

Bayswater Water and Other Associated Operational Works Project

Appendix B – SEARs Compliance



Table B.1: SEARS for SSD 9697 issued 30 November 2018

Requirement	Location that this is addressed
General requirements	
A stand alone executive summary	Executive summary
A full description of the development, including:	The Project is described in full in Chapter 2 and an overview is given in Chapter 1 Section 1.1.
 details of construction, operation and decommissioning; a site plan showing all infrastructure and facilities 	Figure 2-1 is a site plan showing the location of the Project and the Project elements. The indicative layouts of the BWAD, Ash recycling
 (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 	expansion and Salt cake landfill components are provided in Figure 2-3, Figure 2-4, Figure 2-5 respectively.
 a detailed constraints map identifying the key environmental and other land use constraints that have informed the final design of the development; 	A consolidated constraints map series is provided in Figure 1-3. Detailed constraints mapping is provided in Chapters 7 to 19.
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;	 Strategic justification for the Project is set out in Chapter 4. In particular: Section 4.2 presents the need for the Project; Surrounding land use compatibility is outlined in Section 4.4. Justification for the Project is also summarised in Section 21.1
The likely interactions between the project and any other existing, approved or proposed development on the site or in the vicinity of the site	 The Project is located almost exclusively in AGL Macquarie owned land. Consideration has been given to the following developments which would operate concurrently with the various stages of the Project: Bayswater Turbine Efficiency Upgrade Ravensworth Composting Facility Liddell closure and rehabilitation. See also Section 4.4 which outlines surrounding land use compatibility.
 Statutory context for the project, including: 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; 	Chapter 3 provides the statutory context for the Project. Section 2.8 provides details of AGL's proposed consolidation and surrender of other approvals.
An assessment of the likely impacts of the development on the environment, focusing on the specific issues identified below including:	See Chapters 6 to 19.
 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, 	The existing environment for each environmental aspect is described at Sections 7.2, 8.1, 9.1, 10.2, 11.2, 12.2, 13.1, 14.1, 15.3, 16.1 and 17.2.

Requirement	Location that this is addressed
 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 	Section 2.1 presents a summary of each stage of the Project. Impacts are described at Sections 6, 7.3, 8.2, 9.2, 10.3, 11.3, 12.4, 13.2, 14.3, 15.4, 16.2, 17.3, 18 and 19.
 below); and a description of the measures that would be implemented to monitor and report on the environmental performance of the development; 	Environmental management measures are described at Sections 7.4, 7.5, 8.3, 9.3, 10.4, 11.4, 12.5, 13.3, 14.4, 15.6, 16.3, 17.4, 18.4 and 19.4. A summary of management and monitoring measures is also provided in Chapter 20.
A consolidated summary of all the proposed environmental management and monitoring measures, identifying all the commitments in the EIS	A summary of management and monitoring measures is provided in Chapter 20. See Table 20-1 in particular.
The reasons why the development should be approved having regard to:	
 relevant matters for consideration under the Environmental Planning and Assessment Act 1979, 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 	Consideration of the objects of the EP&A Act (including ecologically sustainable development) is provided in Section 21, and it is concluded that the Project is consistent with these objectives.
 Intervention of the one with receptor 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. 	Section 4.4. Section 4.3.
The EIS must also be accompanied by a report from a qualified person providing:	CIV calculated as \$51.9 Million. Detailed CIV Report provided separately by AGL.
 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. 	
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).	The written consent of the owners of non-AGL land is being obtained separately. All landowners have been consulted and have advised process to obtain necessary secondary approvals to facilitate landowner consent.
• · · · ·	No land in private ownership.
Specific issues	
 Water – including: 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. 	Refer to Chapter 8 and Chapter 9. Impacts are described in Section 8.2 (surface water and hydrology) and Section 9.2 (groundwater).
 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 	Section 2.7 Mitigation and management measures for surface water and groundwater are included in Section 8.3

