the purpose of the TMP has been met in accordance with the relevant conditions of consent:

1. The COTMP does not provide details on proposed haulage routes to transport the capping material associated with the operations of the development. Whilst the plan states that haulage routes will be provided once engagement with a transport contractor has occurred, it only demonstrates the internal haulage route from the existing site access road. TfNSW are required to assess the potential impacts to the broader classified road network in the context of the proposal. Accordingly, proposed haulage routes should be clearly illustrated in the COTMP in accordance with Condition 6.3(a) within the consent and identify any sensitive land uses (e.g. school zones, residential areas) impacted by the vehicle movements and consider any conditions contained within the existing approval. (i.e. Condition 2.36(a) indicates that no capping material is to be transported via any residential roads within the Lithgow local government area (LGA) during construction and operation phase).
2. The COTMP does not identify suitable measures to be implemented to ensure scheduling of heavy vehicles movements to minimise convoy lengths, platoons or interactions with school drop off and pick up times as per Condition 6.5 (f) (iii). A proposed schedule of transport operations, including identification of peak hours during operation and confirmation of maximum average of heavy vehicle movements per hour (currently listed as 12) should be included in the COTMP.

OFFICIAL

A 51-55 Currajong Street, PARKES NSW 2870 | PO Box 334 PARKES NSW 2870 | DX20256

E development.west@transport.nsw.gov.au | ABN 18 804 239 602

P 1300 207 783

transport.nsw.gov.au

Transport for NSW

3. Condition 6.3(a)(i) requires the identification of construction vehicle volumes (including staff vehicles, heavy vehicles and oversized vehicles). The traffic counts provided (using SIDRA) in the COTMP do not appear to differentiate the construction and operational traffic volumes, does not include counts or consider the impact of any oversized vehicles.
4. The COTMP does not identify any alternative routes to be used in the event of road closures and/or traffic detours during haulage as required by Condition 6.3(a)(ii). Furthermore, a process to respond to any emergency road repairs or road maintenance requirements as a result of, or during haulage, has not been provided in accordance with Condition 6.5 (f)(iii). It is noted that Section 3.9 of the COTMP refers to maintenance of haulage vehicles and does not consider impacts or repairs required to the road environment or any other TfNSW assets.
5. An appropriate community consultation strategy should be clearly detailed in the COTMP prior to operations commencing in accordance with Condition 6.3(f)(iii).
6. The COTMP does not demonstrate any consideration of local climate conditions or climate conditions on transport routes as per Condition 6.5(f)(iii). The COTMP needs to demonstrate consideration of the climatic conditions on the transport routes (e.g. fog, black ice, etc) including staff accessing and leaving the site and demonstrate how risks associated with the climate conditions will be managed to mitigate the risks.
7. The Code of Conduct could be updated to include clear parameters for the monitoring of driver behaviour through the use of an internal monitoring system that is performance objective based, promotes driver education and can be updated in the event of any changes during transport operations. Additionally, adherence to designated transport haulage routes (including minimising impact on residential areas) in accordance with relevant conditions should be included in the Code of Conduct.

The Planning Secretary should be satisfied that the above matter has been adequately addressed prior to approving the COTMP.

If you have any questions, please contact Brendan Croft, Development Services Case Officer on 1300 019 680 or email development.west@transport.nsw.gov.au

Yours faithfully,



Kylie-Anne Pont

Team Leader Development Services – West
Transport Planning
Planning, Integration and Passenger

OFFICIAL

7 August 2025

TfNSW reference: WST25/00003/003 | SF2025/001941

Your reference: MP07_0005-PA-27

GPM - Generator Property Management Pty Ltd

PO Box 132 Budgewoi NSW 2262

Attention: Julian MacPhee - Julian.MacPhee@gpmco.com.au

MP07_0005-PA-27 - Wallerawang Power Station - Ash Dam - Construction and operational TMP review - Various lots - Great Western Highway, Lidsdale

Hi Julian,

Transport for NSW (TfNSW) is responding to the MP07_0005-PA-27 referred on 15 July 2025 via email.

TfNSW has reviewed the revised Construction and Operational Traffic Management Plan (COTMP) by EMM (refer Project No. E210783 RP3, Version V1, dated 11/2/2025), which was updated to include some amendments suggested by TfNSW in a correspondence dated 24 January 2025. The following comments are reiterated for consideration.

The updated COTMP has limited additional information that clarifies the specifics identified in Conditions 2.36, 2.36A, 2.36B, 6.3a), and 6.5f). In particular, the proposed haulage routes, schedule of transport operations, differentiation of construction and operational traffic volumes, and alternative routes in the event of road closures . These are explained in detail in the correspondence dated 24 January 2025.

TfNSW acknowledges the Planning Secretary should be satisfied that Conditions 6.4, 6.5, & 6.5A, have been adequately addressed prior to approving the subject OTMP.

If you have any questions, please contact Brendan Croft, Development Services Case Officer, on 1300 019 680 or email development.west@transport.nsw.gov.au.

Yours faithfully,



Brendan Croft
A / Team Leader Development Services (West)
Transport Planning
Planning, Integration and Passenger

OFFICIAL

29 August 2025

TfNSW reference: WST25/00003/004 | SF2025/001

Your reference: MP07_0005-PA-2

General Property Management Pty Ltd (GPM)

Email: julian.macphee@gpmco.com.au

Council email: council@lithgow.gov.nsw.gov.au

Attention: Julian MacPhee

MP07_0005-PA-27 - Wallerawang Power Station - Ash Dam - Construction and Operational Traffic Management Plan review - Various lots - Great Western Highway, Lidsdale

Dear Julian

Transport for NSW (TfNSW) is responding to MP07_0005-PA-27 referred on 25 August 2025.

Thank you for sending the revised Construction and Operational Traffic Management Plan (COTMP), as shown in **Attachment 1**, to TfNSW to review. TfNSW has reviewed the revised COTMP by EMM (refer Project No. E210783 RP3, Version V5, dated 15/8/2025), which was updated to include amendments suggested by TfNSW in correspondence dated 7 August 2025.

TfNSW is satisfied that the concerns raised in the response dated 7 August 2025 have been addressed adequately and, on this basis, provide endorsement for the COTMP. TfNSW welcomes the opportunity to provide further advice and comment (as required) to ensure the safety and efficiency of the broader transport network.

Yours faithfully



Brendan Croft
A / Team Leader Development Services (West)
Transport Planning
Planning, Integration & Passenger

OFFICIAL

Our Ref: ID 3268
Your Ref:

13 August 2025

John Pola
Generator Property Management Pty Ltd
PO Box 132
Budgewoi NSW 2262

Via email

email: john.pola@gpmco.com.au
CC: craig.ronan@one.ses.nsw.gov.au wtz.ops@ses.nsw.gov.au

Dear John,

Wallerawang Ash Repository, Lidsdale - Operational Transport Management Plan

Thank you for the consultation advice and opportunity to provide comment on the Operational Transport Management Plan for the extension of Wallerawang Ash Dam Areas, 6 Banksia Street Vincentia.

The NSW State Emergency Service (NSW SES) is the agency responsible for dealing with floods, storms and tsunamis in NSW. This role includes planning for, responding to and coordinating the initial recovery from floods. As such, the NSW SES has an interest in the public safety aspects of the development of flood prone land, particularly the potential for changes to land use to either exacerbate existing flood risk or create new flood risk for communities in NSW.

In summary, based on the currently available information we do not have significant concerns regarding the proposed development, however:

- **Consider** the impact of flooding on the infrastructure and people using the roads up to and including the Probable Maximum Flood (PMF), along with the impact of climate change on the flood risks.
- **Ensure** workers and people using the site and roads during and after the upgrades are aware of any flood risk, for example through site inductions, by using signage and other flood information tools.
- **Recommend** the Operational Transport Management Plan includes instructions to act early on Severe Weather Warnings issued by the Australian Government Bureau of Meteorology (BoM). The NSW SES does not have the operational capacity to provide individualised flood warnings for each business site. Severe Weather Warnings will be the most likely form of advice about the potential for flood producing storms and rainfall. In addition, coastal system such as tides and tsunamis should be included in your plan for this location.

- **Consider** closing the worksite and securing all materials and equipment prior to the start of the working day if there is a risk of riverine flooding, on receipt of advice from the BoM, or when other evidence leads to an expectation of flooding. During site works, check the BoM website prior to start of the workday for any Severe Weather Warnings.
- **Advise** that any flood response directive issued by the NSW SES or by delegated authority to others acting on its behalf must be followed. This includes any order to evacuate the site or not evacuate the site, irrespective of what decisions have been made by management in accordance with any site emergency response plan.
- **Recommend** pursuing, if relevant, site design and stormwater management that reduces the impact of flooding and minimises any risk to the community. Any improvements that can be made to reduce flood risk will benefit the community.

To provide additional support in doing the above, we direct you to the online resources which are available to the community on the www.ses.nsw.gov.au website which include helpful pages such as:

- [Know Your Risk | NSW State Emergency Service](#)
- [Local Plans and Guides](#) (enter your town or postcode) - which includes locally endorsed NSW SES Flood Emergency Sub Plans and Local Flood Insights
- [Business Continuity Plan](#) - online tool which steps you through the process of developing your own Business Emergency Plan.

In addition, if the construction phase of the upgrades causes disruption to the operation of local roads, this may impact the ability for emergency vehicles to use these routes. The NSW SES requests that notification be provided where there are likely to be significant delays in the operation of the roads affected by the upgrades.

Please feel free to contact Gillian Webber via email at rra@ses.nsw.gov.au should you wish to discuss any of the matters raised in this correspondence. The NSW SES would also be interested in receiving future correspondence regarding the outcome of this referral via this email address.

Yours sincerely

A handwritten signature in cursive script that reads 'Elspeth O'Shannessy'.

Elspeth O'Shannessy
Manager Emergency Risk Assessment
NSW State Emergency Service

Attachment B

Traffic intersection counts

Suburb : Wallerawang
 Intersection: Castlereagh Highway/Site Access Road
 Day/Date : Tuesday, 02 November 2021
 AM Peak Hour

Approach	Castlereagh Highway East Approach						Castlereagh Highway West Approach						Site Access Road South Approach					
Direction	Left			Through			Right Turn			Through			Left			Right Turn		
Time Period	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total
7:00 to 7:15	3	0	3	22	3	25	0	0	0	17	4	21	0	0	0	1	0	1
7:15 to 7:30	2	2	4	25	15	40	2	0	2	25	7	32	0	0	0	0	0	0
7:30 to 7:45	0	0	0	24	8	32	2	0	2	34	6	40	2	0	2	0	1	1
7:45 to 8:00	0	0	0	23	12	35	0	0	0	26	3	29	0	0	0	0	0	0
8:00 to 8:15	1	0	1	27	3	30	0	0	0	0	0	0	0	0	0	0	0	0
8:15 to 8:30	1	0	1	34	3	37	0	0	0	0	0	0	0	0	0	0	0	0
8:30 to 8:45	1	0	1	40	6	46	0	0	0	0	0	0	0	0	0	0	0	0
8:45 to 9:00	0	0	0	25	10	35	0	0	0	0	0	0	0	0	0	0	0	0
AM Totals	8	2	10	220	60	280	4	0	4	102	20	122	2	0	2	1	1	2

Approach	Castlereagh Highway East Approach						Castlereagh Highway West Approach						Site Access Road South Approach						
Direction	Left			Through			Right Turn			Through			Left			Right Turn			
Time Period	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	
7:00 to 8:00	5	2	7	94	38	132	4	0	4	102	20	122	2	0	2	1	1	2	269
7:15 to 8:15	3	2	5	99	38	137	4	0	4	85	16	101	2	0	2	0	1	1	250
7:30 to 8:30	2	0	2	108	26	134	2	0	2	60	9	69	2	0	2	0	1	1	210
7:45 to 8:45	3	0	3	124	24	148	0	0	0	26	3	29	0	0	0	0	0	0	180
8:00 to 9:00	3	0	3	126	22	148	0	0	0	0	0	0	0	0	0	0	0	0	151
AM Totals	16	4	20	551	148	699	10	0	10	273	48	321	6	0	6	1	3	4	

Suburb : Pokolbin
 Intersection: Hermitage Road/Site Access Road
 Day/Date : Thursday, 14 October 2021
 PM Peak Hour

Approach	Castlereagh Highway East Approach						Castlereagh Highway West Approach						Site Access Road South Approach					
Direction	Left			Through			Right Turn			Through			Left			Right Turn		
Time Period	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total
16:00 to 16:15	1	0	1	60	4	64	0	0	0	37	3	40	1	0	1	0	0	0
16:15 to 16:30	0	0	0	39	2	41	1	0	1	36	2	38	0	0	0	0	0	0
16:30 to 16:45	0	0	0	35	2	37	0	0	0	43	7	50	1	0	1	0	0	0
16:45 to 17:00	0	0	0	37	3	40	0	0	0	38	10	48	4	0	4	0	0	0
17:00 to 17:15	0	0	0	38	4	42	0	0	0	30	4	34	3	0	3	14	0	14
17:15 to 17:30	0	0	0	46	4	50	0	0	0	25	5	30	2	0	2	4	0	4
17:30 to 17:45	0	0	0	38	0	38	0	0	0	21	1	22	0	0	0	0	0	0
17:45 to 18:00	0	0	0	28	2	30	1	0	1	23	3	26	0	0	0	2	0	2
PM Totals	1	0	1	321	21	342	2	0	2	253	35	288	11	0	11	20	0	20

Approach	Castlereagh Highway East Approach						Castlereagh Highway West Approach						Site Access Road South Approach						
Direction	Left			Through			Right Turn			Through			Left			Right Turn			
Time Period	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	
16:00 to 17:00	1	0	1	171	11	182	1	0	1	154	22	176	6	0	6	0	0	0	366
16:15 to 17:15	0	0	0	149	11	160	1	0	1	147	23	170	8	0	8	14	0	14	353
16:30 to 17:30	0	0	0	156	13	169	0	0	0	136	26	162	10	0	10	18	0	18	359
16:45 to 17:45	0	0	0	159	11	170	0	0	0	114	20	134	9	0	9	18	0	18	331
17:00 to 18:00	0	0	0	150	10	160	1	0	1	99	13	112	5	0	5	20	0	20	298
PM Totals	1	0	1	785	56	841	3	0	3	650	104	754	38	0	38	70	0	70	

Attachment C

SIDRA results

MOVEMENT SUMMARY

Site: [Castlereagh Highway/Site Access Road AM Peak (Site Folder: Baseline traffic 2023)]

Castlereagh Highway/Site Access Road inetrsection
 Site Category: (None)
 Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h]	[HV veh/h]	[Total veh/h]	[HV %]				[Veh. veh]	[Dist m]				
South: Site Access Road														
1	L2	2	0	2	0.0	0.007	4.9	LOS A	0.0	0.2	0.39	0.87	0.39	29.4
3	R2	2	1	2	50.0	0.007	9.8	LOS A	0.0	0.2	0.39	0.87	0.39	27.2
Approach		4	1	4	25.0	0.007	7.4	LOS A	0.0	0.2	0.39	0.87	0.39	28.3
East: Castlereagh Highway East														
4	L2	7	2	8	28.6	0.005	7.5	LOS A	0.0	0.0	0.00	0.63	0.00	56.8
5	T1	135	39	163	28.9	0.099	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	79.9
Approach		142	41	171	28.9	0.099	0.4	NA	0.0	0.0	0.00	0.03	0.00	78.4
West: Castlereagh Highway West														
11	T1	124	20	131	16.1	0.065	0.1	LOS A	0.0	0.3	0.02	0.02	0.02	83.3
12	R2	4	0	4	0.0	0.065	7.5	LOS A	0.0	0.3	0.03	0.02	0.03	32.7
Approach		128	20	135	15.6	0.065	0.3	NA	0.0	0.3	0.02	0.02	0.02	79.5
All Vehicles		274	62	310	23.1	0.099	0.4	NA	0.0	0.3	0.02	0.04	0.02	77.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Vehicle movement LOS values are based on average delay per movement.
 Minor Road Approach LOS values are based on average delay for all vehicle movements.
 NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
 Delay Model: SIDRA Standard (Geometric Delay is included).
 Queue Model: SIDRA Standard.
 Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
 HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: [Castlereagh Highway/Site Access Road PM Peak (Site Folder: Baseline traffic 2023)]

Castlereagh Highway/Site Access Road inetrsection
 Site Category: (None)
 Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	[HV] veh/h	[Total veh/h	[HV] %				[Veh. veh	[Dist] m				
South: Site Access Road														
1	L2	6	0	6	0.0	0.013	5.4	LOS A	0.0	0.4	0.43	0.86	0.43	29.3
3	R2	2	1	2	50.0	0.013	13.2	LOS A	0.0	0.4	0.43	0.86	0.43	27.2
Approach		8	1	8	12.5	0.013	7.3	LOS A	0.0	0.4	0.43	0.86	0.43	28.8
East: Castlereagh Highway East														
4	L2	1	0	1	0.0	0.001	7.0	LOS A	0.0	0.0	0.00	0.63	0.00	65.4
5	T1	185	11	261	5.9	0.139	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	79.9
Approach		186	11	262	5.9	0.139	0.1	NA	0.0	0.0	0.00	0.00	0.00	79.8
West: Castlereagh Highway West														
11	T1	179	22	203	12.3	0.095	0.1	LOS A	0.0	0.1	0.01	0.00	0.01	84.7
12	R2	1	0	1	0.0	0.095	7.9	LOS A	0.0	0.1	0.01	0.00	0.01	32.8
Approach		180	22	205	12.2	0.095	0.1	NA	0.0	0.1	0.01	0.00	0.01	84.0
All Vehicles		374	34	475	8.7	0.139	0.2	NA	0.0	0.4	0.01	0.02	0.01	79.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Vehicle movement LOS values are based on average delay per movement.
 Minor Road Approach LOS values are based on average delay for all vehicle movements.
 NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
 Delay Model: SIDRA Standard (Geometric Delay is included).
 Queue Model: SIDRA Standard.
 Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
 HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: [Castlereagh Highway/Site Access Road AM Peak (Site Folder: Baseline + operational traffic 2023)]

Castlereagh Highway/Site Access Road inetrsection
 Site Category: (None)
 Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	[HV] veh/h	[Total veh/h	[HV] %				[Veh. veh	[Dist] m				
South: Site Access Road														
1	L2	2	0	2	0.0	0.048	4.9	LOS A	0.2	2.0	0.53	0.94	0.53	28.5
3	R2	14	13	15	92.9	0.048	14.1	LOS A	0.2	2.0	0.53	0.94	0.53	24.5
Approach		16	13	17	81.2	0.048	12.9	LOS A	0.2	2.0	0.53	0.94	0.53	25.0
East: Castlereagh Highway East														
4	L2	29	14	35	48.3	0.025	7.9	LOS A	0.0	0.0	0.00	0.63	0.00	52.1
5	T1	135	39	163	28.9	0.099	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	79.9
Approach		164	53	198	32.3	0.099	1.4	NA	0.0	0.0	0.00	0.11	0.00	73.0
West: Castlereagh Highway West														
11	T1	124	20	131	16.1	0.072	0.2	LOS A	0.1	0.9	0.08	0.07	0.08	81.9
12	R2	14	0	15	0.0	0.072	7.6	LOS A	0.1	0.9	0.10	0.08	0.10	32.4
Approach		138	20	145	14.5	0.072	0.9	NA	0.1	0.9	0.08	0.07	0.08	70.9
All Vehicles		318	86	360	27.4	0.099	1.8	NA	0.2	2.0	0.06	0.13	0.06	66.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Vehicle movement LOS values are based on average delay per movement.
 Minor Road Approach LOS values are based on average delay for all vehicle movements.
 NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
 Delay Model: SIDRA Standard (Geometric Delay is included).
 Queue Model: SIDRA Standard.
 Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
 HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: [Castlereagh Highway/Site Access Road PM Peak (Site Folder: Baseline + operational traffic 2023)]

Castlereagh Highway/Site Access Road inetrsection
 Site Category: (None)
 Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	[HV] veh/h	[Total veh/h	[HV] %				[Veh. veh	[Dist] m				
South: Site Access Road														
1	L2	16	0	17	0.0	0.093	5.5	LOS A	0.3	3.0	0.54	0.95	0.54	28.7
3	R2	22	12	23	54.5	0.093	14.7	LOS B	0.3	3.0	0.54	0.95	0.54	26.4
Approach		38	12	40	31.6	0.093	10.8	LOS A	0.3	3.0	0.54	0.95	0.54	27.3
East: Castlereagh Highway East														
4	L2	13	12	18	92.3	0.016	8.7	LOS A	0.0	0.0	0.00	0.63	0.00	43.9
5	T1	185	11	261	5.9	0.139	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	79.9
Approach		198	23	279	11.6	0.139	0.6	NA	0.0	0.0	0.00	0.04	0.00	75.8
West: Castlereagh Highway West														
11	T1	179	22	203	12.3	0.095	0.1	LOS A	0.0	0.1	0.01	0.00	0.01	84.7
12	R2	1	0	1	0.0	0.095	8.0	LOS A	0.0	0.1	0.01	0.00	0.01	32.8
Approach		180	22	205	12.2	0.095	0.1	NA	0.0	0.1	0.01	0.00	0.01	84.0
All Vehicles		416	57	523	13.4	0.139	1.2	NA	0.3	3.0	0.04	0.10	0.04	69.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: \\emmsvr1\EMM3\2020\J200724 - Wallerawang Power Station Remediation\Technical studies\Transport\SIDRA\20230314 SIDRA rev00.sip9

MOVEMENT SUMMARY

Site: [Castlereagh Highway/Site Access Road AM Peak (Site Folder: Baseline + operational + cumulative traffic 2023)]

Castlereagh Highway/Site Access Road inetrsection
 Site Category: (None)
 Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	[HV] veh/h	[Total veh/h	[HV] %				[Veh. veh	[Dist] m				
South: Site Access Road														
1	L2	2	0	2	0.0	0.083	6.4	LOS A	0.3	3.3	0.72	0.98	0.72	26.7
3	R2	14	13	15	92.9	0.083	24.1	LOS B	0.3	3.3	0.72	0.98	0.72	23.2
Approach		16	13	17	81.2	0.083	21.9	LOS B	0.3	3.3	0.72	0.98	0.72	23.6
East: Castlereagh Highway East														
4	L2	29	14	35	48.3	0.025	7.9	LOS A	0.0	0.0	0.00	0.63	0.00	52.1
5	T1	306	60	369	19.6	0.213	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	79.9
Approach		335	74	404	22.1	0.213	0.7	NA	0.0	0.0	0.00	0.05	0.00	76.3
West: Castlereagh Highway West														
11	T1	125	21	132	16.8	0.076	0.4	LOS A	0.2	1.3	0.12	0.07	0.12	81.3
12	R2	14	0	15	0.0	0.076	8.9	LOS A	0.2	1.3	0.15	0.09	0.15	32.3
Approach		139	21	146	15.1	0.076	1.3	NA	0.2	1.3	0.12	0.07	0.12	70.6
All Vehicles		490	108	567	22.0	0.213	1.5	NA	0.3	3.3	0.05	0.09	0.05	70.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Vehicle movement LOS values are based on average delay per movement.
 Minor Road Approach LOS values are based on average delay for all vehicle movements.
 NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
 Delay Model: SIDRA Standard (Geometric Delay is included).
 Queue Model: SIDRA Standard.
 Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
 HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: [Castlereagh Highway/Site Access Road PM Peak (Site Folder: Baseline + operational + cumulative traffic 2023)]

