

Final Scoping Requirements for Western Outer Ring Main Gas Pipeline Environment Effects Statement

Environment Effects Act 1978

AUGUST 2020

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List of abbreviations

AH Act	<i>Aboriginal Heritage Act 2006</i>
C&LP Act	<i>Catchment and Land Protection Act 1994</i>
CHMP	Cultural Heritage Management Plan
DELWP	Department of Environment, Land, Water and Planning
EE Act	<i>Environment Effects Act 1978</i>
EES	Environment effects statement
EMF	Environmental management framework
EP Act	<i>Environment Protection Act 1970</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
FFG Act	<i>Flora and Fauna Guarantee Act 1988</i>
km	Kilometres
m	Metres
MNES	Matters of national environmental significance
OMP	Offset management plan
PASS	Potential acid sulphate soils
P&E Act	<i>Planning and Environment Act 1987</i>
RAP	Registered Aboriginal party
SEPP	State environment protection policy
TRG	Technical reference group

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1. Introduction

In light of the potential for significant environmental effects, on 22 December 2019 the Minister for Planning (the Minister) determined under the *Environment Effects Act 1978* (EE Act) that APA VTS (Operations) Pty Ltd (the proponent) is to prepare an environment effects statement (EES) for the proposed Western Outer Ring Main Gas Pipeline (the project). The purpose of the EES is to describe the project, assess its potential effects on the environment¹ and assess alternative 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's environmental effects to conclude the EES process and inform statutory decision-makers responsible for the project's approvals.

These *Final Scoping Requirements for the Western Outer Ring Main Gas Pipeline* set out the proposed specific matters to be investigated and documented in the EES for the project. The scoping requirements presented here were finalised following consideration of submissions received during the public exhibition of the draft scoping requirements in July-August 2020. 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 The project

APA VTS (Operations) Pty Ltd proposes to construct a high pressure gas transmission pipeline within the Melton, Hume, Whittlesea and Mitchell local government areas. The project proposes installation of a new gas compressor and associated process control equipment and pipework within APA's existing gas compressor station site at Wollert and 50km of buried pipeline (Figure 1). The pipeline would connect the eastern and western sections of the Victorian Transmission System between Plumpton and Wollert, allowing for an increased gas storage at the Iona Underground Gas Storage facility to meet winter peak gas demands.

1.2 Minister's requirements for this EES

In light of the potential for significant environmental effects, the Minister decided that an EES was required to assess the project's potential environmental effects. 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). In the procedures and requirements, the Minister identified key environmental risks that would need to be addressed in the EES, namely:

- effects on biodiversity and ecological values within and near the site, associated with adjacent road/rail reserves, conservation and riparian areas, including: native vegetation; ecological communities and species of flora and fauna listed under the *Flora and Fauna Guarantee Act 1988*; and other habitats or protected species;
- effects on waterways, wetlands and groundwater hydrology, quality and aquatic ecology, including groundwater dependent ecosystems within and near the project site;
- effects on Aboriginal and historic cultural heritage values in the vicinity of the project site;
- effects on the land uses of the site and surrounding areas;
- effects on land stability and erosion related to the construction and operation of the project, including rehabilitation works;
- effects of project construction and operation on amenity, including potential air quality and noise effects on nearby sensitive receptors (especially residents);
- positive and adverse socio-economic effects, at local and regional scales, potentially generated by the project, including indirect effects of the project construction workforce on the capacity of local community infrastructure; and
- waste management during construction and operation.

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. 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).



Figure 1: Proposed pipeline route (source: APA).

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 works are to be designed, constructed and operated 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.

2.2 The EES process

The proponent is responsible for preparing an EES, including conducting technical studies and undertaking stakeholder consultation. The Department of Environment, Land, Water and Planning (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 (underway);
- 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 group;³
- 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 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 state government agencies, Wurundjeri Woiwurrung Cultural Heritage Aboriginal Corporation and Melton City, Hume City, Whittlesea City and Mitchell Shire 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.

