

Scoping Requirements for Star of the South Offshore Wind Farm Environment Effects Statement

Environment Effects Act 1978

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OFFICIAL



Environment,
Land, Water
and Planning

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List of abbreviations

CHMP	Cultural Heritage Management Plan
DAWE	Department of Agriculture, Water and the Environment (Cwlth)
DELWP	Department of Environment, Land, Water and Planning
EE Act	<i>Environment Effects Act 1978</i>
EES	Environment effects statement
EIS	Environment impact statement
EMF	Environmental management framework
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
FFG Act	<i>Flora and Fauna Guarantee Act 1988</i>
GDE	Groundwater dependent ecosystem
NES	National environmental significance
TRG	Technical reference group

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1. Introduction

In light of the potential for significant environmental effects, on 11 May 2020 the Victorian Minister for Planning determined under the Victorian *Environment Effects Act 1978* (EE Act) that Star of the South Wind Farm Pty Ltd is to prepare an environment effects statement (EES) for the proposed Star of the South Offshore Wind Farm, focusing on the proposed works and effects within Victorian jurisdiction. The purpose of the EES is to provide a sufficiently detailed description of the project, assess its potential effects on the environment¹ and assess alternative project layouts, designs and approaches to avoid and mitigate effects. The EES will inform and seek feedback from the public and stakeholders. The Minister will issue an assessment of the project' environmental effects under the EE Act to conclude the EES process. The Minister's assessment will then inform statutory decision-makers responsible for the project's approvals.

These *Final Scoping Requirements for the Star of the South Offshore Wind Farm* set out the proposed specific matters to be investigated and documented in the EES for the project, as it relates to the Victorian jurisdiction. The Minister issued these final scoping requirements for the EES following consideration of public comments received on the draft, which was available for public comment over a three-week period from 7 July to 27 July.

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

1.1 Minister's requirements for this EES

The Minister decided that an EES was required to assess the project potential environmental effects, focusing on the proposed works within Victorian jurisdiction. The Minister published procedures and requirements applicable to the preparation of the EES, in accordance with section 8B(5) of the EE Act (see Appendix A) and identified key environmental risks that would need to be addressed in the EES, namely:

- effects on biodiversity and ecological values within and near the project area including native vegetation, listed communities and species (flora and fauna) under the *Flora and Fauna Guarantee Act 1988* and DELWP advisory list, such as through loss, degradation or fragmentation of habitat, as well as related ecological effects;
- effects on freshwater and marine environments and related beneficial uses, including as a result of any required dredging due to selection of the preferred port option, any changes to stream flows and/or discharge of sediment or waste through waterway crossings;
- effects on Aboriginal cultural heritage values;
- effects on the socioeconomic environment, at local and regional scales, including increased traffic movement and direct and indirect effects of construction of onshore assets; and
- effects on existing landscape values.

These scoping requirements provide further detail on the matters to be investigated in the EES as required by the *Ministerial guidelines for assessment of environmental effects under the EE Act 1978* (Ministerial Guidelines).

1.2 Commonwealth requirements and alignment of assessment processes

The project was also referred under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) to the Commonwealth Minister for the Environment in May 2020. The delegate of the Minister for the Environment determined on 2 June 2020 that Commonwealth assessment and approval is required as the project has the potential to have a significant impact on the following matters of national environmental significance (NES), protected under Part 3 of the EPBC Act:

- Ramsar wetlands (sections 16 and 17B);
- listed threatened species and communities (sections 18 and 18A);
- listed migratory species (sections 20 and 20A); and

1. For assessment of environmental effects under the EE Act, the meaning of 'environment' includes physical, biological, heritage, cultural, social, health, safety and economic aspects (Ministerial Guidelines, p. 2).

- Commonwealth marine areas (sections 23 and 24A).

As the project is located both within Victorian and outside Victorian waters (in Commonwealth waters), the Commonwealth cannot accredit the EES process as the sole means for assessing EPBC Act matters. As such, the delegate of the Commonwealth Minister for the Environment determined the project will be assessed under the EPBC Act by an environment impact statement (EIS).

The Victorian Department of Environment, Land, Water and Planning (DELWP) and Commonwealth Department of Agriculture, Water and the Environment (DAWE) have agreed to coordinate and align the administration of the two assessment processes —the EES under the Victorian legislation and the EIS under the Commonwealth legislation. DELWP and DAWE will use administrative means to maximise the alignment of specific aspects/stages of the processes and remove duplication wherever possible, including public comment on draft scopes (EES/EIS) and 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. Figure 1 shows the different project components considered under applicable jurisdictions and Figure 2 shows an overview of the proposed combined assessment approach.

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 its obligations under both the EE Act and EPBC Act, following the public exhibition period.

1.3 The project

The project comprises an offshore wind farm, supporting electricity transmission assets required to transfer energy generated by the wind farm to the existing electricity transmission network, and modifications to ports and harbours required to support the construction and operation of the wind farm. The key components of the project are:

- Offshore wind assets consisting of up to 200 wind turbines mounted on towers founded in the seabed and a network of buried or mechanically protected subsea cables. These assets would be within Commonwealth jurisdiction as they are beyond 3 nautical miles from the coast of Victoria.
- Offshore substation platforms installed on foundations and up to 13 buried or mechanically protected subsea cables. The substations would be within Commonwealth jurisdiction with the cables originating within Commonwealth jurisdiction and traversing into Victorian jurisdiction.
- Onshore underground or combined underground/overhead powerlines and up to four substations connecting the windfarm to the National Electricity Market. These assets would be within Victorian jurisdiction.
- Existing ports and harbours, to be used to support project construction and operations. These assets would be within Victorian jurisdiction.



Figure 1: Location of the project (source: Aecom).

