



Bayswater Water and Other Associated Operational Works Project

Appendix A – Secretary's Environmental Assessment Requirements



Planning Secretary's Environmental Assessment Requirements

Section 4.12(8) of the *Environmental Planning and Assessment Act 1979*
 Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*

Application Number	SSD 9697
Proposal	<p>Bayswater Power Station Water and Other Associated Operational Works Project which includes:</p> <ul style="list-style-type: none"> • augmentation of the existing Bayswater ash dam; • an increase in coal ash recycling activities to produce up to 1,000,000 tonnes per annum of ash derived product material; • development of a salt cake landfill facility; • a new ash pipeline from Bayswater to Ravensworth Void No. 3; • water management improvement works; and • ancillary infrastructure works including fly ash harvesting infrastructure, underground pipelines and drainage systems.
Location	Bayswater Power Station on the New England Highway within the Muswellbrook Local Government Area (LGA) and Singleton LGA
Applicant	AGL Macquarie Pty Limited
Date of Issue	30 November 2018
General Requirements	<p>The environmental impact statement (EIS) must comply with the requirements in Schedule 2 of the <i>Environmental Planning and Assessment Regulation 2000</i> (the Regulation).</p> <p>In particular, the EIS must include:</p> <ul style="list-style-type: none"> • a stand-alone executive summary; • a full description of the development, including: <ul style="list-style-type: none"> – details of construction, operation and decommissioning; – a site plan showing all infrastructure and facilities (including any infrastructure that would be required for the development, but the subject of a separate approvals process); – a detailed constraints map identifying the key environmental and other land use constraints that have informed the final design of the development; • a strategic justification of the development focusing on the suitability of the proposed site with respect to potential land use conflicts with existing and future surrounding land uses; • the likely interactions between the project and any other existing, approved or proposed development on the site or in the vicinity of the site; • statutory context for the project, including: <ul style="list-style-type: none"> – how the project meets the provisions and objectives of the EP&A Act and EP&A Regulation; – consideration of the project against all relevant environmental planning instruments; – any approvals that must be obtained before the proposed project can commence; and – the likely interactions between the existing development consents and other environmental regulatory instruments for the Bayswater Power Station; • an assessment of the likely impacts of the development on the environment, focusing on the specific issues identified below, including:

	<ul style="list-style-type: none"> - a description of the existing environment likely to be affected by the development; - an assessment of the likely impacts of all stages of the development, (which is commensurate with the level of impact), including any cumulative impacts of the site and existing or proposed developments, taking into consideration any relevant legislation, environmental planning instruments, guidelines, policies, plans and industry codes of practice; - a description of the measures that would be implemented to avoid, mitigate and/or offset the impacts of the development (including draft management plans for specific issues as identified below); and - a description of the measures that would be implemented to monitor and report on the environmental performance of the development; • a consolidated summary of all the proposed environmental management and monitoring measures, identifying all the commitments in the EIS; and • the reasons why the development should be approved having regard to: <ul style="list-style-type: none"> - relevant matters for consideration under the <i>Environmental Planning and Assessment Act 1979</i>, including the objects of the Act and how the principles of ecologically sustainable development have been incorporated in the design, construction and ongoing operations of the development; - the suitability of the site with respect to potential land use conflicts with existing and future surrounding land uses; and - feasible alternatives to the development (and its key components), including the consequences of not carrying out the development. <p>The EIS must also be accompanied by a report from a qualified person providing:</p> <ul style="list-style-type: none"> • a detailed calculation of the capital investment value (CIV) (as defined in clause 3 of the Regulation) of the proposal, including details of all assumptions and components from which the CIV calculation is derived; and • certification that the information provided is accurate at the date of preparation. <p>The development application must be accompanied by the consent in writing of the owner/s of the land (as required in clause 49(1)(b) of the Regulation).</p>
<p>Specific Issues</p>	<p>The EIS must address the following specific matters:</p> <ul style="list-style-type: none"> • Water – including: <ul style="list-style-type: none"> - an assessment of the likely impacts of the development (including flooding) on the quantity and quality of the region’s surface and groundwater resources, related infrastructure, adjacent licensed water users and basic landholder rights, and measures proposed to monitor, reduce and mitigate these impacts; - details of water requirements and supply arrangements for construction and operation; - a description of the proposed water management system, water monitoring program and all other proposed measures to mitigate surface water and groundwater impacts; and - a description of the erosion and sediment control measures that would be implemented to mitigate any impacts in accordance with <i>Managing Urban Stormwater: Soils & Construction (Landcom 2004)</i>; • Land – including: <ul style="list-style-type: none"> - an assessment of the potential impacts of the development on soils and land capability (including salinisation and land contamination); and