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, 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

2. Further information on the EES process can be found at planning.vic.gov.au.

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

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 works approval under the *Environment Protection Act 1970*, a pipeline licence under the *Pipelines Act 2005* and an approved cultural heritage management plan (CHMP) under the *Aboriginal Heritage Act 2006*. Additional approvals include a permit for works on waterways under the *Water Act 1989* and a permit to take protected flora from public land under the *Flora and Fauna Guarantee Act 1988*. Other approvals may be required; these will be determined throughout the course of the EES.

2.3 Accreditation of the EES process under the EPBC Act

The project was also referred to the Commonwealth under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). A delegate for the Commonwealth Minister for the Environment determined on 21 February 2020 that the project is a controlled action⁵, as it is likely to have a significant impact⁶ on listed threatened species and communities, which are protected under Part 3 of the EPBC Act (see Appendix B).

The EES process is accredited to assess impacts on matters of national environmental significance (MNES) under the EPBC Act through the Bilateral Assessment Agreement between the Commonwealth and the State of Victoria. The Commonwealth Minister or delegate will decide whether the project is approved, approved with conditions or refused under the EPBC Act, after having considered the Minister for Planning's assessment under the EE Act.

4. <https://www.planning.vic.gov.au/environment-assessment/browse-projects/projects/western-outer-ring-main-gas-pipeline>

5 Under the EPBC Act, projects are considered actions. For the purposes of this document the term project also means action.

6 What are generally termed effects in the EES process correspond to impacts defined in Section 82 of the EPBC Act.

3. Matters to be addressed in the EES

3.1 General approach

Preparation of the EES should be consistent with the principles of a systems and risk-based approach to identification of issues for assessment. The EES should put forward a sound rationale for the level of assessment and analysis undertaken for any environmental effect or combination of environmental effects⁷ 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 of each project phase on individual environmental assets – magnitude, extent and duration of change in the values of each asset;
- the likelihood of adverse effects, including those caused indirectly as a result of proposed activities, and associated uncertainty of predictions or estimates;
- proposed avoidance or mitigation measures to reduce predicted effects;
- likely residual effects and their significance, including significant residual impacts on MNES, assuming the proposed measures to avoid and mitigate environmental effects are implemented; and
- the 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 *Pipelines Act 2005*, EPBC Act, *Planning and Environment Act 1987* 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 needs to 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. Overall, the main report needs to include:

- an executive summary of the potential environmental effects of the project, including potential effects on identified MNES;
- an overview of the proponent, including experience in developing and operating projects as well as health, safety and environmental policies and track record;
- 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 a preferred alternative if nominated);
- descriptions of the existing environment (including both existing and reasonably foreseeable land uses), where this is relevant to the assessment of potential effects;
- appropriately detailed assessments⁸ of potential effects of each phase 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;

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

8. Baseline studies and assessments of assets, values and potential effects must be adequately timed to ensure they are accurately representative of seasonal weather patterns of the area.

- 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, including the identified MNES;
- assessment of cumulative impacts with other existing and proposed developments in the region (including other approved and proposed roads and pipelines);
- 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 development; and
- conclusions on the significance of impacts on local, regional, state and federal matters.

The EES also needs to 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 compliment the conventional EES chapters and technical documents. Such an approach should be discussed with DELWP and should be integrated with the preparation of the EES package, including review by the TRG.

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 is required to 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 both to allow an understanding of all components, processes and development stages, and to enable assessment of their likely potential environmental effects. The project description is required cover the following (amongst other aspects as relevant).

- Contextual information on the project, including its objectives and rationale, its relationship to statutory policies, plans and strategies, including the basis for selecting the proposed project location and implications of the project not proceeding.
- Current and reasonably foreseeable land use activities (including beneficial and sensitive uses) in the project area and vicinity, supported by plans and maps drawn at an appropriate scale that show:
 - the location of relevant sensitive receptors;
 - the extent of Crown and private lands, existing land uses and waterways;
 - the general layout of the proposed project and associated facilities and infrastructure;
 - proposed access points.
- Description of works to be conducted in each project phase.
- Information on the project's operational life and decommissioning and rehabilitation arrangements.
- Other necessary works directly associated with the project, such as road upgrades and/or connections, and infrastructure and services relocation.
- Details of all the project components, including:
 - location, footprint, layout and access arrangements during site establishment, construction, operation and rehabilitation (including for any offsite infrastructure);
 - stockpiling and laydown areas to be used;
 - design, methods, staging and scheduling of the proposed construction works, including direction and timing of construction along the alignment and its operational life, and expected timing of rehabilitation of construction areas;
 - function, operation and design principles and capacity of main components of works, including pipeline size and depth, as well as proposed upgrades to the existing compressor station at Wollert;
 - water requirements and proposed sources for construction and operational use;