Castlereagh Highway/Site Access Road inetrsection
 Site Category: (None)
 Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	[HV] veh/h	[Total veh/h	[HV] %				[Veh. veh	[Dist] m				
South: Site Access Road														
1	L2	16	0	17	0.0	0.135	5.5	LOS A	0.5	4.1	0.61	0.94	0.61	27.7
3	R2	22	12	23	54.5	0.135	22.6	LOS B	0.5	4.1	0.61	0.94	0.61	25.6
Approach		38	12	40	31.6	0.135	15.4	LOS B	0.5	4.1	0.61	0.94	0.61	26.4
East: Castlereagh Highway East														
4	L2	13	12	18	92.3	0.016	8.7	LOS A	0.0	0.0	0.00	0.63	0.00	43.9
5	T1	186	12	262	6.5	0.140	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	79.9
Approach		199	24	280	12.1	0.140	0.6	NA	0.0	0.0	0.00	0.04	0.00	75.8
West: Castlereagh Highway West														
11	T1	350	43	398	12.3	0.185	0.1	LOS A	0.0	0.1	0.00	0.00	0.00	84.8
12	R2	1	0	1	0.0	0.185	8.2	LOS A	0.0	0.1	0.00	0.00	0.00	32.8
Approach		351	43	399	12.3	0.185	0.1	NA	0.0	0.1	0.00	0.00	0.00	84.4
All Vehicles		588	79	719	13.3	0.185	1.2	NA	0.5	4.1	0.04	0.07	0.04	72.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Vehicle movement LOS values are based on average delay per movement.
 Minor Road Approach LOS values are based on average delay for all vehicle movements.
 NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
 Delay Model: SIDRA Standard (Geometric Delay is included).
 Queue Model: SIDRA Standard.
 Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
 HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: [Castlereagh Highway/Site Access Road AM Peak (Site Folder: Horizon traffic 2033)]

Castlereagh Highway/Site Access Road intersection
 Site Category: (None)
 Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h]	[HV veh/h]	[Total veh/h]	[HV %]				[Veh. veh]	[Dist m]				
South: Site Access Road														
1	L2	2	0	2	0.0	0.007	5.0	LOS A	0.0	0.2	0.42	0.86	0.42	29.3
3	R2	2	1	2	50.0	0.007	10.4	LOS A	0.0	0.2	0.42	0.86	0.42	27.2
Approach		4	1	4	25.0	0.007	7.7	LOS A	0.0	0.2	0.42	0.86	0.42	28.2
East: Castlereagh Highway East														
4	L2	8	2	10	25.0	0.006	7.4	LOS A	0.0	0.0	0.00	0.63	0.00	57.7
5	T1	148	43	178	29.1	0.109	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	79.9
Approach		156	45	188	28.8	0.109	0.4	NA	0.0	0.0	0.00	0.03	0.00	78.4
West: Castlereagh Highway West														
11	T1	136	22	143	16.2	0.071	0.1	LOS A	0.0	0.3	0.02	0.02	0.02	83.4
12	R2	4	0	4	0.0	0.071	7.6	LOS A	0.0	0.3	0.03	0.02	0.03	32.7
Approach		140	22	147	15.7	0.071	0.3	NA	0.0	0.3	0.02	0.02	0.02	79.8
All Vehicles		300	68	340	23.1	0.109	0.4	NA	0.0	0.3	0.01	0.04	0.01	77.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Vehicle movement LOS values are based on average delay per movement.
 Minor Road Approach LOS values are based on average delay for all vehicle movements.
 NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
 Delay Model: SIDRA Standard (Geometric Delay is included).
 Queue Model: SIDRA Standard.
 Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
 HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: [Castlereagh Highway/Site Access Road PM Peak (Site Folder: Horizon traffic 2033)]

Castlereagh Highway/Site Access Road inetrsection
 Site Category: (None)
 Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	[HV] veh/h	[Total veh/h	[HV] %				[Veh. veh	[Dist] m				
South: Site Access Road														
1	L2	7	0	7	0.0	0.016	5.5	LOS A	0.1	0.4	0.45	0.86	0.45	29.3
3	R2	2	1	2	50.0	0.016	14.6	LOS B	0.1	0.4	0.45	0.86	0.45	27.1
Approach		9	1	9	11.1	0.016	7.6	LOS A	0.1	0.4	0.45	0.86	0.45	28.8
East: Castlereagh Highway East														
4	L2	1	0	1	0.0	0.001	7.0	LOS A	0.0	0.0	0.00	0.63	0.00	65.4
5	T1	204	12	287	5.9	0.153	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	79.9
Approach		205	12	289	5.9	0.153	0.1	NA	0.0	0.0	0.00	0.00	0.00	79.8
West: Castlereagh Highway West														
11	T1	198	25	225	12.6	0.105	0.1	LOS A	0.0	0.1	0.01	0.00	0.01	84.7
12	R2	1	0	1	0.0	0.105	8.1	LOS A	0.0	0.1	0.01	0.00	0.01	32.8
Approach		199	25	226	12.6	0.105	0.1	NA	0.0	0.1	0.01	0.00	0.01	84.0
All Vehicles		413	38	524	8.8	0.153	0.2	NA	0.1	0.4	0.01	0.02	0.01	79.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Vehicle movement LOS values are based on average delay per movement.
 Minor Road Approach LOS values are based on average delay for all vehicle movements.
 NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
 Delay Model: SIDRA Standard (Geometric Delay is included).
 Queue Model: SIDRA Standard.
 Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
 HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: [Castlereagh Highway/Site Access Road AM Peak (Site Folder: Horizon operational traffic 2033)]

Castlereagh Highway/Site Access Road intersection
 Site Category: (None)
 Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h]	[HV veh/h]	[Total veh/h]	[HV %]				[Veh. veh]	[Dist m]				
South: Site Access Road														
1	L2	2	0	2	0.0	0.051	5.0	LOS A	0.2	2.2	0.55	0.94	0.55	28.3
3	R2	14	13	15	92.9	0.051	15.1	LOS B	0.2	2.2	0.55	0.94	0.55	24.4
Approach		16	13	17	81.2	0.051	13.9	LOS A	0.2	2.2	0.55	0.94	0.55	24.8
East: Castlereagh Highway East														
4	L2	30	14	36	46.7	0.026	7.8	LOS A	0.0	0.0	0.00	0.63	0.00	52.4
5	T1	148	43	178	29.1	0.109	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	79.9
Approach		178	57	214	32.0	0.109	1.3	NA	0.0	0.0	0.00	0.11	0.00	73.4
West: Castlereagh Highway West														
11	T1	136	22	143	16.2	0.078	0.2	LOS A	0.1	1.0	0.08	0.06	0.08	82.0
12	R2	14	0	15	0.0	0.078	7.8	LOS A	0.1	1.0	0.09	0.08	0.09	32.4
Approach		150	22	158	14.7	0.078	0.9	NA	0.1	1.0	0.08	0.06	0.08	71.7
All Vehicles		344	92	389	27.1	0.109	1.7	NA	0.2	2.2	0.06	0.12	0.06	67.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Vehicle movement LOS values are based on average delay per movement.
 Minor Road Approach LOS values are based on average delay for all vehicle movements.
 NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
 Delay Model: SIDRA Standard (Geometric Delay is included).
 Queue Model: SIDRA Standard.
 Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
 HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: [Castlereagh Highway/Site Access Road PM Peak (Site Folder: Horizon operational traffic 2033)]

Castlereagh Highway/Site Access Road inetrsection
 Site Category: (None)
 Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h]	[HV veh/h]	[Total veh/h]	[HV %]				[Veh. veh]	[Dist m]				
South: Site Access Road														
1	L2	17	0	18	0.0	0.103	5.7	LOS A	0.4	3.2	0.56	0.95	0.56	28.5
3	R2	22	12	23	54.5	0.103	16.3	LOS B	0.4	3.2	0.56	0.95	0.56	26.3
Approach		39	12	41	30.8	0.103	11.7	LOS A	0.4	3.2	0.56	0.95	0.56	27.2
East: Castlereagh Highway East														
4	L2	13	12	18	92.3	0.016	8.7	LOS A	0.0	0.0	0.00	0.63	0.00	43.9
5	T1	204	12	287	5.9	0.153	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	79.9
Approach		217	24	306	11.1	0.153	0.5	NA	0.0	0.0	0.00	0.04	0.00	76.2
West: Castlereagh Highway West														
11	T1	198	25	225	12.6	0.105	0.1	LOS A	0.0	0.1	0.01	0.00	0.01	84.7
12	R2	1	0	1	0.0	0.105	8.2	LOS A	0.0	0.1	0.01	0.00	0.01	32.8
Approach		199	25	226	12.6	0.105	0.1	NA	0.0	0.1	0.01	0.00	0.01	84.0
All Vehicles		455	61	573	13.1	0.153	1.2	NA	0.4	3.2	0.04	0.09	0.04	69.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Vehicle movement LOS values are based on average delay per movement.
 Minor Road Approach LOS values are based on average delay for all vehicle movements.
 NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
 Delay Model: SIDRA Standard (Geometric Delay is included).
 Queue Model: SIDRA Standard.
 Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
 HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Attachment D

Example haulage routes

D.1 Walker's Quarry, Marrangaroo, NSW

1 963 Great Western Hwy, Marrangaroo NSW 2

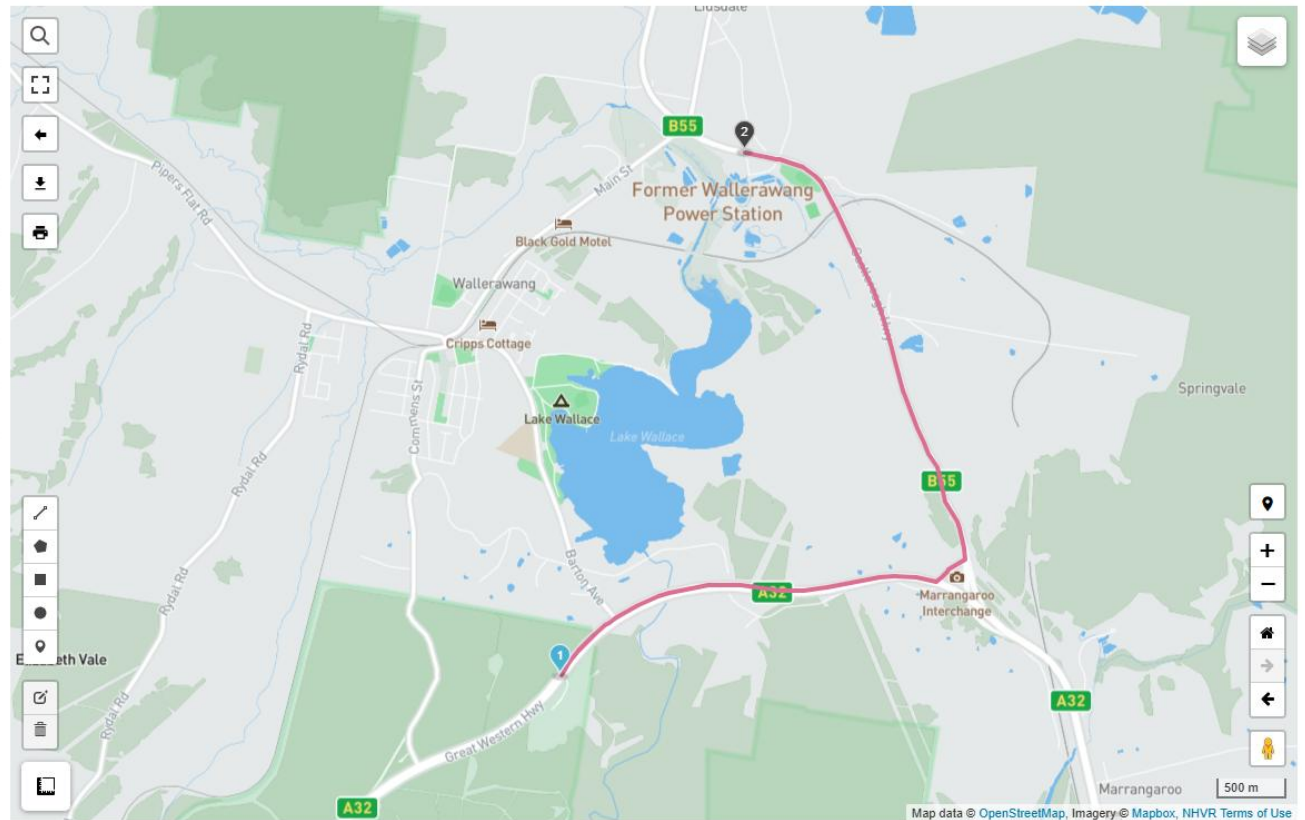
2 Castlereagh Hwy, Wallerawang NSW 2845

Route planner tool


PLAN ROADS DISTANCE LAYERS SUMMARY



RMNSW1: Transport for New South Wales... (6 roads)

- ✓ Road name
- ✓ Unknown, Wallerawang
- ✓ Great Western Highway, Wallerawang
- ✓ Great Western Highway, Marrangaroo
- ✓ Castlereagh Highway, Marrangaroo
- ✓ Castlereagh Highway, Lidsdale
- ✓ Castlereagh Highway, Wallerawang



D.2 Austen Quarry, Hartley, NSW

1 385 Jenolan Caves Rd, Hartley NSW 2790  

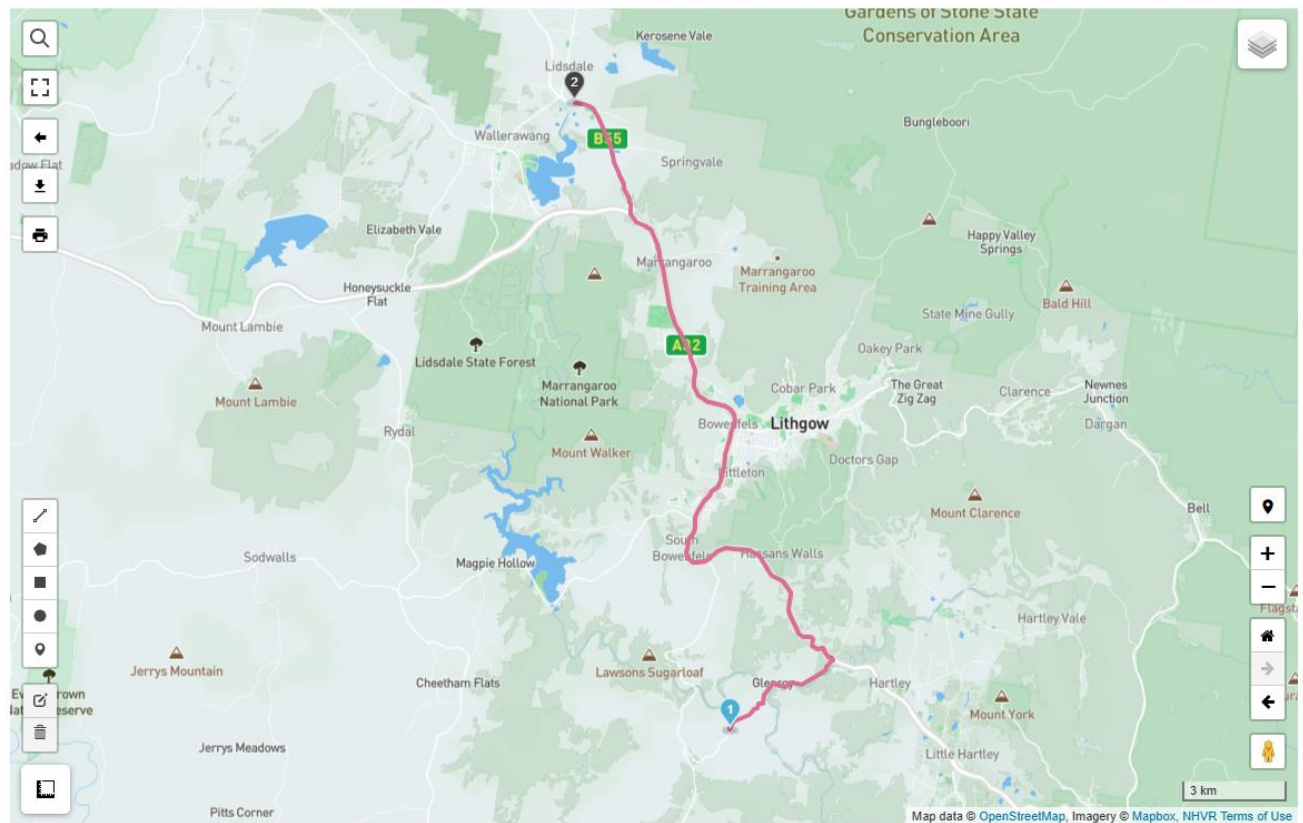
2 Castlereagh Hwy, Wallerawang NSW 2845  

Route planner tool

PLAN **ROADS** DISTANCE LAYERS SUMMARY

RMNSW1: Transport for New South Wales... (10 roads)

- ✓ **Road name**
- ✓ Jenolan Caves Road, Hartley
- ✓ Unknown, Hartley
- ✓ Great Western Highway, Hartley
- ✓ Great Western Highway, South Bowenfels
- ✓ Great Western Highway, Bowenfels
- ✓ Great Western Highway, Marrangaroo
- ✓ Castlereagh Highway Offramp, Marrangaroo
- ✓ Castlereagh Highway, Marrangaroo
- ✓ Castlereagh Highway, Lidsdale
- ✓ Castlereagh Highway, Wallerawang



D.3 TfNSW Medlow Bath Upgrade



42 Great Western Highway, Medlow Bath NSV



Castlereagh Hwy, Wallerawang NSW 2845



Route planner tool

PLAN ROADS DISTANCE LAYERS SUMMARY

RMNSW1: Transport for New South Wale... (12 roads)

✓ Road name

✓ Great Western Highway, Medlow Bath

✓ Great Western Highway, Blackheath

✓ Great Western Highway, Mount Victoria

✓ Great Western Highway, Little Hartley

✓ Great Western Highway, Hartley

✓ Great Western Highway, South Bowenfels

✓ Great Western Highway, Bowenfels

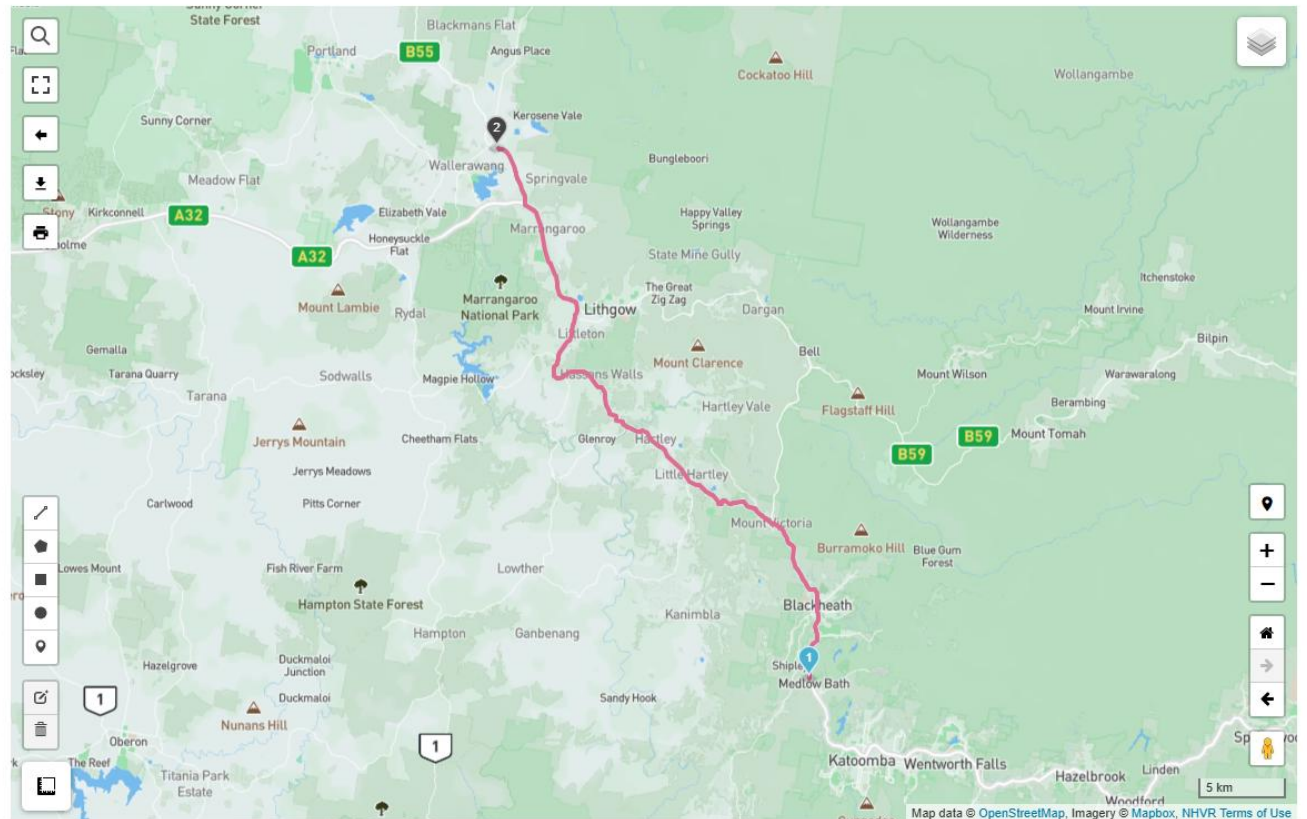
✓ Great Western Highway, Marrangaroo

✓ Castlereagh Highway Offramp, Marrangaroo

✓ Castlereagh Highway, Marrangaroo

✓ Castlereagh Highway, Lidsdale

✓ Castlereagh Highway, Wallerawang



Attachment E

ER letter of endorsement

31 March 2026

John Pola
Environmental Manager
Generator Property Management - Lidsdale
110 Skelly Road
Lidsdale NSW 2790

**Re: MP07_0005 - Wallerawang Ash Dam Areas - Environmental Representative Endorsement -
Construction and Operation Traffic Management Plan Rev 7**

Dear John,

Following a review of the documents provided for the Construction and Operation Traffic Management Plan (O&CTMP) Rev 7, I can provide the following endorsement.

The O&CTMP Rev 7 has been reviewed against the Mod 2 Consolidated Conditions of Approval, in particular Condition 6.5a. Consultation with TfNSW and Lithgow Council has been completed and all comments have been addressed.

All conditions of approval and mitigation measures are contained in the O&CTMP Rev 7.

The document is endorsed for submission for approval.

