



3 ENVIRONMENTAL ASSESSMENT PROCESS

3.1 What is the purpose of the environmental assessment process?

The environmental assessment process serves an important procedural role in the overall decision-making process by promoting transparency and public involvement.

The environmental assessment process combines research from a wide variety of scientific disciplines and aspects e.g. water, ecology, climate, social etc. The combination of environmental criteria is used to improve design and management decisions. It assists in assessing whether Proposals may positively or negatively impact the environment through various stages of proposed activities, e.g. construction, operation and closure.

The objective of the environmental assessment process is to inform (regulatory) decision-makers and the public of potential environmental consequences of implementing a proposed development. If the environmental assessment process is successful, it identifies alternatives and mitigation measures to reduce the environmental impact of a Proposal (ELAW, 2010).

3.2 What are the benefits of the environmental assessment process?

The benefits of carrying out an environmental assessment include:

- Screening out environmentally inappropriate options within a development.
- Identifying feasible Proposal alternatives.
- Modifying design to enhance potentially beneficial Proposal impacts.
- Modifying designs to reduce potentially adverse environmental impacts.
- Predicting significant positive and/or adverse impacts through risk assessment.
- Identifying management measures to avoid, reduce, offset or eliminate major adverse impacts.
- Engaging and informing potentially affected communities and individuals.
- Assisting in decision making and the development of appropriate conditions of consent.

The environmental assessment process, while not uniform in Australia, generally consist of a series of procedural steps that culminate in a written impact assessment report that would inform regulators whether to approve or reject a proposed development. The environmental assessment process that is undertaken in WA by the Commonwealth Department of the Environment and Energy (DoEE), is explained below.



3.3 Western Australian process

The WA Environmental Impact Assessment process is triggered by a referral under Part IV (Section 38) of the *Environmental Protection Act 1986*. The EPA is a five-member statutory authority and is the primary provider of independent environmental advice to the Minister for Environment; Heritage.

The EPA implements the *Environmental Impact Assessment (Part IV Divisions 1 and 2) Administrative Procedures 2012* in conducting assessments of Proposals and its effects on the environment. A description of the proposed Sandy Ridge Facility environmental assessment process is provided below. A flow chart of the steps in the environmental assessment process is provided in Figure 3-1.