Coordinated Assessment Process

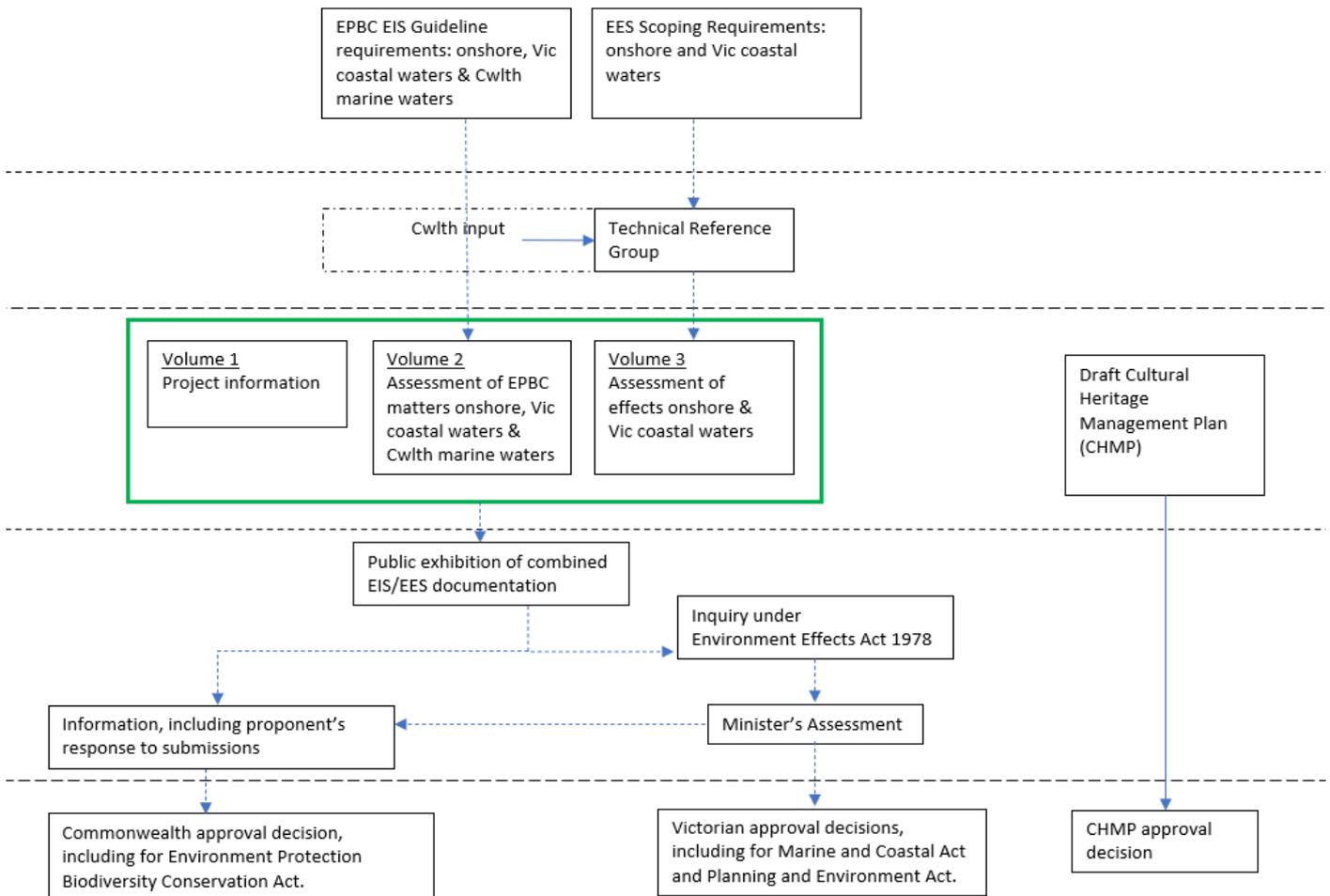


Figure 2: Proposed overview of combined approach to assessment

2. Assessment process and required approvals

2.1 What is an EES?

An EES describes a project and its potential environmental effects. It should enable stakeholders and decision-makers to understand how the project is proposed to be implemented and the likely environmental effects of doing so. An EES has two main components as follows:

1. The EES main report – an integrated, plain English document that assesses the potential impacts of the project and examines avoidance, mitigation or other measures to reduce the environmental effects. The main report draws on technical studies, data and statutory requirements such as specific limits for surface water and groundwater quality and waste discharge to the environment and should clearly identify which components of the scope are being addressed throughout.
2. The EES technical reports – specialist studies, investigations and analyses that provide the basis for the EES main report. These reports will be exhibited in full, as appendices to the main report.

Given the multi-jurisdictional requirements for assessment of this project, ultimately, these two main components of the EES may be presented by the proponent in combination with other aspects to fulfill its EIS requirements under the EPBC Act.

2.2 The EES process

The proponent is responsible for preparing an EES, including conducting technical studies and undertaking stakeholder consultation. The DELWP is responsible for managing the EES process². The EES process has the following steps:

- preparation of a draft study program and draft schedule by the proponent (completed);
- preparation and exhibition of draft scoping requirements by DELWP on behalf of the Minister with public comments received during the advertised exhibition period (completed);
- finalisation and issuing of scoping requirements by the Minister (this document);
- review of the proponent's EES studies and draft documentation by DELWP and a technical reference group³ (underway);
- completion of the EES by the proponent;
- review of the complete EES by DELWP to establish its adequacy for public exhibition;
- exhibition of the proponent's EES and invitation for public comment by DELWP on behalf of the Minister;
- appointment of an inquiry panel by the Minister to review the EES and public submissions received, conduct public hearings and provide a report to the Minister; and finally
- following receipt of the inquiry's report, preparation of an assessment on whether the project's environmental effects are acceptable by the Minister for the consideration of statutory decision-makers.

Technical reference group

DELWP has convened a technical reference group (TRG) of government agencies, registered Aboriginal parties and local councils. The TRG will advise DELWP and the proponent on:

- applicable policies, strategies and statutory provisions;
- the scoping requirements for the EES;
- the design and adequacy of technical studies for the EES;
- the proponent's public information and stakeholder consultation program for the EES;
- responses to issues arising from the EES investigations;
- the technical adequacy and completeness of draft EES documentation; and
- coordination of statutory processes.

2. Further information on the EES process can be found at planning.vic.gov.au/environment-assessment/what-is-the-ees-process-in-victoria.

