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18/08/2026

Liddell Battery and Bayswater Ancillary Works – Operational Soil and Water Management Plan (MP)

Dear Mr. Taylor

Thank you for submitting the Soil and Water MP in accordance with Condition C1, Schedule 2 of the consent for the Liddell Battery and Bayswater Ancillary Works (SSD-8889679-PA-112). I also acknowledge your response to the Department's review comments and request for additional information.

I note the document was revised to align with operational stage of the project and to reflect the reduced environmental risks. The document contains the information required by the conditions of approval.

Accordingly, as nominee of the Planning Secretary, I approve the Soil and Water MP (Rev. 7.1, July 2026).

You are reminded that if there are any inconsistencies between the Plan and the conditions of approval, the conditions prevail.

Please ensure you make the document publicly available on the project website at the earliest convenience.

If you wish to discuss the matter further, please contact Charissa Pillay on 02 99955944.

Yours sincerely

A handwritten signature in black ink, appearing to be "SOD", written over a light blue circular stamp.

Stephen O'Donoghue
Director
Resource Assessments

As nominee of the Planning Secretary

Liddell Power Station Battery Energy Storage System

Soil and Water Management Sub Plan

Environmental Management Strategy





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Document revision history

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8- May- 2026	7	Lachy Taylor – Environment Advisor	Update for operational phase
12-Jul-2026	7.1	Lachy Taylor – Environment Advisor	Updated to address DPHI comments

Glossary and Terms

Term	Description
AECOM	AECOM Australia Pty Ltd
AGLM	AGL Macquarie Pty Ltd
BAW	Bayswater Ancillary Works
BESS	Battery Energy Storage System
CCTV	Closed-circuit television
DPE	Department of Planning and Environment (now DPHI)
DPHI	Department of Planning, Housing and Infrastructure (formerly DPE)
EIS	Environmental Impact Statement
EMS	Environmental Management Strategy
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i> (NSW)
EPL	Environment Protection Licence
ESCP	Erosion and Sediment Control Plan
GWh	Gigawatt hours
Ha	hectares
HRSTS	Hunter River Salinity Trading Scheme
Km	kilometre
kV	Kilovolt
LBBAWP	Liddell Battery and Bayswater Ancillary Works Project, consisting of a battery energy storage system at Liddell, decoupling works, and works associated with the ongoing operation of Bayswater
LDBS	Liddell Battery and Energy Storage System
Liddell BESS	Liddell Battery and Energy Storage System Stage 2 of the Liddell Battery and Bayswater Ancillary Works Project consisting of the construction, operation and decommissioning of a BESS with the storage capacity to facilitate a maximum discharge of up to 500 MW for a four-hour period, or up to 2 GWh
LSC	Land and Soil Capability
ML	megalitre
MW	Megawatt
NEM	National Energy Market
PIRMP	Pollution Incident Response Management Plan
POEO Act	<i>Protection of the Environment Operations Act 1997</i> (NSW)
RTS	Response to Submissions
SEARs	Secretary's Environmental Assessment Requirements
Site (the)	Location of the BESS
SSD	State Significant Development

Term	Description
SWMP	Soil and Water Management Plan
TPZ	Tree Protection Zones
V	Volt
WAL	Water Access Licences

1. Introduction

AGL Macquarie Pty Limited (AGLM) have prepared this Soil and Water Management Plan (SWMP) for a Battery Energy Storage System (BESS) which forms part of the Liddell Battery and Bayswater Ancillary Works Project (LBBAWP), NSW.

The LBBAWP is a State Significant Development (SSD) under the *State Environmental Planning Policy (State and Regional Development) 2011*¹, and is subject to Part 4, Division 4.7 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

An Environmental Impact Statement (EIS) was prepared in March 2021 in accordance with the Secretary's Environmental Assessment Requirements (SEARs). Development consent (SSD-8889679) was issued by the Department of Planning and Environment (DPE) (now Department of Planning, Housing and Infrastructure (DPHI)) on 8 March 2022.

1.1. Background

AGLM is progressing with plans to facilitate the efficient, safe and reliable continuation of electricity-generating works from the Bayswater and Liddell sites. The LBBAWP will be carried out in the following stages:

- Stage 1 - Decoupling Works: Alternative network connection arrangements for the Liddell 33 Kilovolt (kV) switching station that provides electricity to the infrastructure required for the ongoing operation of Bayswater power station, to associated ancillary infrastructure and to potential third-party industrial energy users
- Stage 2 - BESS: Replacement of a portion of Liddell's dispatchable electricity supply is required for the National Energy Market (NEM), including the construction, operation and decommissioning of a grid-connected utility-scale BESS with a capacity of up to 500 megawatts (MW) and 2 gigawatt hours (GWh)
- Stage 3 - Bayswater Ancillary Works (BAW): Works associated with Bayswater power station, which may include upgrades to ancillary infrastructure, such as pumps, pipelines, conveyor systems, roads and assets, to enable maintenance, repairs, replacement or expansion
- Consolidated consents: Surrender and consolidation of various existing development approvals required for the ongoing operation of AGLM assets.

This management plan has been developed for the operational phase of Stage 2 only (i.e. the BESS), which is hereinafter referred to as Liddell BESS.

1.2. Site details

The AGLM landholding is located approximately 15 kilometres (km) southeast of Muswellbrook, 25 km northwest of Singleton, and approximately 165 km west northwest of Sydney in NSW. The total area of the AGLM landholding is approximately 10,000 ha, including the Bayswater and Liddell power station operational areas, the Ravensworth rehabilitation area, Lake Liddell and surrounding buffer lands.

