

**GUIDELINES FOR THE CONTENT OF A DRAFT
ENVIRONMENTAL IMPACT STATEMENT**
*Environment Protection and Biodiversity Conservation Act
1999*

**Star of the South Offshore Wind Farm Project
(EBPC 2020/8650)**

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GUIDELINES FOR A DRAFT ENVIRONMENT IMPACT STATEMENT FOR Star of the South Offshore Wind Farm Project

**Star of the South Wind Farm Pty Ltd (ABN 71 623 105 091) as Trustee for The Star
of the South Trust (ABN 68 239 717 297)**

1. PREAMBLE

Star of the South Wind Farm Pty Ltd (the proponent) (ABN 71 623 105 091) as Trustee for the Star of the South Trust (ABN 68 239 717 297) proposes to construct and operate an offshore wind farm, including transmission infrastructure and modifications to ports and harbours in Gippsland, Victoria and in Victorian and Commonwealth waters (the proposed action). Existing ports and harbours would be used to support project construction and operations.

1.1. Environmental referrals

On 4 May 2020, the proposed action was referred under the *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act) to the Minister for the Environment. On 2 June 2020, a delegate of the Minister determined that the proposed action has the potential to have a significant impact on the environment, and requires assessment and approval under the EPBC Act before it can proceed. The action has the potential to have a significant impact on the following matters of national environmental significance (MNES) that are protected under Part 3 of the EPBC Act:

- the ecological character of declared Ramsar wetlands (sections 16 & 17B);
- listed threatened species and communities (sections 18 & 18A);
- listed migratory species (sections 20 & 20A); and
- the environment in Commonwealth marine areas (sections 23 & 24A)

On the same day, it was determined that the proposed action will be assessed by an Environmental Impact Statement (EIS).

The component of the action within Victorian land and waters was separately referred to the Victorian Minister for Planning under the *Environment Effects Act 1978* (EE Act). On 11 May 2020, the Victorian Minister for Planning determined that the project (in relation to Victoria) requires an environment effects statement (EES) under the EE Act, to ensure an assessment of the project's environmental effects is undertaken before statutory decisions on the project can occur under Victorian law.

1.2. Assessment Process

The Victorian Department of Environment, Land, Water and Planning (DELWP) and DAWE have agreed to coordinate and where possible integrate the two assessment processes – the EES under the EE Act and the EIS under the EPBC Act. This will be done using administrative means to align steps and requirements of the processes and remove duplication wherever possible (Figure 2).

The coordination and alignment of the Victorian and Commonwealth assessment processes will entail integration of some specific aspects/stages to remove duplication, including public comment on draft scopes (EES/EIS) and exhibited assessment documentation (EES/EIS). This includes coordinated engagement with government agencies during the development of the EES and EIS, utilising a single technical reference group established and chaired by DELWP for the EES.

DAWE has developed a set of EIS Guidelines to guide the preparation of a draft environmental impact statement about the relevant impacts of the action, including guidance on the extent of studies and investigations required to adequately assess the impacts of a proposed action. The EIS must contain enough information to allow the Commonwealth Minister for the Environment to make an informed decision on whether or not to approve, under Part 9 of the EPBC Act, the taking of the action for the purposes of each controlling provision.

The content of an EES is guided by an EES scoping requirements document prepared by DELWP, which sets out the matters to be addressed in the EES.

For projects in Victoria that require an EES, there is a final assessment of the effects of a proposal to conclude the EES process. This assessment is provided to relevant decision-makers by the Victorian Minister for Planning as authoritative statutory advice on the acceptability of the proposal's environmental effects and recommendations on appropriate modifications and/or mitigation

Preparation of an EIS under the EPBC Act and EES under the EE Act is planned to be undertaken as a coordinated assessment approach between DAWE and DELWP. This approach includes the following:

- Simultaneous referrals for the proposed action under the EPBC Act and EE Act, which was completed in May 2020.
- The coordinated development of separate EIS Guidelines and EES scoping requirements documents which describes the proposed content of a single EIS and EES document, which meets the requirements of both Commonwealth and Victorian assessment processes.

- The proponent's preparation of a single draft EIS/EES document that is issued to DAWE and DELWP for a decision on the adequacy of the content of the document, prior to release for public comment.
- The proponent's preparation of a single final EIS/EES document.
- The final EIS/EES document will be submitted to DAWE and DELWP for assessment and to be published.
- A decision on the proposed action by the Commonwealth Environment Minister and assessment of the environmental effects by the Victorian Planning Minister.

The proponent's technical studies and development of the EES and EIS documents will be integrated. The proponent has agreed to integrate its EES/EIS documentation as much as possible, preparing a single package of documents to address EES and EIS requirements.

The formal statutory environmental assessment required under the State and Commonwealth legislation will need to meet respective requirements, including exhibition of the EES and EIS.

Concurrently exhibiting a combined EES and EIS package of documents will help with consistent and clear information for interested parties and the community to access during public exhibition. The overall issues and potential impacts of the project need to be presented with limited duplication. Interested stakeholders will have the opportunity to make submissions on the project and its effects, with respect to the project's obligations under both the EE Act and EPBC Act, during the public exhibition period.

DELWP has invited comments on the draft scoping requirements in relation to matters that should be investigated and documented as part of the EES process for the proposed Star of the South Offshore Wind Farm project.

The scope of the EIS/EES document covers the construction, commissioning, operation and decommissioning components of the proposed action. A combined EIS/EES document is proposed to meet Commonwealth and State requirements respectively. However, with respect to DELWP's assessment under the EE Act, the scope of the proposed action is mainly focused on the construction and operation of infrastructure and related activities within Victorian land and waters.

1.3. Components of the action relevant to the assessment

The component of the proposed action to be assessed under the EIS comprises offshore and onshore components (Figure 1)

The offshore infrastructure components are located in both Commonwealth and Victorian coastal waters. The major offshore infrastructure components include wind turbines, substation platforms, network of subsea array cables and export cables.

The onshore components would be located in South Gippsland, Victoria, and include onshore transmission infrastructure including substations, and use of existing ports and harbours.

The development envelope provides flexibility in the project design, with the final layout of offshore infrastructure to be determined in response to environmental constraints.

The design and operational life of the proposed action is anticipated to be up to 50 years. During this period, activities would include the operation and maintenance of on and offshore infrastructure and facilities, the use of the ports and harbour facilities by maintenance vessels, the use and maintenance of onshore buildings and plants, transmission infrastructure, access routes and ongoing environmental management and monitoring.



Figure 1: Location of the project

Coordinated Assessment Process

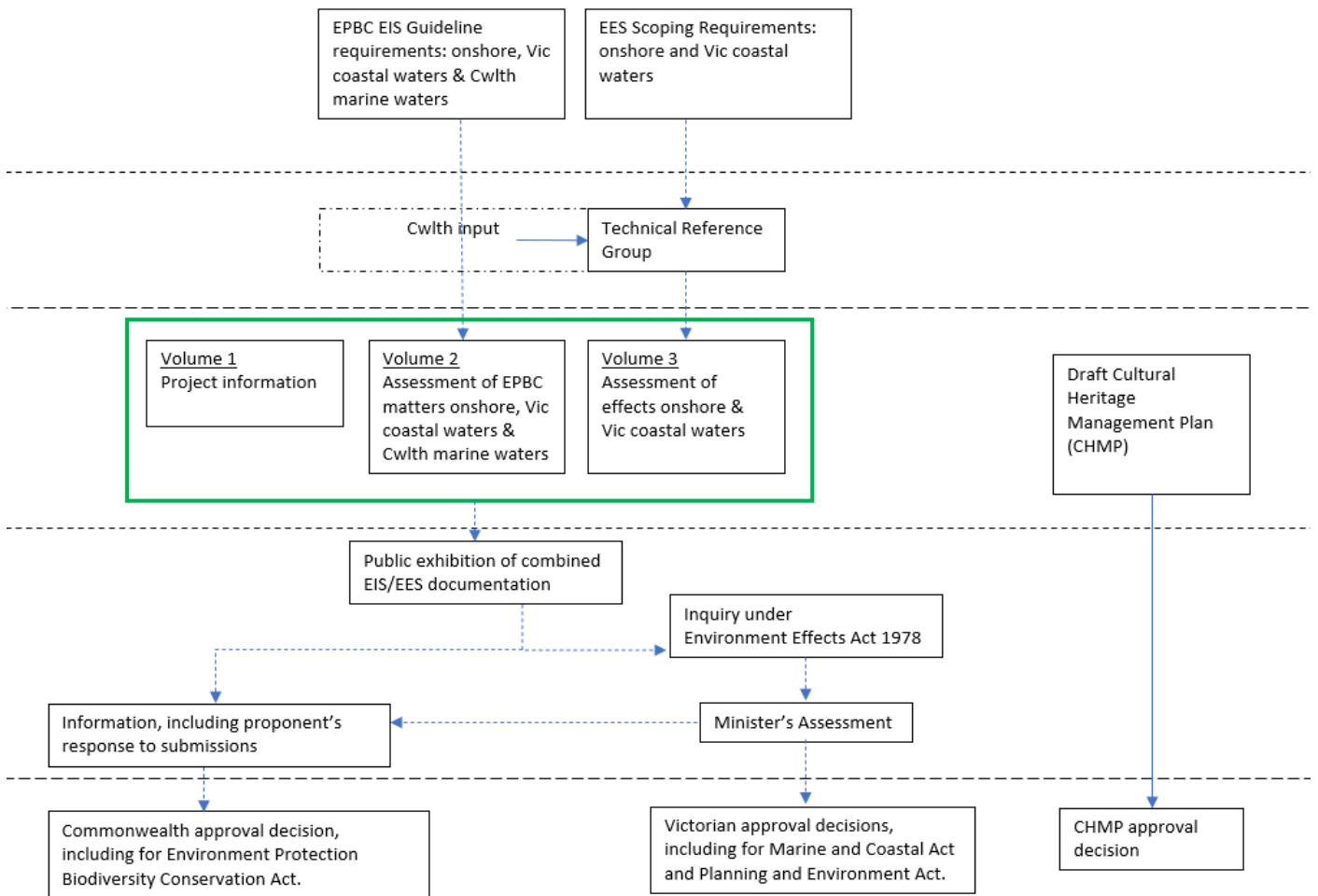


Figure 2: Proposed overview of combined approach to assessment

2. EIS GUIDELINES

2.1. **Specific content of the EIS**

2.1.1. *The objective of the EIS*

Environmental impact assessment depends on adequately defining those elements of the environment that may be affected by a proposed development, and on identifying the significance, risks and consequences of the potential impacts of the proposed action at a local, regional and national level. The EIS will be a significant source of information on which the public and government decision-makers will assess the potential environmental impacts of the proposed action.