3. For critical components of the EES studies, peer review by an external, independent expert may be appropriate.

Consultation plan

The proponent is responsible for informing and engaging the public and stakeholders to identify and respond to their issues and keep them informed of the EES studies. Stakeholders include potentially affected parties (including Traditional Owner groups and Registered Aboriginal Parties as relevant), interested community organisations and government bodies. Under its consultation plan the proponent informs the public and stakeholders about the EES investigations and provides opportunities for input and engagement during the EES investigations. The consultation plan is reviewed and amended in consultation with DELWP and the TRG before it is published on the planning website.⁴ The final consultation plan will:

- identify stakeholders;
- characterise public and stakeholders' interests, concerns and consultation needs, local knowledge and inputs;
- describe consultation methods and schedule; and
- outline how public and stakeholder inputs will be recorded, considered and/or addressed in the preparation of the EES.

Statutory approvals and the EES process

The project will require a range of approvals under Victorian legislation if it is to proceed. DELWP coordinates the EES process as closely as practicable with the approvals procedures, consultation and public notice requirements. The key approvals required under Victorian legislation are: a Planning Scheme Amendment under the *Planning and Environment Act 1987*, an approved Cultural Heritage Management Plan under the *Aboriginal Heritage Act 2006*, a consent to use and develop marine and coastal Crown Land under the *Marine and Coastal Act 2018* and a lease/licence under the *Crown land (Reserves) Act 1978*.

Other approvals that may be required will be determined throughout the course of the EES.

4. <https://www.planning.vic.gov.au/environment-assessment/browse-projects/projects/star-of-the-south-offshore-wind-farm>

3. Matters to be addressed in the EES

While this section refers to ‘the EES’, it is understood a combined approach for the assessment documentation is being pursued by the proponent. Therefore, it is envisaged that items specified in this section as required for the EES will be presented within combined EES/EIS documentation prepared by the proponent.

3.1 General approach

Preparation of the EES should be consistent with the principles of a systems approach and a risk-based approach. The EES should put forward a sound rationale for the level of assessment and analysis undertaken for any environmental effect or combination of environmental effects⁵ arising from all components and stages of the project. The EES should provide an analysis of the significance of the potential effects of the project, with consideration of:

- the potential effects on individual environmental assets – magnitude, extent and duration of change in the values of each asset – having regard to intended avoidance and mitigation measures;
- the likelihood of adverse effects, including those caused indirectly as a result of proposed activities, and associated uncertainty of available predictions or estimates;
- further management measures that are proposed where avoidance and mitigation measures do not adequately address effects on environmental assets, including specific details of how the measures address relevant policies;
- residual effects that are likely to occur assuming the proposed measures to avoid and mitigate environmental effects are implemented; and
- proposed approach to managing and monitoring environmental performance and contingency planning.

3.2 Content and style

Together with the Minister’s reasons for decision, the published procedures and requirements and the Ministerial Guidelines, the content of the EES and related investigations is to be guided by these scoping requirements. To facilitate decisions on required approvals, the EES should address statutory requirements associated with approvals that will be informed by the Minister’s assessment, including decision-making under the Planning and Environment Act, Marine and Coastal Act, Aboriginal Heritage Act and other applicable legislation. The EES should also address any other significant issues that emerge during the investigations.

Ultimately, it is the proponent’s responsibility to ensure that adequate studies are undertaken and reported to support the assessment of environmental effects and that the EES has effective internal quality assurance in place. Close consultation with DELWP and the TRG during the investigations and preparation of the EES will be necessary to minimise the need for revisions prior to authorisation of the EES for public exhibition.

The EES should provide a clear, objective and well-integrated analysis of the potential effects of the proposed project, including proposed avoidance, mitigation and management measures, as well as feasible alternatives. While acknowledging the final documentation prepared will integrate both the EES and EIS requirements, the portions prepared in response to these scoping requirements should include:

- an executive summary of the potential environmental effects of the project;
- a description of the entire project, including its objectives, rationale, key elements, associated requirements for new infrastructure, resource use and use of existing infrastructure;
- a description of the approvals required for the project to proceed, and their relationship to relevant laws, policies, strategies, guidelines and standards;
- a description of feasible alternatives capable of substantially meeting the project’s objectives that may also offer environmental or other benefits (as well as the basis for the choice where a preferred alternative is nominated);
- descriptions of the existing environment and future climate change scenarios, where this is relevant to the assessment of potential effects;

5. Effects include direct, indirect, combined, facilitated, consequential, cumulative, short and long-term, beneficial and adverse effects.

- appropriately detailed assessments⁶ of potential effects of the project (and feasible alternatives) on environmental assets and values, relative to the “no project” scenario, together with an estimation of likelihood and degree of uncertainty associated with predictions;
- clear, active measures for avoiding, minimising, managing and monitoring effects, including a statement of commitment to implement these measures;
- predictions of residual effects of the project assuming implementation of proposed environmental management measures;
- any proposed offset measures where avoidance and other mitigation measures will not adequately address effects on environmental values;
- assessment of cumulative impacts with other existing and proposed developments in the region;
- documentation of the process and results of the consultation undertaken by the proponent during the preparation of the EES, including the issues raised by stakeholders or the public and the proponent’s responses to these issues, in the context of the EES studies and the associated consideration of mitigation measures;
- evaluation of the implications for the project and feasible alternatives from the implementation of legislation and policy;
- evaluation against the principles and objectives of ecologically sustainable development⁷; and
- conclusions on the significance of impacts on local, regional and state matters.

The EES should also include an outline of a program for community consultation, stakeholder engagement and communications proposed for implementation during the construction and operation of the project, including opportunities for local stakeholders to engage with the proponent to seek responses to issues that might arise during project implementation.

The proponent may choose to prepare a website with interactive functionality to provide an alternative form of access to EES information, which may complement the conventional EES chapters and technical documents. Such an approach should be discussed with DELWP Impact Assessment Unit and should be integrated with the preparation of the EES package, including review by the TRG. Consideration for this functionality with respect to EIS requirements would also need to be discussed with DAWE.

The proponent must also prepare a concise, graphical-based non-technical summary document (hard copy A4, no more than 25 pages) for free distribution to interested parties. The EES summary document should include details of the EES exhibition, public submission process and availability of the EES documentation.