Surrounding the AGLM landholding is predominantly land uses heavily influenced by industrial activity. The local area is dominated by large-scale infrastructure associated with Bayswater and Liddell power

¹ Now State Environmental Planning Policy (Planning Systems) 2021

stations and open-cut mining activities. Agricultural clearing for the purposes of grazing is also present within and surrounding the AGLM landholding.

Elevations within approximately 10 kilometres of the AGLM landholding range from around 100 to 500 metres above sea level.

The majority of the AGLM landholding has been previously disturbed during the construction and operation of Liddell and Bayswater power stations and historic agricultural activity. LDBS is located at the former solar array area, shown in Figure 1. This location was selected as it is in close proximity to Liddell Power Station and is on previously disturbed operational lands no longer required for Liddell operations.

1.3. Project description

LDBS has the storage capacity to facilitate a maximum discharge of up to 500 MW for up to a four-hour period or up to 2 GWh. LDBS is connected to the existing TransGrid 330kV substation via a 330kV high-voltage power line (refer to Figure 1).

The list below provides a updated list of key components of the BESS:

- 1,548 pre-assembled battery enclosures containing 24,768 battery modules.
- 172 inverters with 86 core transformers
- One control room, two switchgear room and a warehouse/ workshop
- 33kV reticulation system and collector switch rooms
- Overhead, underground, or a combination of both, 330 kV line to connect to TransGrid 330 kV substation
- Two 33 kV / 33kV / 330 kV three-winding transformers and 330 kV connection equipment
- Ancillary infrastructure, including water tanks for bushfire protection purposes, lightning protection, security fencing and closed-circuit television (CCTV).

The site layout is shown in Figure 2.