- an assessment of compatibility of the development with other land uses in the vicinity of the development during construction, operation and after decommissioning, including:
 - consideration of the zoning provisions applying to the land, including a description of measures that would be implemented to remediate the land following decommissioning in accordance with *State Environmental Planning Policy No 55 - Remediation of Land*;
- **Transport** – including:
 - an assessment of the peak and average traffic generation, including over-dimensional vehicles and construction worker transportation;
 - an assessment of the likely transport impacts to the site access route, site access point and any Crown land, particularly in relation to the capacity and condition of the roads;
 - a cumulative impact assessment of traffic from nearby developments;
 - a description of any proposed road upgrades developed in consultation with the relevant road and rail authorities (if required); and
 - a description of the measures that would be implemented to mitigate any transport impacts during construction and operation;
- **Noise** – including an assessment of the construction noise impacts of the development in accordance with the *Interim Construction Noise Guideline (ICNG)* and operational noise impacts in accordance with the *NSW Noise Policy for Industry 2017*;
- **Biodiversity** – including:
 - an assessment of the likely biodiversity impacts of the development, in accordance with the Section 7.9 of the Biodiversity Conservation Act 2016 (NSW), the Biodiversity Assessment Method (BAM) and documented in a Biodiversity Development Assessment Report (BDAR), unless OEH and DPE determine that the proposed development is not likely to have any significant impacts on biodiversity values;
 - the BDAR must document the application of the avoid, minimise and offset framework including assessing all direct, indirect and prescribed impacts in accordance with the BAM; and
 - an assessment of the likely impacts on any listed aquatic threatened species, populations or ecological communities, scheduled under the *Fisheries Management Act 1994*, and a description of the measures to minimise and rehabilitate impacts;
- **Waste** – including:
 - an assessment of the likely impacts associated with disposal of the additional brine and sludge produced and whether existing infrastructure at the Bayswater Power Station has sufficient capacity to store the waste;
 - a description of all reasonable and feasible measures that have been or would be implemented to maximise resource recovery from the waste stream and reduce the disposal of waste to landfill in line with the aims, objectives and guidance in the *NSW Waste Avoidance and Resource Recovery Strategy 2014-2021* and other government policy;
 - details of the landfill cell design and integrity in accordance with best practice industry standard guidelines such as the EPA's *Environmental Guidelines: Solid Waste Landfills*;
 - a detailed description of how the landfill facility would be progressively capped and rehabilitated, and integrated into the surrounding landscape, including measures to ensure that the final landform is free draining;

	<ul style="list-style-type: none"> - a detail of the procedures and practices that will be put in place to ensure that any recovered ash for reuse offsite meets the requirements of the Coal Ash Order and Exemption, as in force from time to time; and - an assessment of available markets for recovered coal ash, whether existing markets will meet the reuse targets nominated and if not, actions and investments to be taken to expand these markets or create new markets; • Heritage – including an assessment of the likely Aboriginal and historic heritage (cultural and archaeological) impacts of the development, including consultation with the local Aboriginal community; • Visual – including: <ul style="list-style-type: none"> - a detailed assessment of the: <ul style="list-style-type: none"> o changing landforms on site during the various stages of the development; o potential visual impacts of the development on private landowners in the surrounding area as well as from key vantage points in the public domain; and - a detailed description of the measures that would be implemented to minimise the visual impacts of the development; • Air – including a quantitative assessment of potential: <ul style="list-style-type: none"> - construction and operational air quality impacts with a particular focus on dust emissions including PM_{2.5} and PM₁₀ emissions and dust generation from ash transport; - reasonable and feasible mitigation measures to minimise dust emissions, including evidence that there are no other available measures; and - monitoring and best practice management measures, in particular real-time air quality monitoring; • Hazards – paying particular attention to public safety, including bushfires; • Socio-Economic – including an assessment of the likely impacts on the local community and a consideration of the construction workforce accommodation.
<p>Consultation</p>	<p>During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, exploration licence and mining lease title holders, service providers, community groups and affected landowners.</p> <p>However, you must carry out detailed consultation with the following:</p> <ul style="list-style-type: none"> - Muswellbrook Shire Council; - Singleton Council; - Environment Protection Authority; - Office of Environment and Heritage; - Division of Resources and Geoscience; - Department of Industry; - Dam Safety Committee; - Roads and Maritime Services; and - NSW Rural Fire Service. <p>The EIS must describe the consultation process and the issues raised, and identify where the design of the infrastructure has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided</p>

Further consultation after 2 years	If you do not lodge a Development Application and EIS for the development within 2 years of the issue date of these SEARs, you must consult further with the Secretary in relation to the preparation of the EIS.
References	The assessment of the key issues listed above must take into account relevant guidelines, policies, and plans as identified. While not exhaustive, the following attachment contains a list of some of the guidelines, policies, and plans that may be relevant to the environmental assessment of this proposal.