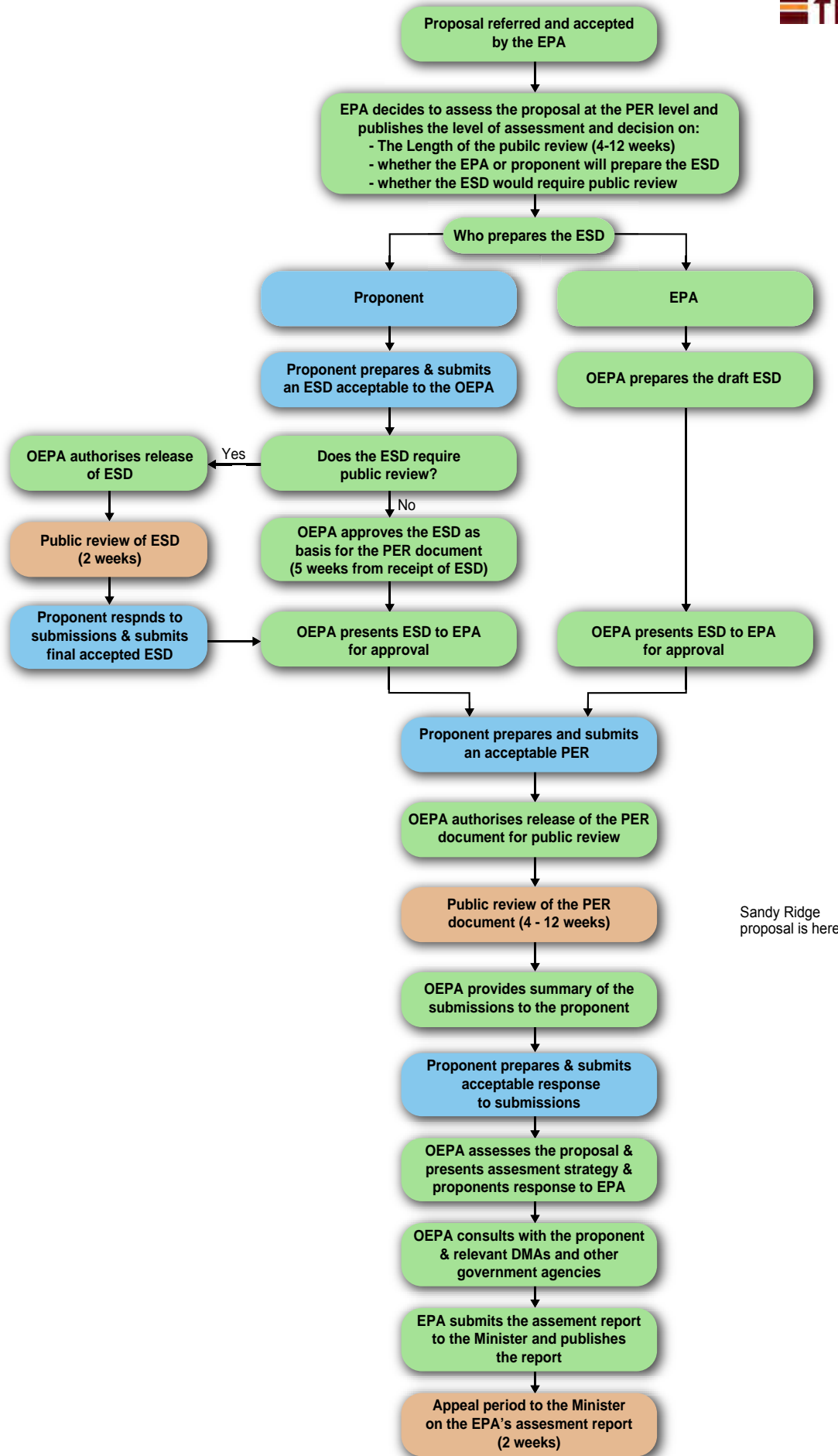
3.3.1 Referral

Section 38 of the EP Act makes provision for the referral to the EPA of a proposal (significant proposals, strategic proposals and proposals under an assessed scheme) by a proponent, a decision making authority (DMA), or any other person. The referral documentation consists of a form, and supporting documentation about the proposal, that gives the EPA enough information to make a decision on the Level of Assessment for the proposal.

Following discussions with a range of stakeholders, including the OEPA, the proponent submitted a referral of the Proposal on 4 May 2015 to the OEPA. The referral was advertised for public comment over seven days. After the close of the advertising period, and consultation with key government departments, the EPA determined the Proposal should be assessed at the level of PER. A PER is applied where:

- The Proposal is of regional and/or state-wide significance.
- The Proposal has several significant environmental issues or factors, some of which are considered to be complex or of a strategic nature.
- Substantial or detailed assessment of the Proposal is required to determine whether, and if so how, the environmental issues could be managed.
- The level of interest in the Proposal warrants a public review period.

The PER process is shown as a diagram in Figure 3-1.



Sandy Ridge proposal is here



3.3.2 Scoping

An ESD is the document prepared by either the EPA, or by the proponent in conjunction with the EPA (as was the case for this Proposal), which sets out the EPA's determination as to the form, content, timing and procedure of environmental review required to be undertaken by the proponent under Section 40(2)(b) of the EP Act where the PER level of assessment has been determined by the EPA. The purpose of the ESD is to:

- Develop proposal-specific guidelines to direct the proponent on the key environmental issues for the proposal that should be addressed in preparing the PER document.
- Identify the necessary impact predictions for the proposal, and the information on the environmental setting required to carry out the assessment.

The ESD was released for a two-week public comment period on 31 March 2016. The key environmental factors identified in the ESD include:

- Flora and vegetation.
- Terrestrial environmental quality.
- Terrestrial fauna.
- Inland waters environmental quality.
- Human health.
- Heritage.
- Offsets (integrating factor).
- Rehabilitation and decommissioning (integrating factor).

In addition, amenity (in relation to noise, dust and visual impacts) and viability of the water source was considered relevant to the Proposal.

The ESD was approved by the EPA board on 27 May, 2016 (refer to Appendix A.1).