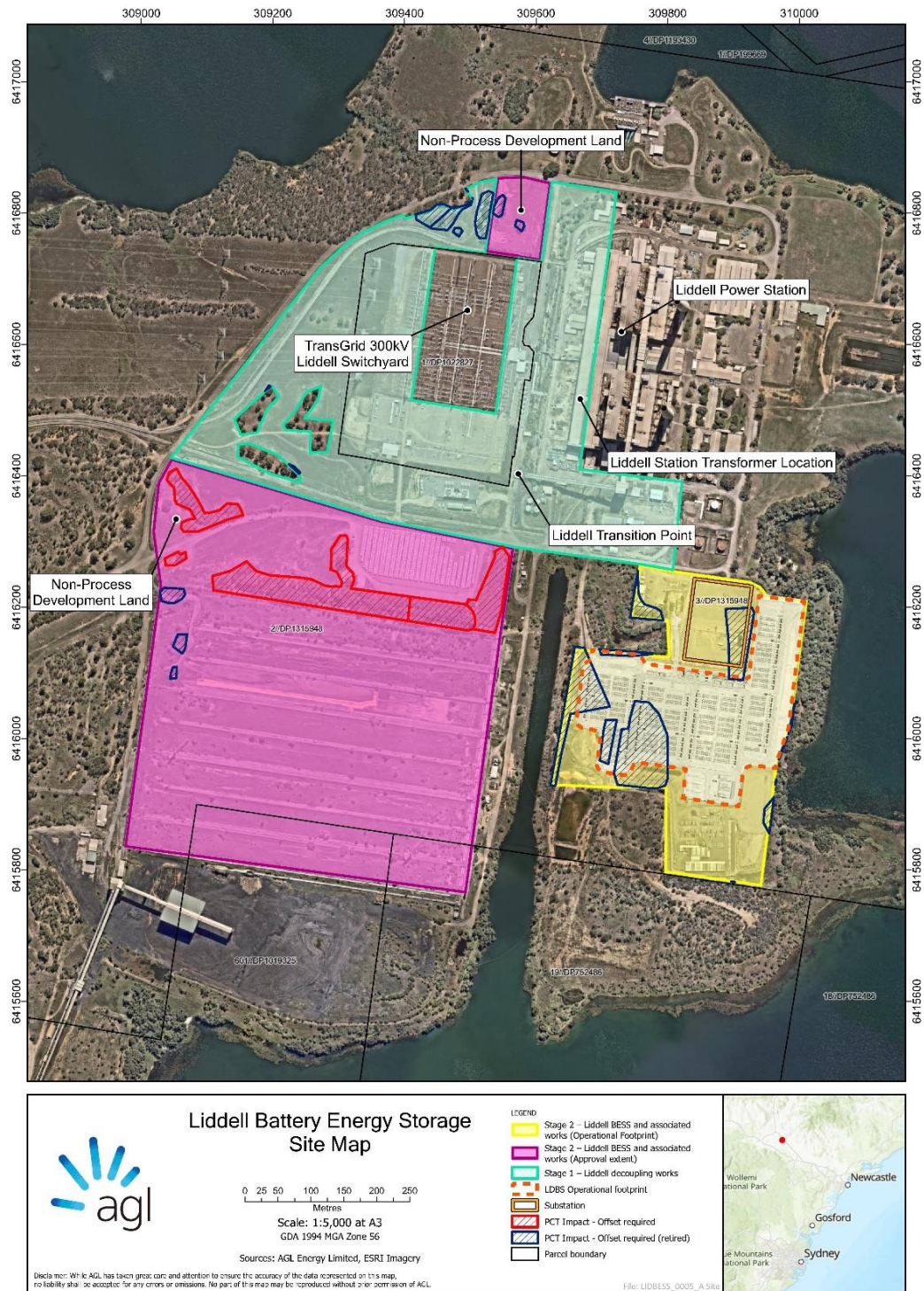


Figure 1 Site Map

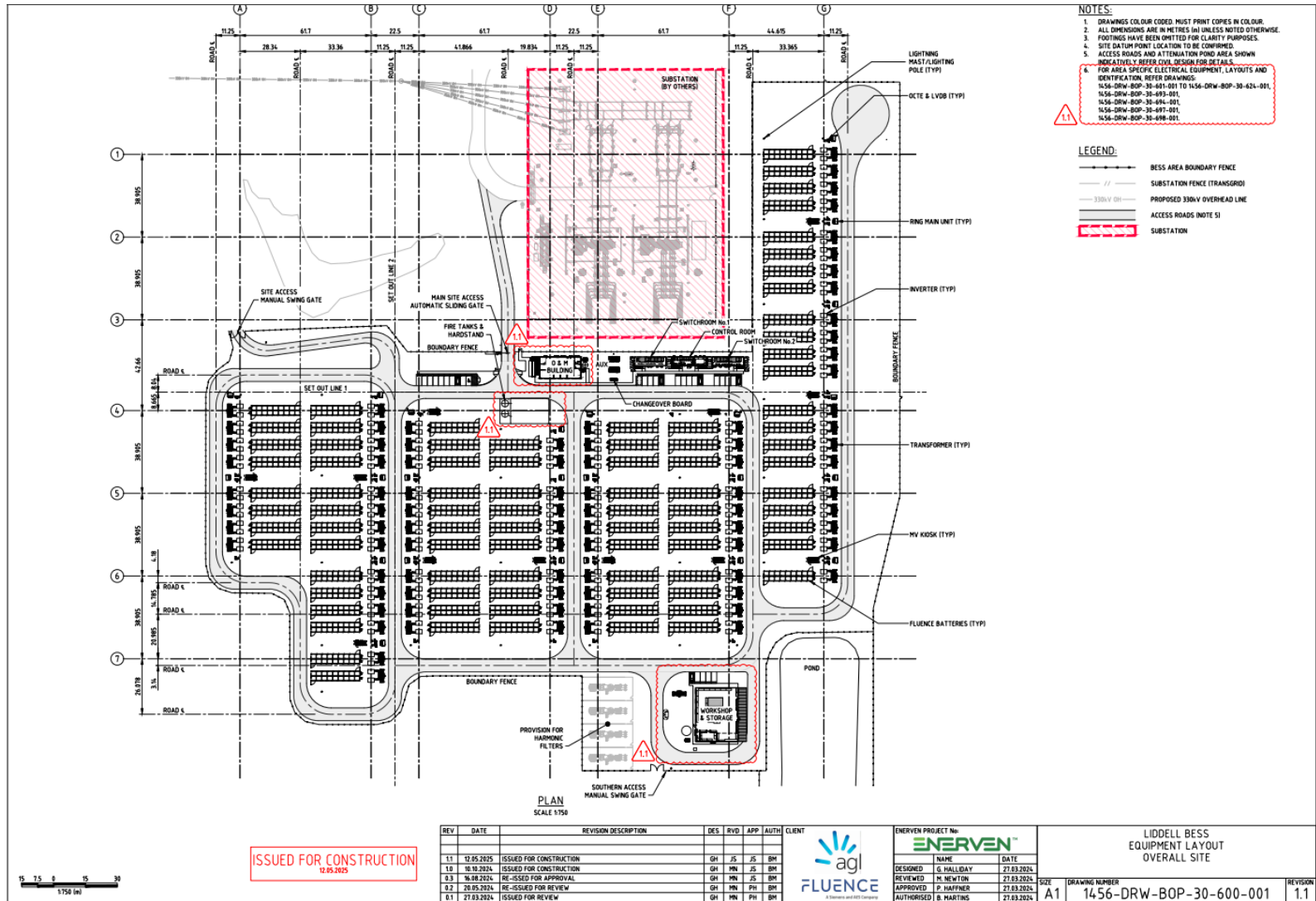


Figure 2 Site layout

1.4. Relevant approvals and conditions

1.4.1. Project approvals

Development consent (SSD-8889679) was granted for AGL Macquarie Limited on 8 March 2022, which includes the voluntary surrender and consolidation of various existing development approvals into SSD-8889679. This approval includes the development of Liddell Battery and Bayswater Ancillary Works.

The site does not constitute a scheduled activity and is therefore not subject to obtaining a separate EPL. The site however does sit within the boundaries of EPL 2122, held by AGL Macquarie, and utilises licence discharge point 27 for discharge of water from site to Lake Liddell and therefore is subject to the provisions of the licence.

1.4.2. Development consent conditions

In accordance with SSD-8889679 development consent condition C1, an Environmental Management Strategy (EMS) has been prepared for the LDBS to provide a strategic framework for the environmental management of the development. A range of subplans has been developed to support the EMS and address development consent condition C1(e)(i).

This SWMP has been developed to manage the potential environmental impacts to soil and/or water arising from the LDBS. The relevant conditions are outlined below in Table 1.