ATTACHMENT 1

Environmental Planning Instruments, Policies, Guidelines & Plans

Water		
	NSW State Groundwater Policy Framework Document (NOW)	
	NSW State Groundwater Quality Protection Policy (NOW)	
	NSW State Groundwater Quantity Management Policy (NOW)	
	NSW Aquifer Interference Policy 2012 (NOW)	
	Australian Groundwater Modelling Guidelines 2012 (Commonwealth)	
	Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZG)	
	Guidelines for the Assessment & Management of Groundwater Contamination (EPA)	
	NSW State Rivers and Estuary Policy (NOW)	
	NSW Government Water Quality and River Flow Objectives (EPA)	
	Using the ANZECC Guideline and Water Quality Objectives in NSW (EPA)	
Groundwater and Surface Water	National Water Quality Management Strategy: Australian Guidelines for Fresh and Marine Water Quality (ANZECC/ARMCANZ)	
	National Water Quality Management Strategy: Australian Guidelines for Water Quality Monitoring and Reporting (ANZECC/ARMCANZ)	
	National Water Quality Management Strategy: Guidelines for Sewerage Systems – Effluent Management (ARMCANZ/ANZECC)	
	National Water Quality Management Strategy: Guidelines for Sewerage Systems – Use of Reclaimed Water (ARMCANZ/ANZECC)	
	Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (EPA)	
	Managing Urban Stormwater: Treatment Techniques (EPA)	
	Managing Urban Stormwater: Source Control (EPA)	
	Technical Guidelines: Bunding & Spill Management (EPA)	
	Environmental Guidelines: Use of Effluent by Irrigation (EPA)	
	A Rehabilitation Manual for Australian Streams (LWRRDC and CRCCH)	
	NSW Guidelines for Controlled Activities (NOW)	
	Flooding	Floodplain Development Manual (OEH)
		Floodplain Risk Management Guideline (OEH)
Biodiversity		
	Biodiversity Assessment Method (OEH)	
	Threatened Species Assessment Guidelines - Assessment of Significance (OEH)	
	Biosecurity Act 2015	
	Why Do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings (DPI)	
	Policy and Guidelines for Fish Habitat Conservation and Management (DPI)	
	Fisheries Management Act 1994	
Heritage		
	Aboriginal Cultural Heritage Consultation Requirements for Proponents (OEH)	
	Code of Practice for Archaeological Investigations of Objects in NSW (OEH)	

Guide to investigating, assessing and reporting on aboriginal cultural heritage in NSW (OEH).

NSW Heritage Manual (OEH)

Land

Soil and Landscape Issues in Environmental Impact Assessment (NOW)

State Environmental Planning Policy No. 55 – Remediation of Land

Local Land Services Act 2013

Australian Soil and Land Survey Handbook (CSIRO)

Guidelines for Surveying Soil and Land Resources (CSIRO)

The land and soil capability assessment scheme: second approximation (OEH)

Noise

NSW Noise Policy for Industry (EPA)

Interim Construction Noise Guideline (EPA)

NSW Road Noise Policy (EPA)

Assessing Vibration: a Technical Guideline (EPA)

Transport

Guide to Traffic Generating Developments (RTA)

Austrroads Guide to Road Design & relevant Australian Standards

Austrroads Guide to Traffic Management Part 12: Traffic Impacts of Development

Hazards and Risks

Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis (DPE)

Multi-Level Risk Assessment (DPE)

Waste

Waste Classification Guidelines (EPA)

Environmental Guidelines: Solid Waste Landfills (EPA)

Environmental Planning Instruments

State Environmental Planning Policy (State and Regional Development) 2011

State Environmental Planning Policy (Infrastructure) 2007

State Environmental Planning Policy (Rural Lands) 2008

State Environmental Planning Policy No. 44 – Koala Habitat Protection

State Environmental Planning Policy No. 55 – Remediation of Land

Muswellbrook Local Environmental Plan 2009 and Singleton Local Environmental Plan 2013

ATTACHMENT A

Commonwealth Department of Agriculture, Water and the Environment Assessment Requirements