Yours sincerely



David Bone
Independent Environmental Representative
dbone@emmconsulting.com.au

Australia

SYDNEY

Level 10 201 Pacific Highway
St Leonards NSW 2065
T 02 9493 9500

NEWCASTLE

Level 3 175 Scott Street
Newcastle NSW 2300
T 02 4907 4800

BRISBANE

Level 2, 95 North Quay
Brisbane QLD 4000
T 07 3648 1200

CANBERRA

Suite 2.04 Level 2
15 London Circuit
Canberra City ACT 2601

ADELAIDE

Level 4 74 Pirie Street
Adelaide SA 5000
T 08 8232 2253

MELBOURNE

Suite 9.01 Level 9
454 Collins Street
Melbourne VIC 3000
T 03 9993 1900

PERTH

Suite 3.03
111 St Georges Terrace
Perth WA 6000
T 08 6430 4800

Canada

TORONTO

2345 Yonge Street Suite 300
Toronto ON M4P 2E5
T 647 467 1605

VANCOUVER

2015 Main Street
Vancouver BC V5T 3C2
T 604 999 8297

CALGARY

700 2nd Street SW Floor 19
Calgary AB T2P 2W2



[linkedin.com/company/emm-consulting-pty-limited](https://www.linkedin.com/company/emm-consulting-pty-limited)

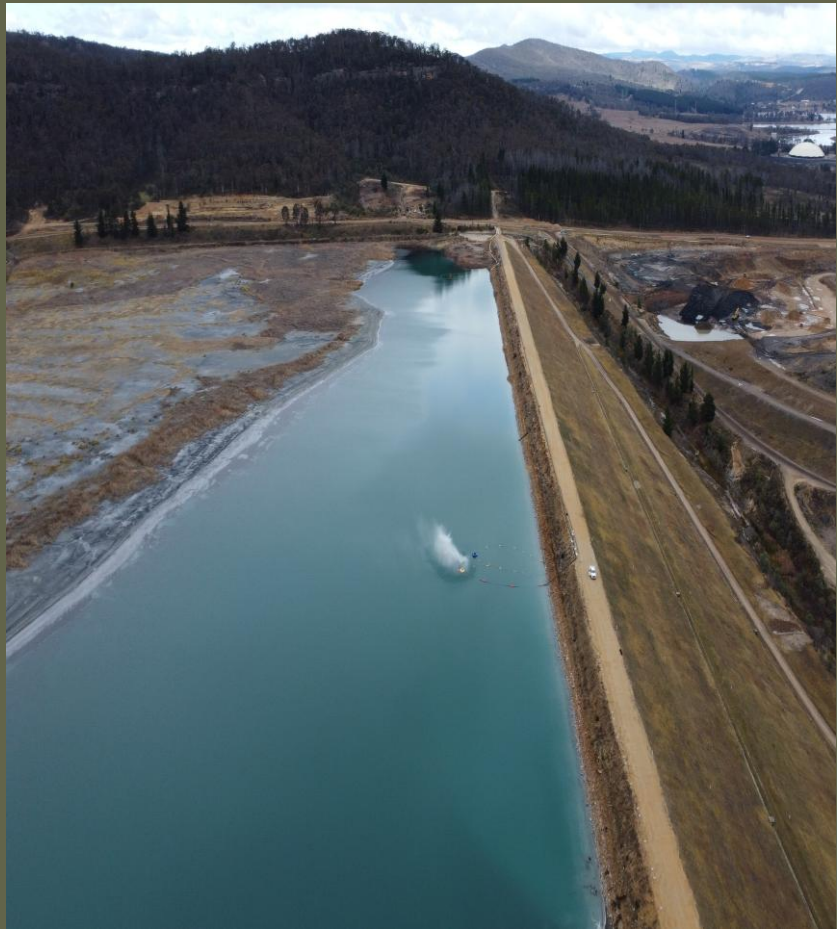


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Appendix F Construction Noise Management Plan


Construction Noise Management Plan

Lidsdale Ash Repository 2026



GPM

Document control

Title	Construction Noise Management Plan - Lidsdale Ash Repository 2025
Approved by GPM Environment Manager	John Pola
Signed	
Dated	31 st March 2026

Version control

Revision	Date	Description	Author	Reviewer	Approval
Rev 01	08/01/2025	Draft	Sofia Stergio	Phil Towler	John Pola
Rev 02	28/01/2025	Update consultation register	Nadia Eisenlohr	Daniel Keegan	John Pola
Rev 03	07/10/2025	Updated to address DPHI comments	Zainab Ahmed	Nadia Eisenlohr	John Pola
Rev 04	31/03/2026	Final	Zainab Ahmed	Nadia Eisenlohr	John Pola

List of emergency and key contacts

Position	Name	Phone
EPA pollution hotline	General Number	131 555
Fire and Rescue NSW	General Number	000 (for pollution incidents that present an immediate threat to human health or property) 1300 729 579 (for pollution incidents that do not present an immediate threat to human health or property)
Lithgow Hospital	General Number	63502300
SafeWork NSW	General Number	131 050
24-hour community information line	General Number	1800 817 711
Environment Manager	John Pola	0429 205 290
Financial Controller & Company Secretary	Diane Dibben	0412 773 255
Managing Director	David Wood	0484 623 220
Western Region Manager	Paul Glasson	0418 708 113
Engineering Project Officer	Timothy Edwards	0413 446 686
Engineering Project Officer	Julian MacPhee	0427 094 014
Environmental Representative	David Bone	0407 461 092
Lithgow City Council	General Number	02 6354 9999
Wallerawang Police	General Number	02 6355 1303
Lithgow Police	Chris Sammut	02 6352 8399

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Glossary/Abbreviations

Abbreviation	Expanded text
Approval	Approval Modification MP07_005-Mod 2
ASS	Acid Sulphate Soils
CEMP	Construction Environmental Management Plan
CEMS	Contractors Environmental Management System
Compliance audit	Verification of how implementation is proceeding with respect to a Construction Environmental Management Plan (CEMP) (which incorporates the relevant approval conditions).
CoAs	Conditions of approval
CEMP	Construction Environmental Management Plan
Minister, the	Minister of the NSW Department of Planning and Environment (or delegate)
DP&E	Department of Planning and Environment
DPHI	NSW Department of Planning, Housing and Infrastructure
EIS	Environmental Impact Statement
EEC	Endangered Ecological Community
Ecologically sustainable development	Using, conserving and enhancing the community's resources so that the ecological processes on which life depends are maintained and the total quality of life now and in the future, can be increased (Council of Australian Governments, 1992)
EPA	NSW Environment Protection Authority
EPBC-CoA	Federal Conditions of Approval under the EPBC Act
EMS	Environmental Management System
EMMs	Environmental Management Measures as outlined in the project EIS documentation.
EMP	Environmental Management Plan
Environmental aspect	Defined by AS/NZS ISO 14001:2015 as an element of an organisation's activities, products or services that can interact with the environment.
Environmental impact	Defined by AS/NZS ISO 14001:2015 as any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organisation's environmental aspects.
Environmental objective	Defined by AS/NZS ISO 14001:2015 as an overall environmental goal, consistent with the environmental policy, that an organisation sets itself to achieve.
Environmental policy	Statement by an organisation of its intention and principles for environmental performance.

Environmental target	Defined by AS/NZS ISO 14001:2015 as a detailed performance requirement, applicable to the organisation or parts thereof, that arises from the environmental objectives and that needs to be set and met in order to achieve those objectives.
Environmental Representative	A suitably qualified and experienced person independent of project design and construction personnel employed for the duration of construction. The principal point of advice in relation to all questions and complaints concerning environmental performance.
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i> (NSW)
EPL	Environment Protection Licence
ESCP	Erosion and Sediment Control Plan
GPM	Generator Property Management Pty Ltd
Hold point	Is a verification point that prevents work from commencing prior to approval from Roads and Maritime Services
Incident	A set of circumstances that causes or threatens to cause material harm to the environment, and/or breaches or exceeds the limits or performance measures/criteria in this approval.
KPI	Key Performance Indicator
KVAD	Kerosene Vale Ash Dam
KVAR	Kerosene Vale Ash Repository (dry stacked as on top of KVAD)
LADR	Lidsdale Ash Dam Repository
Non-compliance	An occurrence, set of circumstances or development that is a breach of this approval but is not an incident.
OEH	Office of Environment and Heritage
OEMP	Operational Environmental Management Plan
PESCP	Progressive Erosion and Sediment Control Plan
PIRMP	Pollution Incident Response Management Plan
Principal, the	GPM
POEO Act	<i>Protection of the Environment Operations Act 1997</i> (NSW)
REMM	Revised Environmental Management Measure
Roads and Maritime	Roads and Maritime Services
ROL	Road occupancy licence
SAP	Sensitive Area Plan
Secretary	Secretary of the Department of Planning or their Nominee
SSCAD	Sawyers Swamp Creek Ash Dam
SEAR's	Secretary's Environmental Assessment Requirements
SPIR	Submission and Preferred Infrastructure Report

SWMS	Safety & Environmental work method statement
TfNSW	Transport for New South Wales
WPS	Wallerawang Power Station

1 Introduction

The Lidsdale Ash Dam Repository (LADR), formerly known as the Wallerawang Ash Repository, is located at Skelly Road, Lidsdale NSW (the Site) and is approximately 15 kilometres (km) north-west of Lithgow and 2.5 km north-east of Wallerawang Power Station. The Site comprises an area of approximately 528 hectares (ha) and is situated primarily on Lot 5 of Deposited Plan (DP) 829137.

The Site includes several distinct components, including:

- The Kerosene Vale Dry Ash Repository (KVAR) and underlying former Kerosene Vale Ash Dam (KVAD).
- Sawyers Swamp Creek Ash Dam (SSCAD).
- Lidsdale Cut and adjacent asbestos landfills.
- WPS Asbestos demolition landfill south of the SSCAD

The Site location and general layout are shown in Figure 1.1.

The Site has been used since the 1950s to store ash and other wastes generated by the Wallerawang Power Station (WPS). Site operations started prior to the commencement of the *Environmental Planning and Assessment Act 1979* (EP&A Act), when the WPS and associated facilities were owned by the NSW Government.

Ownership and responsibility for the Site was transferred from Energy Australia NSW Pty Ltd to Generator Property Management Pty Limited (GPM) in September 2020. GPM's objectives at the Site include closure of the operational facilities and the rehabilitation and management of the site in general including the Kerosene Ash Repository (KVAR) and the Sawyers Swamp Creek Ash Dam (SSCAD).

Final closure of the site into a long-term rehabilitated state requires works to be undertaken to secure the KVAR and the SSCAD. Undertaking these works, including construction of reinforcement berms and a material delivery area and internal roads as well as rearrangement of water flows and reinstatement of environmental controls for historic landfill areas, are identified as construction activities and therefore need to be specifically managed.

The CEMP, along with this CNMP, has been developed to ensure construction activities are carried out responsibly and in accordance with the relevant Conditions of Approval (CoAs) and any other requirements.

GPM and its contractors are also undertaking construction and operational activities on the site simultaneously. Construction activities will be managed under the Site's Construction Environmental Management Plan (CEMP) and operational activities are being managed under the Site's Operational Environmental Management Plan (OEMP). Refer to Table 1-1 Activities covered by the CEMP and OEMP.

1.1 Background to the Lidsdale Ash Repository

The Lidsdale Site was originally farmland that was gradually turned into mining premises during the late 1800s into the early 20th century. The Kerosene Vale mines were originally a series of open cut operations that changed to underground mines using portals driven under the northern escarpment.

The original ash placement operations were at the KVAD. The mining void was filled with ash transported from the WPS as a slurry (i.e. wet ash placement). When the KVAD was full, it was capped with a clay capping and then ash placement operations began at the SSCAD, which saw wet ash placement take place from 1980 to 2003. The SSCAD is still used to manage site water requirements with water levels managed by irrigation for dust suppression and other onsite water uses to prevent discharge to Sawyers Swamp Creek. When required, water is transferred for treatment via a CIP, clarified and discharged through a licenced discharge point (LDP3). The SSCAD is a declared dam under the NSW [Dams Safety Act 2015 No 26](#) (DS Act) and is subject to regular surveillance and monitoring by certified engineers in accordance with the DS Act.

The need to further develop the KVAR area to maintain power-generation operations at WPS was identified in 2001. The existing wet ash storage area (i.e. the SSCAD) was approaching its design capacity and the placement of dry ash at the KVAR was identified as a viable alternative. Conversion from wet to dry ash placement aimed to minimise environmental and social impacts potentially resulting from heavy metal accumulation. The extent of both stages is outlined in Figure 1.1.

It is noted that the Site has recently been formally Declared under the *Contaminated Land Management Act* (CLM Act) by the EPA and is subject to a Voluntary Management Plan requiring detailed and extensive investigations that will guide long term works on the SSCAD and may require additional works on the Site that would be subject to further approval.

1.2 Relevant project approval

In 2002, Project Approval was granted by the then Minister of Planning to change from wet to dry ash-producing activities and to use the KVAR area for dry ash storage.

The placement of ash on the Repository was developed in two stages:

- Stage 1: Comprises about one third of the area associated with the repository site and located on the south-western section of the site, this area was designed to operate for a period of 5 years and reached its design capacity and has been capped.
- Stage 2: Comprises the remainder the repository site, covering an area from the open face of the Stage 1 area to the edge of the original storage area. This stage was designed to operate about 10 years, depending on actual ash production rates.

On 26 November 2008, Project Approval (07_0005) was granted by the then Minister of Planning for the extension of the existing KVAR area to permit the continued disposal of ash generated by the WPS under Part 3A (now repealed) of the *Environmental Planning and Assessment Act 1979*. The KVAR Stage 1 placement works were completed and capped in February 2009. The KVAR Stage 2 placement works commenced soon after in April 2009.

In January 2014, WPS's Unit 7 was removed from service and deregistered from the market; whilst in March 2014, Unit 8 was placed in long term storage. However, in November 2014, EnergyAustralia NSW announced that Unit 8 was to be removed from service and the WPS deregistered from the market.

WPS ceased energy production in April 2014 and is currently being decommissioned and dismantled. The bulk transport and disposal of ash to the KVAR ceased following the closure of the WPS. The Lidsdale Ash Repository is currently being managed in a care and maintenance arrangement. Environmental studies and investigations are currently underway to support GPM's safe decommissioning, demolition, rehabilitation and management of ongoing regulatory and contractual obligations associated with the Lidsdale Ash Repository area.

Modification 1 to 07_005 was approved on 9 August 2018 under section 75W of the EP&A Act. This was to allow for the importation of clean fill (virgin excavated natural material (VENM) and excavated natural material (ENM)) for use in the final shaping and capping of KVAR and SSCAD over two years. This modification included a revised project area that extended the originally approved project to include the area covered by SSCAD.

Modification 2 to 07_005 was approved on 13 October 2023 under section 96(1A) of the EP&A Act. This was to allow for the importation of fill over an additional 10 years (i.e. until 13 October 2033).

The most complete description of the onsite activities was provided in the original *Kerosene Vale Stage 2 Ash Repository Area Environmental Assessment* prepared by Parsons Brinckerhoff in April 2008. This focused on the ongoing ash management without providing any details of site rehabilitation requirements when the power station closed. However, it did include the realignment of a section of Sawyers Swamp Creek to allow the structural earthworks required to achieve an acceptable factor of safety against failure of the ash stockpiles during earthquakes. The subsequent modification applications focussed on the potential impacts of the importation of fill material, rather than on activities within the Site where the material would be utilised.

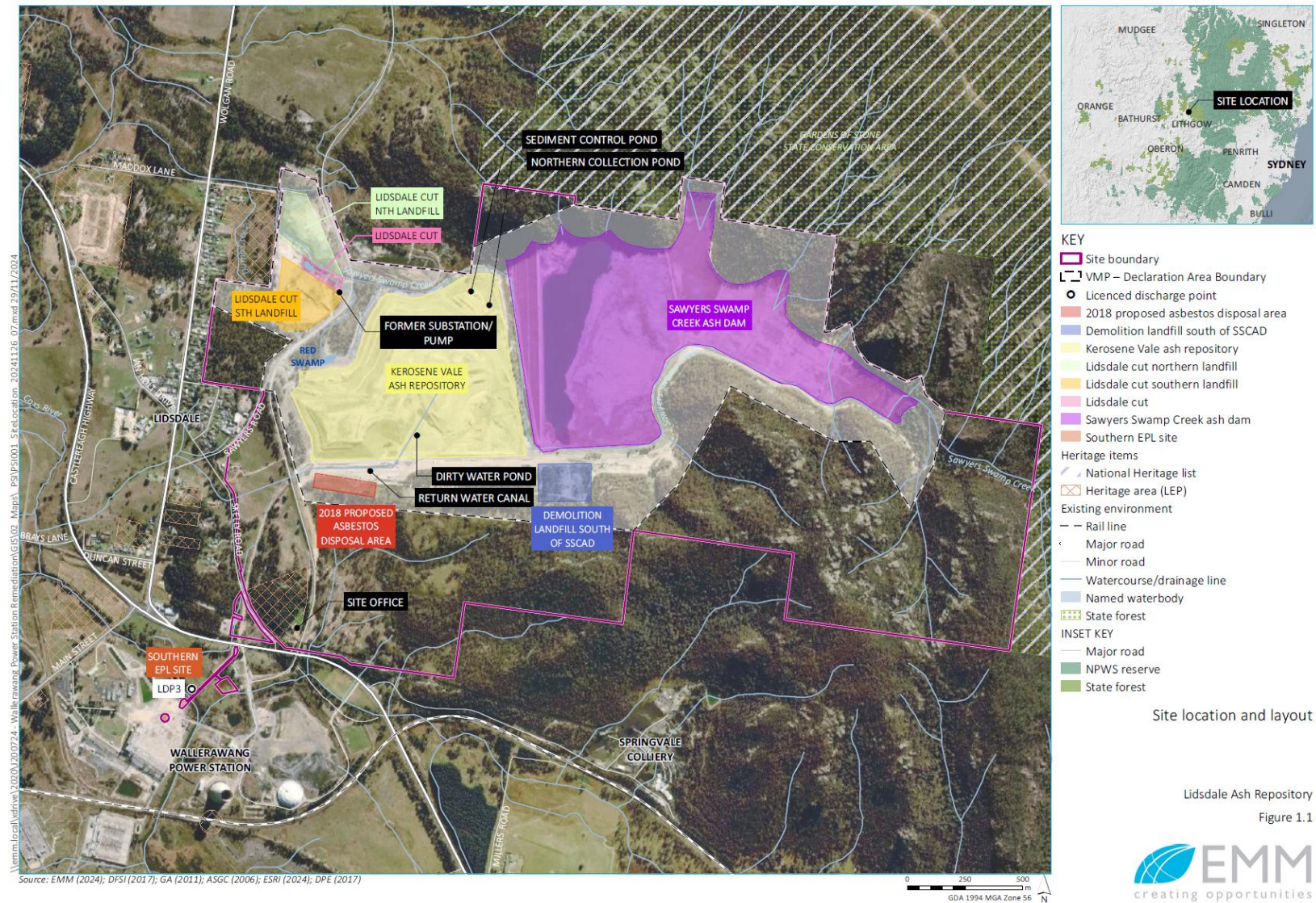


Figure 1.1 Site location and layout

1.3 Construction Environmental Management Plan and Sub-plans

CoA 6.2 requires the applicant to develop a CEMP that outlines the environmental management practices and procedures to be followed during construction, while CoA 6.3 requires the preparation and implementation of the following management plans as part of the CEMP:

- **Construction Traffic Management Plan (CTMP)** - identifies the management measures to minimise traffic impacts
- **Construction Noise Management Plan (CNMP)** - identifies the management measures to minimise construction noise impacts
- **Construction Erosion and Sediment Control Plan (CESCP)** – identifies the management measures to minimise erosion and sedimentation during construction

Given the requirement to develop these additional plans in conjunction with the CEMP, these plans are identified as sub-plans to this CEMP.

Table 1-1 provides a high-level overview of the proposed activities that are covered by the CEMP and those covered by the OEMP. Further information on the scope of this CEMP is provided in section 1.4.

Table 1-1 Activities covered by the CEMP and OEMP

Environmental Management Plan	Activities covered
CEMP – construction activities	<ul style="list-style-type: none"> • Sawyers Swamp Creek realignment • Construction of stability berms around the perimeter of the KVAR • Excavation of the former pine plantation area • Sediment controls and surface water dams associated with construction of the KVAR stability berm and realignment of the Sawyers Swamp Creek • Establishment of freshwater collection ponds on the northern edge of SSCAD • Rearrangement of water flows around the KVAR • Establishment of access roads onto the surface of the SSCAD and associated roads across the dam surface • Reinstatement of environmental controls for historic landfill areas including capping of slumped areas, reprofiling for water management and control of sediment runoff during these activities • Concurrent construction activities
OEMP – care and maintenance operations	<ul style="list-style-type: none"> • Ash management • Management of on-site water systems • Capping material haulage, placement and management • Landscaping and revegetation/rehabilitation of the site • Upgrading and maintaining internal access roads in the project area

1.4 Environmental management system overview

GPM's Environmental Management System (EMS) is based on AS/NZS ISO 14001. The ISO 14001 standard provides best practice specifications for the implementation of an EMS. An EMS provides a framework for managing the company's environmental responsibilities so that they are integrated into overall operations. The standard approach integrates environmental management and supports the company's compliance with legislated and voluntary environmental requirements, as well as continuously improving their overall environmental performance.

The relevant environmental standards ensure a consistent approach is undertaken to integrate environmental management at all levels of the organisation by:

- identifying and maintaining awareness of relevant environmental legislation
- assignment of roles and responsibilities
- establishment of procedures for internal and external communications
- establishment of procedures for monitoring and measuring environmental performance
- setting and reviewing objectives and targets for improving environmental performance
- monitoring and measuring environmental compliance and community inquiries
- setting and reviewing management system programs for achieving objectives and targets
- provision of environmental training aligned to skill requirements
- review of EMS performance for continual improvement.

This CNMP has been developed to be consistent with the relevant provisions of GPM's EMS, including approvals and license as noted above. The CEMP is also consistent with the EMS.

A summary of the EMS and its interaction with the CEMP and OEMP is provided in Figure 1.2.

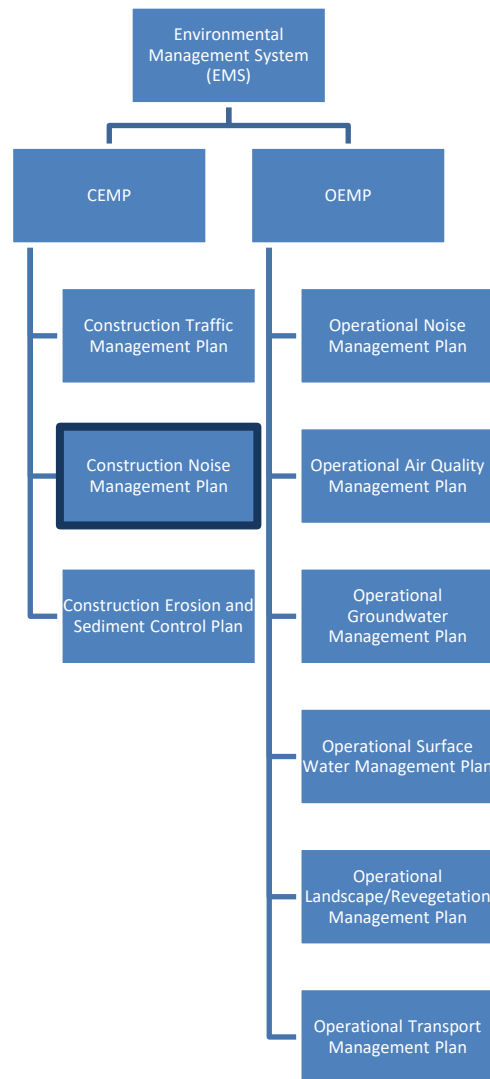


Figure 1.2 Environmental Management System flowchart

1.5 Interactions with other management plans and strategies

This CNMP (as outlined in Figure 1.2 above) is a sub-plan to the CEMP and interrelates with the other (sub) management plans set out in Section 1.3 and 1.4 above.