It is expected that ecological and socio-economic investigations will be required to be undertaken to provide sufficient information for the EIS. The nature and level of investigations will be related to the likely extent and gravity of the potential impacts (likelihood, consequence, magnitude, extent and scale of impacts, including worst case scenarios). All relevant impacts of the proposed action on MNES are to be investigated and analysed, and commitments to avoid, minimise, mitigate and offset any adverse impacts are to be detailed in the EIS. The aims of the EIS and public review process are:

- to provide a source of information from which interested individuals and groups may gain an understanding of the proposed action, the need for the proposed action, the alternatives, the environment which it could potentially affect, the impacts that may occur and the measures proposed to be taken to avoid, minimise or compensate for these impacts;
- to provide a forum for public consultation and informed comment on the proposed action; and
- to provide a framework in which decision-makers can consider the environmental aspects of the proposed action including biophysical, cultural, social, heritage, economic, technical and other factors (as applicable).

The EIS will discuss compliance with the objectives of the EPBC Act and the principles of ecologically sustainable development, as set out in the EPBC Act. The EIS will also identify and address, as fully as possible, all matters relevant to the proposed action and their potential impacts.

The EIS will provide a description of the existing environment in the area affected by the proposed action, including as a result of any decommissioning of existing infrastructure needed to provide for the project, construction and commissioning operations and future decommissioning of the project. All potential impacts and risks on the environment are to be investigated and analysed. The EIS will present an evaluation of the potential environmental impacts using an accepted risk-based methodology and describe proposed measures to avoid, minimise, mitigate or offset the expected, likely,

or potential impacts. Any prudent and feasible alternatives will be discussed in detail and the reasons for selection of the preferred option will be clearly given.

While the EIS Guidelines are designed to cover all relevant matters, the EIS will also need to address other issues that emerge during the EIS investigations, especially those relevant to statutory decisions that will be informed by the assessment.

2.1.2. General Advice

The EIS must be able to be read as a stand-alone document and contain sufficient information from studies and/or investigations undertaken to avoid the need to refer to previous or supplementary reports. The EIS should take into consideration the EPBC Act Significant Impact Guidelines that can be downloaded from the following web site: <http://www.environment.gov.au/epbc/guidelines-policies.html>, as well as any other relevant DAWE resources such as policies, recovery plans, threat abatement plans, conservation advice, plans of management, advice and guidance published on the DAWE website.

The EIS must enable interested stakeholders and the Minister for the Environment to understand the proposed development, the likely environmental impacts and measures to manage them to acceptable levels. Information provided in the EIS must be objective, clear, scientifically robust, succinct and, where appropriate, be supported by maps, plans, diagrams or other descriptive detail. The body of the EIS is to be written in a style that is easily understood by a member of the public. Technical jargon must be avoided wherever possible, and a full glossary included. Cross-referencing must be used to avoid unnecessary duplication of text.

If it is necessary to make use of material that is considered to be of a confidential nature, the proponent should consult with the DAWE on the preferred presentation of that material, before submitting it for approval for publication.

Detailed technical information, studies or investigations necessary to support the main text must be included as appendices issued with the EIS. Any additional supporting documentation and relevant studies, reports or literature not normally available to the public from which information in the main text of the EIS has been extracted or be based on must be made available at appropriate locations during the period of public display of the EIS.

Where specific information requirements are set out within these Guidelines, they should be read as a requirement for as much detail as is appropriate and reasonably available at this stage of planning. The EIS must clearly identify any gaps in the information presented and include discussion on the effect of these gaps on the overall results of the assessment and possible methods for addressing them.

An executive summary must be provided and made available as a stand-alone document for public information.

The EIS must state the criteria adopted in assessing the proposed action and its potential impacts, such as: compliance with relevant legislation, policies, standards and best practice; community acceptance; maximisation of environmental benefits (if any); and minimisation of risks and harm.

The level of analysis and detail in the EIS should reflect the level of significance of the expected impacts on the environment. Any and all unknown variables or assumptions made in the assessment must be clearly stated and qualified. The extent to which the limitations, if any, of available information may influence the conclusions of the environmental assessment must be discussed, along with details of appropriate measures to be taken to monitor and manage effects of uncertainty.

Star of the South must ensure that the personnel providing information to inform preparation of this EIS have the relevant qualifications and experience in their relevant fields.

The EIS must comprise three elements:

- a) The executive summary.
- b) The main text of the document, written in a clear and concise manner so as to be readily understood by a member of the public.
- c) Appendices containing a copy of these Guidelines and detailed technical information which may include other sensitive commercial or cultural information (if required).

The EIS must be written so that any conclusions reached can be independently assessed. To this end all sources must be appropriately referenced, noting that publicly available scientific journal articles and externally prepared peer-reviewed reports are preferred wherever possible.

The EIS must assess compliance of the action with principles of Ecologically Sustainable Development as set out in the EPBC Act, and the objects of the Act at Attachment 1. A copy of Schedule 4 of the EPBC Regulations, *Matters to be addressed by draft public environment report and environmental impact statement* is at Attachment 2.

2.1.3. Executive summary

An executive summary that outlines the key findings of the EIS must be provided. The executive summary will briefly:

- state the background and the need for the proposed action;
- outline the key elements of the proposed action;

- discuss alternatives to the proposed action, and the reasons for selecting the preferred option and rejecting alternatives; summarise the installation, operational and decommissioning activities associated with putting the proposed action into practice;
- state the proposed schedule for key activities and the expected duration of the proposed action;
- provide an overview of the existing regional and local environments, summarising the features of the physical, biological, social, cultural and economic environment relating to the proposed action and associated activities with each;
- describe the expected, likely and potential impacts of the proposed action on matters of national environmental significance during the construction, commissioning, operational and decommissioning phases;
- summarise the proposed environmental protection measures and safeguards;
- describe any residual impacts and any proposed offset measures
- set out conclusions on the acceptability of impacts on matters of national environmental significance;
- summarise the monitoring and decommissioning procedures to be implemented for the proposed action; and
- provide an outline of the environmental record of Star of the South.

2.2. General information

The EIS should provide the background and context of the action including:

- (a) the title of the action;
- (b) the full name and postal address of the designated Proponent;
- (c) a clear outline of the objective of the action;
- (d) the location of the action, including confirmation of:
 - the development envelope located onshore
 - the offshore windfarm site, offshore transmission assets
 - the onshore transmission route, including action required to support shoreline crossing of transmission assets
 - the ports likely to be used for construction, commissioning and operation activities, including servicing the wind farm, and the likely shipping routes/movements.
 - any ancillary components likely to be required to support the project
- (e) the background to the development of the action;
- (f) how the action relates to any other actions (of which the Proponent should reasonably be aware) that have been, or are being, taken or that have been approved in the region affected by the action;
- (g) the current status of the action;
- (h) the consequences of not proceeding with the action;
- (i) a brief explanation of the scope, structure and legislative basis of the EIS; and
- (j) the specific EPBC Act MNES affected by the action.

2.3. Description of the action

The construction, commissioning, operation and decommissioning components of the action should be described in sufficient detail to understand the proposed action and assist in determining the associated potential environmental impacts. This should include the precise location (including coordinates) of all works to be undertaken (including plans, concept designs, and maps), structures to be built or elements of the action that are likely to impact MNES and other social or economic impacts.

The description of the action must include details on:

- how the works are to be undertaken (including stages of development and their timing and duration), and information on construction, commissioning, operation and decommissioning activities;
- the design parameters for those aspects of the structures or elements of the action that may have relevant impacts including:
 - the number, scale and dimensions of wind turbines including the dimensions of each tower, rotor blades and rotor cycle velocity ranges during operation;
 - configuration of wind turbines within the project area, particularly their alignment with prevailing winds.
- the expected maximum life of the action, the potential for staging delivery of the action, and expected timeframes for all stages including construction, commissioning, operation and decommissioning;
- details of associated works/activities, such as vessel movements (including aircraft) waste disposal activities, transport requirements and access routes throughout different stages of development, commissioning, operation and decommissioning of the offshore wind farm; and
- details of decommissioning, including the likely outcomes, and principles for planning and implementation (noting that full details of activities are unlikely to be available).