Guidelines for preparing assessment documentation relevant to the EPBC Act for proposals being assessed under the assessment bilateral agreement with NSW

Bayswater Power Station Water Infrastructure Upgrade Project (EPBC 2020/8623) (SSD-9697)

Introduction

1. On 20 April 2020, a delegate of the Federal Minister for the Department of the Agriculture, Water and the Environment (DAWE) determined that the Bayswater Power Station Water Infrastructure Upgrade Project was a controlled action under section 75 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The EPBC Act controlling provisions for the proposed action are:
 - i. Listed threatened species and communities (sections 18 and 18A).
2. The proposed action will be assessed in accordance with the bilateral assessment agreement between the Australian and NSW governments (*Amending Agreement No.1, 2020*). The assessment documentation must include:
 - i. an assessment of all impacts that the action is likely to have on each matter protected by a provision of Part 3 of the EPBC Act;
 - ii. enough information about the proposal and its relevant impacts to allow the Federal Minister to make an informed decision on whether or not to approve; and
 - iii. information addressing the matters outlined in Schedule 4 of the *Environment Protection and Biodiversity Conservation Regulations 2000* (EPBC Regulations).
3. The Applicant must undertake an assessment of all protected matters that may be impacted by the development under the controlling provisions identified in paragraph 1. DAWE considers that there is likely to be a significant impact on the following:
 - i. Central Hunter Valley Eucalypt Forest and Woodland (CHVEFW) – Critically Endangered;
 - ii. Regent Honeyeater (*Anthochaera phrygia*) – Critically Endangered;
 - iii. Swift Parrot (*Lathamus discolor*) – Critically Endangered; and
 - iv. Striped Legless Lizard (*Delma impar*) – Vulnerable.
4. Based on DAWE's Reporting Tool and information provided by the Species Profiles and Threats Database (SPRAT), DAWE also considers that the proposed action may result in significant impacts to the following species:
 - i. Wybong Leek Orchid (*Prasophyllum sp. Wybong*) – Critically Endangered;
 - ii. *Ozothamnus tessellatus* – Vulnerable;
 - iii. Koala (*Phascolarctos cinereus*) – Vulnerable;
 - iv. Pink-tailed Worm-lizard (*Aprasia parapulchella*) – Vulnerable;
 - v. Spot-tailed Quoll (*Dasyurus maculatus*) – Endangered;
 - vi. Brush-tailed Rock Wallaby (*Petrogale penicillata*) – Vulnerable;
 - vii. Grey-headed Flying-fox (*Pteropus poliocephalus*) – Vulnerable;
 - viii. Large-eared Pied Bat (*Chalinolobus dwyeri*) – Vulnerable; and
 - ix. White-Box Yellow-Box Blakely's Red Gum Grassy Woodland and Derived Native Grassland – Critically Endangered.

These species require further assessment, surveys and analysis to determine whether they are likely to be significantly impacted. Note that this may not be a complete list and it is the responsibility of the Applicant

to ensure any protected matters under this controlling provision are assessed for the Commonwealth decision-makers consideration.

5. The Applicant must consider each of the protected matters under the triggered controlling provisions that may be impacted by the action. Note that this may not be a complete list and it is the responsibility of the Applicant to undertake an analysis of the significance of the relevant impacts and ensure that all protected matters that are likely to be significantly impacted are assessed for the Commonwealth Minister's consideration.

General Requirements

Relevant Regulations

6. The Environmental Impact Statement (EIS) must address the matters outlined in Schedule 4 of the EPBC Regulations and the matters outlined below in relation to the controlling provisions.

Project Description

7. The title of the action, background of the action and current status.
8. The precise location and description of all works to be undertaken (including associated offsite works and infrastructure), structures to be built or elements of the action that may have impacts on Matters of National Environmental Significance (MNES).
9. How the action relates to any other actions that have been, or are being taken in the region affected by the action.
10. How the works are to be undertaken and design parameters for those aspects of the structures or elements of the action that may have relevant impacts on MNES.

Impacts

11. The EIS must include an assessment of the relevant impacts¹ of the action on the matters protected by the controlling provisions, including:
 - i. a description and detailed assessment of the nature and extent of the likely direct, indirect and consequential impacts, including short term and long-term relevant impacts;
 - ii. a statement whether any relevant impacts are likely to be unknown, unpredictable or irreversible;
 - iii. analysis of the significance of the relevant impacts; and
 - iv. any technical data and other information used or needed to make a detailed assessment of the relevant impacts.