1.6 Reference documents

The CNMP incorporates the obligations and criteria outlined in the following documents:

- Project Approval 07_0005 (NSW Department of Planning) – 2008
- Submission Report – Statement of Commitments (Parsons Brinckerhoff 2008)
- Modification application 07_0005 Mod 1 (9 August 2018)
- Modification application 07_0005 Mod 2 (13 October 2023)
- Wallerawang Power Station to Submissions Report (EA 2018)
- Environment Protection Licence 21185 (NSW Environment Protection Authority)
- Works Approval (Water Mgt Act 2000)

1.7 Endorsement and approval

1.7.1 Internal approval of CEMP and Sub-plans

The CEMP and associated sub-plans, strategies and monitoring programs undergo ongoing review by the GPM team. Following the ongoing review and revision process, internal sign-off will be provided.

Once internal approval is received, the documents will be provided to external stakeholders (as identified in Section 1.7.2) for external consultation, once the external stakeholders are satisfied the plan is submitted to ER for endorsement. Once the endorsement has been received the CNMP will be submitted to DPHI for approval..

1.7.2 External endorsement and approval of CEMP and sub-plans

Table 1-2 below provides a summary of the relevant authority(s), council(s) and agencies that require consultation during preparation of the CEMP sub-plans and monitoring programs in accordance with the CoAs.

External distribution for consultation and approval of the CEMP, sub-plans and monitoring programs was undertaken and the CNMP was updated in consultation with the relevant external parties and was endorsed by the ER in accordance with the relevant CoA(s) (refer Table 1-2 and Table 1-3), confirming that they satisfy the requirements of the approval documentation. After this external consultation and endorsement process was complete the required documents were submitted to the Secretary for approval.

A copy of the latest ER Endorsement of the CEMP is included in Appendix A of this Plan.

Table 1-2 Consultation requirements for CEMP and sub-plans

Report	Consultation required	Relevant CoA
Construction Environmental Management Plan	Submit to Secretary for approval	6.2
Construction Traffic Management Plan	TfNSW	2.36, 2.36A, 2.36B, 6.3 (a)
Construction Noise Management Plan	EPA	6.3 (b)
Erosion and Sediment Control Plan	Not required	6.3 (c)

Table 1-3 Consultation outcomes for CNMP

Agency	Date provided	Comments	Where addressed
EPA	21/01/2025	EPA has reviewed this plan and has no comments at this stage	Not applicable

2 Purpose and objectives

2.1 Purpose

This Construction Noise Management Plan (CNMP) forms part of the Construction Environmental Management Plan (CEMP) for the Lidsdale Ash Dam Project (Project).

This Plan has been prepared to address requirements of Transport for NSW Construction Noise and Vibration Guideline (CNVG, 2024) and the Environmental Impact Assessment (Parsons Brinckerhoff, 2008) for the project. The plan describes how GPM will manage noise and vibration during construction. Operational management measures do not fall within the scope of this Plan and therefore are not included.

This Plan forms part of the suite of construction noise documents aiming to achieve the above objectives. The Plan:

- applies the Transport for NSW Industrial Noise Policy, 2000 (NSW Environment Protection Authority)(now NSW EPA [Noise Policy for Industry \(NPI\) 2017](#)), and Section 2.7 of the Project approval (MP07_0005- Mod 2) during the construction phase of the Project
- applies the principles of the NSW EPA Interim Construction Noise Guideline (ICNG, 2009).

This Plan summarises the requirements from the documents listed above and explains how they are to be applied in practice for the proposed works.

Noise reduction measures must be taken for all equipment or activities identified as potentially impacting noise sensitive receivers. Noise reduction measures should be aligned with the relevant Noise Hierarchy of Control categories, such as:

- avoid/reduce
- manage
- engineer.

Noise reduction (management and mitigation) measures are discussed in Section 5.

2.2 Objectives and targets

The CNMP is in alignment with the main objectives outlined in ICNG Section 1.3, the main objectives of the Guidelines are the following:

- Promote a clear understanding of ways to identify and minimise noise from construction works.
- Focus on applying all 'feasible' and 'reasonable' work practices to minimise construction noise impacts.
- Encourage construction to be undertaken only during the recommended standard hours unless approval is given for works that cannot be undertaken during these hours.
- Streamline the assessment and approval stages and reduce time spent dealing with complaints at the project implementation stage.
- Provide flexibility in selecting site-specific feasible and reasonable work practices in order to minimise noise impacts.

The CNMP:

- identifies sensitive receivers and noise and vibration management levels applying at each potentially affected receiver
- identifies and clarifies applicable project-specific construction noise and vibration management requirements under the ICNG and construction noise management, which may apply
- identifies the key noise and/or vibration generating construction activities
- identifies and recommend feasible and reasonable construction noise and vibration mitigation measures (both engineering and management controls)
- clarifies the requirements for all necessary noise and vibration monitoring
- references applicable communications strategies and requirements for responding to and effectively addressing any community noise complaints relating to construction noise and/or vibration
- outlines the requirements for maintaining records for noise and vibration monitoring and for community enquiries and complaints.

3 Potential construction impacts

When assessing and managing noise and vibration due to construction activities, the following general considerations apply:

- Airborne noise levels generated by the works, and how audible or intrusive they are at noise-sensitive receivers (both internal and external noise level may need to be assessed).
- Ground-borne or structure-borne noise, which is related to vibration energy being transferred through the ground and/or structures and being re-radiated as audible sound. Typically ground-borne noise is assessed inside buildings, while structure-borne noise may be a consideration inside buildings as well as externally (for example, if a structure radiates sound which is audible in the open environment, such as structure-radiated noise from a bridge or viaduct).
- Ground-borne or structural vibration, which is transmitted through the ground and/or structures. Humans can feel vibration at relatively low levels, and human comfort is an important consideration for the management of ground-borne vibration. At much higher levels, vibration can be associated with damage to structures, and even minor cosmetic damage such as development of cracks is to be avoided where possible. Other potentially vibration-sensitive items include highly vibration-sensitive equipment such as medical imaging equipment, or underground services such as buried pipes.

The Construction Noise Impact Assessment (CNIA) prepared as part of the EIS identified construction noise criteria in accordance with now Noise Policy for Industry (2017).

The acoustic design objectives for construction are presented in Table 3-1 below.

Table 3-1 Construction acoustic design objectives

Construction Period	Acoustic Design Objectives
>4 weeks	Received $L_{A10} < L_{a90} = 20 \text{ dB(A)}$
>4 weeks and <26 weeks	Received $L_{A10} < L_{a90} = 10 \text{ dB(A)}$
>26 weeks	Received $L_{A10} < L_{a90} = 5 \text{ dB(A)}$

Construction works are expected to be between 4 and 26 weeks in duration, the resultant adopted construction noise impact design limits would be:

- Site 1 Skelly Road - 46.5 dB(A) LA10 (36.5 dB(A) + 10 dB(A))
- Site 5 Woodlands - 47 dB(A) LA10 (37 dB(A) + 10 dB(A))

The potential noise impacts from construction works were assessed with respect to additional factors such as the social benefits of the activity, economic constraints, and the nature and duration of a proposed construction program.

The following construction activities were identified in the CNIA:

1. Re-alignment of the Sawyers Swamp Creek,
2. Kerosene Vale stabilisation works, such as:
 - a. construction of the stabilisation berm,

- b. excavation of the former pine plantation,
- c. relocation and construction of surface water management structures, and associated, concurrent construction activities.

All works are to be undertaken during daytime hours and were assessed to be compliant with the noise impact design limits. The assessment determined that the noise impact from the construction works would not be of sufficient noise level and duration to result in disturbance at the nearest potentially impacted receivers.

3.1 Indicative construction schedule

An indicative schedule for construction works has been provided in table below.

Table 3-2 Indicative Construction Schedule

Construction Noise Generated	Indicative schedule for construction works
Realignment Sawyers Swamp Creek	Q4 2025 or Q1 2026 (pending DPPI Approval).
Construction of the stabilisation berm	Works to recommence in 2026 under CoA 2.3 Construction Hours
Excavation of the former pine plantation area	Modification to conditions of approval required
Relocation and construction of surface water management structures	Works commenced and ongoing under CoA 2.3 Construction Hours
Concurrent construction activities	Works commenced and ongoing under CoA 2.3 Construction Hours

4 Environmental requirements

4.1 Regulatory requirements and compliance

4.1.1 Legislation and regulatory requirements

Table 4-1 details the legislation and planning instruments considered during development of this Plan.

Table 4-1 Relevant legislation and regulatory requirements

Legislation	Description	Relevance to this Plan
<i>Environmental Planning and Assessment Act 1979</i>	This Act establishes a system of environmental planning and assessment of development proposals for the State.	The approval conditions and obligations are incorporated into this CNMP.
<i>Protection of the Environment Operations Act 1997 (POEO Act)</i>	This Act includes all the controls necessary to regulate pollution and reduce degradation of the environment, provides for licensing of scheduled development work, scheduled activities and for offences and prosecution under this Act.	This Plan defines how the Project will manage works to comply with this Act. .

4.1.2 Guidelines and standards

Additional guidelines and standards to the management of noise and vibration include:

- NSW EPA Noise Policy for Industry (NPfI, 2017)
- NSW EPA Interim Construction Noise Guideline (2009)
- NSW EPA Assessing Vibration – a Technical Guideline (AVTG, 2006 – for human exposure)
- NSW EPA Road Noise Policy (2011)
- Transport for NSW (TfNSW) Infrastructure and Services Construction Noise and Vibration Strategy (I&S CNVS, 2018)
- TfNSW Roads and Maritime Services Construction Noise and Vibration Strategy (RMS CNVS, 2016)
- Australian Standard AS 2017-2016 Acoustics – Recommended design sound levels and reverberation times for building interiors
- Australian Standard AS 3671-1989 Acoustics – Road traffic noise intrusion – Building Siting and Construction (for guidance only; applies to siting of the receiver buildings)
- Australian Standard AS/NZS 2107:2016 Acoustics - Recommended design sound levels and reverberation times for building interiors
- Australian Standard AS/NZS ISO 3100:2009 Risk Management – Principals and Guidelines
- British Standard BS 6472-1992 Guide to evaluation of human exposure to vibration in buildings (1 Hz to 80 Hz)
- British Standard BS 7385:2-1993 Evaluation and measurement for vibration in buildings Part 2

- German Standard DIN 4150: Part 3-1999 Structural Vibration Part 3: Effects of Vibration on Structures.

The primary reference for managing noise and vibration from construction and maintenance is the Environment Protection Authority (EPA) *Interim Construction Noise Guideline* (“ICNG”, 2009).

4.2 Relevant Conditions of Approval

The relevant CoAs, and where they are addressed in this Sub-plan are provided in Table 4-2.

Table 4-2 Relevant Conditions of Approval and where they are addressed in this report

Relevant CoA	Condition of Approval	Where addressed in this plan
2.3	Construction activities associated with the project shall only be undertaken during the following hours: 7:00 am to 6:00 pm, Mondays to Fridays, inclusive 8:00 am to 1:00 pm on Saturdays at no time on Sundays or public Holidays.	Section 5.1 - Construction hours
2.4	Activities resulting in impulsive or tonal noise emission (such as rock breaking or rock hammering) shall be limited to 8:00 am to 12:00 pm, Monday to Saturday and 2:00 pm to 5:00 pm, Monday to Friday. The Applicant shall not undertake such activities for more than three continuous hours and must provide a minimum one-hour respite period.	Section 5.1 - Construction hours
2.5	Construction outside the hours stipulated in condition 2.3 of this approval is permitted in the following circumstances: a) where construction works do not cause audible noise at any sensitive receiver; or b) for the delivery of materials required outside these hours by the Police or other authorities for safety reasons; or c) where it is required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm.	Section 5.1 - Construction hours
2.6	The hours of construction activities specified under condition 2.3 of this approval may be varied with the prior written approval of the Secretary. Any request to alter the hours of construction specified under condition 2.3 shall be: a) considered on a case-by-case basis b) accompanied by details of the nature and need for activities to be conducted during the varied construction hours c) accompanied by any information necessary for the Secretary to reasonably determine that activities undertaken during the varied construction hours will not adversely impact on the acoustic amenity of sensitive receivers in the vicinity of the site.	Section 5.1 - Construction hours

Relevant CoA	Condition of Approval	Where addressed in this plan
2.7	<p>The construction noise objective for the project is to manage noise from construction activities (as measured by a LA₁₀ (15 minute) descriptor) so as not to exceed the background LA₉₀ noise level by more than 10 dB(A) at any sensitive receiver.</p> <p>Any activities that have the potential for noise emissions that exceed the objective must be identified and managed in accordance with the Construction Noise Management Plan (as referred to under condition 6.3b) of this approval). The Applicant shall implement all reasonable and feasible noise mitigation measures with the aim of achieving the construction noise objective.</p>	Section 5.2 - Noise criteria
3.1	<p>The Applicant shall prepare and implement a Construction Noise Monitoring Program to confirm the predictions of the noise assessment detailed in the document referred to under condition 1.1 of this approval and assess compliance against the construction noise criterion stipulated in condition 2.7 of this approval. The noise monitoring program shall be prepared in consultation with, and to the satisfaction of the EPA. The monitoring program shall form part of the Construction Noise Management Plan referred to in condition 6.3b) of this approval and must include monitoring of the construction noise generated during:</p> <ol style="list-style-type: none"> the realignment Sawyers Swamp Creek construction of the stabilisation berm excavation of the former pine plantation area relocation and construction of surface water management structures concurrent construction activities. <p>The Applicant shall forward to the EPA and the Secretary a report containing the results of each noise assessment and describing any non-compliance within 14 days of conducting a noise assessment.</p>	Appendix B Noise Monitoring Program
6.3	<p>b) a Construction Noise Management Plan to detail how construction noise impacts would be minimised and managed. The Strategy shall be developed in consultation with, and to the satisfaction of, the EPA and shall include, but not necessarily be limited to:</p>	Section 1.7.2 - External endorsement and approval of CEMP and sub-plans
	<p>i) details of construction activities and an indicative schedule for construction works</p>	Section 1.3 - Construction Environmental Management Plan and Sub-plans Section 5.1 - Construction hours
	<p>ii) identification of construction activities that have the potential to generate noise impacts on sensitive receivers,</p>	Section 3 Potential construction impacts
	<p>iii) procedures for assessing noise levels at sensitive receivers and compliance;</p>	Appendix B Noise Monitoring Program
	<p>iv) details of the reasonable and feasible actions and measures to be implemented to minimise noise impacts and, if any noise exceedance is detected, how any non-compliance would be rectified; and</p>	Table 5-1 Environmental Management Measures Section 5.3 - Noise control management and/or mitigation measures

Relevant CoA	Condition of Approval	Where addressed in this plan
	v) procedures for notifying sensitive receivers of construction activities that are likely to affect their noise amenity.	Table 5.1 Section 5.3 - Noise control management and/or mitigation measures

4.3 Compliance tracking

CoA 4.2 mandates a compliance tracking program to track compliance with the requirements before commencing construction. A compliance tracking tool has been prepared for internal use by GPM to ensure effective and efficient tracking of compliance.

5 Environmental Management

5.1 Construction hours

In accordance with CoA 2.3, construction activities associated with the project will only be undertaken during the hours listed below:

- 7:00 am to 6:00 pm, Mondays to Fridays.
- 8:00 am to 1:00 pm on Saturdays.
- At no time on Sundays or public holidays.

In accordance with CoA 2.4, activities resulting in impulsive or tonal noise emission (such as rock breaking or rock hammering) will be limited to:

- 8:00 am to 12:00 pm, Monday to Saturday and
- 2:00 pm to 5:00 pm, Monday to Friday.
- These activities are further restricted to no more than three (3) continuous hours with a minimum of one (1) hour respite period between activities.

Construction activities proposed outside of these hours, are only permitted under the following circumstances:

- where construction works do not cause audible noise at any sensitive receiver; or
- for the delivery of materials required outside these hours by the Police or other authorities for safety reasons; or
- where it is required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm.

CoA 2.6 allows construction hours specified under Condition 2.3 to be varied with the Secretary's prior written approval. Requests must be considered individually and include justification for the change, details of the activities and their necessity, and evidence that the altered hours will not negatively affect the acoustic amenity of nearby sensitive receivers.

The construction activities outlined in Section 1.3 will be ongoing.

5.2 Noise criteria

In accordance with CoA 2.7 the noise objective for the project is to manage noise from construction activities (as measured by a $L_{A10(15\text{ minute})}$ descriptor) so as not to exceed the background L_{A90} noise level by more than 10 dB(A) at any sensitive receiver.

Additionally, in accordance with Environmental Protection Licence 21185, noise from the Kerosene Vale Ash Repository premise must not exceed 40 dB(A) LAeq (15-minute) at the nearest sensitive receiver.

Compliance is to be determined at the most affected location within the residential boundary, or within 30 m of a dwelling in rural settings, with adjustments applied for tonal, impulsive, or intermittent noise in accordance with the NSW Industrial Noise Policy.

Noise limits associated with the EPL apply under specified meteorological conditions, including moderate wind and temperature inversion scenarios, and do not apply where a negotiated noise agreement exists between the licensee and affected residents, provided the EPA is notified.

5.3 Noise control management and/or mitigation measures

Management actions to minimise construction noise impacts are provided in Table 5-1. Additionally, further management system activities are detailed in Section 6.

Table 5-1 Environmental Management Measures

Relevant aspect	Management measure	Source of requirement	Frequency	Relevant records	Responsibility
Notification	Sensitive receivers will be notified of construction activities that are likely to affect their noise amenity. Notifications will include letterbox drops carried out between 5 and 14 days prior to the commencement of the construction activities expected to impact sensitive receivers.	CoA 6.3b) v	As required	Consultation records & Quarterly monitoring reports	GPM
Permissible working hours	Construction activities associated with the project will only be undertaken during the following hours: a) 7:00 am to 6:00 pm, Mondays to Fridays, inclusive; b) 8:00 am to 1:00 pm on Saturdays; and c) at no time on Sundays or public holidays.	CoA 2.3	At all times during construction	Noise monitoring records	GPM
Permissible working hours	Activities resulting in impulsive or tonal noise emission (such as rock breaking or rock hammering) will be limited to <ul style="list-style-type: none"> 8:00 am to 12:00 pm, Monday to Saturday and 2:00 pm to 5:00 pm, Monday to Friday. GPM will not undertake such activities for more than three continuous hours and must provide a minimum one-hour respite period.	CoA 2.4	Daily	Site inspection checklist	Contractor
Permissible equipment	All equipment and plant used on the Lidsdale Ash Repositories will <ul style="list-style-type: none"> meet the typical noise levels presented in AS 2436. be properly maintained, kept in good working order, and operated efficiently. Unusually noisy equipment will be investigated and rectified as soon as practicable.	CoA 3.1	Daily	Site inspection checklist	Contractor
General requirement	The distance between noisy plant, equipment and sensitive receptors will be maximised where practicable.	Best Practice	Daily	Site inspection checklist	Contractor
Training and Inductions	Noise issues shall be discussed as part of routine 'toolbox' talks to keep staff aware of current care and maintenance activities and potential noise issues.	CoA 3.1	Daily or as required	Toolbox talk meeting minutes	Contractor

Relevant aspect	Management measure	Source of requirement	Frequency	Relevant records	Responsibility
Training and Inductions	Noise reduction techniques applied to trucks will be routinely inspected and maintained to ensure required operational efficiency.	CEMP	As required by manufacturers or following complaints	Site inspection checklist	Contractor
Noise Criteria	Works will be planned and implemented to achieve the construction noise emission objectives: <ul style="list-style-type: none"> background LA90 noise level by more than 10 dB(A) at any sensitive receiver, as measured by a LA10 (15 minute) descriptor. 	CoA 2.7	During normal conditions	Noise monitoring records	GPM
Monitoring	<p>Attended noise monitoring will be conducted periodically (quarterly) at sensitive receivers, following complaints, or when new/amended construction activities are identified as high-risk activities.</p> <p>Ambient noise monitoring will occur at residential locations identified in the Noise Monitoring Program (including Skelly Road, Neubeck Street, Wolgan Road) to record 15-minute noise levels.</p> <p>Note: See the Noise Monitoring Program, Appendix B, for details.</p>	CoA 6.3b)	As required in response to complaints or change in construction.	Quarterly noise monitoring reports	GPM Specialised consultant/ Contractor

Relevant aspect	Management measure	Source of requirement	Frequency	Relevant records	Responsibility
Reporting	<p>Non-compliances</p> <p>The Secretary will be notified in writing via the Major Projects website within seven (7) days of GPM becoming aware of any non-compliance.</p> <p>Notifications will identify the development and application number, specify the relevant approval condition, describe the nature and cause of the non-compliance (if known), and outline actions taken or proposed to address it.</p> <p>Incidents</p> <p>The Secretary will be notified immediately upon GPM becoming aware of any incident.</p> <p>Notifications will include the project and application number; date, time, and location of the incident; a brief description and rationale for its classification; how and when it was detected; any actual or potential non-compliance; immediate and planned corrective actions; and a project contact for follow-up.</p> <p>Notifications are required even if prior notifications under Condition 7.1 were not provided or if it is later determined that an incident did not occur.</p> <p>Within 30 days of the incident (or as otherwise agreed by the Secretary), a detailed Incident Report will be submitted to the Secretary and any relevant public authorities.</p> <p>The report will summarise the incident, present investigation findings including the cause, outline corrective and preventative actions, and document communications with stakeholders.</p> <p>All subsequent notifications and reports must comply with the requirements set out in Appendix 3 of the Project Approval.</p>	<p>CoA C.1, C.2, 7.1, 7.2</p> <p>Planning Approval (07_0005) Appendix 3</p>	As required	If required	GPM
Reporting	<p>The Annual Review will be submitted to the Secretary complete with quarterly construction noise monitoring data gathered throughout the year.</p> <p>The EPA and the Planning Secretary will receive the noise monitoring report containing the results of each noise assessment and describing any non-compliance within 14 days of conducting a noise assessment.</p>	<p>CoA 7.3, CoA 3.1</p>	Annually	Annual Review	GPM

Relevant aspect	Management measure	Source of requirement	Frequency	Relevant records	Responsibility
Reporting	An Annual Return will be submitted in accordance with EPL 21185 and the EPA publication A Guide to Licensing within 60 days of each reporting period. With an anniversary date of 14 September, the Return is due by 13 November each year and it must include a Statement of Compliance and a summary of all required monitoring (including complaint records) in line with condition R1 of the licence.	EPL 21185	Annually	Annual Return	GPM
Review and Improvement	<p>GPM will review and, if necessary, revise the Construction Noise Management Plan and associated Monitoring Program to the satisfaction of the Secretary within three months of:</p> <ul style="list-style-type: none"> the submission of an incident report under CoA 7.1 the submission of an Annual Review under CoA 7.3 the submission of an Independent Environmental Audit under CoA 4.2 the modification of the conditions of this approval (unless the CoAs require otherwise). <p>Where this review leads to revisions in any such document, then within 4 weeks of the review, GPM will submit the revised document to the Secretary for approval, unless otherwise agreed with the Secretary.</p>	CoAs 2.18, 3.2 and 6.6	As required	Noise Management Sub-Plan revision	GPM

6 Further Management Obligations

6.1 Environmental Noise Monitoring

Monitoring for the project will be undertaken at designated receiver locations in Lidsdale, NSW, with positions outlined in Table B1 and Figure B1 in the Construction Noise Monitoring Program (Appendix B). These monitoring sites include Skelly Road, the corner of Sawyers Road and Skelly Road, Maddox Lane, and the end of Nuebeck Street.