- necessary works directly associated with the project, such as an infrastructure and services provision, upgrade and/or relocation, including potential construction/upgrade of access roads;
- proposed construction techniques and extent of areas to be disturbed during project establishment and construction, including total area expected to be cleared, particular requirements for traffic and floodwater management, dust and noise management, as well as for sensitive environmental locations;
- cleanfill generation and management;
- temporary and permanent stormwater management requirements;
- solid waste, wastewater and hazardous material (including contaminated spoil) generation and management during construction, operation and rehabilitation, including transportation and storage of any hazardous material on-site and off-site;
- proposed fill disposal sites including consideration of the capacity of these sites to meet project needs;
- transport types and routes for construction activities;
- power requirements for construction and proposed supply infrastructure;
- lighting, telecommunications, safety and security requirements;
- workforce accommodation facilities (if required) including location, size and required services;
- hours of operation, workforce requirements (total work force) and recruitment policies during construction, operation and rehabilitation; and
- easement maintenance activities to be conducted during operations and potential for any additional land disturbance or changes to the project footprint during operations;
- approach to be taken regarding project rehabilitation, including proposed approach to progressive rehabilitation of disturbed areas and identification of areas where native vegetation is to be reinstated, enhanced and/or expanded.

3.4 Project alternatives

The EES is required to document the proponent's process that led to the preferred alternative(s) and design presented in the EES. The EES should document and explain the proponent's assessment of feasible alternatives, including an explanation of how and why specific alternatives were shortlisted for evaluation within the EES, including alternatives related to all offsite infrastructure being considered (e.g. access roads). The EES will also document the likely environmental effects of all feasible alternatives, particularly where these offer a potential to minimise and/or avoid significant environmental effects whilst meeting the objectives of the project. The assessment of feasible alternatives and their effects is required to include:

- description of alternatives considered in the project design process, including alternative pipeline alignments and locations of site access roads;
- identification of methods and environmental criteria for selection of preferred alternatives;
- assessment and comparison of the technical feasibility and environmental implications of alternative options considered; and
- the basis for selecting the proposed project layout and design.

Where appropriate, the assessment of environmental effects of design and layout alternatives is to address the matters set out in the subsequent sections of this document. The depth of investigation of alternatives should be proportionate to their potential to minimise potentially significant adverse effects as well as meet project objectives.

3.5 Applicable legislation, policies and strategies

In addition to the EE Act and the EPBC 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 EP Act which are expected come into effect on 1 July 2021, and any subsequent updates to subordinate legislation.

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. These include, but are not limited to, Victorian guidelines for vegetation removal, EPBC Act policy statements, conservation advices, threat abatement plans and recovery plans for nationally listed threatened species and communities.

3.6 Evaluation objectives

Evaluation objectives are provided in Section 4 for each of the topics to be addressed in the EES. The 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

Inadequate environmental management of the project during project construction and operation will not realise the necessary environmental outcomes, statutory requirements or stakeholder confidence. Hence, the proponent will need to provide an environmental management framework (EMF) for the project within the EES. The EMF will articulate clear accountabilities for managing and monitoring environmental effects and risks associated with construction and operation phases of the project, including for offsite infrastructure.

The EMF is required to describe the baseline environmental conditions to be used to monitor and evaluate the efficacy of applied environmental management and contingency measures, as well as the residual environmental effects of the project. The EMF needs to cover all aspects of the project including any offsite infrastructure and associated impacts. The framework is required to include the following.