3.3 Project description

The EES is to describe the project in sufficient detail to allow an understanding of all components, processes and development stages, and to enable assessment of their likely potential environmental effects. The project description should canvass the following:

- an overview of the proponent's environmental performance and track record, including experience in delivering similar projects, as well as organisation health, safety and environmental policies, and whether the proponent has been subject to any past or present proceedings under a Commonwealth, state or territory law for the protection of the environment or the conservation and sustainable use of natural resources;
- contextual information on the project, including its objectives and rationale, its relationship to statutory policies, plans and strategies, including the justification for need for the project, selection of preferred options for alignment and design of the project (see section 3.4 below) and implications of the project not proceeding;
- existing and planned land uses in the vicinity of the proposed project, supported by plans and maps;
- the proposed operational life of the project, and any decommissioning and rehabilitation arrangements; and

6. Assessments of assets, values and potential effects must be adequately timed to ensure they are accurately representative of seasonal weather patterns of the area.

⁷ Ecologically sustainable development is defined within the Ministerial Guidelines, page 3.

- other necessary works proposed for the project, such as road upgrades and/or connections, and infrastructure and services relocation.

Description of the project's components (supported by visuals and diagrams) should detail:

- applicable standards and adopted specifications for infrastructure;
- location, footprint, layout and access arrangements during construction and operation;
- design and expected construction staging and scheduling;
- proposed construction methods and materials, and extent of areas to be disturbed during construction;
- solid waste, wastewater and hazardous material generation and management during construction and operation;
- rehabilitation of site works areas;
- proposed tenure arrangements to provide for access for maintenance or other operational purposes;
- lighting, safety, security, and noise requirements during construction and operation;
- workforce accommodation facilities (if required) including location, size and required services;
- hours of operation, workforce requirements (total workforce);
- hours of construction work and a description of the expected duration of project components, including which components are temporary and which are permanent; and
- operational requirements including maintenance activities and decommissioning.

3.4 Project alternatives

The EES should document the proponent's design development process leading to the proponent's preferred form of the project as presented in the EES. The EES should explain the proponent's criteria for evaluating the feasibility of potential alternatives and explain how specific alternatives were shortlisted or rejected for evaluation within the EES, including with regards to environmental consideration/ impacts.

The EES should assess the likely environmental effects of feasible alternatives, particularly where these offer a potential to avoid or minimise adverse environmental effects whilst meeting the objectives of the project. The process for identification and assessment of the project alternatives and respective impacts will need to be documented in the EES including:

- description of alternatives considered in the project design process, including alternative transmission line alignments and substations;
- identification of methods and environmental criteria for comparison of alternatives and for selection of short-listed and preferred alternatives;
- assessment and comparison of the technical feasibility and environmental implications of feasible alternative options considered;
- the basis for selecting the preferred project layout and design, particularly where alignments are located in proximity to environmentally sensitive areas; and
- description of how information gathered during the EES process was used to refine the preferred transmission line alignments and other project alternatives.

Key aspects of the project, for which the EES will need to demonstrate consideration of feasible alternatives, include:

- potential corridors and alignments for the onshore transmission network, including criteria for excluding corridors and alignments from further consideration;
- siting of the proposed shore crossing at Reeves Beach, as well as the construction techniques employed;
- siting of substations required for the onshore transmission infrastructure, and the extent to which selection of these sites influence the choice of preferred alignment;
- the rationale for the preferred mode of construction across the alignment (overhead or underground); and
- other feasible alternatives raised through feedback from the community or other stakeholders.

Where appropriate, the assessment of environmental effects of site selection, alignment and design alternatives must address the matters set out in these scoping requirements. The depth of investigation of alternatives and their impacts should be proportionate to their potential both to minimise potentially significant adverse effects and to meet project objectives.

3.5 Applicable legislation, policies and strategies

In addition to the EE Act, the EES will need to identify relevant legislation, policies, guidelines and standards, and assess their specific requirements or implications for the project, particularly in relation to required approvals. Particular attention is drawn to the recent changes in the:

- *Environment Protection Act 2017* which came into effect on 1 July 2021, and any subsequent updates to subordinate legislation; and
- *Flora and Fauna Guarantee Amendment Act 2019* which came into effect on June 1, 2020 and was amended to provide a modern and strengthened framework for the protection of Victoria's biodiversity.

The proponent will also need to identify and address other relevant policies, strategies, subordinate legislation and related management or planning processes that may be relevant to the assessment of the project.

3.6 Evaluation objectives

Evaluation objectives are provided in Section 4 for each of the topics to be addressed in the EES. The proposed evaluation objectives identify desired outcomes in the context of key legislative and statutory policies, as well as the principles and objectives of ecologically sustainable development and environment protection, including net community benefit. In accordance with the Ministerial Guidelines, they provide a framework to guide an integrated assessment of environmental effects and for evaluating the overall implications of the project.

3.7 Environmental management framework

Competent management of environmental effects during project construction, operation and rehabilitation is required to meet statutory requirements, achieve necessary environmental outcomes, protect environmental values and sustain stakeholder confidence. Hence, the proposed environmental management framework (EMF) in the EES should describe a transparent framework with clear accountabilities for managing and monitoring the environmental effects and risks associated with the construction and operational phases⁸. The entity responsible for approval of environmental plans should be identified.

The EMF should describe the baseline environmental conditions to allow evaluation of the residual environmental effects of the project, as well as the efficacy of applied environmental management and contingency measures.

Where appropriate the EMF should utilise adaptive management practices, acknowledging the need to continually improve, as well as utilise evidence-based science and a systems approach.

The framework should include:

- the context of required approvals and consents;
- the proposed environmental management system to be adopted;
- organisational responsibilities and accountabilities for environmental management;
- an environmental risk register that is maintained during project implementation;
- the environmental management measures proposed in the EES to address specific issues, including commitments to mitigate adverse effects and enhance environmental outcomes;

An important aspect of the EMF is community consultation, stakeholder engagement and communications during the construction and operation of the project. As the project proceeds it will largely be the EMF that

⁸ Ministerial Guidelines (p. 20).

outlines opportunities for local stakeholders to engage with the proponent to seek responses to issues that might arise during construction or operation. To this end the EMF will set out procedures for:

- complaints recording and resolution process;
- auditing and reporting of performance including compliance with relevant statutory conditions and standards; and
- review of the effectiveness of the EMF for continuous improvement.