The description should include the use of satellite imagery, aerial photographs, maps, figures and diagrams, where appropriate. A general location map and diagrams illustrating the dimensions of wind turbines and their position within the project area should be provided that illustrates the existing and proposed infrastructure and should include the location of known potential future expansions or new developments approved or for which development applications have been submitted in the vicinity. Reference should be made to detailed technical information in appendices where relevant.

The EIS must include the location, boundaries and size (in hectares) of the likely disturbance footprint and of any adjoining areas which may be indirectly impacted by the proposed action such that relevant impacts can be understood.

If the proponent chooses to adopt an approach to describing components of the action in the form of design parameters based within a project envelope, the EIS must also include:

- the components of the project for which parameters will be defined;
- justification of the need for application of this approach and individual components; and

- demonstration of how parameters defined allow for likely impacts to be described during assessment

The EIS must fully detail parameters for components of the action necessary to ensure that for the purposes of the assessment of relevant impacts on matters protected under Part 3 of the EPBC Act, all relevant parameters are assessed, and to ensure appropriate mitigations and safeguards are included.

2.4. Feasible alternatives

Any feasible alternatives to the action to the extent reasonably practicable, including:

- if relevant, the alternative of taking no action;
- a comparative description of the impacts of each alternative on the MNES protected by controlling provisions of Part 3 of the EPBC Act for the action;
- where there are likely to be different environmental impacts associated with the options, sufficient detail to make clear why any alternative is preferred to another; and
- How the choice of alternatives or options ensures impacts to MNES are appropriate minimised and managed to an acceptable level.

Short, medium and long-term advantages and disadvantages of options must be discussed.

2.5. Description of the environment

The EIS must include a description of the general environment of the proposal site and the surrounding areas that may be affected by the action, in both the short and long term. A description of the environment of the proposed site and surrounding areas (i.e. adjacent, upstream and/or downstream) that may be affected by the action. At a minimum, this section must include details of:

- terrestrial and aquatic ecosystems, including key vegetation communities and relevant watercourses;
- estuarine and coastal environments, including inshore coastal areas, vegetation, underwater ecological features and key habitats;
- surface water and groundwater hydrology and quality;
- native flora and fauna, including terrestrial, aquatic and marine, and aerial including pest species and weeds;
- important areas, recognised populations and habitat, aggregations of marine species and Biologically Important Areas (BIAs);

- current condition of the marine environment, including its values and sensitivities (e.g. measures of the current state of the environment with a focus on conditions that are expected to change as a result of the action), and conservation values, including information placing these features into appropriate local, regional and national contexts (e.g. South-east marine region);
- current condition of the seabed including presence of contaminants;
- cultural heritage values, people and communities and other relevant social considerations, including the commercial use of the Gippsland Basin and Bass Strait;
- historical anthropogenic uses of the project site (if relevant) and existing condition of the overall environment within, adjacent to, downstream and upstream of the project site; and
- existing anthropogenic uses of the Gippsland Basin and Bass Strait including those related to commercial and recreational fisheries.

2.6. Description of protected matters

The EIS must provide a description of the protected matters that are likely to be impacted by the proposed action.

Appropriate resources and published literature should be reviewed and cited throughout, including all relevant government issued conservation advice and recovery plans, management plans and relevant ecological studies where available.

The EIS must include a habitat assessment for each relevant listed marine, migratory and threatened species and community. The habitat assessment must include, but not be limited to, the habitat area (in hectares), quality, location and use specifications of known and potential suitable habitat in relation to the project disturbance area including use of aerial space.

The habitat assessment must be informed by, at a minimum, a desktop assessment of relevant Commonwealth and State Government databases and the outcomes of relevant field surveys or studies that are applicable to the habitat, communities, or species in the project area.

The EIS must consider and discuss the value of suitable habitat present within the development envelope and how it may be impacted by the project.

The EIS must describe the methodology for identifying priority areas for conservation.

The EIS must provide an analysis of the strengths, limitations and expected effectiveness of methodologies used to identify the MNES and identify any key

information gaps, further studies needed and any proposals to address critical information needs.

This section must also include the following information:

2.6.1. Ramsar Wetlands

1. A description of the ecological character of the Corner Inlet and the Western Port Ramsar Wetlands including the following details:

- Ramsar values (identified in the Ramsar Information Sheet (RIS)), critical components, processes and services of the Corner Inlet and the Western Port Ramsar Wetlands (identified in the Draft Ecological Character Description (ECD) or final ECD if available). This includes:
 - a) aspects of the marine environment (both Victorian and Commonwealth waters) that underpin the ecological character of the Ramsar sites;
 - b) extent and types of wetland habitats at the proposed development site and in areas that may be impacted by the development including, but not limited to, intertidal and subtidal habitats and areas;
 - c) threatened ecological community locations;
 - d) threatened and migratory species numbers, distribution and site fidelity at the Ramsar sites and in areas that may be impacted by the development, known habitat utilisation or requirements, and the predicted temporal and spatial variability in occurrence at the site;
 - e) the role of the Ramsar sites in maintaining populations of EPBC listed species, and species that are critical components of the ecological character of the Ramsar sites;
 - f) locations of feeding habitats for cetaceans, feeding and roosting habitats of threatened and migratory species at the Ramsar sites, the behavioural ecology which links these habitats, their site fidelity, temporal variability in occurrence at the site and their usage of the area in a local, regional, and national context, including their migratory pathways;
 - g) coastal morphology and hydrology, including the tidal regime of Corner Inlet;
 - h) physico-chemical status of the wetland (levels of turbidity and suspended sediment)
 - i) water quality;
 - j) soils and marine sediments, including acid sulphate soils (ASS) and potential acid sulphate soils (PASS); and

- k) Current status and condition of the Corner Inlet and the Western Port Ramsar Wetlands, including the past and projected trends and existing threats.

2.6.2. Listed marine species, migratory species, threatened species and ecological communities

2. A description of listed species, which includes listed threatened species and ecological communities (EPBC Act sections 18 & 18A), listed migratory species (EPBC Act sections 20 & 20A), listed marine species (EPBC Act sections 23 & 24A) and listed cetacean species (EPBC Act section 224) that are likely to be present in the vicinity of the onshore or offshore components of the proposed action (and in areas that may be impacted by the project), including the following details:
- details of the scope, duration and timing (survey seasons), and scientifically robust methodology for studies or surveys used to provide information on the listed species/community/habitat at the site (and in areas that may be impacted by the project);
 - how studies or surveys are consistent with (or a justification of divergence from) relevant departmental guidelines or policy statements, or are in accordance with best practice studies or surveys, and include a description of any uncertainties/limitations, including but not limited to timing, conditions and technology;
 - marine, migratory, cetacean and threatened species and ecological communities' abundances at a local scale and regional scale where relevant, distribution and site fidelity at the proposed development site and in areas that may be impacted by the development, and known habitat utilisation or requirements, including Biologically Important Areas (BIAs) and habitat critical to the survival of the species;
 - usage of the project area by listed species in regional context including, but not limited to migratory pathways, breeding and foraging behaviours;
 - the predicted temporal and spatial variability in occurrence of listed species within the onshore or offshore project area and in areas that may be impacted by the project;
 - relevant identified threats to the survival, habitat utilisation, site fidelity and essential life functions of listed species, including foraging, breeding or migratory behaviours, and past and projected trends and existing threats to the condition of habitat.

It is the proponent's responsibility to ensure that any listed marine, migratory, cetacean and threatened species and ecological communities, at the time of the controlled action decision, which will or are likely to be impacted by the project, are assessed for the Minister's consideration. Any listing events (e.g. the listing or up-listing of a species) that

occur after the controlled action decision (2 June 2020) do not affect the assessment and approval process.

The EIS must identify and describe known historical records of listed marine, migratory, cetacean and threatened species and ecological communities in the broader region (this may also include downstream of the project site). All known records must be supported by an appropriate source (i.e. Marine Mammal Observer (MMO) data, Commonwealth and State databases, published research, publicly available survey reports, etc.), the year of the record and a brief description of the habitat in which the record was identified.

The surveys must be of a suitable standard, particularly scope, timing and duration, methods, repetition and be undertaken by appropriately qualified or experienced personnel, to be able to detect cryptic or difficult to detect terrestrial, aquatic and marine species which may be affected by the action. Further, the survey effort must also target areas upstream, downstream and adjacent to the project site, particularly species which regularly disperse through the landscape or aquatic environments (particularly seasonally) and/or have large home ranges. The surveys must demonstrate and ensure enough information is available to inform an understanding of the full scope of potential impacts of the proposed action.

The EIS must provide a robust assessment of the potential habitat available within, adjacent to, upstream and/or downstream of the project site for listed marine, migratory, cetacean and threatened species and ecological communities, including the total amount of each type of habitat (in hectares) within, adjacent to, upstream and downstream of the project site. This must include the assessment of specific habitat requirement/s relevant to each listed marine, migratory, cetacean and threatened species and ecological community (e.g. breeding, foraging, dispersal, important habitat, roosting, etc.), to inform the expected, likely and potential impacts of the proposed action. Habitat assessments must be derived from information obtained from:

- field surveys and vegetation assessments
- the Species Profile and Threats (SPRAT) Database;
- Victorian Biodiversity Atlas;
- relevant DAWE documents (i.e. approved conservation advices, recovery plans, listing advices, draft referral guidelines, etc.); and
- published research and other relevant sources (where relevant).