- The context of required approvals and consents, including any anticipated requirements for related environmental management plans, whether for project phases or elements.
- The environmental management system to be adopted.
- Organisational responsibilities and accountabilities for environmental management.
- A register of environmental risks associated with each phase of the project which is to be maintained during project implementation. This can be provided as an attachment to the EES.
- The environmental management measures proposed in the EES to address specific issues, including commitments to mitigate adverse effects and enhance environmental outcomes and timing of implementation. This consolidated list can be provided as an attachment to the EES.
- Arrangements for management of, and access to, baseline and monitoring data to ensure the transparency and accountability of environmental management and to contribute to the improvement of environmental knowledge.
- The framework for management of any environmental incidents and emergencies.
- The proposed objectives, indicators and monitoring requirements (including parameters, locations and frequency) for managing (at least):
 - biodiversity (including MNES) values on and near the project area;
 - biodiversity (including MNES) offsets to be established and managed offsite;
 - noise, vibration, and emissions to air, including dust and greenhouse gases;
 - public health and safety;
 - groundwater and surface water functions, including behaviour and quality, stormwater runoff, erosion and sediment control, and flood risk;
 - solid and liquid waste, including recycling and handling of potentially hazardous or contaminated waste, potential acid sulphate soils (PASS) and other excavated spoil;
 - Aboriginal cultural heritage values;
 - historic heritage values;

- traffic during construction, including managing temporary disruption and changed accessibility;
- disruption of and hazard to existing infrastructure;
- socioeconomic and land use values;
- landscape and visual values;
- landform and slope stability;
- traffic and road management measures;
- project area rehabilitation, including handling of topsoil; and
- emergency management.

The EMF will outline internal and external auditing and reporting requirements to review and continuously improve the effectiveness of environmental management and to ensure compliance with the measures outlined in EMF and other statutory conditions. The EMF will outline the proponents commitments for later development and review of environmental management plans for construction and operation (including rehabilitation) phases of the project. Similarly, the EMF will outline a program for community consultation, stakeholder engagement and communications for the project, including opportunities for local stakeholders to engage with the proponent and a process for complaints recording and resolution.

4. Assessment of specific environmental effects

Preparation of the EES and the necessary investigation of effects should be proportional to the environmental risk, as outlined in the Ministerial Guidelines (p. 14). A risk-based approach should be adopted during the design of EES studies, so that a greater level of effort is directed at investigating and managing those matters that pose relatively higher risk of adverse effects.

The following structure sets out how the EES could 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. **Identify the potential effects** of the project on the existing environment (pre-mitigation).
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 avoided.
 - c. **Rehabilitation/restoration:** measures taken to improve a degraded environment 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 three steps of the mitigation hierarchy.
5. **Assess the likely residual effects** of the project on the existing environment and evaluate their significance assuming implementation of design and mitigation measures.
6. **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. In addition, the cumulative effect of the project in combination with other activities in the broader area/region needs to be assessed for all significant adverse effects.

4.1 Energy efficiency, security, affordability and safety

Evaluation objective

Provide for safe and cost-effective pipeline connection between the eastern and western sections of the Victorian Transmission System.

Key issues

- Workforce, nearby operations and public safety risks associated with the construction or operation of the project, including risks associated with or compounded by potential external threats (e.g. bushfire).
- The rationale for the project in the context of energy security, efficiency and affordability.
- The capacity of the project to exert a beneficial influence on Victoria's energy security and costs over the anticipated life of the project.

Existing environment

- Characterise the human environment near the project relative to safety buffer standards for surrounding current land uses and reasonably foreseeable land uses.

- Characterise Victoria's existing and anticipated transportation and storage requirements for natural gas relative to existing anticipated and emerging supply scenarios.
- Describe the bushfire hazard for the immediate project area and broader landscape conditions and undertake appropriate risk assessment that considers the risk of bushfire to people, property and community infrastructure.

Mitigation measures

- Describe proposed measures to minimise risk and ensure safety for workforce, nearby operations and the public during construction and operation of the project.
- If blasting is required, outline measures to manage public safety during blasting activities.
- Describe proposed measures to ensure the security and affordability of gas supply.