Management measures proposed in the EES to address specific issues, including commitments to mitigate adverse effects and enhance environmental outcomes should be clearly described in the EMF. The EMF should describe proposed objectives, indicators and monitoring requirements, including for (but not limited to) managing or addressing:

- biodiversity values, including any mitigation or offsetting measures;
- landscape and visual amenity values;
- water values (including groundwater, waterway, wetland, estuarine, intertidal and marine);
- protection of RAMSAR wetlands;
- protection of human health;
- noise and vibration;
- air quality during construction;
- Aboriginal cultural heritage values;
- historic heritage values;
- soil stability including erosion;
- bushfire risk;
- disruption of, and hazards to, existing infrastructure;
- hazards and risks associated with disruption/damage of the project infrastructure;
- hazards and risks impacting the environment, including oil spills and marine pest incursions;
- electromagnetic interference;
- business and industry values, including agriculture, fisheries and tourism;
- socioeconomic and land use values, including landowners, residents and visitors to neighbouring public land reserves; and
- transport network function, particularly during construction, including managing temporary disruption and changed accessibility.

4. Assessment of specific environmental effects

4.1 Approach to assessment

As described in Section 3, this section also refers to ‘the EES’; once again, it is understood a combined approach for the assessment documentation is being pursued whereby items specified in this section as required for the EES will be presented within combined EES/EIS documentation prepared by the proponent. Regardless of that, preparation of the EES and the necessary investigation of effects should be proportional to the environmental risk, as outlined in Section 3.1.

The Minister’s procedures and requirements (Appendix A) require the EES to particularly, but not exclusively, document the proposed works having:

- effects on biodiversity and ecological values within and near the project area including native vegetation, listed communities and species (flora and fauna) under the *Flora and Fauna Guarantee Act 1988* and DELWP advisory list, such as through loss, degradation or fragmentation of habitat, as well as related ecological effects;
- effects on freshwater and marine environments and related beneficial uses, including as a result of any required dredging due to selection of the preferred port option, any changes to stream flows and/or discharge of sediment or waste through waterway crossings;
- effects on Aboriginal cultural heritage values;
- effects on the socioeconomic environment, at local and regional scales, including increased traffic movement and direct and indirect effects of construction of onshore assets; and
- effects on existing landscape values.

Given these matters are likely to cause effects on the environment and are set out in the procedures and requirements, the EES should assess these effects in detail. For those effects that can be demonstrated to have lower levels of risk of environment effects, the EES should describe and analyse these impacts in detail commensurate with their level of environmental risk.

The matters to be investigated and documented within the EES are presented below, grouped by investigation theme. Each theme is presented with an evaluation objective. The following structure sets out how the EES should document its assessment of effects for each evaluation objective.

1. **Identify key issues or risks** that the project poses to the achievement of the evaluation objective.
2. **Characterise the existing environment** to underpin impact assessments having regard to the level of risk. The environmental risk assessment by the proponent could guide the necessary data acquisition.
3. **Assess the potential effects** of the project on the existing environment and evaluate their significance.
4. **Present design and mitigation measures** that could substantially reduce and/or mitigate the likelihood, extent and/or duration of potential effects. All design and mitigation measures must apply the mitigation hierarchy with justification of why higher order measures cannot be applied.
 - a. Avoidance: measures taken to avoid creating adverse effects on the environment from the outset, such as careful spatial or temporal placement of infrastructure or disturbance.
 - b. Minimisation: measures taken to reduce the duration, intensity and extent of impacts that cannot be completely avoided.
 - c. Rehabilitation/restoration: measures taken to improve degraded or removed ecosystems following exposure to impacts that cannot be completely avoided or minimised.
 - d. Offsets: measures taken to compensate for any residual, adverse impacts after full implementation of the previous steps of the mitigation hierarchy.

Note that an assessment of residual effects (post mitigation) and their significance will be required to illustrate the likely effectiveness of the proposed mitigation measures

5. **Propose performance criteria and management** to evaluate whether the project’s effects are maintained within permissible levels and propose contingency approaches if they are not.

The description and assessment of effects must not be confined to the immediate area of the project but must also consider the potential of the project to impact on nearby environmental values, including areas potentially impacted by offsite components of the project such as Corner Inlet Ramsar Wetland. In addition, the cumulative effect of the project in combination with existing activities and projects (approved and proposed) in the broader area/region should be assessed for all significant adverse effects.

4.2 Biodiversity and habitat

Evaluation objective

To avoid, and where avoidance is not possible, minimise, potential adverse effects on protected native vegetation and listed threatened species and their habitat and listed ecological communities, in both onshore and offshore environments, as well as address offset requirements consistent with state policies.

Key issues

- Direct or indirect loss of native vegetation or other habitat values due to project works or operational maintenance activities.
- Direct or indirect loss, disturbance and/or degradation of listed or other protected species and nearby habitat that may support listed or other protected flora, fauna or ecological communities.
- Potential initiation or exacerbation of listed potentially threatening processes under the FFG Act.
- Potential impacts on habitats within protected areas, such as national parks, state parks or other conservation reserves.
- Potential impacts on planted native vegetation established through environmental programs.
- Potential impacts on the ecological character and associated biodiversity values of Ramsar Wetlands.
- Disruption to the movement of fauna between areas of habitat across the broader landscape, for example, through collisions with transmission line infrastructure.
- Potential cumulative effects on listed threatened flora and fauna species, and their habitats, from the project in combination with other projects.
- The availability of suitable offsets for the loss of native vegetation and habitat for listed threatened species under the FFG Act.