2.6.3. Commonwealth marine area

3. A description of the Commonwealth Marine environment relevant to the action.

The Commonwealth marine area relevant to the action falls within the area of the

South-east marine region profile (2015). The whole of the environment must be considered in the assessment of the impacts of the action on the Commonwealth marine area, including social, economic and cultural aspects of the environment. Marine protected areas are marine areas which are recognised to have a high conservation value. Actions in or near marine protected areas have a greater likelihood of significant impacts on the Commonwealth marine environment.

Further, the EPBC Act defines the environment as including heritage values, people and communities, including their social, economic and cultural aspects. Indigenous heritage values are also defined in section 528 of the EPBC Act, as “a heritage value of the place that is of significance to indigenous persons in accordance with their practices, observances, customs, traditions, beliefs or history”.

The description of the Commonwealth Marine Area in the description of protected matters section must describe the environment of the commonwealth marine area, and should address the following:

- a) a desktop analysis conducted to develop an understanding of the existing environment that may be affected, including to inform field investigations and environmental impact assessments;
- b) surveys to understand the values and sensitivities of the marine environment that may be affected by the action and how these fit within local, regional and national contexts. In describing the surveys conducted, discuss why these are considered to be of an appropriate standard, considering factors including scope, design features (e.g. power and replication), timing, methodologies, and training and competency of personnel conducting surveys, to be able to detect and describe ecosystems, habitats, biological communities and species relevant to the impact assessment for the proposed action; and
- c) findings and outcomes of desktop analysis and field investigations, setting out current knowledge about the condition of the existing environment that may be affected by the action.

In accordance with the definition of the environment in section 528 of the EPBC Act, the EIS should address the following:

- a) ecosystems and their constituent parts, including people and communities;
- b) natural and physical resources;
- c) the qualities and characteristics of locations, places and areas including Key Ecological Features (identified in the *South-east marine region profile* (2015)), and Australian Marine Parks (see [Australian Marine Parks \(parksaustralia.gov.au\)](http://parksaustralia.gov.au)), addressing:
 - i. Distance from the proposed action

- ii. Conservation values
 - iii. Status, condition and the threats to identified values that are relevant to the Action
 - iv. Relevant management arrangements (e.g. management plans) and strategies and any separate approvals requirements for activities within or which may affect Australian marine parks.
- d) heritage values of places;
- e) the social, economic and cultural aspects, of a thing mentioned in paragraph (a), (b), (c) or (d), including as they relate to the Gunaikurnai and Bunurong peoples and other Indigenous stakeholders, and consideration of the characterised visual impact of the action; and
- f) Locations and descriptions of underwater cultural heritage sites and artefacts, must be determined using an appropriate resolution for underwater surveys, by a suitably qualified expert with a background in Australian underwater cultural heritage expertise.

2.7. Relevant impacts

The EIS must discuss all the relevant impacts of the action to:

1. the ecological character of wetlands of international importance;
2. listed marine, migratory and threatened species and ecological communities;
3. the Commonwealth marine environment (as described in Section 528 of the EPBC Act).

All relevant impacts of the action must be assessed in accordance with relevant DAWE policies and guidelines, and information provided in the SPRAT Database.

Relevant impacts are impacts that the action will have or is likely to have on a matter protected by a controlling provision as listed in the preamble of this document. Impacts during the construction, commissioning, operational and the decommissioning phases of the project should be addressed, and the following information provided:

- the choice of study area for the particular aspect of the environment or matters of national environmental significance being assessed and the assumptions behind this choice;
- a detailed assessment of the nature, extent, severity/intensity, seasonality and duration of the likely short-term, long-term and cumulative impacts;
- a statement whether any relevant impacts are likely to be unknown, unpredictable or irreversible;

- analysis of the significance of the relevant impacts; and
- any technical data and other information used or needed to make a detailed assessment of the relevant impacts, including:
 - a) ornithological baseline study results presented with sufficient detail to allow a quantified comparison between the pre-development state of the environment and changes to the environment attributed to the project during implementation; characterising the disturbance footprint of structures on the sea floor, as a result of direct impacts from placement (e.g. overtopping benthos) and indirect impacts (e.g. potential changes to sediment resuspension and deposition patterns), changed nature of benthic substrates and biota that inhabit them (e.g. from unconsolidated sediments to hard surfaces), individually and cumulatively across the wind farm site;
 - b) characterising the vertical disturbance footprint of structures individually and cumulatively across the wind farm site;
 - c) modelling collision risk of avifauna at the offshore wind farm is applicable to specific listed migratory and threatened seabirds and shorebirds that are likely to be encountered at the wind farm site;
 - d) modelling of changes to existing hydrodynamic conditions (e.g. marine water currents, wave climate) and knock-on consequences for coastal processes (e.g. the extent and severity of any change in coastal geomorphology and its effect on tidal regimes) at Corner Inlet and/ or Western Port Ramsar sites due to the physical presence of offshore infrastructure/ or changes to port facilities to enable the maintenance of the wind farm;
 - e) further to the item above, modelling or alternative scientifically robust methodologies which reflects the magnitude of the predicted potential impact resulting from any changes to the physico-chemical status of Corner Inlet and/or Western Port Ramsar sites (including turbidity and suspended sediment changes) during the construction, commissioning, operation and decommissioning stages of the action;
 - f) characterising potential changes to the quality of waters, sediments and biota at the Corner Inlet and/or Western Port Ramsar sites and within the Commonwealth marine area;
 - g) characterising the risk of barrier effects of the physical presence of offshore infrastructure on cetaceans, threatened, migratory and marine birds, and migratory shorebirds foraging and migration behaviour, and the resulting impacts to the ecological character of the Corner Inlet and/ or Western Port Ramsar sites;

- h) modelling (or other scientifically sound method for predicting impacts) of underwater noise, vibrations and electromagnetic disturbance and prediction of impacts during the construction, commissioning, operation and decommissioning stages of the action;
- i) characterising the impact and extent of light pollution on marine fauna during construction and operation of the wind farm;
- j) predictions of the extent, severity and persistence of impacts of the action on existing marine benthic habitats and communities and the biota they support (e.g. mammals, reptiles, marine plants, fish and invertebrates), and evaluating how these impacts affect marine ecological integrity and functioning, for the CMA as well as any marine protected areas that may be affected;
- k) the extent, intensity and duration of impacts of the action on existing users of the marine environment (e.g. commercial and recreational fishers, marine tourism, shipping and navigation, commercial and defence aircraft (e.g. potential impacts on radar)); and
- l) characterising the visual impact of the wind farm from sensitive viewpoints on the Victorian coast.

The impact assessment set out in the EIS should include proposed defined acceptable levels of impact against which predicted impacts of the action are to be evaluated.

In assessing the impacts, including when defining acceptable levels of impact, consideration must be given to:

- EPBC Act *Policy Statement 1.1 Significant Impact Guidelines*, in particular significant impact criteria for listed threatened species and ecological communities; listed migratory species; Wetlands of International Importance; and Commonwealth Marine Environment;
- EPBC Act *Policy Statement 1.2 Actions on, or impacting upon, Commonwealth land, and actions by Commonwealth agencies*;
- EPBC Act *Policy Statement – ‘Indirect consequences’ of an action: Section 527E of the EPBC Act*;
- EPBC Act *Policy Statement 2.1 - Interaction between offshore seismic exploration and whales: Industry guidelines*;
- EPBC Act Regulations Part 8 - Interacting with cetaceans and whale watching;
- *Industry Guidelines for avoiding, assessing and mitigating impacts on EPBC Act listed migratory shorebird species; EPBC Act environmental offsets policy*;

- *How to use the Offsets assessment guide;*
- *Underwater Cultural Heritage Guidance for Offshore Developments;*
- *Sea Country: An Indigenous Perspective;*
- *A Guide to the Protected Zones Declared Under the Underwater Cultural Heritage Act;*
- *National Light Pollution Guidelines for Wildlife Including Marine Turtles, Seabirds, and Migratory Shorebirds;*
- *National Strategy for Reducing Vessel Strike on Cetaceans and other Marine Megafauna*
- *Australian National Whale and Dolphin Watching Guidelines*
- *Wildlife Conservation Plan for Migratory Shorebirds;*
- Biologically Important Areas (National Conservation Atlas);
- Australia's international responsibilities in relation to conservation of biodiversity, conservation of migratory species and protection of Ramsar wetlands;
- Australia's international obligations in relation to international agreements (for example, International migratory bird agreements - JAMBA, CAMBA, ROKAMBA, Convention on Biological Diversity, Convention on the Conservation of Migratory Species of Wild Animals; Agreement on the Conservation of Albatrosses and Petrels);
- consistency with relevant Statutory instruments, including regulations, zoning plans, plans of management and permits;
- relevant approved Conservation Advice, Recovery Plans, Threat Abatement Plans, management plans for marine parks, Ramsar Information Sheets, Ramsar Management Plans and Ecological Character Descriptions of the relevant Ramsar sites, as well as any agreements or plans that cover impacts on MNES;
- non-statutory mechanisms including Federal and State policies, position statements and guidelines;
- partnership and collaborative arrangements with Victoria and other Australian government agencies;
- partnerships with the Gunaikurnai and Bunurong peoples in the management of the wetlands;

- partnership and stewardship programs, including education programs and engagement, with local governments, communities, Indigenous persons, business and industry; and
- findings of relevant research and monitoring programs whether conducted by the proponent or others.