Likely effects

- Identify and assess the relevant risks that may be posed by the project, and feasible alternatives, and compare these to the expected project benefits.

Performance criteria

- Describe the monitoring program to form part of the EMF to identify any unexpected impacts or hazards in time for corrective action to be taken.
- Describe the framework for emergency response, including contingency planning for foreseeable possible public safety or environmental emergencies.

4.2 Biodiversity and habitats

Evaluation objective

Avoid and minimise potential adverse effects on native vegetation, listed threatened and migratory species and ecological communities, and habitat for these species, as well as restore and offset residual environmental effects consistent with state and Commonwealth policies.

Key issues

- Direct loss or degradation of native vegetation (including large old trees) and any associated listed threatened flora and fauna species and communities known or likely to occur in or adjacent to the project works.
- Direct loss of, or degradation to, habitat for flora and fauna species listed as threatened or migratory under the EPBC Act, FFG Act and/or DELWP advisory lists.
- Indirect loss or degradation of vegetation or habitat quality, that may support any listed species or other protected fauna, resulting from hydrological or hydrogeological change, erosion and sedimentation, edge effects, habitat fragmentation, loss of connectivity, or other disturbance impacts arising from construction or operation, including noise, vibration and lighting.
- Cumulative impacts on biodiversity and habitat with other existing and proposed developments.
- The availability of suitable offsets in accordance with guidelines for the loss of native vegetation and habitat for threatened species, ecological communities and migratory species which are listed under the EPBC Act and/or the FFG Act.

Existing environment

- Identify and describe any protected areas and other areas of biodiversity conservation value within or close to the project.
- Characterise the type, distribution and condition of native vegetation (including large old trees), terrestrial and aquatic habitat and habitat corridors or linkages that could be impacted by the project, including offsite infrastructure. This must include the quality and type of habitat impacted and quantification of the total impact area and areas indirectly impacted from the proposed action and must be informed as appropriate by targeted surveys undertaken in accordance with the appropriate Commonwealth or DELWP survey guidelines. Native vegetation and ecological communities characterised needs to include those listed under the EPBC Act and FFG Act including but not limited to:
 - Natural Temperate Grassland of the Victorian Volcanic Plain;
 - Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains;
 - White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland;
 - Grassy Eucalypt Woodland of the Victorian Volcanic Plain;

- Identify the existing or likely presence of any protected species, and especially species listed under the EPBC Act, FFG Act and DELWP advisory lists, as well as environmental weeds, pathogens and pest animals. Among other species, this needs to include the potential use of the site and its environs by the:
 - Growling Grass Frog (*Litoria raniformis*);
 - Golden Sun Moth (*Synemon plana*);
 - Spiny Rice-flower (*Pimelea spinescens subsp. spinescens*); and
 - Matted Flax-lily (*Dianella amoena*).
- Characterise the listed threatened and migratory species, other protected species, ecological communities and potentially threatening processes that are likely to be present. This characterisation is to be supported by seasonal or targeted surveys where necessary. Details of the scope, timing and method for studies or surveys used to provide information on the ecological values of the project area (and in other areas that may be impacted by the project) needs to be outlined. Records and other data from local sources should also be gathered and considered as appropriate.
- As appropriate, identify the different uses which significant species may make of different habitat areas that could be affected by the project at different times or life-cycle stages.
- Identify and characterise any groundwater dependant ecosystems that may be affected by the project works. This characterisation is to be informed by data, literature and appropriate surveys.
- Identify flora and fauna that could be affected by the project's potential effects on air quality, noise or vibration, or could be disoriented or otherwise impacted by project lighting.
- The characterisation of the existing environment for biodiversity should consider the timestamped dataset collected as part of the Melbourne Strategic Assessment (MSA) program;
- Describe the existing threats present to biodiversity values, including:
 - removal of individuals or destruction of habitat;
 - 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, fire hazards, erosion and sedimentation, etc.);
 - threats of mortality of listed threatened fauna;
 - presence of or risk of introduction of any declared weeds, pathogens and pest animals within and near the project area; and
 - initiating or exacerbating potentially threatening processes listed under the EPBC Act and/or FFG Act.