Existing environment

- Characterise the type, distribution and condition of biodiversity values within a suitable study area, comprising the project site and its environs, including native vegetation, terrestrial and aquatic/marine habitat and habitat corridors or linkages.
- Identify planted or recovered vegetation established through environmental programs.
- Describe the biodiversity values that could be directly or indirectly affected by the project, including:
 - native vegetation and any ecological communities listed under the FFG Act; and
 - presence of, or suitable habitats for, protected flora and fauna species, in particular species listed under the FFG Act and DELWP advisory lists.
- Describe any existing threats to biodiversity values, including but not limited to:
 - historic or ongoing disturbance or alteration of habitat conditions (e.g. habitat fragmentation, severance of wildlife corridors or habitat linkages, changes to water quantity or quality and fire hazards);
 - potentially threatening process listed under the FFG Act; and
 - the presence of any declared weeds, pathogens and pest animals within and in the vicinity of the project area.
- Describe any trends observed in existing biodiversity values, including but not limited to historic or ongoing increases or declines in populations or communities, including their reasons where known.
- Characterisation of the existing environment is to be informed by relevant databases, literature (and published data), community observations (including citizen science and information from residents and landholders in or adjacent to the area of interest), appropriate targeted and/or seasonal surveys and modelling of the potential and actual presence of threatened species and communities consistent with DELWP survey guidelines, conservation advices and threatened species recovery plans or action statements. Where surveys do not identify a listed species or community, but past

records and/or habitat analysis suggest that it may occur, a precautionary approach to the further investigation and assessment of its occurrence should be applied.

Likely effects

- Assess the direct and indirect effects of the project including feasible design, location and alignment alternatives, and including transport route upgrades and other ancillary activities, on native vegetation, listed ecological communities, and listed threatened and other protected flora species.
- Assess the direct and indirect effects of the project and feasible alternatives, on listed threatened and other protected fauna species under the FFG Act and/or DELWP advisory lists or their habitats.
- Assess the direct and indirect effects on planted or recovered native vegetation established through environmental programs.
- Assess the direct and indirect effects of the project during construction and operation on biodiversity values, including:
 - disturbance or alteration of habitat conditions (e.g. habitat fragmentation, severance of wildlife corridors or habitat linkages, displacement due to avoidance of project infrastructure, changes to water quantity or quality and fire hazards);
 - disturbance through noise or vibration in the offshore environment;
 - disturbance through changed shipping activities due to the project;
 - direct removal of individuals or destruction of habitat;
 - threats of mortality of listed threatened or other protected fauna (including site and species specific risk-factors); and
 - the presence and potential spread of any declared weeds, pathogens and pest animals within and in the vicinity of the project area.
- Assess the potential effects on listed threatened or other protected fauna species having considered issues and experiences with similar projects elsewhere in the world, as well as being cognisant of unique values existing in this locale.
- Assess the potential impacts on habitat connectivity of listed or other protected species, both onshore and offshore, including but not limited to migratory species.
- Assess the potential cumulative effects on listed threatened or other protected fauna species, and their habitats, from the project in combination with other projects that might have similar types of impacts.

Mitigation measures

- Identify and describe potential alternatives, proposed design options and mitigation measures and their expected effectiveness in avoidance or reduction of significant effects on any flora, fauna and ecological communities listed on the FFG Act or DELWP advisory lists or other protected species or protected area estate. Provide clear statements noting which avoidance and/or mitigation measure will be committed to.
- Identify staging or timing options for works that could help to avoid or minimise adverse effects on seasonal values (e.g. migratory species, breeding behaviour).
- Justify and describe the assumptions and level of uncertainty associated with the proposed measures achieving their desired outcomes.
- Describe the application of the three-step approach to; avoiding the removal of native vegetation, minimising impacts from removal of native vegetation that cannot be avoided, and providing offsets to compensate for the biodiversity impact from the removal of native vegetation.

Performance objectives

- Describe and evaluate proposed commitments to manage residual effects of the project on biodiversity values, including an outline of an offset strategy to secure appropriate offsets to satisfy state offset requirements.
- Develop contingency measures to be implemented in the event of unintended adverse residual effects (including ineffective mitigation) on flora and fauna values requiring further management.

4.3 Water and catchment values

Evaluation objective

To minimise adverse effects on water (including groundwater, waterway, wetland, estuarine, intertidal and marine) quality and movement.

Key issues

- The potential for adverse effects on the functions, values and beneficial uses of surface water environments, such as interception or diversion of flows or changed water quality or flow regimes.
- The potential for adverse effects on the functions, values and beneficial uses of groundwater due to the project's shore crossing construction.
- The potential for adverse effects to coastal landforms, including changes to hydrodynamic and sediment transport as a result of the project.
- The potential for adverse effects on nearby and downstream water environments due to changed flow regimes, floodplain storage, run-off rates, water quality changes, or other waterway conditions, including in the context of climate change projections.
- The potential for disturbance of contaminated, saline, dispersive or acid sulphate soils.
- Potential effects to values through spills of fuels or chemicals or the introduction of invasive species.

Existing environment

- Describe marine, estuarine, intertidal and freshwater waters and their beneficial uses that could be affected by the project, such as from changed water quality, or water movement.
- Characterise the local groundwater quality and behaviour, including the protected beneficial uses and values and identifying any GDEs that might be affected by the project during construction.
- Characterise soil types and structures in the project area and identify the potential location and disturbance of dispersive, acid sulphate, saline or potentially contaminated soils, or soils of other special characteristics that could affect or be affected by the project.

Likely effects

- Identify and evaluate effects of the project on groundwater, waterway, wetland, estuarine, intertidal and marine waters potentially affected by project works, including with appropriate consideration of climate change scenarios and possible cumulative effects.
- Identify and assess potential residual effects of the project on soil stability, erosion and the exposure and disposal of contaminated or hazardous soils (e.g. acid sulphate soils).
- Identify potential residual effects resulting from the generation, storage, treatment, transport and disposal of solid and liquid wastes.
- Ensure a systems-based assessment where necessary, with marine water quality, hydrodynamics and marine ecology studies undertaken together.

Mitigation

- Identify and evaluate aspects of project works and operations, and proposed design refinement options or measures, that could avoid or minimise significant effects on groundwater, waterway, wetland, estuarine, intertidal and marine waters.
- Describe further potential and proposed design options and measures that could avoid or minimise significant effects on groundwater, waterway, wetland, estuarine, intertidal and marine waters during the project's construction and operation, including response measures for environmental incidents.
- Describe potential and proposed design options and measures that could avoid or minimise significant effects on soil stability.
- Describe available options for treatment or disposal of the various categories of solid and liquid wastes generated by the project.

Performance criteria

- Describe and evaluate the approach to monitoring and the proposed contingency measures to be implemented in the event of adverse residual effects on groundwater, waterway, wetland, estuarine, intertidal and marine waters requiring further management.