Where applicable, the EIS must use baseline data to support modelling and predictions and evaluation of impacts and conclusions about their acceptability. The EIS must also provide a detailed assessment of the extent and severity of any likely impact that the proposed action may facilitate (at the local, regional, state, national and international scale).

When discussing impacts, short-term and long-term effects must be considered with comment on whether the impacts are likely to be known, unpredictable or irreversible. Likely impacts, including direct, indirect, facilitated and cumulative, to be addressed in the EIS include but should not be limited to:

2.7.1 General impacts

The EIS will:

- discuss the effects of the overall action on the functioning of the marine environment, including effects to the marine environment surrounding the proposed development based on scientifically defensible study areas;
- identify the source of potential impacts, e.g. presence of wind farm physical infrastructure, ship-movements, artificial lighting and noise during construction, commissioning, operation and maintenance, and decommissioning phases;
- discuss potential impacts which may arise through the transportation, storage and use of dangerous goods (if any), fuels and chemicals, such as accidental spills;
- consider the application of a waste management hierarchy (e.g. reduce, reuse, recycle, treat, dispose) and potential impacts caused by the need for waste disposal and management of emissions, refuse, effluent and hazardous waste (if any);
- in discussing potential impacts, consider how the interaction of extreme environmental events and any related safety response may impact on the environment; and
- consider potential impacts throughout the life of the proposed Star of the South Offshore Wind Farm Project from construction and operations through to decommissioning.

2.7.2. Underwater disturbance (noise, vibrations and electromagnetic fields)

The EIS must include an assessment of the potential direct and indirect impacts to listed marine, migratory, threatened species and communities, and including impacts to prey species, arising from underwater noise, vibrations and electromagnetic fields generated during the construction, commissioning, operation and decommissioning of the offshore wind farm. The following will be required to be characterised:

- details of the noise, vibrations and electromagnetic fields to be generated during all stages of the action (construction, commissioning, operation and maintenance, and decommissioning) including:
 - a) the intensity, duration, frequency and extent of underwater noise generated from all relevant activities associated with the proposed action, including cumulative impacts from all noise generating activities;
 - b) the magnitude, duration and frequency of any vibration;
 - c) the strength of electromagnetic fields generated around subsea cables or other infrastructure;
 - d) the expected geographic extent of disturbance, and the length of the disturbance period;
- baseline monitoring of listed and commercially important species during pre-construction, construction, commissioning and operation, to gather sufficient data to provide a baseline for later studies or monitoring as required (including in relevant plans) to verify that environment outcomes have been met. In addition, environmental baselines related to substrate and bathymetry are recommended to ensure appropriate noise propagation modelling;
- details of the results of baseline monitoring of noise and vibration in the proposed vicinity of the development;
- the locations of sites sensitive to noise disturbance must be identified on a map at a suitable scale;
- the impacts of noise, vibrations and electromagnetic fields associated with the construction and ongoing operations of the action on all MNES, including:
 - a) an assessment of short-term, long-term and cumulative impacts, compared with measured background noise levels;
 - b) the consequences for the disruption of migration, resting, breeding (including calving and nursing), or foraging behaviours of listed species, or species that are critical components of the ecological character of Ramsar sites, as a

result of underwater disturbance including consideration of requirements in relevant statutory documents; and

- c) the potential for the activity to impede the recovery of a listed species.

All assumptions, calibration, validation, and related uncertainty of any model predictions must be provided.

2.7.3. Light pollution

The EIS must include an assessment of the potential direct and indirect impacts to protected matters (including impacts to prey species) arising from light pollution as a result of construction, commissioning, operation and decommissioning of the offshore wind farm and associated port/ land based activities including port development. The assessment must be consistent with the *National Light Pollution Guidelines for Wildlife Including Marine Turtles, Seabirds and Migratory Shorebirds* (2020). The following will be required to be characterised:

- details of the lighting to be used during all stages of the action (including night operations and maintenance and increased vehicle traffic) including:
 - a) modelling and/ or consideration of alternative scientifically robust methodologies which reflect the magnitude of the predicted potential impacts to light sensitive species including shorebirds and seabirds
- the significance of impacts to MNES (including but not limited to shorebirds, seabirds and turtles), including:
 - a) the consequences of disrupting migration, breeding or foraging behaviours of listed species or species listed as critical components of the ecological character of Ramsar sites as a result of light pollution must be addressed.

2.7.4. Avifauna and marine mammal collision

The EIS must include a collision risk assessment, to understand the significance of the impact on listed threatened, migratory and marine birds and the ecological character of Corner Inlet and/ or Western Port Ramsar sites resulting from collision with turbines (both towers and turbine blades) during the operation of the wind farm. The EIS must also include an assessment of the impacts on listed threatened and migratory marine mammals as a result of collision with water vessels. The following will be required to be characterised:

- the use of the wind farm area by listed threatened, migratory and marine birds, taking into account potential temporal variation in occurrence, including:
 - a) characterising the numbers, migratory pathways and foraging behaviours of avifauna species likely to occur in the vicinity of the wind farm, which will

require scientifically robust studies of diurnal and nocturnal patterns over different seasons, including at-sea observations;

- b) characterising the listed migratory shorebird and seabird use of the offshore area including key factors that affect collision risk such as morphology, sensorial perception, behaviour, abundance, flight paths, flight and heights in differing wind conditions, food availability and weather conditions relevant to the project site.
- the determination of listed avifauna collision risk at the wind farm, underpinned by scientifically robust modelling, noting that the assumptions, calibration, validation and related uncertainty of any model predictions must be provided;
 - the significance of the impact on listed avifauna from collision with the wind farm infrastructure, which must address long-term decreases in population sizes of listed species as a result of mortality due to collision and the likely effects of decreases on population viability, and in the case of listed species, on population recovery.
 - the use of the wind farm area by listed threatened and migratory marine mammals, taking into account potential variation in occurrence, including:
 - a) characterising the numbers, migratory pathways and foraging behaviours of the marine mammals likely to occur in the vicinity of the wind farm, which will require scientifically robust studies over different seasons, including at-sea observations;
 - the determination of listed threatened and migratory marine mammal collision risk from vessel movement, underpinned by scientifically robust methodology, noting that the assumptions, calibration, validation and related uncertainty of any model predictions must be provided; and
 - the significance of the impact on listed marine mammals from collision with vessels, which must address:
 - a) disruption of migration, breeding or foraging behaviours of listed species as a result of the collision impact; and
 - b) long-term decreases in population sizes of the listed species as a result of mortality due to collision, and the likely effects of decreases on population viability, and in the case of threatened species, on population recovery.

2.7.5. Barrier effects of offshore infrastructure

The EIS must explore the barrier effects of offshore infrastructure on foraging behaviours and migratory pathways, and the impact of potential barriers to foraging and migration on listed cetaceans, threatened, migratory, marine bird species, and the

ecological character of Corner Inlet and/ or Western port Ramsar sites. The EIS must also explore the barrier effects of offshore infrastructure on commercial fishing and tourism operations. The following will be required to be characterised:

- the listed threatened, migratory, marine mammal and marine bird species likely to migrate through the area, their migratory pathways and the numbers of their occurrence in the vicinity of the wind farm area, taking into account temporal variability. This will require scientifically robust studies of diurnal and nocturnal patterns over different seasons, including at sea observations; and
- the significance of the impact of foraging and migration barriers arising from the presence of offshore infrastructure on listed cetaceans, threatened, migratory and marine bird species, which must address:
 - a) disruption of migration, breeding or foraging behaviours of listed species as a result of barrier effects from offshore infrastructure;
 - b) an evaluation of the potential for population level impacts and subsequent consequences for population viability and in the case of threatened species, population recovery; and
 - c) the impacts to the ecological character of the Corner Inlet and/ or Western Port Ramsar sites.
- the disruption to any commercial fishing and/ or tourism operations due to exclusion zones around turbines and other infrastructure.

2.7.6. Potential adverse effects for the community with regard to landscape and visual amenity

The EIS must explore the visual impact of the offshore infrastructure on the landscape. The following will be required:

- describe the visible components of the project, and the viewshed of the project based on the dimensions of the project components;
- assess the statutory context including identification of any significant landscapes in the vicinity that have statutory protection;
- assess key landscape characteristics in the vicinity of the action;
- assess the potential for nearby communities to be exposed to changes to the visual amenity, including views and blade glint from project infrastructure;
- identify sensitive viewpoints with focus on important tourism sites;
- assess the potential visual impact from viewpoints within the public and private domain.

- prepare visual exposure and visual sensitivity mapping (viewshed maps that model the visual connectivity (visual exposure) of the development envelope from sensitive viewpoints of the Victorian coast), taking into account topographies and viewscreens.
- understand any cumulative visual impacts of the project with other existing or approved developments and any proposals for which development applications have been submitted and define management measures.
- undertake a seen area analysis to understand the areas from which the wind turbines are visible.
- characterise the risk of visual impacts to industry (for example the tourism industry) and communities, including potential effects on significant state and regional landscape values and national parks, which will require further consultation.

2.7.7. Routine vessel discharges and unplanned spills

The EIS must identify and evaluate the potential impact of routine vessel discharges and spills on MNES, including the ecological character of the Corner Inlet and the Western Port Ramsar sites, and the ability for these wetland systems to support habitat for protected flora and fauna species, listed marine, migratory and threatened species and ecological communities and the marine environment generally included for the potential colonisation on marine infrastructure.