Avoidance, mitigation and offsetting

12. For each of the relevant matters protected that are likely to be significantly impacted by the action, the EIS must provide information on proposed avoidance and mitigation measures to manage the relevant impacts of the action including:
 - i. a description, and an assessment of the expected or predicted effectiveness of the mitigation measures,
 - ii. any statutory policy basis for the mitigation measures;
 - iii. the cost of the mitigation measures;

¹ Relevant impacts are those impacts likely to significantly impact on any matter protected under the EPBC Act

- iv. an outline of an environmental management plan that sets out the framework for continuing management, mitigation and monitoring programs for the relevant impacts of the action, including any provisions for independent environmental auditing;
 - v. the name of the agency responsible for endorsing or approving each mitigation measure or monitoring program.
13. Where a significant residual adverse impact to a relevant protected matter is considered likely, the EIS must provide information on the proposed offset strategy, including discussion of the conservation benefit associated with the proposed offset strategy.
14. For each of the relevant matters likely to be impacted by the action the EIS must provide reference to, and consideration of, relevant Commonwealth guidelines and policy statements including any:
- i. conservation advice or recovery plan for the species or community;
 - ii. relevant threat abatement plan for a process that threatens the species or community;
 - iii. wildlife conservation plan for the species; and
 - iv. any strategic assessment.

[Note: the relevant guidelines and policy statements for each species and community are available from DAWE's Species Profiles and Threats Database.

<http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl>]

Key Issues

Biodiversity (threatened species and communities and migratory species)

Comments

15. From the Commonwealth perspective, key risks and significant impacts associated with the proposed action on threatened species and ecological community relate to the extent of native vegetation clearing, increase in fragmentation of the remaining native vegetation (and subsequent indirect impacts), as well as likely impacts of the 2019-2020 bushfires. These impacts must be appropriately offset for the EPBC Act purposes.

Assessment Requirements

For each of the EPBC Act listed species predicted to occur in the project site, and each of the EPBC Act listed ecological communities likely to be significantly impacted, the EIS must provide:

16. Survey results, including details of the scope, timing and methodology for studies or surveys used and how they are consistent with (or justification for divergence from) published Commonwealth guidelines and policy statements and/or the relevant NSW offsetting method.
17. A description and quantification of habitat in the study area (including suitable breeding habitat, suitable foraging habitat, important populations and habitat critical for survival), with consideration of, and reference to, any relevant Commonwealth guidelines and policy statements including listing advices, conservation advices, recovery plans, and threat abatement plans.
18. Maps displaying the above information (specific to each EPBC protected matter) overlaid with the proposed action. It is acceptable, where possible, to use the mapping and assessment of Plant Community Types (PCTs) and the species surveys prescribed by the BAM as the basis for identifying EPBC Act-listed species and communities. The EIS must clearly identify which PCTs are considered to align with habitat for the relevant EPBC Act listed species or community, and provide individual maps for each species or community.
19. Description of the nature, geographic extent, magnitude, timing and duration of any likely direct, indirect and consequential impacts on any relevant EPBC Act listed species and communities, including impacts of

2019-2020 bushfire to advise whether the remaining habitat within the proposed action area is of substantially greater importance to listed threatened species following the fires. This information, once obtained, can be considered pertaining to avoidance, mitigation and offset measures for these species. It must clearly identify the location and quantify the extent of all impact areas to each relevant EPBC Act listed species or community.

Other approvals and conditions

20. Information in relation to any other approvals or conditions required must include the information prescribed in Schedule 4 Clause 5 (a) (b) (c) and (d) of the EPBC Regulations.

Environmental Record of person proposing to take the action

21. Information in relation to the environmental record of a person proposing to take the action must include details as prescribed in Schedule 4 Clause 6 of the EPBC Regulations.

Information Sources

22. For information given in an EIS, the EIS must state the source of the information, how recent the information is, how the reliability of the information was tested; and what uncertainties (if any) are in the information.

REFERENCES

- *Environment Protection and Biodiversity Conservation Act 1999* - section 51-55, section 96A(3)(a)(b), 101A(3)(a)(b), section 136, section 527E
- *Environment Protection and Biodiversity Conservation Regulations 2000 Schedule 4*
- Commonwealth and NSW Governments Bilateral Agreement (*Amending Agreement No.1, 2020*) - Item 2 (a)(i) of Schedule 1
- *Matters of National Environmental Significance - Significant impact guidelines 1.1* (2013) EPBC Act
- *Environment Protect and Biodiversity Conservation Act 1999 Environmental Offsets Policy* October 2012
- *Information Guidelines for Independent Expert Scientific Committee advice on coal seam gas and large coal mining development proposals* (2014)