Table 1 Development consent conditions – Soil and water management

Condition	Requirement	Reference
C1	Prior to commencing construction, the Applicant must prepare an Environmental Management Strategy for the development to the satisfaction of the Secretary. This strategy must include the following subplans: • soil, stormwater, water quality, flood and spoil management; • construction and decommissioning noise, including an out-of-hours works protocol; • air quality management; • contamination, including an unexpected finds protocol • waste management; and • traffic.	This management plan
B24	The Applicant must ensure that it has sufficient water for all stages of the development and, if necessary, adjust the scale of the development to match its available water supply.	Section 4.3
B25	The Applicant must ensure that all surface discharges from the development comply with all relevant provisions of the POEO Act, including any discharge limits (both volume and quality) set for the development in any EPL.	Section 6.1
B26	The Applicant must: • Ensure the development is designed, constructed and maintained to minimise impacts on surface water, flooding and groundwater at the site • Minimise any soil erosion associated with the construction, upgrading or decommissioning of the development in accordance with the relevant requirements in the	Section 5 Management Measures W2, W4 and W7

Condition	Requirement	Reference
	<i>Managing Urban Stormwater: Soils and Construction</i> (Landcom, 2004) manual, or its latest version • Ensure the battery energy storage system and ancillary infrastructure are designed, constructed and maintained to avoid causing any erosion on site • Ensure all works are undertaken in accordance with the <i>Guidelines for Controlled Activities on Waterfront Land</i> (NRAR, 2018), or its latest version unless DPE Water agrees otherwise.	

1.5. Scope, purpose and objectives

This SWMP has been developed in accordance with SSD-8889679 development consent condition C1 and to address relevant requirements associated with:

- SSD-8889679 development consent conditions
- EIS management measures which were amended in the Response to Submissions (RTS) (Jacobs 2021)
- AGL plans and procedures.

The purpose of this SWMP is to:

- Summarise potential soil and water impacts of the operation of the LDBS as assessed in the EIS (Jacobs 2021)
- Identify environmental management measures to be implemented to minimise soil and water impacts.
- Document measures that would ensure compliance with SDD-8889679 is maintained.

All works undertaken at LDBS must comply with the environmental management measures outlined in Section 5 of this plan.

1.6. Related reports and plans

There are environmental assessments, management plans and monitoring programs for existing and proposed operations within the AGLM landholdings. As the site sits within the boundaries of EPL 2122, the Pollution Incident Response Management Plan (PIRMP) must be read in conjunction with this plan.

2. Legislation and guidelines

2.1. Legislation

This SWMP has been prepared in accordance with the relevant legislation and regulatory requirements within the EMS. Key legislation relating to this SWMP:

- POEO Act (NSW)
- *Water Management Act 2000* (NSW)
- *Water Management (General) Regulation 2018* (NSW).

2.1.1. POEO Act

The aim of the POEO Act is to achieve the protection, restoration and enhancement of the quality of the NSW environment and reduce potential risks to human health and the environment. The POEO Act is the primary piece of legislation for the regulation of potential pollution impacts associated with scheduled operations or activities in NSW. Scheduled activities are those defined in Schedule 1 of the Act.

The site does not constitute a scheduled activity and is therefore not subject to obtaining a separate EPL. The site however does sit within the boundaries of EPL 2122, held by AGL Macquarie, and utilises licence discharge point 27 for discharge of water from site to Lake Liddell and therefore is subject to the provisions of the licence.

2.1.2. Water Management Act 2000

The *Water Management Act 2000* was introduced to provide a comprehensive singular piece of legislation to effectively manage and regulate access and use of the State's water resources.

2.1.3. Water Management (General) Regulation 2018

The *Water Management (General) Regulation 2018* provides further guidance on matters relevant to water management in NSW.

2.2. Standards and guidelines

The main standards and guidelines relevant to this SWMP include:

- *NSW Aquifer Interference Policy* (Department of Primary Industries, 2012)
- *Managing Urban Stormwater: Soils and Construction (Volume 1)* (Landcom, 2004)
- *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* (Australian Government Institute, 2018)
- *Approved Methods for the Sampling and Analysis of Water Pollutants in NSW* (Environment Protection Authority (EPA), 2007)
- *NSW Water Quality and River Flow Objectives* (Department of Environment, Climate Change and Water, 2006)
- *Guideline: Pollution Incident Response Management Plans* (EPA, 2022).

The Approved Methods for the Sampling and Analysis of Water Pollutants in NSW has been updated in 2022. Therefore, monitoring conditions within an EPL must be undertaken in accordance with the 2022 version of the Approved Methods for Sampling and Analysis (which replaces the 2004 version).

2.2.1. NSW Aquifer Interference Policy

The *NSW Aquifer Interference Policy* sets out the requirements for obtaining water licences for aquifer interference activities under NSW water legislation and establishes considerations in assessing and providing advice on whether more than minimal impacts might occur to a key water-dependent asset.

2.2.2. Managing Urban Stormwater: Soils and Construction (Volume 1)

The *Managing Urban Stormwater: Soils and Construction (Volume 1)* is a comprehensive guideline for use in construction to ensure all industries comply with appropriate stormwater management practices.

2.2.3. Australian and New Zealand Guidelines for Fresh and Marine Water Quality

The *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* (ANZG 2018) provide a framework for managing water quality in rivers, lakes, estuaries and marine waters in Australia and New Zealand. Note: Discharge from site is regulated by limits imposed by EPL 2122.

2.2.4. Approved Methods for the Sampling and Analysis of Water Pollutants in NSW

The *Approved Methods for the Sampling and Analysis of Water Pollutants in NSW* provides guidance for the monitoring and analysis of water pollutants in NSW for comparison with limits or performance criteria listed in statutory instruments.

2.2.5. NSW Water Quality and River Flow Objectives

The *NSW Water Quality and River Flow Objectives* are an agreed set of environmental values and long-term goals for NSW surface water. These objectives include a range of water quality indicators for both fresh and estuarine surface waters relevant for the assessment of waterway conditions.

2.2.6. Guideline: Pollution Incident Response Management Plans

The *Guideline: Pollution Incident Response Management Plans* is a framework for EPL holders to ensure their site operations comply with the pollution incident response management plan obligations under the POEO Act.