Mitigation measures

- Identify potential and proposed design options and measures that could avoid, minimise, mitigate or manage significant direct and indirect effects on native vegetation (including large old trees) and any listed ecological communities or flora and fauna species and their habitat within or adjacent to the pipeline alignment. Include description and assessment of the expected or predicted effectiveness of the mitigation measures, including cost and any statutory or policy basis for the mitigation measures.
- Justify and describe the assumptions and level of uncertainty associated with the proposed measures achieving their desired outcomes.

Likely effects

- Assess likely direct and indirect effects of the project and feasible alternatives on flora and fauna including native vegetation (including large old trees), ecological communities and habitats for protected fauna and flora species, in particular any species listed under the EPBC Act, FFG Act or DELWP advisory lists. Where appropriate, effects should be described in relation to existing hazards and risks and with regard to conservation or listing advices, action statements, recovery plans and threat abatement plans.
- Assess likely direct and indirect effects of the project and alternatives on protected fauna and their habitat, including threatened or migratory species listed under the EPBC Act, FFG Act or DELWP advisory lists, relative to existing hazards and risks and with regard to conservation or listing advices, action statements, recovery plans and threat abatement plans. Where surveys do not identify a listed species but past records and/or habitat analysis suggest that it may occur locally, justification will need to be provided if further investigations or further mitigation measures are not proposed.
- Assess potential impacts on protected areas and other areas of biodiversity conservation value, including conservation areas identified in the Biodiversity Conservation Strategy for Melbourne's Growth Corridors (2013) or updates.

- Assess likely cumulative effects on biodiversity-related values that might result from the project in combination with other projects or actions taking place or proposed nearby.

Performance criteria

- Describe and evaluate proposed measures to manage the residual effects of the project on biodiversity values and MNES, including an offset strategy and offset management plan (OMP) that sets out and includes evidence of the offsets that can be secured or are proposed to satisfy Commonwealth and Victorian offset policy or guideline requirements.
- Describe how the offset/s will be secured, managed and monitored, including management actions, responsibility, timing, performance measures and the specific environmental outcomes to be achieved.
- Proposed EPBC Act offsets must meet the requirements of the *EPBC Act Environmental Offsets Policy* (October 2012)⁹.
- Describe and evaluate the approach to monitoring and the proposed contingency measures to be implemented in the event of adverse residual effects on flora, fauna and ecological community values requiring further management.

4.3 Water and catchment values

Evaluation objective

Maintain the functions and values of groundwater, surface water and floodplain environments and minimise effects on water quality and beneficial uses.

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 during construction.
- The potential for adverse effects on the functions, values and beneficial uses of groundwater due to the project on groundwater dependent ecosystems (GDEs) due to changes in groundwater levels, behaviour or quality.
- Potential erosion, sedimentation and landform stability effects during construction.

Existing environment

- Describe surface and groundwater conditions and their beneficial uses that could be affected from changed water quality, or water movement, due to the project
- Identify and describe nearby wetlands/swamps¹⁰ and floodplains that could be affected by the project (e.g. wetlands in Merri Creek catchment).
- 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.
- Characterise the interaction between surface water and groundwater within the project and broader area.

Mitigation measures

- Identify and evaluate aspects of project works and operations, and proposed design refinement options or measures, that could avoid or minimise significant effects on water, waterway or wetland environments.

Likely effects

- Identify and evaluate effects of the project and alternatives on groundwater, surface water, waterways and wetlands near the project works, including the likely extent, magnitude and duration (short and long term) of changes to water quality, water level or flow paths during construction and operation, considering appropriate climate change scenarios and possible cumulative effects resulting in combination with other existing or proposed projects of actions.
- Assess potential impacts on water availability and quality for farming and other land uses.
- Assess potential erosion, sedimentation and landform stability effects of the project.

⁹ <http://www.environment.gov.au/epbc/publications/epbc-act-environmental-offsets-policy>

¹⁰ Including pre-settlement wetland and swamp areas.

Performance criteria

- Describe monitoring programs and specific monitoring activities to be implemented to ensure prompt detection of surface water and groundwater effects associated with the project.
- Identify possible contingency actions to respond to foreseeable changes that may be identified through the monitoring program.