Requirement	Location that this is addressed
proposed measures to mitigate surface water and groundwater impacts; and	(surface water and hydrology) and Section 9.3 (groundwater).
• a description of the erosion and sediment control measures that would be implemented to mitigate any impacts in accordance with Managing Urban Stormwater: Soils & Construction (Landcom 2004);	Erosion and sediment control measures would be developed in accordance with Managing Urban Stormwater: Soils & Construction (Landcom 2004) as part of detailed design for each project component.
Land – including:	Refer to Chapter 11.
 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 	Impacts are addressed in Section 11.3. Details of land and soil capability, salinity, contamination and other matters are addressed in Section 11.2.
 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 	Surrounding land use compatibility is outlined in Section 4.4, and details of surrounding land uses are also described in Section 11.2.4.
that would be implemented to remediate the land following decommissioning in accordance with State Environmental Planning Policy No 55 - Remediation of Land;	Section 11.3.2
Transport – including:	A Traffic Impact Assessment is provided in
 an assessment of the peak and average traffic generation, including over-dimensional vehicles and construction worker transportation; 	Appendix J, and its findings are summarised in Chapter 13.
 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;	An assessment of construction and operational noise in accordance with the relevant guidelines is presented in Chapter 14.
 Biodiversity – including: an assessment of the likely biodiversity impacts of the 	The Project BDAR is provided in Appendix C and its findings are summarised in Chapter 7.
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;	Appendix C and Section 7.3
• 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; 	No listed aquatic threatened species, populations or ecological communities under the <i>Fisheries</i> <i>Management Act 1994</i> are likely to be present in any of the waterways present in the Project area. This is discussed further in Sections 7.2.7 and 8.1.7.

Requirement	Location that this is addressed
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; 	Impacts associated with the operation of the Salt cake landfill are considered throughout the EIS, with particular focus on possible impacts to groundwater (Section 9.2.2), biodiversity (Section 7.3.2), and waste (Section 18.3.4).
 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 	Environmental management measures are outlined at Section 18.4.
accordance with best practice industry standard guidelines such as the EPA's Environmental Guidelines: Solid Waste Landfills;	Section 2.3 and Section 18.3.4
 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; 	Section 2.3 and Section 18.3.4
 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 	Section 3.6.4, Section 4.2.2 and Section 18.3.3.An outline of the ash recycling process is provided in Chapter 18. The proponent has an established sampling plan for the testing of fly ash and are in the process of approving their sampling plan for bottom
 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; 	ash with the NSW EPA. The recycled ash product is expected to be supplied to large road infrastructure projects on an 'as required' basis. Expansion of ash recycling at Bayswater is market driven.
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;	Refer to Appendix H (Aboriginal Cultural Heritage Assessment) and Appendix I (Non-Aboriginal Heritage Assessment). The findings of these assessments are summarised in Chapter 12 and Chapter 17 respectively. Details of consultation with the local Aboriginal community is also outlined in Section 5.5.
 Visual – including: a detailed assessment of the: 	Consideration of visual impacts is presented in
 changing landforms on site during the various stages of the development; 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 	Chapter 16 and Appendix K. Measures to minimise visual impacts are presented in Section 16.3, although it is considered that the Project would result in negligible visual impacts to the surrounding areas and the public domain.
 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: 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; 	A quantitative Air Quality Impact Assessment is provided in Appendix F, the findings of which are summarised in Chapter 10.
 reasonable and feasible mitigation measures to minimise dust emissions, including evidence that there are no other available measures; and 	

Requirement	Location that this is addressed
• monitoring and best practice management measures, in particular real-time air quality monitoring;	Best practice mitigation and management measures (including monitoring) are presented in Section 10.4.
Hazards – paying particular attention to public safety, including bushfires	Refer to Chapter 19. Consideration of bushfires is provided in Section 19.3.
	The Project would not result in increased risks to public safety, although a discussion of Dam Safety is outlined in Section 19.2.
Socio-Economic – including an assessment of the likely impacts on the local community and a consideration of the construction workforce accommodation.	Refer to Chapter 15
Consultation	
 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. However, you must carry out detailed consultation with the following: Muswellbrook Shire Council; Singleton Council; Environment Protection Authority; Office of Environment and Heritage; Division of Resources and Geoscience; Department of Industry; Dam Safety Committee; 	A summary of consultation undertaken to date is presented in Chapter 5. It is noted that Roads and Maritime Services is now Transport for New South Wales, Office of Environment and Heritage is now Biodiversity and Conservation Division, and Department of Industry is now DPIE – Water.
 Roads and Maritime Services; and NSW Rural Fire Service. 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. 	