The previous version of this guideline was from March 2012 and is the version to which AGLM prepared their existing PIRMPs. Note: The PIRMP for AGL Macquarie is applicable to this site. Refer to Section 5.1.

2.3. Environmental impact assessment

The EIS prepared for the LBBAWP included an assessment of soil and water in accordance with the SEARs issued. The assessment identified potential impacts associated with soil and water and recommended suitable. The EIS was placed on public exhibition for a period of 28 days, between 15 April 2021 to 12 May 2021. Following this, an RTS report (Jacobs 2021) was prepared to consider and respond to any submissions received during the exhibition period, which resulted in changes to some of the management measures from the EIS. Therefore, the management measures in the RTS report



supersede those in the EIS, where changes have been made, which are included in Section 5 where relevant to the operation of LDBS.

3. Roles and responsibilities

Section 4.3 of the EMS outlines key roles and responsibilities all personnel working at LDBS.

4. Environmental setting and potential impacts

4.1. Soils

Natural soils at the site are classified as being part of the Liddell soil landscape (SI5601Id). Soils in the vicinity of the LDBS generally comprise silty clay loams, clay loams and silty loams underlain by silty clays, medium clays, and heavy clays. Fill was applied to most of the site during construction with depths of up to 2.5m.

Acid sulfate soils are generally limited to deeper marine sediments and low lying sections of coastal floodplains, rivers and creeks where surface elevations are less than approximately five metres above sea level. Mapping indicates most of the land near the LDBS has a 'low probability of occurrence' for acid sulfate soils (with a 'very low' level of confidence). As the LDBS is located at elevations above 90 metres above sea level, acid sulfate soils are not anticipated.

Soil salinity in the broad vicinity of LDBS ranges from 'non-saline' to 'highly saline'.

4.1.1. Land and soil capability

The land within the footprint of LDBS is mapped as 'Severe' limitations on the Land and Soil Capability Mapping for NSW (Department of Planning, Industry and Environment, 2021), which corresponds to a land and soil capability (LSC) class 5 (Moderate–low capability land). The land limitations need to be carefully managed to prevent long-term degradation.

4.2. Waterways and waterbodies

LDBS is located in the central region of the Hunter River catchment area, which spans 22,000 square kilometres (km²). Within the AGLM landholdings exists the Bayswater Creek and Saltwater Creek sub-catchments.

There are a number of waterways and artificial waterbodies within the vicinity of the LDBS, as shown in Figure 3. Most of these waterways are highly disturbed and are not classified as sensitive receiving environments.

Surface water runoff from the LDBS site would be received by Lake Liddell. Water is intermittently released from Lake Liddell to Bayswater Creek, and then the Hunter River.

4.2.1. Lake Liddell

Lake Liddell is an artificial lake constructed to supply cooling water to Bayswater and Liddell power stations. The lake is located east of the LDBS and collects runoff from the upper portion of the Bayswater Creek catchment, including flows from licenced discharges of Bayswater and Liddell power stations.

Flows from Lake Liddell are intermittently released to Bayswater Creek from a monitored, licenced discharge point at the main dam wall. The quality of water released into Bayswater Creek is subject to regulation by the Hunter River Salinity Trading Scheme (HRSTS) and water quality parameter limits implemented under EPL 779 (Bayswater power station's EPL).

4.2.2. Bayswater Creek

Bayswater Creek has been dammed to create Lake Liddell reservoir and heavily modified below the dam wall to accommodate discharges downstream into the Hunter River. The creek acts as a transfer channel between Lake Liddell and the Hunter River, with discharges to Hunter River regulated by the HRSTS.

4.3. Water allocations and uses

The major source of water for AGLM operations is water allocations from the Hunter River.

Bayswater and Liddell power stations share an integrated water supply and treatment system. This supply system is designed to pump up to 61,000 megalitres (ML) per year from the Hunter River at Jerry's Plains to meet the water requirements of Liddell (25,000 ML per year) (when it was operational) and Bayswater (36,000 ML per year).

The maximum allocated water volume is shown in Table 2, with allocations reset based on the calendar year. The actual annual usage of water on site from the Hunter River is variable and dependent on water availability from the Hunter River, water quality (on site and in the Hunter River), and dam levels within the AGLM landholdings.

With the closure of Liddell power station in April 2023, additional availability of water is now available for the LDBS requirements.

Table 2 AGLM water allocations

Water allocation	Volume (ML)
Water utility	36,000
Supplementary	36,000
General security	2090
High Security	1740
Total	75,830

Water for the operations of the LDBS is sourced via the two water tanks next to the site office.

LDBS has sufficient water for all stages of its life.

4.4. Flooding

The LDBS is not located in a flood-prone area under the *Singleton Local Environment Plan 2013* or *Muswellbrook Local Environmental Plan 2009*. The BESS footprint is located on land that is above the maximum water level of Lake Liddell, and away from natural drainage lines.

4.5. Groundwater

There are 35 registered groundwater bores within the surrounding land. The monitoring data from these bores found that standing water levels for the bores ranged from 3 to 43 metres below ground level.

The existing groundwater data for the AGLM landholdings indicate that average groundwater depths range from 0.4 metres below ground level to 11.5 metres below ground level. The relatively shallow groundwater depths are a result of the relevant bores being in relatively low-lying land.

Operational activities at the LDBS would be limited to surface works and as such, there would be limited possibilities for direct interaction with groundwater. No harvesting of groundwater would be required, and therefore a Water Access Licence (WAL) would not be needed.