4.4 Cultural heritage

Evaluation objective

Avoid, or minimise where avoidance is not possible, adverse effects on Aboriginal and historic cultural heritage values.

Key issues

- Destruction or disturbance of sites or places of Aboriginal or historical cultural heritage significance.
- Potential adverse effects on intangible cultural heritage values.

Existing environment

- Review land use history, previous studies and registers to identify areas of known and potential Aboriginal and historical cultural heritage values.
- Identify the extent, nature and significance of Aboriginal cultural heritage sites potentially impacted by the project through consultation and assessments consistent with legislative requirements, and to the satisfaction of the Wurundjeri Woi Wurrung Cultural Heritage Aboriginal Corporation and Aboriginal Victoria (as relevant).¹¹
- Identify and document any known and previously unidentified places and sites of historical cultural heritage significance relevant to the project, including any necessary field investigations to supplement past studies.¹²
- Identify any intangible heritage values associated with the project area.

Mitigation measures

- Describe and evaluate potential and proposed design and construction mitigation methods to avoid adverse effects on Aboriginal and historic cultural heritage, and, where avoidance is not possible, minimise adverse effects.
- Develop a cultural heritage management plan (CHMP) to the satisfaction of the Wurundjeri Woi Wurrung Cultural Heritage Aboriginal Corporation for the part of the project area for which this Registered Aboriginal Party is appointed, and a separate CHMP to the satisfaction of Aboriginal Victoria for the area that does not have a Registered Aboriginal Party appointed.
- Develop an archaeological management plan/predictive archaeological assessment and chance finds procedure to manage historic heritage investigation/excavation etc.

Likely effects

- Assess the potential direct and indirect effects of the project on Aboriginal cultural heritage values, and whether they can be avoided.
- Assess the potential direct and indirect effects of the project on historical cultural heritage values, having regard to relevant guidelines.¹²
- Assess the potential for effects on any identified cultural heritage sites or places, as well as intangible heritage values associated with the project area.

Performance criteria

- Outline how implementation of proposed commitments to mitigate and manage residual effects on historical heritage will be monitored, including site investigation and recording procedures.
- Outline how compliance with conditions of any required statutory approvals will be managed and monitored.

¹¹ This needs to be to the satisfaction of the Wurundjeri Woi Wurrung Cultural Heritage Aboriginal Corporation for the part of the project area for which this Registered Aboriginal Party is appointed, and to the satisfaction of Aboriginal Victoria for the area that does not have a Registered Aboriginal Party appointed.

¹² Assessments are to be undertaken in accordance with the *Heritage Act 2017* and Heritage Victoria's Guidelines for Conducting Historical Archaeological Surveys (2019) or updates.

4.5 Social, economic, amenity and land use

Evaluation objective

Minimise potential adverse social, economic, amenity and land use effects at local and regional scales.

Key issues

- Potential for project works and operations to affect business (including farming) operations or other existing or approved land uses through direct impacts of land loss or indirect impacts such as severance of land, erosion/sedimentation, reduced accessibility, or impacts on water supply and use.
- Relocation or other impacts to existing or proposed infrastructure, including road/rail networks and power infrastructure.
- Potential for dust emissions resulting from construction works and activities, including dust from potentially contaminated soil.
- Potential for increases in noise and vibration levels during project construction or operation to affect amenity adversely for sensitive receptors including residential areas (including from blasting activities where required).
- Potential for project construction or operation to adversely affect local air quality.
- Potential for temporary or permanent changes to use of or access to existing infrastructure and land in the project area and in its vicinity.
- Potential for adverse impacts on visual or landscape values, including impacts on amenity from project lighting.