Compliance with construction noise criteria will be determined by ensuring construction noise does not exceed the background LA90 noise level by more than 10 dB(A) over a 15-minute period at sensitive receivers.

Where activities risk exceeding these objectives, management measures from the CNMP will be applied. Complaint-driven monitoring will be conducted at the complainant's property or the nearest representative site.

The methodology for monitoring draws on the Construction Noise Impact Assessment (CNIA), which established background noise levels using both long-term unattended and operator-attended noise monitoring. Equipment used for the CNIA complied with Australian Standards and was NATA-certified, and measurements were representative of local conditions and accounted for influences such as traffic from the Castlereagh Highway, WPS industrial operations, and natural sources like wind through vegetation. Noise levels showed typical daily patterns, with quieter night periods but elevated evening levels due to road traffic. Attended monitoring followed AS1055 and EPA requirements, with specific observations of truck pass-bys and industrial hum from WPS operations.

Construction work hours are restricted to weekdays 7:00 am–6:00 pm, Saturdays 8:00 am–1:00 pm, with no work permitted on Sundays or public holidays.

Noisy activities like rock breaking are limited to specific times, and continuous work cannot exceed three hours without at least one-hour respite. Noise monitoring will be carried out quarterly during construction works, specifically ensuring that, in accordance with CoA 3.1, construction noise monitoring is undertaken during the following construction activities:

- the realignment Sawyers Swamp Creek;
- construction of the stabilisation berm;
- excavation of the former pine plantation area;
- relocation and construction of surface water management structures; and
- concurrent construction activities.

The results will be compiled into reports submitted to the NSW EPA and the Planning Secretary

Any non-compliance shall be reported within prescribed timeframes, and additional monitoring will be triggered in response to community complaints.

6.2 Incidents, non-compliances and corrective action

The following definitions are relevant:

- **'Incidents'** are defined as: "A set of circumstances that causes or threatens to cause material harm to the environment, and/or breaches or exceeds the limits or performance measures/criteria in this approval."

- **'Non-compliances'** are defined as: "An occurrence, set of circumstances or development that is a breach of this approval but is not an incident."

All non-compliances will be recorded in the appropriate registers and stored electronically i.e. site inspection checklists, auditing reports, complaints register. The non-compliance will be investigated and managed by the Environment Manager (or delegate) until compliance is achieved.

If a noise exceedance is recorded, the result will be checked and verified, the source will be investigated / identified, and controls applied. Corrective measures may include limiting simultaneous noisy works, installing, relocating or maintaining equipment, or rescheduling high-noise activities to less sensitive times. Toolbox talks and closer supervision may also be required to reinforce best practice.

Incident and non-compliance response and notification is outlined in Section 2.10 of the CEMP. Incident notification to the Department will be in writing via the Major Projects website immediately after GPM becomes aware of an incident, in accordance with CoA 7.1. Non-compliance notification to the Department will be in writing via the Major Projects website within seven days after GPM becomes aware of any non-compliance, in accordance with CoA 7.2.

Community engagement and follow-up monitoring may be required depending on the level of impact. Additional attended monitoring will be conducted to confirm the effectiveness of any additional controls. All actions will be documented in a Corrective Action Register and reported to Regulators where required. Corrective actions will be recorded on the site inspection checklist as per Appendix A of the CEMP.

6.3 Reporting

Environmental monitoring for the Lidsdale Ash Repository area is designed to comply with the requirements of statutory approvals and provide an analysis of the condition of the environment surrounding the works.

An overview of the environmental monitoring activities for the project area specified under Section 4.3 of the CEMP.

Quarterly noise monitoring reports will be prepared during construction works. These monitoring reports will be forwarded to DPHI and EPA within 14 days of conducting noise monitoring.

Further monitoring will also be undertaken in the event of complaints being raised, that are relevant to construction noise.

Noise monitoring results will be incorporated into the Annual Environmental Management Report (AEMR) which will be submitted to the Secretary each year.

An Annual Return shall be submitted in accordance with EPL 21185 and the EPA publication *A Guide to Licensing* within 60 days of each reporting period. With an anniversary date of 14 September, the Return is due by 13 November each year and it must include a Statement of Compliance and a summary of all required monitoring (including complaint records) in line with condition R1 of the licence.

6.4 Review and improvement

A review of the CEMP, sub-plans (including this CNMP) and monitoring programs will be undertaken to determine the efficiency of the plans and monitoring programs and whether any changes are required to ensure compliance.

Circumstances which may trigger a review include:

- changes to design, construction, work methods, legislation, or policy
- incidents, complaints or non-compliance
- changes identified by continuous improvement
- changes to key management plans that are relevant
- where additional monitoring measures are identified in annual reviews or audits.

In addition, and in accordance with CoA 6.6, GPM will review and, if necessary, revise the studies, strategies and plans required under the conditions of approval to the satisfaction of the Secretary within three months of:

- the submission of an incident report under CoA 7.1
- the submission of an Annual Review under CoA 7.3
- the submission of an Independent Environmental Audit under CoA 4.2
- the modification of the conditions of this approval (unless the CoAs require otherwise).

Where this review leads to revisions in any such document, then within 4 weeks of the review, GPM will submit the revised document to the Secretary for approval, unless otherwise agreed with the Secretary.

A copy of the updated plans and changes will be distributed to all relevant personnel and discussed at pre start and toolbox talks.

6.4.1 Continuous improvement

Continuous improvement of this Plan will be achieved by the ongoing evaluation of environmental management performance against environmental policies, objectives and targets for the purpose of identifying opportunities for improvement.

Appendix A: ER Endorsement

31 March 2026

John Pola
Environmental Manager
Generator Property Management
110 Skelly Road
Lidsdale NSW 2790

**Re: MP07_0005 - Wallerawang Ash Dam Areas - Environmental Representative Endorsement
- Construction Noise Management Plan Rev 4**

Dear John,

Following a review of the documents provided for the Construction Noise Management Plan (CNMP) Rev 4 following consultation, I can provide the following endorsement.

The CNMP Rev 4 has been reviewed against the Mod 2 Consolidated Conditions of Approval, in particular Condition 6.5a. Consultation with NSW EPA is complete for this plan and has been incorporated in this document. DPHI comments have been addressed following consultation.

All conditions of approval and mitigation measures are contained in the CNMP Rev 4.

The document is endorsed for submission to DPHI for approval.

Yours sincerely



David Bone
Independent Environmental Representative
dbone@emmconsulting.com.au

Appendix B: Noise Monitoring Program

1.0 Introduction

The purpose of this Program is to confirm the predictions of the noise assessment detailed in the EIS prepared by Parson Brinckerhoff (April, 2008) and describe a method for how these predictions will be confirmed.

The Program has been developed in accordance with CoA 3.1, which states:

Construction Noise Monitoring

3.1 *The Applicant shall prepare and implement a Construction Noise Monitoring Program to confirm the predictions of the noise assessment detailed in the document referred to under condition 1.1 of this approval and assess compliance against the construction noise criterion stipulated in condition 2.7 of this approval. The noise monitoring program shall be prepared in consultation with, and to the satisfaction of the EPA. The monitoring program shall form part of the Construction Noise Management Plan referred to in condition 6.3b) of this approval and must include monitoring of the construction noise generated during:*

- a) *the realignment Sawyers Swamp Creek;*
- b) *construction of the stabilisation berm;*
- c) *excavation of the former pine plantation area;*
- d) *relocation and construction of surface water management structures; and*
- e) *concurrent construction activities.*

The Applicant shall forward to the EPA and the Secretary a report containing the results of each noise assessment and describing any non-compliance within 14 days of conducting a noise assessment.

The Program addresses potential noise impacts on sensitive receivers arising from:

1. Re-alignment of the Sawyers Swamp Creek,
2. Kerosene Vale stabilisation works, such as
 - a. construction of the stabilisation berm,
 - b. excavation of the former pine plantation,
 - c. relocation and construction of surface water management structures, and associated, concurrent construction activities.

The Noise Monitoring Program has been designed to address complaint investigations, ongoing monitoring, and post-commissioning requirements. It has been developed in consultation with the NSW EPA.

Whilst the NSW EPA do not generally provide confirmation that Plans, Reports or Programs are to their 'satisfaction', they did confirm that they have no further comments on the Program. A copy of the EPA's consultation letter is provided in Appendix C.

2.0 Monitoring Criteria and Locations

In accordance with CoA 2.7 the noise objective for the project is to manage noise from construction activities (as measured by a LA10 (15 minute) descriptor) so as not to exceed the background LA90 noise level by more than 10 dB(A) at any sensitive receiver.

Additionally, in accordance with Environmental Protection Licence 21185, noise from the Kerosene generator (as measured by a LA10 (15 minute) descriptor) is not to exceed the background LA90 noise level by more than 10 dB(A) at the nearest sensitive receiver.

Compliance is to be determined at the most affected location within the residential boundary, or the nearest residential premises to the construction site for tonal noise or intermittent noise in accordance with the NSW Industrial Noise Policy.

Noise limits associated with the EPL apply under specified meteorological conditions, including moderate wind and temperature inversion scenarios, and do not apply where a negotiated noise agreement exists between the licensee and affected residents, provided the EPA is notified.

Site monitoring locations are detailed in Table B1 and shown on Figure B1. It should be noted that Figure B1 shows actual monitoring positions, not necessarily the location of residences.

Table B1 Attended noise monitoring locations

Descriptor	Description	Coordinates (MGA 56)	
		Easting	Northing
Location A	Skelly Road, Lidsdale NSW	229052	6301209
Location B	Corner Sawyers Road and Skelly Road, Lidsdale NSW	228899	6301470
Location C	End of Nuebeck Street, Lidsdale NSW	228982	6301813
Location D	Maddox Lane, Lidsdale, NSW	229111	6302676

Noise monitoring for the determination of compliance with the construction noise criterion will be undertaken at the identified receiver locations.

Noise monitoring as part of complaint investigation will be undertaken at the complainant property or nearest representative location.

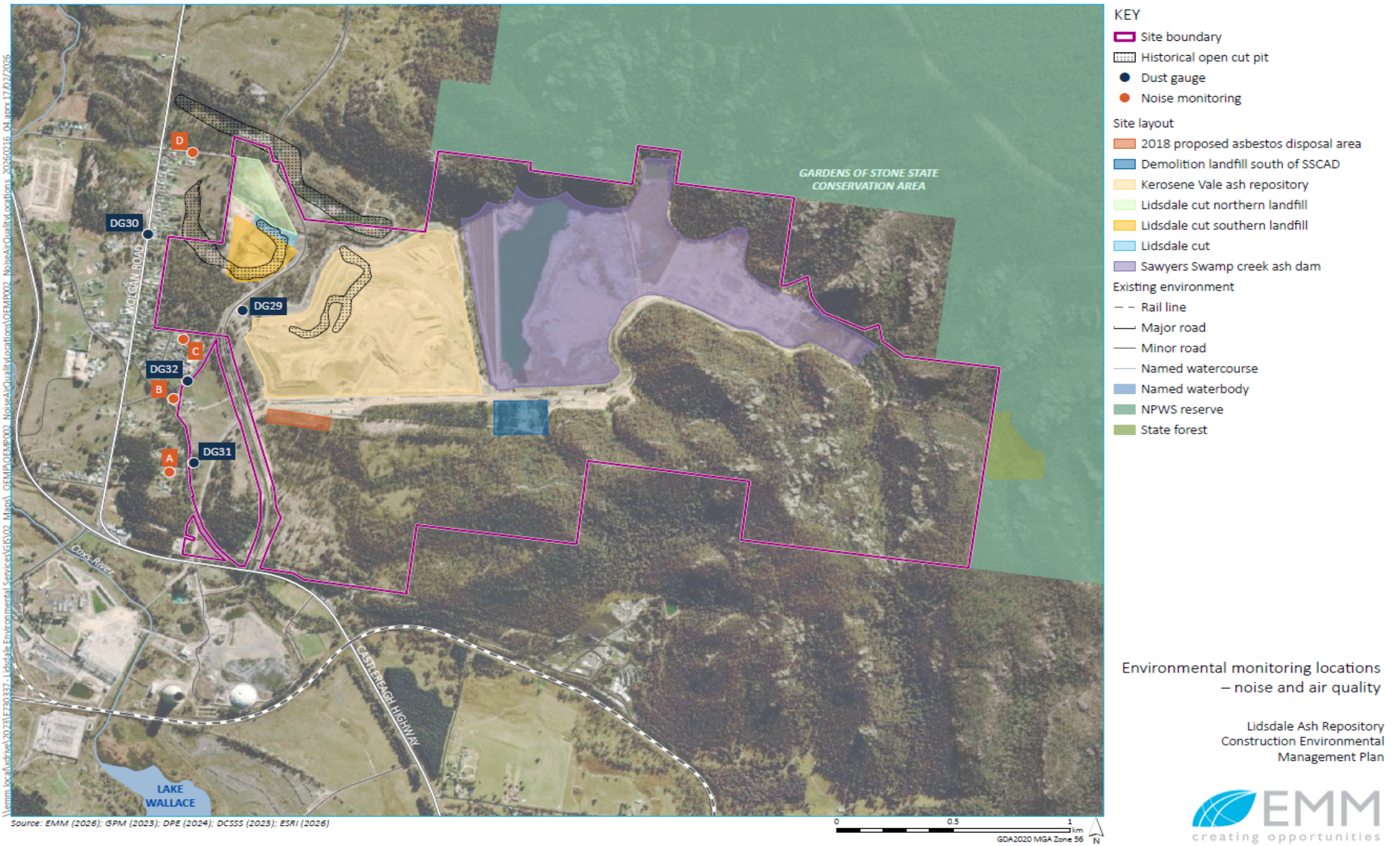


Figure B1 Environmental monitoring locations

3.0 Methodology

Attended environmental noise monitoring will be done in general accordance with Australian Standard AS1055 'Acoustics, Description and Measurement of Environmental Noise' and relevant NSW EPA requirement.

Attended noise monitoring will be conducted during the day and evening period at each location while there are construction works occurring. The attended noise monitoring instruments shall be set on A-weighted, fast response and noise levels will be logged over fifteen-minute statistical intervals. The instrument set shall comply with AS1259 Sound Level Meters. Atmospheric conditions will be measured at each monitoring location.

Pre-measurement and post-measurement calibrations will be carried out to determine any significant variances observed in the reference signal. NATA calibration of sound level meters is to occur every two years and is not tied to the measurement period. Calibrators are to be NATA calibrated yearly.

A list of plant and machinery that were active at the time of monitoring will be reviewed alongside noise monitoring results to confirm the predictions of the CNIA.

4.0 Frequency

Noise monitoring will be carried out at least quarterly during construction works, specifically ensuring that, in accordance with CoA 3.1, construction noise monitoring is undertaken during the following construction activities:

- the realignment Sawyers Swamp Creek;
- construction of the stabilisation berm;
- excavation of the former pine plantation area;
- relocation and construction of surface water management structures; and
- concurrent construction activities.

Monitoring will be undertaken will also be undertaken in response to complaints.

5.0 Reporting

A Noise Monitoring Report, detailing the results of each assessment and identifying any non-compliance, will be submitted to the NSW EPA and the NSW DPHI Planning Secretary within 14 days of completing the assessment.

The Secretary will be notified in writing via the Major Projects website within 7 days of GPM becoming aware of any non-compliance.

If required, further noise monitoring will be undertaken in the event of adverse community comment or complaint from construction noise from the site.

Appendix C: EPA Letter



Our ref: DOC25/12774-1

John Pola
Safety and Environment Manager
Generator Property Management Pty Ltd

By email: john.pola@gpm.com.au

Dear John,

**POST APPROVAL MANAGEMENT PLANS – KEROSENE VALE ASH REPOSITORIES
Generator Property Management – EPL 21185**

I refer to your request via the Department of Planning, Housing and Infrastructure (DPHI) for advice from the Environment Protection Authority (EPA) on the Construction and Operational Noise Management Plans, and the Air Quality Management Plan for the former Kerosene Vale Ash Repositories site (the Premises), Environment Protection Licence (EPL 21185).

In preparing this advice, the EPA has included a review of the following documents:

- *'Generator Property Management: Construction & Operational Noise Management Plan – Lidsdale Ash Repository 2024, November 2024'*.
- *'Generator Property Management: Operational Air Quality Management Plan – Lidsdale Ash Repository 2024, November 2024'*.

For your information, the EPA does not endorse Environmental Management Plans (EMPs) given the role of the EPA in developing conditions and criteria for environmental protection and management. The EPA does however encourage the development of EMPs and programs to ensure that proponents have determined how they will meet their statutory obligations and environmental objectives as specified by any Project Approval and/or conditions of an environment protection licence.

The EPA has reviewed the management plans as provided and has no comments at this stage. The EPA will continue to review any additional management plans as required.

If you have any further questions about this matter, please contact Allan Adams, Senior Operations Officer, Environment Protection Authority on 6333 3804, or at info@epa.nsw.gov.au.

Yours sincerely,

LUCY APPS
Unit Head
Environment Protection Authority

21 January 2025

NSW Environment Protection Authority
As the environmental steward and regulator of our State we are committed to a sustainable future.
Join us on our mission to protect tomorrow together.

Phone:
131 555
Email:
info@epa.nsw.gov.au
Website:
epa.nsw.gov.au

Visit:
6 Parramatta Square
10 Darcy Street
Parramatta NSW 2150
Mail:
PO Box 1388, Bathurst
NSW 2795



Appendix G Construction Erosion and Sediment Control Plan

Lidsdale Ash Dam Repository

Construction Erosion and Sediment Control Plan

Prepared for Generator Property Management Pty Ltd

March 2026

Lidsdale Ash Dam Repository

Construction Erosion and Sediment Control Plan

Generator Property Management Pty Ltd

E230337 1

March 2026

Version	Date	Prepared by	Reviewed by	Approved by
Draft V0.1	12 November 2024	Sofia Stergio Wayne Walshe	Phil Towler	Wayne Walshe
Final V1.0	29 November 2024	Lachlan Hamersley, Wayne Walshe	Wayne Walshe	John Pola
V2	8 August 2025	Zainab Ahmed	Nadia Eisenlohr	John Pola
V3	18 September 2025	Zainab Ahmed	Nadia Eisenlohr	John Pola
V4	31 March 2026	Zainab Ahmed	Nadia Eisenlohr	John Pola

Approved by



John Pola

GPM Manager Environment

31 March 2026

This report has been prepared in accordance with the brief provided by Generator Property Management Pty Ltd and, in its preparation, EMM has relied upon the information collected at the times and under the conditions specified in this report. All findings, conclusions or recommendations contained in this report are based on those aforementioned circumstances. This report is to only be used for the purposes for which it has been provided. Except as permitted by the Copyright Act 1968 (Cth) and only to the extent incapable of exclusion, any other use (including use or reproduction of this report for resale or other commercial purposes) is prohibited without EMM's prior written consent. Except where expressly agreed to by EMM in writing, and to the extent permitted by law, EMM will have no liability (and assumes no duty of care) to any person in relation to this document, other than to Generator Property Management Pty Ltd (and subject to the terms of EMM's agreement with Generator Property Management Pty Ltd).

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ABN: 28 141 736 558

Glossary/Abbreviations

Abbreviation	Expanded text
Approval	Approval Modification MP07_005-Mod 2
CEMP	Construction Environmental Management Plan
CESCP	Construction Erosion and Sediment Control Plan
CPESC	Certified Professional in Erosion and Sediment Control
CoAs	Conditions of approval
Minister, the	Minister of the NSW Department of Planning and Environment (or delegate)
DPHI	NSW Department of Planning, Housing and Infrastructure
DS Act	NSW Dams Safety Act 2015 No 26
EPA	NSW Environment Protection Authority
EMS	Environmental Management System
EMMs	Environmental Management Measures as outlined in the project EIS documentation.
Environmental incident	A set of circumstances that causes or threatens to cause material harm to the environment, and/or breaches or exceeds the limits or performance measures/criteria in this approval.
Environmental Representative (ER)	A suitably qualified and experienced person independent of project design and construction personnel employed for the duration of construction. The principal point of advice in relation to all questions and complaints concerning environmental performance.
EP&A Act	<i>Environmental Planning and Assessment Act 1979 (NSW)</i>
EPL	Environment Protection Licence
GPM	Generator Property Management Pty Ltd
KVAD	Kerosene Vale Ash Dam
KVAR	Kerosene Vale Ash Repository (dry stacked as on top of KVAD)
LADR	Lidsdale Ash Dam Repository
LCC	Lithgow City Council
LDP	Licensed Discharge Point
LDCP	<i>Lithgow Development Control Plan 2021</i>
LGA	Local Government Area
Non-compliance	An occurrence, set of circumstances or development that is a breach of the approval but is not an incident.
OEMP	Operational Environmental Management Plan
Principal, the	GPM
POEO Act	<i>Protection of the Environment Operations Act 1997 (NSW)</i>
Secretary	Secretary of the Department of Planning or their Nominee
SSCAD	Sawyers Swamp Creek Ash Dam

Abbreviation	Expanded text
TfNSW	Transport for New South Wales
WPS	Wallerawang Power Station

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1 Introduction

The Lidsdale Ash Dam Repository (LADR), formerly known as the Wallerawang Ash Repository, is located at Skelly Road, Lidsdale NSW (the Site) and is approximately 15 kilometres (km) northwest of Lithgow and 2.5 km north-east of Wallerawang Power Station (WPS). The Site comprises an area of approximately 528 hectares (ha) and is situated primarily on Lot 5 of Deposited Plan 829137.

The Site includes several distinct components, including:

- The Kerosene Vale Dry Ash Repository (KVAR) and underlying former Kerosene Vale Ash Dam (KVAD)
- Sawyers Swamp Creek Ash Dam (SSCAD)
- Lidsdale Cut and adjacent asbestos landfills
- WPS Asbestos demolition landfill south of the SSCAD.

The site location and general layout are shown in Figure 1.1.

The Site has been used since the 1950s to store ash and other wastes generated by the Wallerawang Power Station. Site operations started prior to the commencement of the *Environmental Planning and Assessment Act 1979* (EP&A Act), when the WPS and associated facilities were owned by the NSW Government.

Ownership and responsibility for the Site was transferred from Energy Australia NSW Pty Ltd to Generator Property Management Pty Limited (GPM) in September 2020. GPM's objectives at the Site include closure of the operational facilities and the rehabilitation and management of the site in general including the KVAR and the SSCAD.