4.6. Potential impacts

Construction of LDBS has resulted in the establishment of new permanent impervious surfaces within the site. Roads shown in Figure 2 are sealed, with concrete drainage channels directing surface flows to the retention basins on the eastern side of the site. The battery enclosures are placed on cement slabs and surrounded by crushed blue metal base. Unsealed surfaces have been kept to a minimum through design. Soil stability in the unsealed areas of the site will be managed through maintaining vegetation in the area and monitoring for any erosion that may be occurring. Any erosion observed will be addressed promptly.

The site has potential to impact surrounding surface waters through discharge of sediment or discharge of contaminated water. Spillable liquid on the LDBS is stored in batteries (coolant) and electrical infrastructure (mineral oil). Each component containing spillable liquid is located within a concrete bund, with a disposable oil barrier cartridge allowing clean water to discharge. In the presence of hydrocarbons, the cartridges seal and do not allow liquid to pass through.

Surface water is directed to the retention basins, which ensure that flows are slowed and sediment is able to settle out of the water prior to discharge. The discharge pond outlet is controlled by a valve, which will remain closed until water quality sampling can be completed as per EPL 2122.

Small quantities of spillable material will also be kept on site within the warehouse. Risk of spill will be mitigated through storage of chemicals and hazardous material within bunded areas which are maintained in accordance with:

- any relevant Australian Standards for the liquids being stored;
- within a bunded area with a minimum bund capacity of 110% of the volume of the largest single stored vessel within the bund;
- the Storing and Handling Liquids: Environmental Protection Participant's Manual (DECC, 2007)

Additional measures are described in Table 3 which reduces the risk of water and soil pollution.

During operation, excavation and storage of spoil at LDBS is not expected to be required. If a temporary stockpile is required, it will be placed away from site drainage lines and managed as per measure W2 in Table 3.

5. Environmental management measures

LDBS will be operated to minimise impacts on soils, surface water, flooding and groundwater. The management measures provided in Table 3 and

Table 4 will be implemented to minimise potential soil and water impacts from LDBS during operation. For completeness, measures relevant to decommissioning have been included, however where they are not applicable to the operational phase they have been marked in grey. Measures identified for pre-construction have been excluded as that phase has been completed.

Table 3 Environmental management measures – soil and water (EIS / RTS / development consent)

Reference	Environmental management measures	Responsibility	Timing
W2	The following measures will be undertaken to manage activities in proximity to waterways: - The design and implementation of works within waterfront land will be managed in accordance with <i>Guidelines for Controlled Activities on Waterfront Land</i> (NRAR, 2018) - Implementing practices to minimise disturbance of banks and undertake bank stabilisation - Appropriate drainage features will be incorporated into the design of the BESS Project components by a suitably qualified and experienced professional. All Project components will be designed and constructed in accordance with relevant guidelines.	AGLM	Operation Decommissioning
W3	Stockpiles will be managed to minimise the potential for mobilisation and transport of dust, sediment and leachate in runoff. This will include: - Minimising the number of stockpiles, the area used for stockpiles, and the time that they are left exposed (i.e. covering stockpiles) - Locating stockpiles away from drainage lines, waterways and areas where they may be susceptible to wind erosion - Stabilising stockpiles, establishing appropriate sediment controls (i.e. sediment fences) and suppressing dust as required.	AGLM	Operation

Reference	Environmental management measures	Responsibility	Timing
W4	Erosion and sediment control measures will be implemented and maintained at all work sites in accordance with the principles and requirements in <i>Managing Urban Stormwater – Soils and Construction, Volume 1</i> (Landcom 2004), commonly referred to as the “Blue Book”. Additionally, any water collected from worksites will be treated and discharged (where able) to avoid any potential contamination or local stormwater impacts. Measures will be designed in accordance with the relevant guideline where appropriate.	AGLM Decommissioning Contractor	Decommissioning
W5	Water use during construction will be minimised where possible, and measures to reduce water use will be applied.	AGLM Decommissioning Contractor	Decommissioning
W7	The BESS and ancillary facilities will be designed, constructed and maintained to minimise impacts on surface water, flooding, and groundwater and to avoid impacts on soil and erosion	AGLM	Operation

Table 4 Environmental management measures – soil and water (other)

Reference	Environmental management measures	Responsibility	Timing
W8	An Erosion and Sediment Control Plan (ESCP) will be prepared showing a drawing or map of the site layout, including: • North point and plan scale • Approximate grades and directions of falls (Contours 0.5m for gradients <15%, 1m for gradients 15-30% and 2m slopes >30%) • Site boundaries, adjoining roads and sensitive surroundings • Construction access points • Site office, car park and location of stockpiles • Proposed construction activities and limits of disturbance • Approximate location of trees and other vegetation designated “No Go Zones” • Existing and proposed drainage patterns and discharge points • Clean water diversion of upslope runoff around the disturbed areas • Location and details of proposed erosion and sediment control measures • Location of stockpile areas, including topsoil storage, protection and reuse methodology	AGLM Decommissioning Contractor	Prior to decommissioning