2.7.8. Introduction of invasive species

The EIS must explore the risks and impacts of introduced invasive species, including marine species, on MNES, including the ecological character of the Corner Inlet and the Western Port Ramsar sites, listed marine migratory and threatened species and ecological communities. The following will be required to be characterised:

- the project-associated vectors for introduction of invasive species;
- risk to MNES associated with introducing invasive species to the proposed action site;
- the potential direct and indirect impacts to MNES associated with introducing invasive species, including weeds, diseases and pathogens to the development envelope; and
- the effectiveness of the suite of control measures which will be implemented to ensure significant impacts to MNES as a result of introduced invasive species are either avoided or reduced to an acceptable level.

2.7.9. Waste

The EIS must describe and assess the potential impacts of all wastes to be generated by the proposed development (during construction, commissioning, operation and decommissioning) and provide details of each waste in terms of:

- the potential level of impact on MNES;
- operational handling and fate of all wastes including storage and disposal;
- on-site treatment methods proposed for the wastes (including grey-waste);
- methods of disposal (including the need to transport wastes off-site for disposal) proposed to be used for any trade wastes, liquid wastes and solid wastes;
- proposed discharge/disposal criteria for liquid and solid wastes;
- processes of waste minimisation techniques proposed.

2.7.10. Consequential and facilitated impacts

The EIS must provide a detailed assessment of any likely impacts that the development may facilitate on MNES at the local, regional, state or national scale. Assessment of consequential and facilitated impacts must include consideration of:

- any other known development proposals which may be facilitated or impacted (either positively or negatively) by the development;
- the potential to disturb contaminated land or contaminated seabed (including in relation to unexploded ordnance);
- whether the development will result in an intensification of development or proposals in the region, or an increase in workforce or in local and regional community changes; and
- any requirements for further proposals of major regional infrastructure to allow the development to go ahead.

2.7.11. Cumulative impacts

The EIS should identify and address cumulative impacts, where potential project impacts are in addition to existing impacts of other activities (including known potential future expansions or developments by the proponent and other proponents in the region and vicinity that are approved or where development applications have been submitted). Cumulative impacts must be considered in terms of the potential overall consequence or magnitude of impacts on each of the MNES. The assessment of cumulative impacts must include:

- review and analysis of residual impacts of the proposed development and of other known proposals where there may be a spatial or temporal overlap;
- consideration of the potential for cumulative impacts on the ecological character of the Corner Inlet and the Western Port Ramsar sites, resilience of any important populations of listed marine species, migratory species, threatened species and ecological communities and on overall habitat quality and availability;
- discussion of the potential for existing pressures and threats to be exacerbated by the proposed development.

The EIS should also address the potential cumulative impact of the proposed action on ecosystem resilience. The cumulative effects of climate change impacts on the environment must also be considered in the assessment of ecosystem resilience and listed species attributes where scientific information on the effects of climate change on ecosystem resilience is available.

The discussion must include an evaluation of the likely short term and long-term cumulative impacts on the general environment and ecosystem function where relevant to MNES. In this regard consideration must be given to the potential magnitude of effects and the duration and reversibility of effects.

2.7.12. The environment of a Commonwealth marine area.

For components of the action that may impact on the environment of a Commonwealth marine area, the EIS will need to characterise impacts to the environment as described at section 528 of the EPBC Act. This includes:

- a) ecosystems and their constituent parts, including marine benthic habitats, people and communities;
 - with regard to marine benthic habitats, the EIS must include predictions of how construction, commissioning, operations and decommissioning phases of the action will impact on existing marine benthic habitats and the biota they support. The EIS must evaluate these impacts in the context of the effect they may have on marine ecological integrity and functioning, and the quality of water, sediment and biota.
- b) natural and physical resources;
- c) the qualities and characteristics of locations, places and areas including Key Ecological Features and Commonwealth Marine Parks (identified in the *South-east marine region profile (2015)*), addressing:
 - v. Distance from the proposed action

- vi. Status
 - vii. Conservation value
 - viii. Management strategies
- d) heritage values of places, for example underwater heritage (including shipwrecks); and
- e) the social, economic and cultural aspects (for example sea country) of a thing mentioned in paragraph (a), (b), (c) or (d), including consideration of the characterised visual impact of the action. This should include assessment of the potential impacts of the action on use of the Commonwealth marine environment, including the air space above by others (e.g. freedom of navigation, commercial and recreational fishing and, aviation radar).

2.8. Proposed avoidance, management and mitigation measures

Management and mitigation measures must reduce the level of impact and risk to an acceptable level in consideration of the EPBC Act. Measures include, any practices that will reduce the impacts and risks in order to meet the performance criteria, any relevant legal requirements (related specifically to the impact/risk), internal company requirements, and any requirements that are identified through the stakeholder consultation process.

In accordance with the environmental risk and impact assessment guidance above, where a risk is assessed to be low, this risk will be deemed acceptable, and no further management is required. Where the risk level is higher than low, additional management and mitigation measures are required to be considered and implemented.

Specific and detailed descriptions of proposed measures must be provided and substantiated, based on best available practices and must include the following elements:

- a description of each proposed avoidance, minimisation or mitigation measure in relation to the likely impacts;
- an assessment of the expected or predicted effectiveness and achievability of each proposed avoidance, minimisation or mitigation measure including timeframes for achieving and maintaining effectiveness; and
- an evaluation of whether residual impacts (following the application of mitigation measures) are consistent with the defined acceptable levels of impact relevant to the action.

The EIS must include a consolidated list of measures proposed to be undertaken to prevent, minimise, mitigate or compensate for the relevant impacts of the action, including:

- a description of the environmental outcomes the measures are expected to achieve including details of any baseline data, environmental indicators and proposed monitoring to demonstrate progress towards achieving these outcomes;
- a description of proposed mitigation measures to mitigate relevant direct and indirect impacts of the action, including measures to avoid areas of high conservation value as far as possible;
- a description of the measures proposed to be undertaken by the proponent that have been proposed by State or local governments; and
- details of ongoing management of the construction, commissioning, operation and decommissioning of the project, an analysis as to the effectiveness of these management measures, monitoring programs to verify the effectiveness of the measures proposed, and a framework for adaptive management including:
 - a) management strategies that will be implemented if mitigation and management measures are insufficient and/or ineffective;
 - b) adequate monitoring regimes and defined trigger levels that will prompt further management and/or remediation actions to prevent unacceptable impacts to protected matters occurring, and so that environmental outcomes continue to be met; and
 - c) who will be responsible for such measures and the extent of their responsibility.

The EIS must not just state proposed management plans and/or broad objectives to describe avoidance, mitigation and management measures but must include detailed measures that will be implemented to avoid, minimise, mitigate and manage impacts on MNES. Committed language (i.e. 'will') rather than non-committal language (i.e. 'may', 'where possible', 'if required', etc.) must be used.

As all actions and mitigation measures relating to the Corner Inlet and Western Port Ramsar Sites must be consistent with the Australian Ramsar management principles, which are set out in Schedule 6 of the EPBC Regulations 2000, and with Australia's obligations under the Ramsar Convention. The EIS should discuss how the measures proposed have had regard to these principles which include:

- (a) actions to maintain the ecological character of the wetland;
- (b) wise and sustainable use of the wetland;
- (c) public consultation, and continuing community and technical input;

- (d) actions to deal with impacts, including physical loss, modification or encroachment on the wetland, loss of biodiversity, pollution and nutrient input, changes to water regimes, utilisation of resources, introduction of invasive species;
- (e) restoration or rehabilitation actions; and
- (f) monitoring and reporting against ecological outcomes for the life of the project.

The EIS must detail the ongoing monitoring and reporting during construction, commissioning, operation and decommissioning phases. These measures should enable the Department to assess any local or wider impacts of the development.

If responsibility for implementation or management of mitigation measures during the operation of the project is proposed to be transferred to parties other than the proponent, the EIS must detail the stages at which such transfer would occur and how ongoing mitigation measures will be managed.

The EIS must consider the environmental outcomes that will be achieved by the proposed action. This must include consideration of the Department's outcomes-based conditions policy and guidance documents.

The Outcomes-based conditions policy and guidance is available at:
www.environment.gov.au/epbc/publications/outcomes-based-conditions-policy-guidance.

The EIS must demonstrate how a net benefit will be achieved for the Corner Inlet and/or Western Port Ramsar sites and other MNES through the implementation of avoidance, mitigation and offset measures in a timely, transparent and scientifically robust manner. These measures must be additional to what is already required under existing laws or schemes. This may include actions which will maintain the ecological character of the Corner Inlet and/or Western Port Ramsar sites as a whole, improve existing habitat for MNES, create new habitat for MNES, reduce threats to habitat for MNES and avert the loss of habitat for MNES under threat.

The entities responsible for undertaking the proposed measures must be included as well as a description and a map to clearly define the location and boundaries of any proposed additional conservation areas. This must be accompanied by net benefit attributes and shapefile/s.

The EIS must include detailed costings for the measures that will be implemented to achieve net benefit outcomes. Timeframes and key milestones for implementation of net benefits and a discussion of risks and uncertainties associated with the proposed net benefits must also be included.

The EIS must include mechanisms to ensure that net benefits are maintained for the duration of the impacts. There must also be mechanisms for monitoring and reporting of

net benefit milestones and outcomes. The EIS must detail the timing and frequency of any monitoring and reporting activities.

The EIS must include an analysis of the likely effectiveness of the mitigating measures in protecting MNES outcomes at the regional landscape and seascape scale, including associated regulatory and policy arrangements to implement commitments.