This Construction Erosion and Sediment Control Plan (CESCP) is a sub-plan to the Construction Environmental Management Plan (CEMP) which has been developed to ensure the care and maintenance of the site are carried out responsibly and in accordance with the relevant Conditions of Approval (CoAs) and any other requirements.

GPM and its contractors are also undertaking operation activities that will be managed under the Site's Operational Environmental Management Plan (OEMP).

1.1 Background to the Lidsdale Ash Repository

The Lidsdale Site was originally farmland that was gradually turned into mining premises during the late 1800s into the early 20th century. The Kerosene Vale mines were originally a series of open cut operations that changed to underground mines using portals driven under the northern escarpment.

The original ash placement operations were at the KVAD. The mining void was filled with ash transported from the WPS as a slurry (i.e. wet ash placement). When the KVAD was full, it was capped with a clay capping and then ash placement operations began at the SSCAD, which saw wet ash placement take place from 1980 to 2003. The SSCAD is still used to manage site water requirements with water levels managed by irrigation for dust suppression and other onsite water uses to prevent discharge to Sawyers Swamp Creek. When required, water is transferred for treatment via a Caustic Injection Plant, clarified and discharged through a licenced discharge point (LDP3). The SSCAD is a declared dam under the NSW [Dams Safety Act 2015 No 26](#) (DS Act) and is subject to regular surveillance and monitoring by certified engineers in accordance with the DS Act.

The need to further develop the KVAR area to maintain power-generation operations at WPS was identified in 2001. The existing wet ash storage area (i.e. the SSCAD) was approaching its design capacity and the placement of dry ash at the KVAR was identified as a viable alternative. Conversion from wet to dry ash placement aimed to minimise environmental and social impacts potentially resulting from heavy metal accumulation. The extent of both stages is outlined in Figure 1.1.

It is noted that the Site has recently been formally Declared under the *Contaminated Land Management Act* (CLM Act) by the EPA and is subject to a Voluntary Management Plan requiring detailed and extensive investigations that will guide long term works on the SSCAD and may require additional works on the Site that would be subject to further approval.

1.2 Relevant project approval

In 2002, Project Approval was granted by the then Minister of Planning to change from wet to dry ash-producing activities and to use the KVAR area for dry ash storage.

The placement of ash on the Repository was developed in two stages:

- Stage 1: Comprises about one third of the area associated with the repository site and located on the south-western section of the site, this area was designed to operate for a period of 5 years and reached its design capacity and has been capped.
- Stage 2: Comprises the remainder the repository site, covering an area from the open face of the Stage 1 area to the edge of the original storage area. This stage was designed to operate about 10 years, depending on actual ash production rates.

On 26 November 2008, Project Approval (07_0005) was granted by the then Minister of Planning for the extension of the existing KVAR area to permit the continued disposal of ash generated by the WPS under Part 3A (now repealed) of the EP&A Act 1979. The KVAR Stage 1 placement works were completed and capped in February 2009. The KVAR Stage 2 placement works commenced soon after in April 2009.

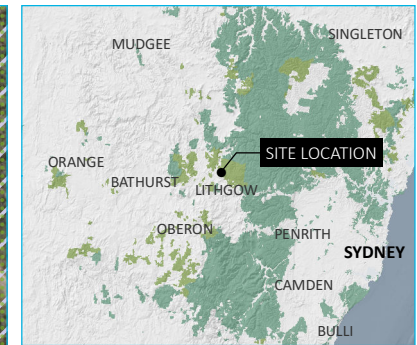
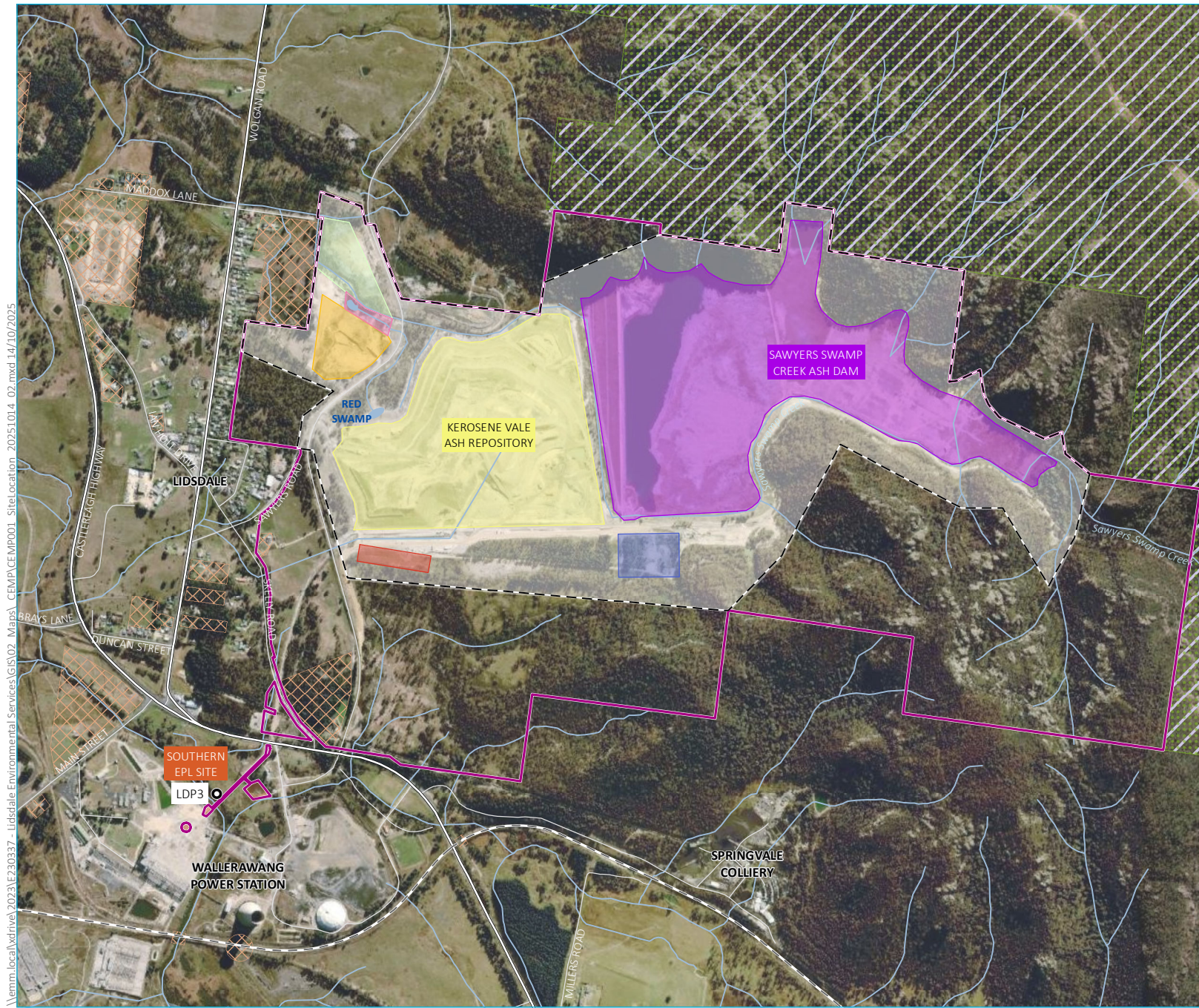
In January 2014, WPS's Unit 7 was removed from service and deregistered from the market; whilst in March 2014, Unit 8 was placed in long term storage. However, in November 2014, EnergyAustralia NSW announced that Unit 8 was to be removed from service and the WPS deregistered from the market.

WPS ceased energy production in April 2014 and is currently being decommissioned and dismantled. The bulk transport and disposal of ash to the KVAR ceased following the closure of the WPS. The Lidsdale Ash Repository is currently being managed in a care and maintenance arrangement. Environmental studies and investigations are currently underway to support GPM's safe decommissioning, demolition, rehabilitation and management of ongoing regulatory and contractual obligations associated with the Lidsdale Ash Repository area.

Modification 1 to 07_005 was approved on 9 August 2018 under section 75W of the EP&A Act. This was to allow for the importation of clean fill (virgin excavated natural material and excavated natural material for use in the final shaping and capping of KVAR and SSCAD over two years. This modification included a revised project area that extended the originally approved project to include the area covered by SSCAD.

Modification 2 to 07_005 was approved on 13 October 2023 under section 96(1A) of the EP&A Act. This was to allow for the importation of fill over an additional 10 years (i.e. until 13 October 2033).

The most complete description of the onsite activities was provided in the original *Kerosene Vale Stage 2 Ash Repository Area Environmental Assessment* prepared by Parsons Brinckerhoff in April 2008. This focused on the ongoing ash management without providing any details of site rehabilitation requirements when the power station closed. However, it did include the realignment of a section of Sawyers Swamp Creek to allow the structural earthworks required to achieve an acceptable factor of safety against failure of the ash stockpiles during earthquakes. The subsequent modification applications focussed on the potential impacts of the importation of fill material, rather than on activities within the Site where the material would be utilised.

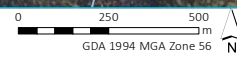


- KEY**
- Site boundary
 - VMP – Declaration Area Boundary
 - Licenced discharge point
 - 2018 proposed asbestos disposal area
 - Demolition landfill south of SSCAD
 - Kerosene Vale ash repository
 - Lidsdale cut northern landfill
 - Lidsdale cut southern landfill
 - Lidsdale cut
 - Sawyers Swamp Creek ash dam
 - Southern EPL site
- Heritage items**
- National Heritage list
 - Heritage area (LEP)
- Existing environment**
- Rail line
 - Major road
 - Minor road
 - Watercourse/drainage line
 - Named waterbody
 - State forest
- INSET KEY**
- Major road
 - NPWS reserve
 - State forest

Site location

Lidsdale Ash Repository
Construction Environmental Management Plan
Figure 1.1

Source: EMM (2024); DFSI (2017); GA (2011); ASGC (2006); ESRI (2024); DPE (2017)



1.3 Construction and Operational Environmental Management Plan and Sub-plans

CoA 6.2 requires the applicant to develop CEMP that outlines the environmental management practices and procedures to be followed during construction, while CoA 6.3 requires the preparation and implementation of the following plans as sub-plans of the CEMP:

- Construction Traffic Management Plan
- Construction Noise Management Plan
- Construction Erosion and Sediment Control Plan (CESCP)

In addition, CoA 6.4 requires the applicant to prepare and implement an OEMP. This is a separate document to the CEMP that covers the routine operations of the site outside the specific construction activities identified in Table 1.1 below. As part of the OEMP, CoA 6.5 requires the preparation and implementation of the following plans as sub-plans to the OEMP:

- Operational Noise Management Plan
- Operational Groundwater Management Plan
- Operational Surface Water Management Plan
- Operational Air Quality Management Plan
- Operational Landscape/Revegetation Management Plan
- Operational Transport Management Plan.

Table 1.1 provides a high-level overview of the proposed activities that are covered by the CEMP and those covered by the OEMP. Further information on the scope of this plan is provided in Section 1.4.

Table 1.1 Activities covered by the CEMP and OEMP

Environmental Management Plan	Activities covered
CEMP – construction activities	<ul style="list-style-type: none"> • Construction of reinforcement berms around the perimeter of the KVAR • Sawyers Swamp Creek realignment • Sediment control and water storage works associated with construction on the edge of the KVAR and realignment of the creek • Construction of a Material Delivery area adjacent to access road and associated sediment controls and water storage works • Establishment of access roads onto the surface of the SSCAD and associated roads across the dam surface • Establishment of freshwater collection ponds on the northern edge of SSCAD • Rearrangement of water flows around the KVAR • Reinstatement of environmental controls for historic landfill areas including capping of slumped areas, reprofiling for water management and control of sediment runoff during these activities
OEMP – care and maintenance operations	<ul style="list-style-type: none"> • ash haulage, placement and management • management of on-site water systems • capping material haulage, placement and management • landscaping and revegetation/rehabilitation of the site

Environmental Management Plan	Activities covered
	<ul style="list-style-type: none"> • upgrading and maintaining internal access roads in the project area

1.4 Scope of this Sub-plan

This CESCP has been prepared to describe the overarching soil and water management design approach for the development and to provide erosion and sediment control guidance and standards for the construction of the development.

1.5 Environmental management system overview

GPM’s Environmental Management System (EMS) is based on AS/NZS ISO 14001. The ISO 14001 standard provides best practice specifications for the implementation of an EMS. An EMS provides a framework for managing the company’s environmental responsibilities so that they are integrated into overall operations. The standard approach integrates environmental management and supports the company’s compliance with legislated and voluntary environmental requirements, as well as continuously improving their overall environmental performance.

The relevant environmental standard ensures a consistent approach is undertaken to integrate environmental management at all levels of the organisation by:

- identifying and maintaining awareness of relevant environmental legislation
- assignment of roles and responsibilities
- establishment of procedures for internal and external communications
- establishment of procedures for monitoring and measuring environmental performance
- setting and reviewing objectives and targets for improving environmental performance
- monitoring and measuring environmental compliance and community inquiries
- setting and reviewing management system programs for achieving objectives and targets
- provision of environmental training aligned to skill requirements
- review of EMS performance for continual improvement.

This CESCP has been developed to be consistent with the relevant provisions of GPM’s EMS, including approvals and license as noted above. The CEMP and OEMP will also be consistent with the EMS.

A summary of the EMS and its interaction with the CEMP, the OEMP and their respective sub-plans is provided in Figure 1.2.

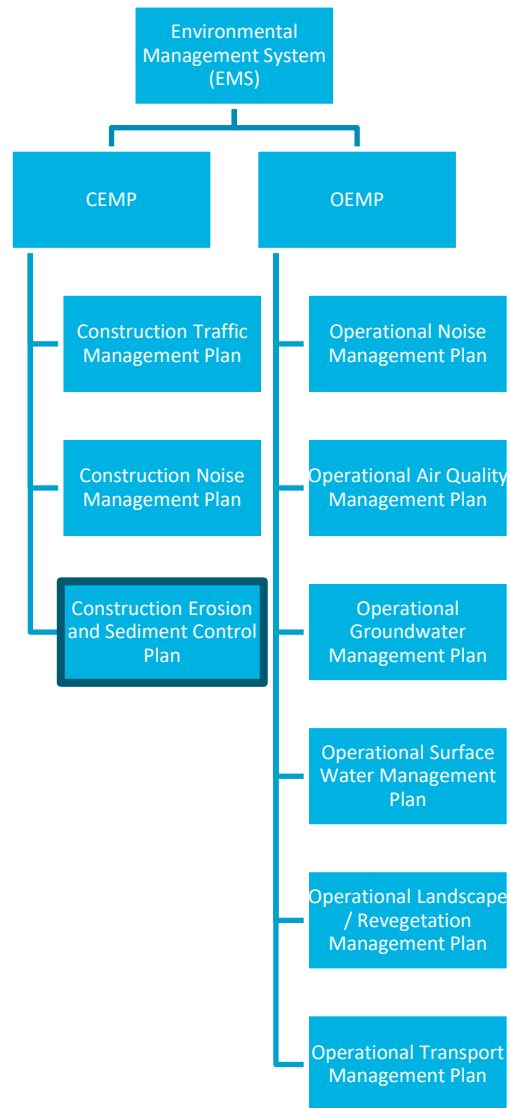


Figure 1.2 Environmental Management System flowchart

1.6 Interactions with other management plans and strategies

This CESC (outlined in Figure 1.2 above) is a sub-plan to the CEMP and interrelates with the other sub-plans set out in Section 1.3 and 1.5 above.

1.7 Reference documents

The CESC incorporates the obligations and criteria outlined in the following documents:

- Project Approval 07_0005 (NSW Department of Planning)
- Submission Report – Statement of Commitments (Parsons Brinckerhoff 2008)
- Modification application 07_0005 Mod 1
- Wallerawang Power Station Submissions Report (EA 2018)
- Environment Protection Licence 21185 (NSW Environment Protection Authority).

1.8 Endorsement and approval

1.8.1 Internal approval of CEMP and Sub-plans

The CEMP and associated sub-plans, strategies and monitoring programs undergo ongoing review by the GPM team. Following the ongoing review and revision process, internal signoff will be provided.

Once internal approval is received, the documents will be provided to DPHI and the ER for review prior to undertaking external consultation, review and approval processes described below.

1.8.2 External endorsement and approval of CEMP and sub-plans

Table 1.2 below provides a summary of the relevant authority(s), council(s) and agencies that require consultation during preparation of the CEMP sub-plans (including this CEMCP) and monitoring programs in accordance with the conditions of approval.

External distribution for consultation and approval of the CEMP, sub-plans and monitoring programs will be undertaken and updated in consultation with the relevant external parties and will then be endorsed by the Environmental Representative (ER) in accordance with the CoA, confirming that they satisfy the requirements of the approval documentation. After this external consultation and endorsement process is complete the required documents will be submitted to the Secretary for approval. This will occur no later than one month prior to the commencement of construction (unless otherwise agreed by the Secretary).

A copy of the ER Endorsement of the CEMCP is included in Appendix A.

Table 1.2 Consultation requirements for CEMP and sub-plans

Report	Consultation required	Relevant CoA
Construction Environmental Management Plan	Submit to Secretary for approval	6.2
Construction Traffic Management Plan	TfNSW, emergency services and Lithgow City Council	2.36, 2.36A, 2.36B, 6.3 (a)
Construction Noise Management Plan	EPA	6.3 (b)
Construction Erosion and Sediment Control Plan	N/A	6.3 (c)

2 Purpose and Objectives

2.1 Purpose

This CESP for the Lidsdale Ash Repository outlines strategies and actions to mitigate environmental impacts during the project's construction phase. It is designed to set clear protocols and responsibilities, and to thereby ensure that risks are managed, and sustainable practices are upheld. This sub-plan supports the CEMP and should be read in conjunction with the CEMP.

The CESP requirements are outlined in Section 6.3(c) of the Project approval and was prepared in accordance with *Managing Urban Stormwater: Soils and Construction* (Landcom 2004) guidelines as required by Condition 6.3(c)(iii).

2.2 Objectives

The CESP aims to:

- minimise the potential impacts of soil erosion on receiving lands and waters from construction activities of the project
- conserve and protect site soil resources
- ensure compliance with relevant regulatory requirements
- ensure all reasonable and feasible measures are taken to prevent discharge of sediments and pollutants from the construction of the project from entering waterways.

2.3 Targets

This CESP seeks to establish targets and indicators as follows.

Section 3 of the EPL stipulates:

- L1 Pollution of waters
 - L1.1 Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997
- L2 Concentration limits
 - L2.1 For each monitoring/discharge point or utilisation area specified in the table/s below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table
 - L2.2 Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges
 - L2.3 To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table\.
 - L2.4 Water and/or Land Concentration Limits

- L2.5 The Licensee is only authorised to undertake a 'wet weather discharge'. Discharges must be in accordance with the location and limits specified in Condition L2.3, L2.4 and L3.1. Wet weather is defined as periods when streamflow in the Cox's River is ≥ 10 ML/day so as to maintain a minimum streamflow to discharge ratio of 10:1. Streamflow must be monitored in accordance with Condition M6.1.
- L3 Volume and mass limits
 - L3.1 For each discharge point or utilisation area specified below (by a point number), the volume/mass of: a) liquids discharged to water; or; b) solids or liquids applied to the area; must not exceed the volume/mass limit specified for that discharge point or area.

Table 2.1 Concentration limits in EPL

Pollutant	Units of measure	100 percentile concentration limit
Ammonia	milligrams per litre	0.10
Cadmium	milligrams per litre	0.0012 (dissolved)
Manganese	milligrams per litre	1.9 (dissolved)
pH	pH	6.5–8.5
Total suspended solids	milligrams per litre	20
Turbidity	nephelometric turbidity units	20

Table 2.2 Volume/mass limit in the EPL

Point	Units of measure	Volume/mass limit
1	megalitres per day	6.5
38	-	-

3 Environmental requirements

3.1 General

The project will be undertaken in accordance with all relevant legislation, development approval conditions, permits and licencing requirements, as described in this section.

3.2 Legislation

3.2.1 Environmental Planning and Assessment Act 1979

Part 3 of the EP&A Act requires councils to prepare local environmental plans that also impose development controls. For the Lithgow Local Government Area (LGA), development controls are detailed the *Lithgow Development Control Plan 2021* (LDCP).

Section 4.15(1)(a)(iii) of the EP&A Act requires Lithgow City Council (LCC) to consider the LDCP when determining development applications that are covered by the LDCP.

3.2.2 Protection of the Environment Operations Act 1997

The *Protection of the Environment Operations Act 1997* (POEO Act) establishes offences for polluting the environment and procedures for the granting of licences for environmental protection including waste, air, water, land and noise pollution control. It is an offence to pollute water, air, land, noise and waste. It is also an offence to allow a substance to leak, spill or escape from its container in a manner that results or is likely to result in harm to the environment (s116).

LCC are the regulatory authority for non-scheduled activities in the Lithgow LGA.

Water pollution is prohibited under section 120 of the POEO Act.

3.3 Plans and guidelines

3.3.1 Lithgow Development Control Plan 2021

The objectives and controls of the LDCP in regard to erosion and sedimentation are provided below.

Objective(s)

O1 To ensure that the quality of stormwater run-off from development of sites with a geological or soil-related issue does not impact on the natural environment and receiving waters in terms of soil erosion, sedimentation, water and groundwater pollution, and other impacts.

O2 To maximise the amount of existing significant vegetation retained on a site during construction and operation of the development to minimise soil erosion and sedimentation of watercourses.

Control(s)

Erosion of land through poor land management and development practices can result in significant sedimentation and water quality issues in watercourses and drainage corridors.

The applicant addresses (where relevant) the relative risk of certain developments causing erosion and sedimentation in accordance with the requirements of Landcom, Fourth Edition (2004) *Managing Urban Stormwater: Soils and Construction* ('Blue Book') (as amended) including, but not limited to:

- Assessment of site constraints and opportunities

- Management of soils/earthworks
- Vegetation retention and enhancement
- Management of water
- Sediment and waste control
- Site access, stabilisation and maintenance.

Council may place conditions of consent on development to comply with the requirements of the 'Blue Book' and Council's DA Guide in accordance with the risk of erosion and/or sediment leaving the site in the following order of risk (low to high):

- Implement sediment & erosion control measures during construction;
- Lodge with Council (for approval) an Erosion & Sediment Control Plan;
- Lodge with Council (for approval) a more detailed Soil & Water Management Plan.

3.4 Relevant Conditions of Approval for MP07_005-Mod 2

The relevant CoAs for MP07_005-Mod 2, and where they are addressed in this Sub-plan are provided in the table below.