	- Location of concrete washout areas - Commentary describing: – timing of works – nature and extent of earthworks (cut and fill) – site rehabilitation proposals, including schedules – frequency and nature of maintenance regimes.		
W9	Topsoil will be reused where reasonable and feasible and stockpiled separately	Decommissioning Contractor	Decommissioning
W10	Site access points will be stabilised with track mat or similar if required	Decommissioning Contractor	Decommissioning
W11	Geo-fabric or similar will be installed over any stormwater drains	Decommissioning Contractor	Decommissioning
W12	No excavation with machinery, stockpiling, or equipment storage will occur within tree protection zones (TPZ)	Decommissioning Contractor	Decommissioning
W13	Surface runoff will be diverted away from disturbed soil and stockpiles	Decommissioning Contractor	Decommissioning
W14	Work will not be carried out in periods of predicted high rainfall in order to manage offsite stormwater discharge. Predicted high rainfall scenarios may include the following: - Heavy rainfall experienced during the work and is to be stopped - Where the site is waterlogged and likely to be damaged by vehicle and rig movement - Where consistent rainfall is experienced and likely to persist during the day. The Environment Manager is to make the decision as to whether work needs to be stopped.	Decommissioning Contractor	Decommissioning
W15	Water carts will be maintained on site and used for dust suppression on internal roads and on other internal areas necessary, particularly in dry weather. Any sediment/soil transferred offsite will be swept up at least daily or before rainfall	Decommissioning Contractor	Decommissioning
W16	All chemicals and fuels will be stored in accordance with relevant Australian Standards and Data Safety Sheets. Stored chemicals will be recorded on a site register and clearly labelled	AGLM Decommissioning Contractor (Decommissioning phase only)	Operation Decommissioning
W17	Plant and equipment washdown will be carried out within a designated washdown area. All concrete washout activity will occur at a designated concrete washout location that will securely capture and store	Decommissioning Contractor	Decommissioning

	concrete wastewater and solids in an impervious bunded area		
W18	Plant and equipment will be regularly checked for leaks. Oil/fuel leaks will be repaired immediately, or the item will be removed from site and replaced with a leak-free item	AGLM Decommissioning Contractor (Decommissioning phase only)	Operation Decommissioning
W19	Refuelling, fuel decanting and vehicle maintenance is to be carried out away from waterways and drainage lines with spill kits close by.	AGLM Decommissioning Contractor (Decommissioning phase only)	Operation Decommissioning
W20	Spill kits will be provided on site, and kept stocked for clean-up of accidental chemical/fuel spills and will be readily accessible	AGLM Decommissioning Contractor (Decommissioning phase only)	Operation Decommissioning
W21	All pollution incidents, including spills, will be managed in accordance with the AGLM Pollution Incident Response Management Plan (PIRMP)	AGLM	Operation Decommissioning
W22	A Dewatering Management Plan will be prepared to address all aspects of dewatering, including groundwater and rainwater. All water discharged will meet the criteria specified in EPL 2122. Dewatering /aquifer interference permits will be obtained where the construction dewatering volume exceeds three megalitres	Decommissioning Contractor	Decommissioning
W23	Any imported material will be certified for the intended use and will be free from contamination, including asbestos	Decommissioning Contractor	Decommissioning
W24	Any spoil removed from site will be classified in accordance with NSW Environment Protection Authority Waste Classification Guidelines and disposed of at a suitably licensed waste facility. Spoil removed will be recorded in a Waste Disposal Register and include the disposal location	AGLM Decommissioning Contractor (Decommissioning phase only)	Operation Decommissioning
W25	Ground disturbance will be minimised, and disturbed areas stabilised progressively	AGLM Decommissioning Contractor (Decommissioning phase only)	Operation Decommissioning
W26	Potential or actual acid sulphate soils will be managed in accordance with the Acid Sulfate Soils Management Advisory Committee's Acid Sulfate Soils Assessment	Decommissioning Contractor	Decommissioning

	Guidelines (ASSMAC 1998). Acid sulphate soils are not anticipated to be encountered.		
W27	If required, appropriate soil salinity mitigation measures will be adopted. This may include: • Treat existing salinity with gypsum • Establish salt-tolerant species in existing or potential salinity problem areas after construction • Stabilise existing areas of erosion • Minimise water use on site • Avoid rotation and vertical displacement of the original soil profile • Backfill excavations deeper than one metre in the same order, or treat or use this material as fill at depths more than one metre from the finished level.	AGLM Decommissioning Contractor	Decommissioning
W28	Controls will only be removed once surfaces have been stabilised, including trapped sediment in drainage lines being removed	AGLM Decommissioning Contractor	Decommissioning

5.1. Pollution Incident Response Management Plan (PIRMP)

The PIRMP is triggered when an event occurs that has potential to cause material harm to the environment or involves the Emergency Responders in any way. The potential pollution hazards at the site that may trigger the PIRMP include:

- Spills, leaks and emission (such as hydrocarbons) resulting in water contamination
- Spills, leaks and emissions (such as hydrocarbons) resulting in land contamination;
- Major unplanned water discharge

The PIRMP provides guidance on:

- Pollution incident management
- Notification procedures for pollution incidents
- Incident response resources and facilities
- Training and testing
- Management responsibilities.

A copy of the PIRMP is located within the site office.

6. Compliance and reporting

6.1. Monitoring and reporting

Operational monitoring is outlined in Table 5.

Table 5 Soil and water management monitoring plan

Type of monitoring	Frequency	Responsibility	Records
Water quality monitoring prior to discharge from Point 27 as required by EPL 2122	As required	AGLM	Monitoring records
Drainage infrastructure inspection - Inspection of drainage infrastructure to confirm that it is clean, maintaining capacity and that no erosion is occurring. - General site inspection to identify any erosion or sedimentation issues	Monthly	AGLM	Inspection checklist
Inspection of liquids and chemicals storage areas (ensure lids are on, correctly stored in cabinets/bunded areas, no spills, spill kit is near and adequately stocked)	Weekly	AGLM	Inspection checklist
Adverse weather event inspection to ensure that control measures are effective and have adequate capacity, and that disturbed areas (if present) have adequate controls in place to minimise erosion and sediment dispersion.	As required	AGLM	Visual inspection
Inspection to confirm that the capacity of the discharge basin is reinstated following a rainfall event that has caused runoff to occur on or from the premises.	Following heavy rainfall / discharge	AGLM	Visual inspection