The EIS must include an analysis of how the mitigation measures are not inconsistent with any statutory or policy requirements, including but not limited to:

- any relevant threat abatement plan for listed threatened species and communities;
- any relevant recovery plan for listed threatened species and communities; and
- relevant conventions and agreements under which a migratory species is listed, including the Ramsar Convention on Wetlands, Agreement on the Conservation of Albatrosses and Petrels (ACAP), the Convention on the Conservation of Migratory Species of Wild Animals (the Bonn Convention), the China-Australia Migratory Bird Agreement (CAMBA), Japan-Australia Migratory Bird Agreement (JAMBA), Republic of Korea-Australia Migratory Bird Species (ROKAMBA) and agreements relevant to the conservation of the species.

2.8.1. Environmental Management Plans

The EIS must include a detailed outline of any Environmental Management Plans (EMPs) that sets out the framework for management, mitigation and monitoring of relevant impacts of the action, including any provisions for independent environmental auditing.

The EMPs need to address the project phases (construction, commissioning, operation and decommissioning) separately and any staging of each phase. Each EMP must state the environmental objectives, performance criteria, monitoring, reporting, corrective action, responsibility and timing for each environmental issue.

The EMPs must also describe contingencies for events such as accidental vessel or machinery spills, heavy or prolonged rainfall, storms, or saltwater intrusion into ground water.

The name of the agency responsible for endorsing or approving each mitigation measure or monitoring program must be provided

All EMPs must be in accordance with the Department's Environmental Management Plan Guidelines and take account of all requirements relevant to the action and its impacts, including but not limited to the Australian Ramsar Management Principles (EPBC Regulations) that require:

- (a) clear, measurable, time specific environmental outcomes to be achieved by implementing the plan. The plan defines environmental outcomes as measurable extent and condition targets, or circumstances of, the protected matter (e.g. water quality environmental values, ecological attributes/function).
- (b) clear, measurable, time specific performance and completion criteria:
 - i. performance criteria are time-bound short and medium-term targets, for management interventions and environmental condition, that are used to monitor, evaluate, review and improve the effectiveness of the plan; and
 - ii. completion criteria are time-bound longer term values, specified for measurable parameters, that if attained and maintained ensure the plan's environmental outcome/s have been achieved
- (c) clear, measurable, time specific management measures that will be implemented to avoid and/or mitigate environmental impacts. Each management measure and corrective measure:
 - i. has timeframes for implementation;
 - ii. is described sufficient to avoid ambiguity and to inform plan implementation;
 - iii. is related to quantitative and auditable performance and completion criteria; and
 - iv. is derived from recognised principles, practice, or guidelines, and is justified - technically, scientifically and/or legally – as an effective and appropriate measure to achieve the plan's objective/s.
- (d) a clear, measurable, time specific schedule and triggers for auditing the implementation and effectiveness of the plan and outlines auditable systems for recording plan implementation and the environmental outcomes achieved.

The Department's Environmental Management Plan Guidelines 2014 are available at: www.environment.gov.au/epbc/publications/environmental-management-plan-guidelines.

2.8.2. Adaptive management: addressing uncertainty and managing risk

The EIS must identify key adaptive management measures addressing uncertainties and inherent risks. Uncertainties could, for example, include limitations of predictions or assumptions, knowledge gaps in scientific understanding and baselines status of the environment, and the timing, effectiveness, or capacity to implement, maintain, operate and enforce management measures.

The EIS must describe how the adaptive management strategies will be implemented to ensure MNES are effectively protected over the life of the project. This includes how:

- (a) monitoring of MNES will occur, including monitoring of progress in achieving the desired environmental outcomes identified in the EIS, how the monitoring will be analysed throughout the life of the project and how the results of the monitoring will influence the project; and
- (b) an explanation of how monitoring and adaptive management will be effective in detecting and managing potential impacts on MNES throughout the life of the proposed action; and
- (c) new information relating to MNES or the EIS is to be assessed and accounted for in management of the area affected by the project.

2.9. Offsets

Environmental offsets are broadly understood to mean actions taken outside a development site that compensate for the significant residual impacts of that development. Offsets are not intended to replace avoidance and mitigation which are expected to be the primary strategies for managing the potential impacts of development proposals. The EIS must provide details of:

- residual significant impacts on MNES that are likely to occur after the proposed activities to avoid and mitigate all impacts are taken into account; and
- where residual significant impacts are likely to occur, the reasons why the avoidance or mitigation of these significant impacts is not expected to be achieved.

The EIS must include details of an offset strategy proposed to be implemented to compensate for the residual significant impacts of the project if these are determined likely, as well as an analysis about how the offset(s) meets the requirements in the Department's *Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy October 2012* (EPBC Act Offset Policy).

Offsets must directly contribute to the ongoing viability of the MNES impacted by the project, be based on scientifically robust information and deliver an overall conservation outcome that improves or maintains the viability of the MNES as compared to what is likely to have occurred under the status quo, that is, if neither the action nor the offset had taken place.

The outcomes of the offset strategy need to be specific, measurable and achievable, based on robust baseline data and demonstrate with a high degree of certainty that predicted outcomes will be achieved.

Where offset area/s have been nominated, include an offset strategy as an appendix to the EIS which includes information to demonstrate how the environmental offset/s compensate for residual significant impacts of the action on relevant MNES, and/or their habitat, in accordance with the principles of the Offsets Policy.

The offsets strategy must include:

- quantity of impacts which are being offset and details of the environmental offset/s (in hectares) for residual significant impacts of the action on relevant MNES, and/or their habitat;
- the availability and suitability of offsets and evidence that the relevant MNES, and/or their habitat, is present in the potential offset area/s;
- information about how the proposed offset/s area provide a conservation benefit for the protected matter
- specific environmental outcomes to be achieved through the offset, and reasoning for these in reference to relevant statutory recovery plans, conservation advice and threat abatement plans;
- details of the proposed mechanism to legally secure the environmental offset/s (under Victorian legislation or equivalent) to provide protection for the offset area/s against development incompatible with conservation;
- how any proposed staging of the overall development will impact the delivery of offsets;
- roles and responsibilities (clearly stating who is responsible for activities);
- auditing and review mechanisms; and
- an analysis of how the offset package meets the requirements of the EPBC Act Offsets Policy.

2.10. Other approvals and conditions

2.10.1. Commonwealth, State and local Government approvals

The EIS must set out as far as practicable at this stage of the proposed action, the scope and likely schedule of applications and assessment requirements and whether the proposed action is in accordance with the various Commonwealth, State and local government statutory processes.

2.10.2. Beagle Marine Park

The EIS must consider the Beagle Marine Park. It must be consistent with the management principles and management plan for the area and specify management outcomes for the protection, presentation and use of the area in accordance with the relevant management plans. The EIS should also detail any additional approvals that may be needed from the Director of National Parks under the relevant marine park network management plans.

2.10.3. Other Requirements

The EIS must include information on any other requirements for approval or conditions that apply, or that the proponent reasonably believes are likely to apply, to the proposed action. This must include:

- (a) details of any local or Commonwealth, State Government planning scheme, or plan or policy under any local or State Government planning system that deals with the proposed action, including:
 - what environmental assessment of the proposed action has been, or is being, carried out under the scheme, plan or policy; and
 - how the scheme provides for the prevention, minimisation and management of any relevant impacts;
- (b) a description of any approval that has been obtained from a State, Territory or Commonwealth agency or authority (other than an approval under the Act), including any conditions that apply to the action;
- (c) a statement identifying any additional approval that is required; and
- (d) a description of the monitoring, enforcement and review procedures that apply, or are proposed to apply, to the action.

Relevant legislation under which additional approval may be required includes but is not limited to:

- *Underwater Cultural Heritage Act 2018*;
- *Environment Protection (Sea Dumping) Act 1981*;
- *Civil Aviation Act 1988*;
- *Victorian Marine and Coastal Act 2018*;
- *Victorian Aboriginal Heritage Act 2006*; and
- *Victorian Planning and Environment Act 1987*.

2.11. **Promoting ecologically sustainable development**

The EIS must describe how the following principles of ecologically sustainable development (ESD) have been applied in the project:

- (a) decision making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations.
- (b) if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

- (c) the principle of inter-generational equity – that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.
- (d) the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision making.

The EIS must also describe how the proposed development will not be inconsistent with Australia's obligations under each of the international agreements relevant to the conservation of MNES.

2.12. Auditing and reporting

The EIS must set out:

- (a) a program of baseline reporting on the current status/condition of the site and surrounding region;
- (b) a program of monitoring, public reporting and independent or third-party auditing to be undertaken;
- (c) a process that will incorporate these findings into ongoing management;
- (d) who is responsible for overseeing and taking these actions; and
- (e) record keeping and review processes under the approval.

2.13. Review, modification or abandonment

The EIS must identify and analyse the likely circumstances and procedures that may result in the review, modification or abandonment of the project. This is to include a discussion of how any commitments under the EIS will continue to be met.

2.14. Consultation

The EIS must include details of any consultation about the action, including:

- (a) any consultation that has already taken place;
- (b) proposed consultation about relevant impacts of the action with persons, groups or organisations that may be directly affected by the proposed action;
- (c) proposed consultation about relevant impacts of the action with interested parties;
- (d) if there has been consultation about the proposed action, identification of any objections or claims about the proposed action and a documented response to, or result of, the consultation;

- (e) identification of affected parties, including a statement mentioning any communities that may be affected and describing their views; and
- (f) a summary of how and when stakeholders will be notified of the commencement of the key phases of the development and how any ongoing consultation after approval will be undertaken.