Table 3.1 Conditions of approval

Relevant CoA	Condition of Approval	Where addressed in this plan
2.30	The Applicant shall take all reasonable and feasible measures to prevent discharge of sediments and pollutants from the construction and operation of the project entering waterways. Note: Section 120 of the Protection of the Environment Operations Act 1997 prohibits the pollution of water except where expressly provided by an Environment Protection Licence.	Section 7.1
2.31	Earthworks not associated with the realignment of Sawyers Swamp Creek shall not be undertaken within 50 m of the creek where reasonable and feasible.	Section 7.1
2.32	All equipment, machinery and vehicles associated with the construction and operation of the project shall be operated and maintained in a manner that minimises the potential for oil and grease spills/leaks	Section 7.1
6.3 (c)	an Erosion and Sediment Control Plan to detail measures to minimise erosion and the discharge of sediment and other pollutants to land and/or water during construction works. The Plan must include, but not necessarily be limited to:	This sub-plan
	i) identification of the construction activities that could cause soil erosion or discharge sediment or water pollutants from the site;	Section 4
	ii) a description of the management methods to minimise soil erosion or discharge of sediment or water pollutants from the site, including a strategy to minimise the area of bare surfaces, stabilise disturbed areas, and minimise bank erosion; and	Section 7.1

Relevant CoA	Condition of Approval	Where addressed in this plan
	iii) demonstration that the proposed erosion and sediment control measures will conform with, or exceed, the relevant requirements of <i>Managing Urban Stormwater: Soils and Construction</i> (Landcom, 2004).	Section 3

3.5 Compliance tracking

CoA 4.2 mandates a compliance tracking program to track compliance with the requirements before commencing operations. A compliance tracking tool has been prepared for internal use by GPM to ensure effective and efficient tracking of compliance.

4 Project description

The project will involve the following construction activities, which have the potential to cause soil erosion or discharge sediment or water pollutants from the site:

- construction of reinforcement berms around the perimeter of the KVAR
- Sawyers Swamp Creek realignment
- sediment control and water storage works associated with construction on the edge of the KVAR and realignment of the creek
- construction of a Material Delivery area and associated sediment controls and water storage works
- establishment of access roads onto the surface of the SSCAD and associated roads across the dam surface
- establishment of freshwater collection ponds on the northern edge of SSCAD
- rearrangement of water flows around the KVAR and SSCAD
- reinstatement of environmental controls for historic landfill areas including capping of slumped areas, reprofiling for water management and control of sediment runoff during these activities.

5 Existing environment

This section provides a brief description of the existing environment relevant to erosion and sediment management.

5.1 Site location and topography

Lidsdale Ash Repository is located approximately 3.5 km north-east of the township of Wallerawang.

The area around the Lidsdale ash repository is characterised by flat-lying Permo-Triassic sandstone-quartz, sandstone lithic, ironstone and conglomerate within the Upper Coxs River valley. The landscape features sandstone pagodas, a talus slope, rolling rises with lower colluvial and alluvial areas adjacent to swampy drainage lines (e.g. Long Swamp).

Typical lithologies for this HGL are sandstone, claystone and shale of the Triassic Narrabeen Group underlain by sandstone, shale, claystone and major coal seams of the Illawarra Group; and siltstone, sandstone and conglomerate of the Shoalhaven Group.

This landscape features resistant Narrabeen Sandstones forming a pagoda landscape, local relief (90–130 m) and mountains (900–1184 m) above a steep, vegetated, rubbly, tabular lithic pebble- to boulder-bearing sandy gravel talus slope.

Lower in the landscape are rolling rises adjacent to relatively flat alluvial plains and swamps. Water infiltrates through the pagoda landscape and plateau surface, high in the landscape, and moves through the fractured sedimentary rock, sometimes emerging at horizontal fractures as cliff-face springs.

Water preferentially percolates downward through structures (joints, fractures, faults) in the rock material until it encounters less permeable layers in the stratigraphy, causing water to flow laterally and reach the land surface. Some of this groundwater will move laterally across bedding in the Illawarra Group, low in the stratigraphy, below ground level. Salt may mobilise at that level however it is not expressed at the land surface. Water also filters through the unconsolidated rocky sediments forming the talus slope. Lower in the landscape water moves laterally through the colluvial materials and may emerge in the drainage lines as swamps.

5.2 Soil landscapes

The Soil Landscapes of Central and Eastern NSW (NSW DCCEEW 2013) indicates the site is underlain by the Narrabeen and Angus Place Subgroup. The soil landscapes present on the site include:

- Hassan Walls – a colluvial landscape found on steep slopes and cliffs
- Cullen Bullen – rolling low hills and rises on Illawarra Coal Measures and the Berry Formation.
- Wollangambe – rounded convex crests and moderately to steeply inclined sideslopes on Narrabeen Group sandstones
- Long Swamp – level to very gently inclined swamps on recent alluvium overlying the Permian Illawarra Coal Measures
- Disturbed terrain – extensively disturbed terrain on a variety of geologies.

The soil landscapes are shown on Figure 5.1.

5.2.1 Hassan Walls

Erosion Hazard: Extreme. Moderate to high risk of dispersion.

Soil Limitations for this group include, High organic matter, Very high potential aluminium toxicity, Very low soil fertility, Very strong acidity, High erodibility, High permeability, Low available water-holding capacity.

5.2.2 Cullen Bullen

Erosion Hazard: High to Very high. Potential for dispersible soils

Soil limitations for the group include, High organic matter (localised), High erodibility, Hardsetting surface, Strong acidity, Low permeability, Low wet bearing strength, High erodibility, Very strong acidity, High potential aluminium toxicity, Sodicity/dispersibility.

Moderate gully erosion is evident along some drainage depressions. Minor sheet erosion is common where ground cover has been disturbed by clearing. Extensive severe sheet and rill erosion have occurred on isolated steeper slopes

5.2.3 Wollangambe

Erosion Hazard: High to Extreme, Very high to Extreme Risk of Dispersion

Soil limitations range from slightly acidic to strong/very strong acidity. Water repellence, Low fertility, very high aluminium toxicity, moderate to high sodicity and high to extreme erodibility.

Moderate sheet erosion is evident over most of this landscape. The landscape is particularly susceptible to sheet erosion following bushfire or clearing. Severe rill erosion and sheet erosion are commonplace along poorly designed access tracks

5.2.4 Long Swamp

Erosion Hazard: Low to moderate.

Soil Limitations range from, Low wet bearing strength, Very high organic matter, Very strong acidity, High potential aluminium toxicity, Low permeability, Very strong acidity, Very low fertility, Stoniness.

5.2.5 Disturbed terrain

Erosion Hazard: Variable. High to Extreme. High to extreme risk of dispersion.

Soil Limitations Highly variable depending on the site and may include Low available water-holding capacity Hardsetting surface (localised) Low fertility High shrink-swell Unconsolidated material High erodibility Stoniness Strongly acid (localised) Sodicity/dispersibility



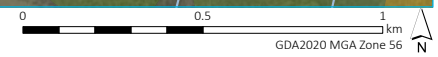
- KEY**
- Site boundary
 - Soil landscape
 - Disturbed Terrain
 - Cullen Bullen
 - Hassans Walls
 - Long Swamp
 - Lithgow
 - Mount Sinai
 - Medlow Bath
 - Pipers Flat
 - Newnes Plateau
 - Wollangambe
 - Existing environment
 - Rail line
 - Major road
 - Minor road
 - Watercourse/drainage line
 - Named waterbody

Soil landscapes at the project site

Lidsdale Ash Dam Repository
 Construction Erosion and
 Sediment Control Plan
 Figure 5.1



Source: EMM (2024); ABS (2021); DCSSS (2024); MetroMap (2024); DPIE (2024)



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5.3 Hydrologic context

5.3.1 Regional hydrology

The Coxs River is a major tributary to the Hawkesbury-Nepean system. The river flows generally in a southerly direction through parts of the Central Tablelands and Blue Mountains regions of NSW. It has a total catchment area of 1,450 km² and ultimately flows into the northern arm of Lake Burragorang (also known as Warragamba Dam). Lake Burragorang is a major water supply dam for the Sydney metropolitan region and is managed by WaterNSW. The Site and LDP3 are in the upper portion of the river's catchment. The catchment area upstream of LDP3 is 178 km² and is characterised by a series of valleys that are generally bound by rugged forested escarpments and have cleared valley floors. Key tributaries include Wangcol, Sawyers Swamp, Pipers Flat and Kangaroo Creeks. The river is unregulated and has a variable streamflow regime. Baseflow is known to occur year-round, even during severe droughts such as the 2018–2020 drought (albeit at minimal rates). Seasonally, streamflow is highest in late winter and spring and lowest in late summer and autumn. The streamflow regime fits the definition of a permanent or perennial stream.

5.3.2 Site drainage

The Coxs River flows in a southerly direction past the western and south-western portions of the Site. Inflows into the river from the Site can occur via incidental discharges to Sawyers Swamp Creek and LDP3 discharges.

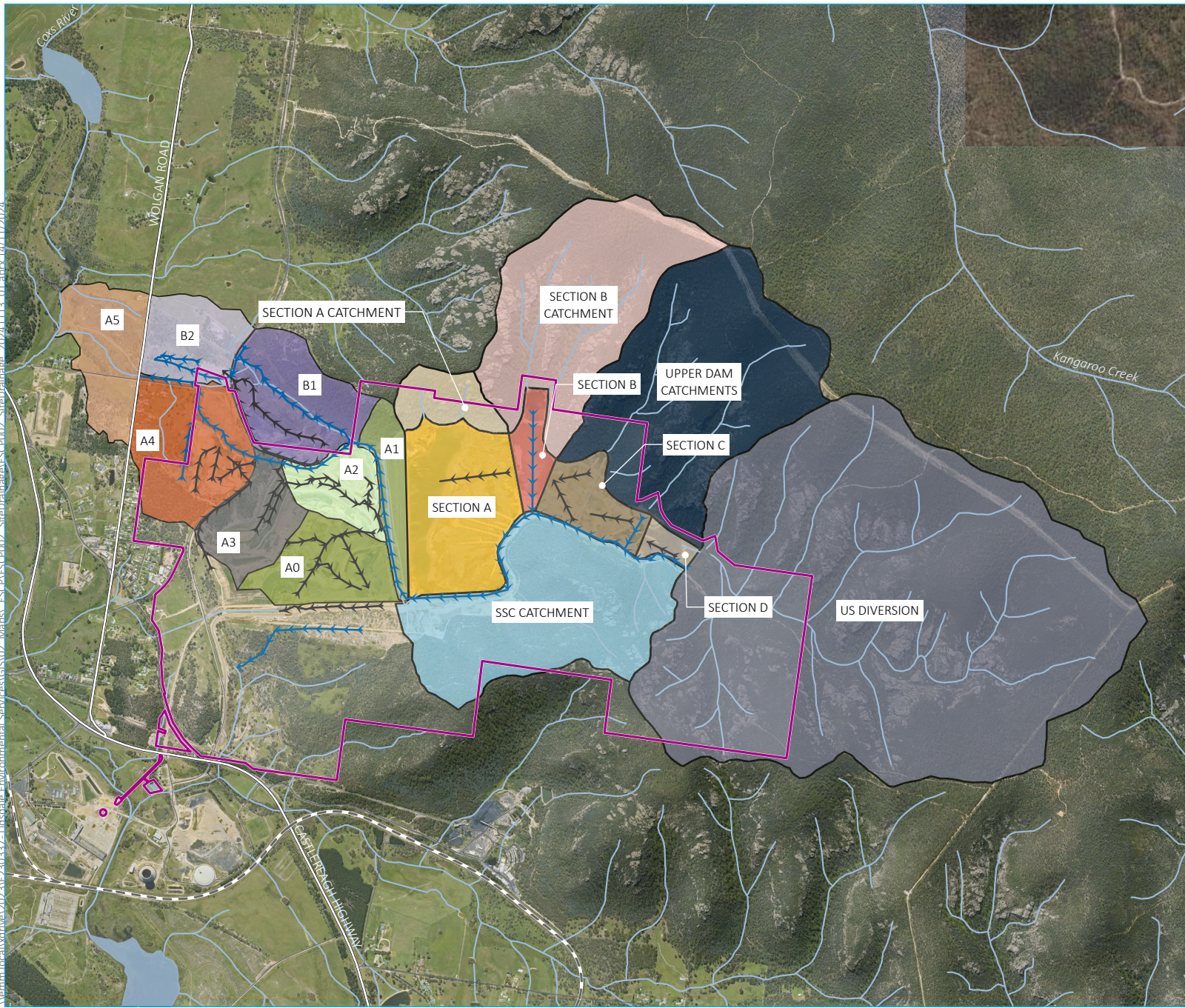
Sawyers Swamp Creek is a watercourse that flows through the site in a westerly direction and joins the Coxs River approximately 1 km to the west of the site. The creek was diverted from its original alignment early in the site's history due to coal mining and has been further adjusted when the SSCAD was constructed. The diverted creek (the Sawyers Swamp Creek Diversion) is a clean water system that manages the natural streamflow from the creek's catchment. The system diverts clean water around SSCAD and the KVAR/KVAD water management area. The diversion joins what is thought to be the original Sawyers Swamp Creek to the north-west of the site.

The Sawyers Swamp Creek Diversion receives inflows from the following sources:

- clean water runoff from naturally vegetated catchments to the north, east and south of the site
- water pumped from the surface of Section B of the SSCAD (wet conditions only)
- stormwater discharges from the KVAR/KVAD water management area (wet conditions only)
- groundwater inflows, including potential inflows from the perched groundwater systems that are within the ash dams.

Further information can be found in the annual environmental monitoring reports.

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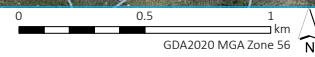
- KEY**
- Site boundary
 - Clean water flow path
 - Dirty water flow path
 - Catchment upper (Sawyers Swamp Creek Ash Dam and upstream)
 - SSC catchment
 - Section A
 - Section A catchment
 - Section B
 - Section B catchment
 - Section C
 - Section D
 - US diversion
 - Upper dam catchments
 - Catchment lower (downstream of SSCAD to Coxs River)
 - A0
 - A1
 - A2
 - A3
 - A4
 - A5
 - B1
 - B2
 - Existing environment
 - Rail line
 - Major road
 - Minor road
 - Named watercourse
 - Named waterbody

Site drainage

Lidsdale Ash Dam Repository
Construction Erosion and
Sediment Control Plan
Figure 5.2



Source: EMM (2024); ABS (2021); DCSSS (2024); MetroMap (2024); DPIE (2024)



5.4 Climate and rainfall

Long-term average monthly rainfall data for the area (Lidsdale (Maddox Lane) Weather station, BOM Station No. 63132) (Figure 5.3) indicate a high rainfall erosivity risk from October through to March due to the summer storm season.

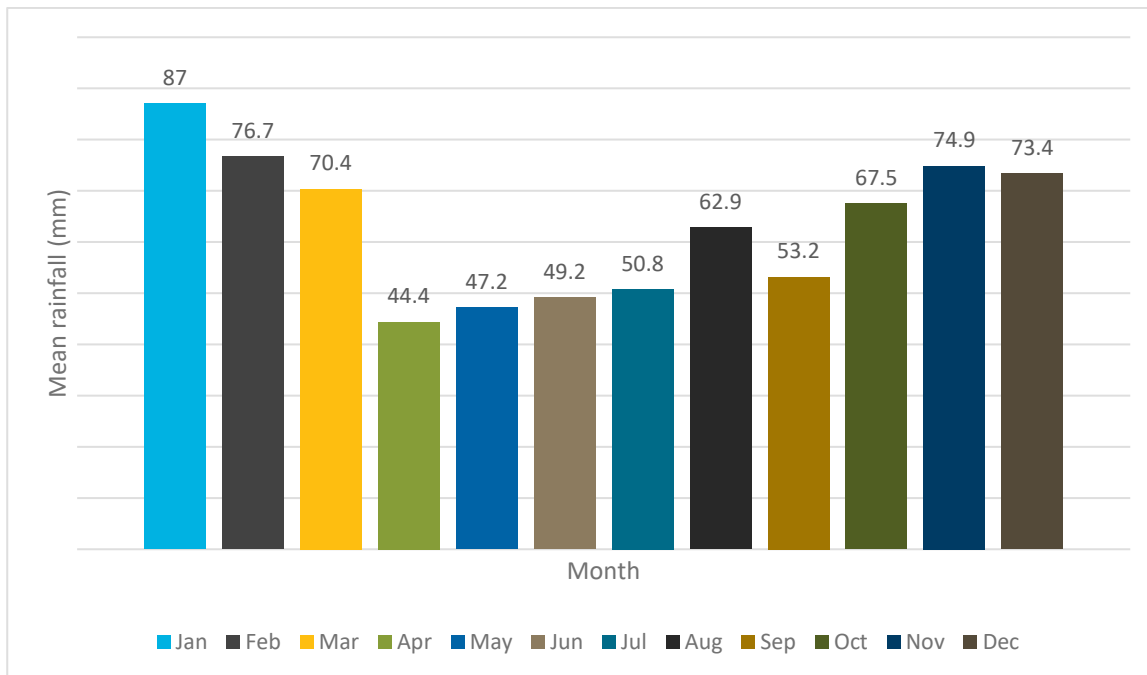


Figure 5.3 Monthly average rainfall at Lidsdale (Maddox Lane) Station number 63132 from 1959 to 2024 (BOM 2024)

5.4.1 Rainfall erosivity

Rainfall Erosivity (R-Factor) is a measure of the ability of rainfall to cause erosion and is calculated based on total energy and maximum 30-minute storm intensity (Landcom 2004). It is a multi-annual average index that measures rainfall's kinetic energy and intensity to describe the effect of rainfall on sheet and rill erosion. It can either be interpolated from the R-factor maps in Landcom 2004 or more accurately calculated using the formula:

$$R = 164.74 (1.1177)^S S^{0.6444}$$

where, S is the 2-year average recurrence interval (ARI), 6-hour rainfall event (i.e. 0.5 exceedances per year (EY), 6-hour event) in millimetres per hour (mm/h) (Rosewell & Turner 1992).

For the project S equals 39.6 mm/h.

The calculated R-Factor for the project is 1820 MJ.mm.ha⁻¹year⁻¹.

6 Erosion hazard assessment

The process for the assessment of erosion hazard in NSW is detailed in Section 4.4.1 of Landcom (2004). It is a two-step process that considers overall project erosion hazard via consideration of slope and rainfall erosivity (R-Factor). A more detailed assessment of land soil loss classes (SLCs) is then determined using annual soil loss calculated using the revised universal soil loss equation (RUSLE). Site-specific slopes have been used with a nominal slope length of 80 m. The SLC dictates specific erosion management and mitigation measures as detailed in Landcom (2004).

An assessment of the erodibility of the soil itself is important as the presence or absence of a highly erodible dispersive soil will significantly influence the project drainage, erosion and sediment control requirements.

When a sodic soil (exchangeable sodium percentage (ESP) >6%), or a magnesian soil (exchangeable magnesium percentage (EMP) >20%) contacts non-saline water, water molecules are drawn in between the clay platelets causing the clay to swell to such an extent that individual clay platelets are separated from the aggregate. This process is known as dispersion. Dispersive soils have an extreme rill, gully and tunnel erosion risk and can erode irrespective of surface treatments (e.g. rock lining) applied to the soil surface.

6.1 Soil erosion hazard analysis

The erosion potential of a soil is determined by its physical and chemical properties and is expressed as its K-Factor (t.ha.h)/(ha.MJ.mm). Table 6.1 provides soil erodibility rankings for a range of K-Factors from Rosewell (1993).

Table 6.1 Soil erodibility ranking

K-Factor (t.ha.h.ha ⁻¹ .MJ ⁻¹ .mm ⁻¹)	Erosion potential
<0.02	Low
>0.02 to <0.04	Moderate
>0.04	High

Source: Rosewell (1993)

As detailed soil sampling for erodibility and agronomic parameters has not been undertaken of the project area, site specific soil erodibility factors (K-factors) have not been determined, however Loch et al (1998) measured and estimated K-Factors for a range of Australian dispersive soils and a K-Factor of 0.071 has therefore been adopted. An assessment of project K-Factors against the Rosewell (1993) soil erosion ranking (Table 6.1) demonstrates a 'high' soil erosion potential.

6.2 Slope and rainfall erosivity erosion hazard analysis

The overall project water erosion hazard is determined using the process described in Section 4.4.1 of Landcom (2004); however, as it does not consider the K-Factor, the erosion hazard can be considerably underestimated. If a low erosion hazard is determined, no further delineation of erosion hazard is required. If a high erosion hazard is determined, then further assessment to determine the SLC is required.

SLCs are determined by calculating the annual average soil loss using the Revised Universal Soil Loss Equation (RUSLE) with a nominal 80 m slope length and soil surface cover factor (C-Factor); RUSLE calculates the annual average erosion in tonnes per hectare (t/ha) from rill and inter-rill (sheet) erosion. It does not consider gully or tunnel erosion and does not calculate peak erosion. Section 4.4.2(c) of Landcom (2004) nominates additional requirements for land of SLC 4 and higher.

The first step in the hazard assessment uses a nomograph from Figure 4.6 of Landcom (2004) (reproduced as Figure 6.1) that considers slope of the land and the Rainfall Erosivity (R-Factor) to provide a low or high erosion hazard.

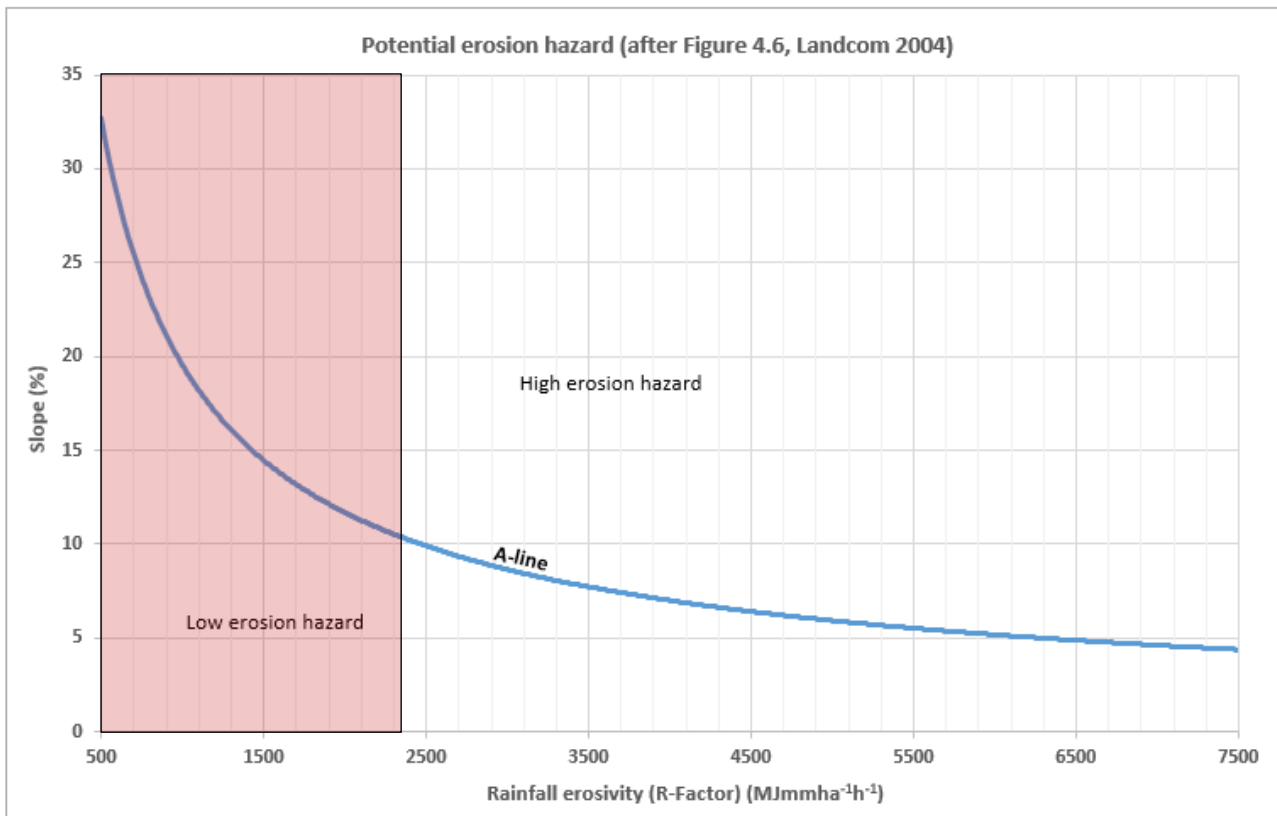


Figure 6.1 Assessment of potential erosion hazard

As detailed in Section 5.4.1, the calculated R-Factor for the project is 1820 MJ.mm.ha⁻¹.h⁻¹.