- Describe contingency measures for responding to unexpected but foreseeable impacts such as disturbance of acid sulphate soils.

4.4 Cultural heritage

Evaluation objective

To avoid or minimise adverse effects on Aboriginal and historic cultural heritage and associated values.

Key issues

- Potential for adverse effects on Aboriginal cultural heritage values (including underwater Aboriginal cultural heritage, tangible and/or intangible), both known and unknown.
- Potential for adverse effects on historic cultural heritage values (including underwater cultural heritage and archaeology), both known and unknown.
- Potential for permanent loss of heritage values.

Existing environment

- Review land use history, previous studies and relevant registers to identify areas with known or potential Aboriginal cultural heritage value.
- Identify and characterise Aboriginal cultural heritage sites or areas of sensitivity, and intangible cultural heritage values potentially impacted by the project in consultation with registered Aboriginal parties and traditional owner groups.
- Characterise the seafloor to attempt to reconstruct submerged landscapes utilizing relevant survey data, to identify submerged Aboriginal tangible and/or intangible cultural heritage.
- Identify and document known, and previously unidentified places, sites, objects and/or artefacts of historic cultural heritage significance potentially impacted by the project, including any areas of significant archaeological interest, in accordance with Heritage Victoria guidelines.

Likely effects

- Assess the potential effects on Aboriginal cultural heritage resulting from the project and alternatives.
- Assess the potential effects on sites and places of historic cultural heritage significance. Assessments are to be undertaken in accordance with the *Heritage Act 2017*, Heritage Victoria's Guidelines for Conducting Archaeological Surveys (2020) or updates and other guidance documents. Maps of site extents showing their proximity to proposed works should be provided.

Mitigation

- Describe and evaluate proposed design, management or site protection measures that could avoid or mitigate potential adverse effects on known or potential Aboriginal or historical cultural heritage values.
- Develop management and contingency measures in accordance with the requirements for a Cultural Heritage Management Plan (CHMP) under the *Aboriginal Heritage Act 2006*.

Performance criteria

- Outline any proposed commitments to mitigate and manage residual effects on sites and places of Aboriginal cultural heritage significance (within the framework of a CHMP as appropriate).
- Outline any proposed commitments to mitigate and manage residual effects on sites and places of historical heritage significance, including site investigation and recording procedures.

4.5 Landscape and visual

Evaluation objective

To minimise and manage potential adverse effects on landscape and visual amenity.

Key issues

- Potential effects on significant landscape values in the vicinity of the project, especially national parks, other reserves and areas formally identified for their landscape values, such as within the Wellington, South Gippsland and LaTrobe Shire planning schemes.

- Potential for nearby residents and communities to be exposed to significant effects on visual amenity from project infrastructure.

Existing environment

- Characterise the landscape character, features and values of the project area and its environs.
- Identify public and private view sheds to the project and characterise visual values of the area, including dark skies.
- Identify the components of the project that may result in a significant visual amenity effect.
- Identify viewsheds in which the project site features, including from nearby residences (where permitted), public lookouts, tourist attractions, roads and key vantage points in the vicinity.
- Identify existing built features within the landscape and their impact on the existing landscape and visual setting.

Likely effects

- Assess the landscape and visual amenity effects of the project, including on public and private views. Use photomontages and other visual techniques to support the assessment.
- Assess the potential for cumulative impacts associated with the development of the project in the context of existing built infrastructure, as well as nearby proposed/approved developments (where such information is publicly available).

Mitigation

- Outline and evaluate any potential design and siting options that could avoid and minimise potential effects on landscape and visual amenity of neighbouring residences and communities and additional management strategies that may further minimise potential effects.

Performance criteria

- Describe proposed measures to manage residual effects on landscape and visual amenity values, including in the context of potential rehabilitation and restoration work.

4.6 Land use and socioeconomic

Evaluation objective

To avoid and minimise adverse effects on land use, social fabric of the community, local infrastructure, and local businesses and tourism during construction, operation and decommissioning of the project.

Key issues

- Potential disruption to existing and/or proposed land uses, with associated economic and social effects.
- Potential effects on social cohesion resulting from disruption of existing networks or effects on community facilities and recreational activities.
- Potential economic and social effects from the project, such as through disruption of business, industry (including agriculture and fisheries) or tourism opportunities.

Existing environment

- Describe the project area and its environs in terms of land use (existing and proposed), residences, zoning and overlays and public infrastructure that support current and strategic patterns of economic and social activity.
- Describe the local community and social setting, including businesses and industry within the area such as agriculture and fisheries.
- Characterise tourism usage of the project area and its surroundings, including national parks and reserves.

Likely effects

- Identify potential long and short-term effects of the project on existing and potential land uses and public infrastructure.
- Identify potential social impacts from the project, including through changes interfering with the current usages of private land and community facilities in the area.

- Identify potential economic effects of the project, considering direct and indirect consequences on employment, local and regional economy and industries in the area, including agriculture and fisheries.
- Identify potential impacts from workforce requirements such as additional demand on housing and public services in the immediate and broader area.
- Identify potential impact on tourism and tourist attractions within the project area and surrounding natural reserves.

Mitigation

- Demonstrate whether the project is consistent with relevant planning scheme provisions and other relevant policies (including approved management plans for adjacent public land).
- Outline measures to minimise potential adverse effects of the project and enhance benefits to the community and local businesses and industry.

Performance criteria

- Describe proposed measures to mitigate, offset or manage social, land use and economic outcomes for communities living, and businesses operating, within the project area and its environs as well as proposed measures to enhance beneficial outcomes.

4.7 Community amenity, safety, roads and transport

Evaluation objective

To avoid, or minimise where avoidance is not possible, adverse effects on community amenity and health and safety, with regard to noise, vibration, dust, the transport network, fire risk management and electromagnetic radiation.

Key issues

- Potential for adverse effects resulting from project-related noise or vibration at sensitive receptors during construction and operation.
- Managing traffic disruptions for residents, businesses and travellers during the construction of the project.
- Potential damage to local and regional road surfaces along transport routes and increased risk to road safety on transport routes.
- Implications of the project for fire risk management on surrounding land, including fire ignition risks arising from the project.
- Risks to human health, including due to electromagnetic emissions radiation from the project.