Table B.2: Commonwealth Department of Agriculture, Water and the Environment AssessmentRequirements (EPBC 2020/8623) (SSD-9697) dated 28 April 2020

Requirement	Location that this is addressed
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:	Noted.
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:	Noted. See below for breakdown of how each point is addressed.
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;	

Requirement	Location that this is addressed
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 – Critically Endangered; ii. Regent Honeyeater (Anthochaera phrygia) – Critically Endangered; iii. Swift Parrot (Lathamus discolor) – Critically Endangered; and 	Noted. A Biodiversity Development Assessment Report has been prepared in accordance with the Biodiversity Assessment Method and addresses impacts to identified species. Refer to Appendix C.
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: Wybong Leek Orchid (Prasophyllum sp. Wybong) – Critically Endangered; 	Noted. A Biodiversity Development Assessment Report has been prepared in accordance with the Biodiversity Assessment Method and addresses impacts to identified species. Refer to Appendix C.
ii. Ozothamnus tesselatus – Vulnerable;	0.
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.	Noted. See the other items for breakdown of how each of the protected matters has been considered
General Requirements	

Requirement	Location that this is addressed
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.	Refer to Section 3.20.
7. The title of the action, background of the action and current status.	Bayswater Power Station Water Infrastructure Upgrade Project also referred to as the Bayswater Water and Other Associated Operational Works Project. Refer to Section 1.1 for full project background. The action is in the design stage. It is noted that the EIS addresses the voluntary surrender of existing approvals that relate to the ongoing operation of Bayswater but these approvals do not have associated approvals under the EPBC Act. The status of developments associated with approvals to be surrendered is provided in Table 2-2.
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).	The location of the action is provided in Figure 2-1 A summary of the project is provided in Table 2-1 and the full project description is provided in Chapter 2.
9. How the action relates to any other actions that have been, or are being taken in the region affected by the action.	While not a controlled action under the EPBC Act, the Bayswater Turbine Efficiency Upgrade and ongoing operation of Bayswater is being undertaken by AGL and affects the same Location. The Project's overall purpose and objective is to facilitate improved environmental outcomes and ongoing operation of Bayswater. The action is not related to any other action proposed or being undertaken in the region.
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.	Refer to Chapter 2. Relevant impacts to MNES are limited to direct and indirect biodiversity impacts and design parameters for these components of the action are limited to minimising clearing and mitigating indirect impacts to the extent reasonable and feasible.
 11. The EIS must include an assessment of the relevant impacts of the action on the matters protected by the controlling provisions, including: 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; a statement whether any relevant impacts are likely to be unknown, unpredictable or irreversible; 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. 	Refer to Appendix C. Appendix 9 of the BDAR provides assessment of significance of relevant matters.
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:	Biodiversity avoidance and mitigation for the action are described in Section 7.4 of the EIS and offsetting is described in Section 7.5 of the EIS. Refer to Appendix C for further details on how these measures were developed.

Requirement	Location that this is addressed
i. a description, and an assessment of the expected or predicted effectiveness of the mitigation measures,	
i. any statutory policy basis for the mitigation measures;	
iii. the cost of the mitigation measures;	
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.	The offset strategy would be developed in accordance the NSW Biodiversity Assessment Method and Biodiversity Offset System requirements. A biodiversity credit obligation for impacts to biodiversity is presented in Section 6 of the BDAR (refer to Appendix C).
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:	Relevant matters are threatened species and ecological communities. Refer to Appendix C.
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; andiv. any strategic assessment.	
	nition and migratory spacion)
Key Issues - Biodiversity (threatened species and commun Comments	Noted. A biodiversity credit obligation for
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.	impacts to biodiversity is presented in Section 6 of the BDAR.
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:	The BDAR provided in Appendix C has been prepared in consideration of all of the assessment requirements listed. This includes survey results, including habitat mapping for relevant threatened biota and a detailed discussion of potential impacts.
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	

Requirement	Location that this is addressed
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.	Refer to Section 3.1 and Table 3-4.
Environmental Record of person proposing to take the acti	ion
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.	Refer to Table 3-4.
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.	Refer to Table 3-4.