3.3.3 Investigations and assessment of significance

In line with the requirements of the ESD, appropriate information was collated and various environmental studies were conducted within the proposed development envelope. The results of desktop research and 12 months of field investigations have been documented within this PER (refer to Chapters 9 and 10).

An environmental risk assessment was completed by the Proposal team to identify and analyse all risks presented by operational aspects of the Proposal. The outcomes of the risk assessment are provided in the report within Appendix A.2.

An assessment of significance for each key environmental factor identified by the EPA has been considered with respect to environmental risks and documented (Chapter 9). Appropriate



management measures to achieve the predicted environmental outcome have also been documented.

3.3.4 Government assessment process

Following acceptance of this PER by OEPA, and once the EPA is satisfied that the PER has been prepared in accordance with the requirements of the approved ESD, the public is invited to make comment on the Proposal during a 10 week advertising period.

The EPA collates the submissions and the proponent responds by providing clarification or extra information to support the Proposal, or potentially amending the Proposal to address relevant issues that have been raised during the consultation process.

The EPA then continues its assessment and may seek comment from key DMAs within government on any draft recommended conditions to be imposed on the Implementation Statement if issued by the Minister for Environment; Heritage. The EPA submits its report to the Minister for Environment; Heritage and simultaneously publishes the EPA Report. Third parties have the right of appeal on the EPA's report. Any appeals must be considered and determined before a final decision can be made by the Minister to approve or reject the Proposal.

On completion of the appeals process, the WA Minister for Environment; Heritage makes the final determination on the Proposal, including the conditions to be implemented by the proponent. The decision by the Minister can be appealed but only by the proponent.

3.3.5 Environmental principles

This PER document acknowledges the core principles of environmental protection set out in the EPA guideline *Environmental Assessment Guideline for Environmental Principles, Factors and Objectives (EAG 8)* (2015a). These principles have been considered in the preparation of this PER.

Core principles are:

1. *The Precautionary Principle*

Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

In the application of the precautionary principle, decisions should be guided by:

- (a) Careful evaluation to avoid, where practicable, serious or irreversible damages to the environment; and*
- (b) An assessment of the risk-weighted consequences of various options.*

2) *The Principle of Intergeneration Equity*

The present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.



3) *The Principle of the Conservation of Biological Diversity and Ecological Integrity*

Conservation of biological diversity and ecological integrity should be a fundamental consideration.

4) *Principles in relation to Improved Valuation, Pricing and Incentive Mechanisms*

- (1) *Environmental factors should be included in the valuation of assets and services.*
- (2) *The polluter pays principle – those who generate pollution and waste should bear the cost of containment, avoidance or abatement.*
- (3) *The users of goods and services should pay prices based on the full life cycles costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any wastes.*
- (4) *Environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, which enable those best placed to maximise benefits and/or minimise costs to develop their own solutions and responses to environmental problems.*

5) *The Principle of Waste Minimisation*

All reasonable and practicable measures should be taken to minimise the generation of waste and its discharge into the environment.

6) *Best Practice*

When designing proposals, and implementing environmental mitigation and management actions, the contemporary best practice measures available at the time of implementation should be applied.

7) *Continuous Improvement*

The implementation of environmental practices should aim for continuous improvement in environmental performance.

3.4 Australian Government process

The Australian Government's environmental assessment process for significant impacts on matters of national environmental significance (MNES) is triggered by referral from the proponent under Section 68 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The proposed Sandy Ridge Facility was referred to the Commonwealth DoEE on 18 May 2015. The Federal Minister for the Environment determined the proposed action was a 'Controlled Action' and required assessment and approval under the EPBC Act. The proposed action was determined to be a 'Controlled Action' due to it being considered a nuclear action.



The action would be assessed under the Bilateral Agreement¹² with WA (Agreement between the Commonwealth of Australia and WA under Section 45 of the EPBC Act relating to environmental assessment).

For information on Commonwealth and WA legislation applicable to the Proposal refer to Chapter 4.

¹² *Bilateral agreements reduce duplication of environmental assessment and approval processes between the Commonwealth and states/territories. They allow the Commonwealth to 'accredit' particular state/territory assessment and approval processes.*