The Minister must be provided with a report on the public submissions received on the draft EIS, together with proposed final drafts of the EIS, incorporating any revisions made in response to public comments.

The EIS must include a process for ongoing consultation with Indigenous people whose rights, claims or interests may be affected by the development. This must include:

- a) an engagement plan for ongoing consultation throughout the life of the project, and how this will be conducted in a culturally appropriate way; and
- b) consultation on the development of mitigation measures and management of proposed additional protected areas.

The EIS must also provide:

- a) the names of Traditional Owners, Indigenous stakeholders or representative bodies consulted, and demonstrate that they have been consulted on all relevant issues; and
- b) demonstration of how feedback from the Gunaikurnai, the Bunurong peoples and other Indigenous stakeholders has been incorporated into project planning, implementation and rehabilitation, and the justification for not incorporating this feedback as necessary.

The process for consultation with Indigenous people must be take into consideration *Engage Early Guidance for proponents on best practice Indigenous engagement for environmental assessments under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*, (Commonwealth of Australia 2016), *Dhawura Ngilan: A Vision for Aboriginal and Torres Strait Islander Heritage in Australia* , and *Best Practice Standards in Indigenous Cultural Heritage Management and Legislation* (Commonwealth of Australia 2021).

2.15. Endorsement criteria

The EIS must set out how the project meets the objectives of the EPBC Act. In determining whether or not to approve the project, the Minister will apply, and comply with, the relevant parts of the EPBC Act, and have regard to the extent to which the project meets the objectives of the EPBC Act including how the project:

- (a) protects the environment, especially MNES;

- (b) promotes ecologically sustainable development;
- (c) promotes the conservation of biodiversity;
- (d) promotes a cooperative approach to the protection and management of biodiversity and MNES; and
- (e) assists in the co-operative implementation of Australia's international environmental responsibilities.

In determining whether or not to approve the project the Minister must be satisfied that commitments for the protection and management of MNES must be enforceable and achievable over the life of the project. The EIS must demonstrate an effective system of establishing measurable environmental outcomes that reflect acceptable levels of impact and risk, establishing effective management strategies to ensure that impacts and risks remain within acceptable levels of impact, robust monitoring and adaptive management that addresses uncertainty and contingency management as well as procedures for monitoring, auditing and public reporting on implementation.

2.16. Environmental record of person(s) proposing to take the action

The information provided must include details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against:

- (a) the person proposing to take the action; and
- (b) for an action for which a person has applied for a permit, the person making the application.

If the person proposing to take the action is a corporation, details of the corporation's environmental policy and planning framework must also be included.

2.17. Economic and social matters

The economic and social impacts of the action, both positive and negative, must be analysed. Matters of interest may include:

- details of any public consultation activities undertaken, and their outcomes;
- projected economic costs and benefits of the project, including the basis for their estimation through cost/benefit analysis or similar studies;
- information on the amount of domestic and/or overseas investment for capital infrastructure (versus alternatives).
- employment opportunities expected to be generated by the project (including construction and operational phases), consideration of minimum target of employment of Indigenous Australians, and engaging Indigenous Australians

for training/ enterprise opportunities, and engaging Indigenous Australians through any supply chains used in undertaking the proposed action.

Economic and social impacts should be considered at the local, regional and national levels. Details of the relevant cost and benefits of alternative options to the proposed action, as identified in section 3 above, should also be included.

Where possible, the Gunaikurnai and Bunurong peoples and Indigenous parties (or other suitably experienced Indigenous groups) should be sought out and considered for employment opportunities in relation to undertaking on-ground mitigation, management or rehabilitation measures.

2.18. Information sources provided in the EIS

For information given in a draft EIS, the draft must state:

- (a) the source of the information;
- (b) how recent the information is;
- (c) how the reliability of the information was tested; and
- (d) what uncertainties (if any) are in the information.

2.19. Conclusion

An overall conclusion as to the environmental acceptability of the proposed action should be provided, including discussion on compliance with principles of ESD and the objects and requirements of the EPBC Act. Reasons justifying undertaking the proposed action in the manner proposed should also be outlined.

Measures proposed or required by way of offset for any unavoidable impacts on NES matters, and the relative degree of compensation, should be restated here.

ATTACHMENT 1

THE OBJECTS AND PRINCIPLES OF THE *ENVIRONMENT PROTECTION AND BIODIVERSITY CONSERVATION ACT 1999*

SECTIONS 3 AND 3A

3 Objects of the Act

- (a) to provide for the protection of the environment, especially those aspects of the environment that are matters of national environmental significance;
- (b) to promote ecologically sustainable development through the conservation and ecologically sustainable use of natural resources;
- (c) to promote the conservation of biodiversity;
- (d) to promote a co-operative approach to the protection and management of the environment involving governments, the community, land-holders and indigenous peoples;
- (e) to assist in the co-operative implementation of Australia's international environmental responsibilities;
- (f) to recognise the role of indigenous people in the conservation and ecologically sustainable use of Australia's biodiversity; and
- (g) to promote the use of indigenous peoples' knowledge of biodiversity with the involvement of, and in co-operation with, the owners of the knowledge.

3A Principles of Ecologically Sustainable Development

The following principles are principles of ecologically sustainable development.

- (a) Decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations.
- (b) If there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.
- (c) The principle of inter-generational equity – that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.
- (d) The conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making.
- (e) Improved valuation, pricing and incentive mechanisms should be promoted.

ATTACHMENT 2

MATTERS THAT MUST BE ADDRESSED IN AN EIS (SCHEDULE 4 OF THE EPBC REGULATIONS 2000)

1 General information

1.01 The background of the action including:

- (a) the title of the action;
- (b) the full name and postal address of the designated Proponent;
- (c) a clear outline of the objective of the action;
- (d) the location of the action;
- (e) the background to the development of the action;
- (f) how the action relates to any other actions (of which the Proponent should reasonably be aware) that have been, or are being, taken or that have been approved in the region affected by the action;
- (g) the current status of the action; and
- (h) the consequences of not proceeding with the action.

2 Description

2.01 A description of the action, including:

- (a) all the components of the action;
- (b) the precise location of any works to be undertaken, structures to be built or elements of the action that may have relevant impacts;
- (c) 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;
- (d) relevant impacts of the action;
- (e) proposed safeguards and mitigation measures to deal with relevant impacts of the action;
- (f) any other requirements for approval or conditions that apply, or that the Proponent reasonably believes are likely to apply, to the proposed action;
- (g) to the extent reasonably practicable, any feasible alternatives to the action, including:

- (i) if relevant, the alternative of taking no action;
 - (ii) a comparative description of the impacts of each alternative on the matters protected by the controlling provisions for the action; and
 - (iii) sufficient detail to make clear why any alternative is preferred to another;
- (h) any consultation about the action, including:
- (i) any consultation that has already taken place;
 - (ii) proposed consultation about relevant impacts of the action; and
 - (iii) if there has been consultation about the proposed action — any documented response to, or result of, the consultation; and
- (i) identification of affected parties, including a statement mentioning any communities that may be affected and describing their views.

3 Relevant impacts

3.01 Information given under paragraph 2.01(d) must include

- (a) a description of the relevant impacts of the action;
- (b) a detailed assessment of the nature and extent of the likely short term and long term relevant impacts;
- (c) a statement whether any relevant impacts are likely to be unknown, unpredictable or irreversible;
- (d) analysis of the significance of the relevant impacts; and
- (e) any technical data and other information used or needed to make a detailed assessment of the relevant impacts.

4 Proposed safeguards and mitigation measures

4.01 Information given under paragraph 2.01(e) must include:

- (a) a description, and an assessment of the expected or predicted effectiveness of, the mitigation measures;
- (b) any statutory or policy basis for the mitigation measures;
- (c) the cost of the mitigation measures;
- (d) 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;

- (e) the name of the agency responsible for endorsing or approving each mitigation measure or monitoring program; and
- (f) a consolidated list of mitigation measures proposed to be undertaken to prevent, minimise or compensate for the relevant impacts of the action, including mitigation measures proposed to be taken by State governments, local governments or the Proponent.

5 Other Approvals and Conditions

5.01 Information given under paragraph 2.01(f) must include:

- (a) details of any local or State government planning scheme, or plan or policy under any local or State government planning system that deals with the proposed action, including:
 - (i) what environmental assessment of the proposed action has been, or is being carried out under the scheme, plan or policy; and
 - (ii) how the scheme provides for the prevention, minimisation and management of any relevant impacts;
- (b) a description of any approval that has been obtained from a State, Territory or Commonwealth agency or authority (other than an approval under the Act), including any conditions that apply to the action;
- (c) a statement identifying any additional approval that is required; and
- (d) a description of the monitoring, enforcement and review procedures that apply, or are proposed to apply, to the action.

6 Environmental record of person proposing to take the action

6.01 Details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against:

- (a) the person proposing to take the action; and
- (b) for an action for which a person has applied for a permit, the person making the application.

6.02 If the person proposing to take the action is a corporation — details of the corporation's environmental policy and planning framework.

7 Information sources

7.01 For information given the PER/EIS must state:

- (a) the source of the information; and
- (b) how recent the information is; and
- (c) how the reliability of the information was tested; and
- (d) what uncertainties (if any) are in the information.