A high erosion hazard requires further detailed assessment in accordance with section 4.4.2 of Landcom (2004) to determine soil loss classes (Table 6.2).

Table 6.2 Soil loss classes

Soil Loss Class (SLC)	Calculated soil loss (t/ha/yr)	Erosion hazard
1	0–150	Very low
2	151–225	Low
3	226–350	Low-moderate
4	351–500	Moderate
5	501–750	High
6	751–1,500	Very high
7	>1,500	Extremely high

Adapted from Table 4.2 Landcom (2004)

The pink shaded area in Figure 6.1 demonstrates that there are lands of both low and high erosion hazard within the project area and therefore determination of soil loss classes is required. Calculated indicative soil loss in t/ha/yr for slopes ranges from 1–40% for the project are provided in Table 6.3.

Table 6.3 Soil loss calculations to determine soil loss classes

Slope %	1	10	14	20	25	30	40
R-Factor (section 5.4.1)	1820	1820	1820	1820	1820	1820	1820
K-Factor (Loch et al. 1998)	0.071	0.071	0.071	0.071	0.071	0.071	0.071
LS-Factor (Landcom 2004)	0.19	2.81	4.61	7.32	9.51	11.6	15.67
Area	1	1	1	1	1	1	1
P-Factor (Landcom 2004)	1.3	1.3	1.3	1.3	1.3	1.3	1.3
C-Factor (Landcom 2004)	1	1	1	1	1	1	1
Soil loss (t/ha/yr)	32	471	774	1230	1598	1948	2577
Soil Loss Class (SLC)	1	4	6	6	7	7	7

Lands with SLCs ≥ 4 trigger increased erosion and sediment control management requirements as stipulated in section 4.4.2 of Landcom (2004).

Land disturbing works in highly sensitive lands should be scheduled for periods when rainfall erosivity is low. Landcom (2004) defines highly sensitive lands as:

1. always on SLC 7 lands; and
2. at certain times of the year:
 - a) on SLC 5 or 6 lands in all rainfall zones; and
 - b) on SLC 4 lands in rainfall zones 5 and 11.

Where scheduling activities on highly sensitive land to periods when rainfall erosivity is low is not possible or is impractical, ideally ensure that any disturbed lands have C-Factors lower than 0.1 when the 3-day rainfall forecast suggests that rain is likely.

7 Environmental management

7.1 Management Measures

Management actions to minimise construction erosion and sediment impacts are summarised in Table 7.1. The erosion and sediment control measures included within Table 7.1 conform with, or exceed, the relevant requirements of Managing Urban Stormwater: Soils and Construction (Landcom, 2004).

The management measures have been prepared to ensure that all reasonable and feasible measures are taken to prevent discharge of sediments and pollutants from the construction and operation of the project entering waterways.

Note – the CЕСSP is specific to the construction phase only.

Table 7.1 Environmental Management Measures

Relevant aspect	Management and mitigation measures	Source of requirement	Frequency	Relevant records	Responsibility
Land stabilisation	Soil stabilising polymers will be used for temporary stabilisation within the site and bonded fibre matrix hydro-mulches and hydraulically applied growth mediums will be used for permanent vegetative stabilisation solutions.	CoA 6.3 c)	Progressively as areas are completed.	Site inspection checklist	Site contractor
Controlling water movement through or around site	Clean and dirty water catchments will be segregated to the maximum practical extent to minimise erosion potential and the volume of turbid water that needs to be contained and treated on site via diversion around disturbed areas and/or safe conveyance through the site without meeting exposed soils or mixing with turbid water.	CoA 6.3 c)	Progressively as areas are completed.	Site inspection checklist	Site contractor
Minimise soil erosion	Raindrop splash erosion will be controlled by: <ul style="list-style-type: none"> • minimising the extent and duration of soil disturbance • covering and binding exposed soils with soil stabilising polymers and gravel • progressively rehabilitating disturbed areas. 	CoA 6.3 c)	Progressively as areas are completed.	Site inspection checklist	Site contractor
	Rill erosion is effectively controlled by minimising slope length and gradient. This will be achieved within the project area by: <ul style="list-style-type: none"> • minimising disturbance to steeply grading areas where possible • using retaining walls to minimise the creation of long, steep earthen slopes • treating dispersive soils with gypsum • covering and binding exposed soils with soil stabilising polymers and gravel • progressively stabilising and revegetating disturbed areas • early installation and connection of permanent stormwater drainage systems. 	CoA 6.3 c)	Progressively as areas are completed.	Site inspection checklist	Site contractor

Relevant aspect	Management and mitigation measures	Source of requirement	Frequency	Relevant records	Responsibility
	<p>Gully erosion is effectively controlled by minimising the concentration of flow and slowing flow velocity. This will be achieved within the site by:</p> <ul style="list-style-type: none"> maintaining sheet flow where possible avoiding the use of 'v' shaped drains lining drains where flow velocities exceed the maximum permissible velocity of the soil (temporary and permanent) treating dispersive soils with gypsum if disturbed early installation and connection of permanent stormwater drainage systems. 	CoA 6.3 c)	Progressively as areas are completed.	Site inspection checklist	Site contractor
	<p>Bank erosion is controlled by minimising the concentration of flow and slowing flow velocity. This is achieved within the site by:</p> <ul style="list-style-type: none"> lining flow pathways where practicable installing diversion dams and check dams to reduce velocity controlling the discharge volume of water entering waterways from clean water diversions 	CoA 6.3 c)	Progressively as areas are completed.	Site inspection checklist	Site contractor
	<p>Chemical erosion is effectively controlled by minimising the disturbance of dispersive soils and maintaining sheet flow conditions. This will be achieved within the site by:</p> <ul style="list-style-type: none"> avoiding the concentration of flow where possible avoiding ponding water on areas of dispersive soil (not using check dams, channel banks, benches, etc) lining drains where flow velocities exceed the maximum permissible velocity of the soil (temporary and permanent) treating dispersive soils with gypsum particularly pipe trench back fill material installing trench breakers to minimise tunnel erosion in stormwater, sewer and potable water pipe trenches. <p>Energy dissipaters will need to be used at the outlets of drains and spillways to reduce flow velocities to less than the maximum permissible velocity for the soil type. Stilling pond and roughness type dissipators are recommended.</p>	CoA 6.3 c)	Progressively as areas are completed.	Site inspection checklist	Site contractor

Relevant aspect	Management and mitigation measures	Source of requirement	Frequency	Relevant records	Responsibility
	<p>Wind erosion is effectively controlled by minimising disturbance and utilising soil stabilising polymers and wetting agents. This will be achieved within the site by:</p> <ul style="list-style-type: none"> • minimising disturbance • gypsum treatment of dispersive soils • progressively stabilising disturbed areas temporarily with soil stabilising polymer or gravel or permanently with BFM hydromulch and grass • reducing speeds of machinery and vehicles and/or suspending operations during excessively dry and/or windy periods • using trafficable soil polymers and water trucks on tracks and haul roads. 	CoA 6.3 c)	Progressively as areas are completed.	Site inspection checklist	Site contractor
Prompt stabilisation of disturbed areas	Progressive stabilisation and rehabilitation of disturbed areas will be undertaken to minimise erosion and the generation of sediment and turbid runoff.	CoA 6.3 c)	Progressively as areas are completed.	Site inspection checklist	Site contractor
Maximise sediment retention on site	<p>Bench testing of site turbid water will be undertaken in accordance with IECA's <i>Chemical coagulants and flocculant – Sediment Control Technique</i> (IECA 2016) to determine the most appropriate coagulants and/or flocculants to be used and indicative dosing rates. Products to be tested include:</p> <ul style="list-style-type: none"> • aluminium chlorohydrate • chitosan lactate • non-ionic polyacrylamide • anionic polyacrylamide. 	CoA 6.3 c)	Monthly	Site inspection checklist	Site contractor
Minimise discharge of water pollutants from site	<p>The Surface Water and Ground Water Management Plans describe mitigation and management measures designed to minimise discharge of water pollutants. Measures include:</p> <ul style="list-style-type: none"> • Stormwater management ponds are designed, built and operated in accordance with Landcom 2004 • Clean water diversions designed to capture and convey clean water around site, preventing it from collecting pollutants • Leachate collection systems to collect seepage from KVAD and SSCAD for treatment via the Caustic Injection Plant or evaporation 	CoA 6.3 c)	Progressively as areas are completed.	Site inspection checklist	Site contractor

Relevant aspect	Management and mitigation measures	Source of requirement	Frequency	Relevant records	Responsibility
Inspection and maintenance of control measures	<p>Inspections of control measures will be undertaken prior to predicted rainfall and following rainfall that causes run-off or weekly during dry conditions.</p> <p>Inspections will be undertaken by the Contractors Environmental Management Representative or delegate. That person will have the following knowledge:</p> <ul style="list-style-type: none"> • an understanding of site environmental values that could be impacted by site construction and operation • an understanding of the requirements of the Development Approval that are relevant to drainage, erosion and sediment control • a good working knowledge of drainage, erosion and sediment control fundamentals and the project specific application thereof • ability to provide advice and guidance on appropriate measures and procedures to always maintain the site in a condition representative of regionally specific best practice, and that is reasonably likely to achieve the required standards • a good working knowledge of the correct installation, operation and maintenance procedures for the full range of drainage, erosion and sediment control measures used on the project. 	CoA 6.3 c)	Monthly	Site inspection checklist	Site contractor
	<p>The site contractor will maintain control measures to maximum practicable extent so that control measures:</p> <ul style="list-style-type: none"> • will best achieve the sites required environmental protection including achieving the water quality criteria specified in the Development Approval and this Primary CЕССР for the nominated design storm event • are in accordance with the specified operational standard for each drainage, erosion and sediment control measure • prevents or minimises safety risks. <p>All water, debris and sediment removed from control measures shall be disposed of in a manner that will not create an erosion or pollution hazard.</p>	CoA 6.3 c)	Monthly	Site inspection checklist	Site contractor
Monitoring and adjustment of control practices	<p>If a site inspection or environmental monitoring identifies a significant failure of the adopted drainage, erosion and sediment control measures, a critical evaluation of the failure should be undertaken to determine the cause and appropriate modifications made to this CЕССР.</p>	CoA 6.3 c)	Monthly	Complaints register Site inspection checklist Incident records	Site contractor

Relevant aspect	Management and mitigation measures	Source of requirement	Frequency	Relevant records	Responsibility
Drainage, erosion and sediment control competence	<p>All project personnel including contractors are recommended to have an appropriate level drainage, erosion and sediment training. Two levels of competency training for personnel are proposed:</p> <ul style="list-style-type: none"> Level 1 – basic awareness level training and provided during the site induction Level 2 – half day training for foreman, engineers, project managers etc on the legal aspects of drainage, erosion and sediment control, fundamentals and site-specific strategies, techniques and requirements prepared. 	CoA 6.3 c)	Progressively as new personnel are engaged.	Training records	Site contractor
General	Site contractor to undertake all reasonable and feasible measures to prevent discharge of sediments and pollutants from the construction of the project from entering waterways.	CoA 2.30	At all times	Training records Incident records	Site contractor
	Earthworks not associated with the realignment of Sawyers Swamp Creek shall not be undertaken within 50 m of the creek where reasonable and feasible.	CoA 2.31	At all times	Training records Incident records	Site contractor
	All equipment, machinery and vehicles associated with the construction and operation of the project shall be operated and maintained in a manner that minimises the potential for oil and grease spills/leaks.	CoA 2.32	At all times	Training records Incident records	Site contractor

7.2 Progressive erosion and sediment control plans

Site specific, progressive erosion and sediment control plans (PESCPs) will be developed on a case-by-case basis for specific construction works by the site team and approved by a Certified Professional in Erosion and Sediment Control (CPESC). The process for the continued development of the PESCPs is outlined below:

- CPESC attends site monthly to review construction works, status of erosion and sediment controls and to recommend any actions required.
- Site team and CPESC will develop and implement site-specific erosion and sediment control recommendations based on design logic, calculations and the status of construction works.
- Recommendations and actions will be translated into practical measures to be addressed by GPM. Monitoring points and parameters, trigger levels and response actions will also be defined in the PESCPs and implemented by GPM.
- The CPESC will review monitoring outputs and action reports to identify trends, risks, and corrective/preventative actions

7.2.1 Specific control measures

Specific control measures to be deployed on site are outlined in Table 7.2 below and reference the requirements of Managing Urban Stormwater: Soils and Construction (Landcom, 2004). Maintenance and remedial actions for these measures are detailed in Section 8.3. Further site-specific details will be outlined in the PESCPs.

Table 7.2 Specific control measures to be used on site

Control measure	Landcom 2004 reference
Drainage and erosion control	
Lined clean water diversion drains and banks	Sections 5.4.1, 5.4.3, 5.4.4
Dirty water diversion drains and banks	Sections 5.4.1, 5.4.3, 5.4.4
Drain blocks	Sections 5.4.5, SD 5-8
Lined channel, drains and batter chutes	Sections 5.4.3, SD 5-5, SD 5-6
Sediment control	
Silt fences	Sections 6.3.2, 6.3.7, SD 6-8
Check dams	Sections 5.4.3, SD 5-4
Stabilised construction exits	Sections 5.4.5, SD 5-8
Construction sediment basins	Sections 6.3.2, 6.3.3, 6.3-4

8 Inspections, maintenance and monitoring

8.1 Incidents and complaints and non-compliance

8.1.1 Incidents

All incidents will be reported and investigated, and corrective actions assigned to prevent future occurrences in accordance with the CEMP Section 2.9.

The approval defines an incident as:

A set of circumstances that causes or threatens to cause material harm to the environment, and/or breaches or exceeds the limits or performance measures/criteria in this approval.

Material harm (which includes actual or potential harm) to the health or safety of human beings or to ecosystems that is not trivial or that results in actual or potential loss or property damage exceeding a threshold dollar value as identified by the POEO Act.

The Secretary must be notified in writing via the Major Projects website immediately after the Project team becomes aware of an incident in accordance with CoA 7.1. The notification must identify the development (including the application number and the name of the development if it has one) and set out the location and nature of the incident.

Section 2.9 of the CEMP details environmental incidents and the response to environmental emergencies for the Project. This includes the reporting, notification and investigation of environmental incidents. Emergency contact details are also provided. In the event of an environmental incident or emergency related to the implementation of this CEMCP, the responses detailed in the CEMP is to be implemented.

8.1.2 Complaints

Section 2.8.4 of the CEMP details complaints and enquiries procedure for the Project. The complaint and enquiries procedure has been prepared in accordance with CoA 5.3 and 5.4. It lists the details that are required for complaints and the responsibility of relevant personnel. In the event of an environmental incident or emergency related to the implementation of this CEMCP, the responses detailed in the CEMP are to be implemented.

8.1.3 Non-compliance

The approval defines non-compliance as:

An occurrence, set of circumstances or development that is a breach of the approval but is not an incident.

The Secretary must be notified in writing via the Major Projects website within seven days after the Project team becomes aware of any non-compliance in accordance with CoA 7.2. A non-compliance notification must identify the development and the application number for it, set out the condition of approval that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance. Section 2.10.4 of the CEMP details the Project team's response following the identification of a non-compliance with the CoA, the CEMP and Sub-Plans. This includes the reporting, investigation and notification of non-compliances. Non-compliance with this CEMCP will be addressed as required by the CEMP.

8.2 Inspections and monitoring

Inspections of drainage, erosion and sediment control measures will be undertaken:

- weekly during normal construction hours
- after a rainfall event causing runoff to occur on or from the project (≥ 20 mm of rain in a 24-hour period).
- Monthly during inspection with CPESC, as outlined in Section 7.2.

The inspections will monitor the status of the erosion and sediment control measures to ensure controls are working as intended. If required, maintenance and remedial actions will be undertaken. Recommended maintenance and remedial actions for specific controls are outlined in Section 8.3 below. Specific monitoring programs for surface water quality and groundwater quality are described in the Surface Water Management Plan (Appendix E of the OEMP) and the Groundwater Management Plan (Appendix D of the OEMP).

8.3 Maintenance and remedial actions

Various types of drainage, erosion and sediment control measures will be utilised for the project. A description of the key measures used and maintenance and remedial actions likely to be required are provided in Table 8.1.

Table 8.1 Maintenance and remedial actions

Control measure	Maintenance and remedial actions
Drainage control	
Lined clean water diversion drains and banks	Repair any damage to the liner (replace, re-anchor), repair any bunding or silt fence isolating the clean water catchment from the dirty water catchment.
Dirty water diversion drains and banks	Repair any erosion, re-line if necessary.
Drain blocks	Ensure turbid water cannot enter the drain or pipe. Monitor for damage and sediment accumulation and repair as necessary.
Erosion control	
Temporary	
Polymer soil stabiliser and covers	Reapply or adjust/repair following rainfall, heavy vehicle traffic or other disturbance.
Permanent	
Gypsum amelioration of dispersive soil	Check for rill, gully and tunnel erosion. Re-test soil and incorporate additional gypsum in accordance with the soil testing results.
Lined channel, drains and batter chutes	Look for water flows under or beside the structure and repair and/or modify as necessary. Look for erosion around and downstream of the energy and repair and/or modify as necessary.
Sediment control	
Temporary	
Silt fences	Ensure silt fences pond water. If not, install additional panels. Check for blow-outs in the anchor trench. Re-anchor as necessary. Replace any ripped or damaged sediment fence.
Check dams	Check for erosion between check dams. Install additional check dams if necessary. Remove accumulated sediment.

Control measure	Maintenance and remedial actions
Stabilised construction exits	Ensure rock is free from accumulated sediment. Replace as necessary.
Construction sediment basins	Treat accumulated water with high efficiency coagulants and flocculants. Dewater when water quality is less than nominated water quality limits. Check basin inlets and outlets for erosion and repair as necessary. Check the basin wall for slumping or tunnel erosion. Repair as necessary. Remove accumulated sediment from the basin when it reaches the sediment storage zone marker.
Coagulants and flocculants	Check coagulant/flocculent levels in rainfall activated dosing units and replenish as necessary.

9 Review and Improvement

A review of the CEMP, sub-plans (including this CEMCP) and monitoring programs will be undertaken to determine the efficiency of the plans and monitoring programs and whether any changes are required to ensure compliance.

Circumstances which may trigger a review include:

- changes to design, construction, work methods, legislation, or policy
- incidents, complaints or non-compliance
- changes identified by continuous improvement
- changes to key management plans that are relevant
- where additional monitoring measures are identified in annual reviews or audits.

In addition, and in accordance with CoA 6.6, GPM will review and, if necessary, revise the studies, strategies and plans required under the conditions of approval to the satisfaction of the Secretary within three months of:

- the submission of an incident report under CoA 7.1
- the submission of an Annual Review under CoA 7.3
- the submission of an Independent Environmental Audit under CoA 4.2
- the modification of the conditions of this approval (unless the CoAs require otherwise).

Where this review leads to revisions in any such document, then within 4 weeks of the review, GPM will submit the revised document to the Secretary for approval, unless otherwise agreed with the Secretary.

A copy of the updated plans and changes will be distributed to all relevant personnel and discussed at pre-start and toolbox talks.

9.1 Continuous improvement

Continuous improvement of this CEMCP will be achieved by the ongoing evaluation of environmental management performance against environmental policies, objectives and targets for the purpose of identifying opportunities for improvement.

Appendix A

ER Endorsement

31 March 2026

John Pola
Environment Manager
Generator Property Management
110 Skelly Road
Lidsdale NSW 2790

**Re: MP07_0005 - Wallerawang Ash Dam Areas - Environmental Representative Endorsement
- Construction Erosion and Sediment Control Plan Rev 4**

Dear John,

Following a review of the documents provided for the Construction Erosion and Sediment Control Plan (CESCP) Rev 4, I can provide the following endorsement.

The CESCP Rev 4 has been reviewed against the DPHI comments. No consultation was undertaken or required to be undertaken for this plan.

All comments have been addressed in the CESCP Rev 4.

The document is endorsed for submission to DPHI for approval.

Yours sincerely



David Bone
Independent Environmental Representative
dbone@emmconsulting.com.au

Australia

SYDNEY

Level 10, The Forum
201 Pacific Highway
St Leonards NSW 2065
T 02 9493 9500

NEWCASTLE

Level 3 175 Scott Street
Newcastle NSW 2300
T 02 4907 4800

BRISBANE

Level 1 87 Wickham Terrace
Spring Hill QLD 4000
T 07 3648 1200

CANBERRA

Suite 2.04 Level 2
15 London Circuit
Canberra City ACT 2601

ADELAIDE

Level 4 74 Pirie Street
Adelaide SA 5000
T 08 8232 2253

MELBOURNE

Suite 9.01 Level 9
454 Collins Street
Melbourne VIC 3000
T 03 9993 1900

PERTH

Suite 3.03
111 St Georges Terrace
Perth WA 6000
T 08 6430 4800

Canada

TORONTO

2345 Yonge Street Suite 300
Toronto ON M4P 2E5
T 647 467 1605

VANCOUVER

2015 Main Street
Vancouver BC V6B 2Z4
T 604 999 8297

CALGARY

700 2nd Street SW Floor 19
Calgary AB T2P 2W2



[linkedin.com/company/emm-consulting-pty-limited](https://www.linkedin.com/company/emm-consulting-pty-limited)



emmconsulting.com.au

Appendix H ER Endorsement

31 March 2026

John Pola
Environmental Manager
Generator Property Management
110 Skelly Road
Lidsdale NSW 2790

Re: MP07_0005 - Wallerawang Ash Dam Areas - Environmental Representative Endorsement - Construction Environmental Management Plan Rev 6

Dear John,

Following a review of the documents provided for the Construction Environmental Management Plan (CEMP) Rev 6, I can provide the following endorsement.

The CEMP Rev 6 has been reviewed against the Mod 2 Consolidated Conditions of Approval, in particular Condition 6.2 and DPHI comments on the Rev 6 CEMP. No additional consultation was undertaken or required to be undertaken for this plan.

All conditions of approval and mitigation measures are contained in the CEMP Rev 6.

The document is endorsed for submission to DPHI for approval.

Yours sincerely



David Bone
Independent Environmental Representative
dbone@emmconsulting.com.au