Existing environment

- Describe the existing, approved and committed transport network in and around the project, including proposed construction transport route options, in terms of capacity, condition, accessibility and potentially sensitive users.
- Characterise the ambient noise environment in and adjacent to the project in established residential, farming, commercial and open space areas and at other sensitive land use and high amenity locations.
- Identify sensitive receptors that could be affected by noise, dust or electromagnetic radiation from project construction or operation.
- Characterise the fire risks associated with the project area and its surrounds.

Likely effects

- Assess the potential effects of construction activities on the transport network, including safety, amenity and accessibility impacts.
- Identify any works required to accommodate project traffic during construction (having regard to the type and dimensions of vehicles and loads) and potential environment effects.
- Assess the potential effects of the project on noise and vibration amenity at sensitive receptors, including through consideration of relevant EPA publications.

- Assess the risks that the project could cause a fire affecting land and assets within or outside the project area.
- Assess the implications of the project for fire risk management or bushfire suppression activities within the project area or in its vicinity.
- Identify potential effects of electromagnetic radiation from the project on sensitive receptors.
- Identify and assess risks to the project's ongoing sustainability including susceptibility to extreme weather events in the context of modelled climate change scenarios.

Mitigation

- Outline any required transport infrastructure works or upgrades required to address adverse impacts of the project construction and operation, including impacts on accessibility (e.g. access road construction and upgrades).
- Describe and evaluate the proposed traffic management and safety principles to address changed traffic conditions during construction and operation of the project.
- Describe and propose siting, design, mitigation and management measures to control dust from construction activities.
- Describe and evaluate both potential and proposed design responses and/or other mitigation measures (e.g. staging/scheduling of works) which could minimise noise and vibration during construction and operation.
- Describe and assess potential measures for avoiding, mitigating or managing impacts of electromagnetic radiation on human health.
- Identify measures for avoiding, managing and minimising fire risks arising from the project, having regard to planning and other policy provisions.

Performance criteria

- Describe proposed measures to manage and monitor effects on community amenity, health and safety, the transport network, fire risk management and electromagnetic radiation and identify likely residual effects, including compliance with standards and proposed trigger levels for initiating contingency measures.
- Describe contingency measures for responding to unexpected impacts to community amenity, health and safety, the transport network, fire risk management and electromagnetic radiation resulting from the project during construction and operation of the project.

Appendix A

Procedures and requirements under section 8B(5) of the *Environment Effects Act 1978*

The procedures and requirements applying to the EES process, in accordance with both section 8B(5) of the Act and the *Ministerial guidelines for assessment of environmental effects under the Environment Effects Act 1978* (Ministerial Guidelines), are as follows:

- (i) The EES is to document investigations of potential environmental effects (direct and/or indirect) of the proposed project, including the feasibility of associated environmental mitigation and management measures, in particular for:
 - a. effects on biodiversity and ecological values within and near the project area including native vegetation, listed communities and species (flora and fauna) under the *Flora and Fauna Guarantee Act 1988* and DELWP advisory list, such as through loss, degradation or fragmentation of habitat, as well as related ecological effects;
 - b. effects on freshwater and marine environments and related beneficial uses, including as a result of any required dredging due to selection of the preferred port option, any changes to stream flows and/or discharge of sediment or waste through waterway crossings;
 - c. effects on Aboriginal cultural heritage values;
 - d. effects on the socioeconomic environment, at local and regional scales, including increased traffic movement and direct and indirect effects of construction of onshore assets; and
 - e. effects on existing landscape values.
- (ii) The matters to be investigated and documented in the EES will be set out more fully in scoping requirements. Draft scoping requirements will be exhibited for 15 business days for public comment, before final scoping requirements are issued by the Minister for Planning.
- (iii) The proponent is to prepare and submit to the Department of Environment, Land, Water and Planning (DELWP) a draft EES study program to inform the preparation of scoping requirements.
- (iv) The level of detail of investigation for the EES studies should be consistent with the approach set out in the scoping requirements and be adequate to inform an assessment of the significance and acceptability of its potential environmental effects, in the context of the Ministerial Guidelines.
- (v) DELWP will convene an inter-agency technical reference group (TRG) to advise DELWP and the proponent, as appropriate, during the preparation of the EES on the scoping requirements, the design and adequacy of the EES studies, and coordination with statutory approval processes.
- (vi) The proponent is to prepare and implement an EES consultation plan for informing the public and consulting with stakeholders during the preparation of the EES, having regard to advice from DELWP and the TRG.
- (vii) The proponent is also to prepare and submit to DELWP its proposed schedule for the completion of studies, preparation and exhibition of the EES, following confirmation of the scoping requirements. This schedule is intended to facilitate the alignment of the proponent's and DELWP's timeframes, including for TRG review of technical studies for the EES and the main EES documentation.
- (viii) The proponent is to apply appropriate peer review and quality management procedures to enable the completion of EES studies to a satisfactory standard.
- (ix) The EES is to be exhibited for a period of not less than 30 business days for public comment, unless the exhibition period spans the Christmas–New Year period, in which case 40 business days will apply.
- (x) An inquiry will be appointed under the *Environment Effects Act 1978* to consider environmental effects of the proposal.

Notification

The following parties (proponent and relevant decision-makers) are to be notified of this decision in accordance with sections 8A and 8B(4)(a)(i) of the *Environment Effects Act 1978*:

- Star of the South Wind Farm Pty Ltd (proponent);
- Minister for Energy, Environment and Climate Change;

- Minister for Water;
- Secretary of the Department of Environment, Land, Water and Planning;
- Mayor of Latrobe City Council;
- Mayor of Wellington Shire Council;
- Mayor of Mornington Peninsula Shire Council;
- Mayor of South Gippsland Shire Council;
- CEO of the West Gippsland Catchment Management Authority;
- CEO of the Environment Protection Authority;
- Executive Director of Aboriginal Victoria;
- Executive Director of Heritage Victoria;
- CEO of Gurnaikurnai Land and Waters Aboriginal Corporation; and
- CEO of Bunurong Land Council Aboriginal Corporation.