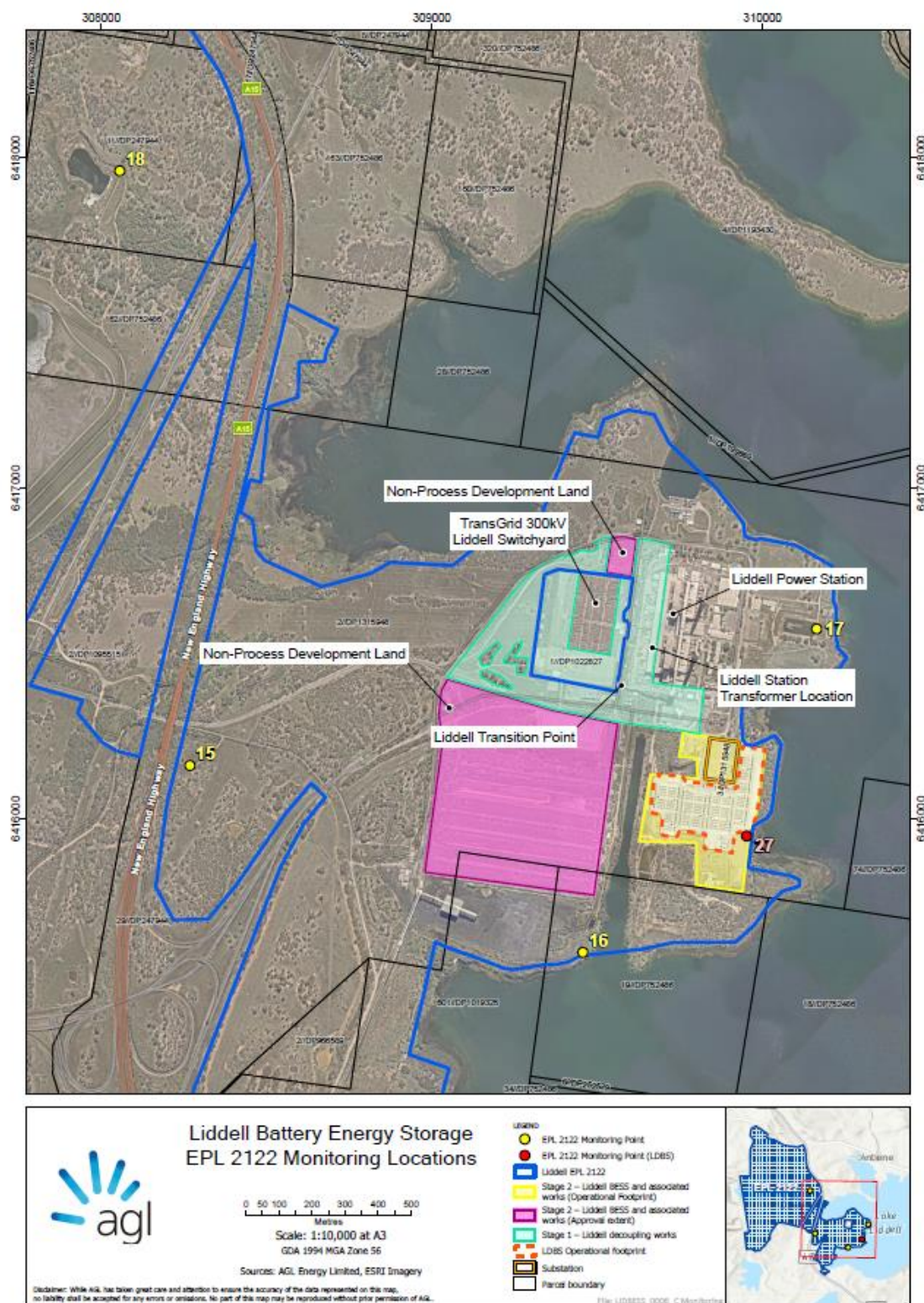


Figure 3 AGLM monitoring locations

6.2. Incidents and complaints

Incident management will be managed in accordance with the process outlined in Section 4.5 of the EMS and Schedule 2 Condition C4 of SSD-8889679.

In addition, Condition R4.1 and R4.2 of EPL 2122 stipulate how exceedances in discharge water quality must be reported. AGLM must notify the EPA of any exceedances of any emission or concentration limit included as a condition of this licence no later than 5 days after becoming aware of any exceedance. The notification must occur by telephoning the Environment Line service on 131 555.

R4.2 Within 20 days of the notification made in accordance with condition R4.1 above, the licensee must provide a report to the EPA at info@epa.nsw.gov.au that includes, as a minimum, the following details:

- a) the date and time the exceedance occurred;
- b) the nature of the exceedance (i.e. the pollutants involved);
- c) the duration of the exceedance;
- d) plant operating conditions at the time of the exceedance;
- e) the cause of the exceedance;
- f) the remedial/corrective actions taken at the time the exceedance was made known; and
- g) the actions taken and/or future actions to be taken, to prevent exceedances of a similar nature occurring in the future.

Complaints and enquiries will be managed in accordance with the process outlined in Section 5.3 of the EMS.

6.3. Document review and update

It is a requirement of the EMS that all associated plans, studies and strategies are reviewed and updated within three months of the following events as required by Schedule 2 Condition C3 of SSD-8889679:

- The submission of an environmental incident report under Schedule 2 Condition C4
- The submission of an audit report under Schedule 2 Condition C13
- The approval of any modification to the conditions of the development consent
- A direction of the Secretary under Schedule 2 Condition A3.

This document will also be reviewed and updated prior to the commencement of decommissioning.