Existing environment

- Describe existing and reasonably foreseeable land uses within and adjacent to the proposed project area, including the types of land ownership present along the alignment and land uses associated precinct structure plans.
- Identify dwellings and any other potentially sensitive receptors (e.g. residential, commercial, industrial, recreational areas, etc.) that could be affected by the project's potential effects on air quality, lighting, noise, odour or vibration levels, especially vulnerable receptors including children and the elderly.
- Monitor and characterise background levels of air quality (e.g. dust), noise and vibration near the project, including established residential areas and other sensitive receptors.
- Describe proposed transport routes during construction and operations (for employees, construction equipment and other project-related transportation). This should include description of existing roads and their ability to accommodate traffic generated by the project.
- Identify existing and reasonably foreseeable land uses and businesses occupying land to be traversed by, adjacent to, or otherwise affected by impacts from the project.
- Identify strategic plans specifying or encouraging land use outcomes for land to be occupied by the project.
- Identify visual and landscape values near the project, including public and private vantage points from which elements of the project may be visible.

Mitigation measures

- Identify mitigation measures to be implemented to avoid or minimise impacts on existing or proposed land uses within and surrounding the project area, including the proposed approach to arrange access where required.
- Identify potential and proposed design responses and/or other mitigation measures to avoid, reduce and/or manage any significant effects for sensitive receptors during project construction and operation arising from specified air pollution indicators, noise, vibration, odour, traffic and lighting, in the context of applicable policy and standards.
- Describe and evaluate the proposed traffic management and safety principles to address changed traffic conditions during construction and operation of the project.
- Identify options for mitigating impacts from project construction or operation on any potentially affected businesses, existing and proposed transport infrastructure, and community facilities including open space.
- Identify options for mitigating or managing visual or landscape impacts of the project.
- Identify any further opportunities for the project to enhance social outcomes, for example through co-location and integration with other existing and proposed infrastructure projects (e.g. future shared path networks, recycled water mains, etc).

Likely effects

- Identify implications for communities, current land uses and businesses and reasonably foreseeable changes in land use. This should include the likely extent and duration of any temporary or permanent disruption to existing land uses arising from project construction, including requirements for the project to access and/or acquire land. This should also include a description of the rights and restrictions on use of the pipeline easement during operations.
- Predict likely atmospheric concentrations of dust and other air pollution indicators at sensitive receptors along the pipeline corridor, during project construction and operation, using an air quality impact assessment undertaken in accordance with SEPP environmental objectives.
- Assess likely noise, vibration, odour, traffic, lighting and visual impacts at sensitive receptors adjacent to the project during project construction and operation (both with and in the absence of the proposed mitigation measures), relative to standards. This needs to include assessment of noise and vibration impacts from any proposed blasting activities and ongoing maintenance activities.
- Assess potential effects of the project on the structural condition of potentially affected public roads for both the construction and operation phases.
- If the alignment traverses existing or closed landfills, evaluate landfill risks such as from gas emissions.
- Assess potential impacts on precinct structure plans.
- Assess potential safety hazards to the public arising from project construction and operation.

Performance criteria

- Outline measures to monitor the success of commitments to mitigate or manage effects on social, economic, amenity and land use values during all phases of the project.
- Describe the approach to monitor effects and develop contingency measures to be implemented in the event of adverse residual effects on social, economic, amenity and land use values requiring further management.
- Describe any further measures that are proposed to enhance social outcomes, and either manage risks to landscape and recreational values, or enhance visual amenity outcomes both for residents living near the project and for visitors to the locality, to form part of the EMF (see Section 3.7).

4.6 Waste management

Evaluation objective

Minimise generation of wastes from the project during construction and operation, and to prevent adverse environmental or health effects from storing, handling, transporting and disposing of waste products.

Key issues

- Potential for adverse environmental or health effects from waste materials/streams generated from project works.
- Potential for emissions of greenhouse gases to result from the project, including embedded emissions due to construction materials and processes, direct and indirect emissions from construction and operation, and fugitive emissions.
- Potential for unplanned spills/leakages of gas or other pollutants.
- Potential for disturbance of contaminated soil, sodic soil or acid sulphate soil, and impacts associated with reuse of such soils.

Existing environment

- Identify the potential occurrence of contaminated, sodic or potential acid sulphate soils within the area where project works may occur.
- Identify potential greenhouse gas emissions that will result from the project.

Mitigation measures

- Describe available options and mitigation measures for reuse, treatment or disposal of solid and liquid wastes generated by the project.
- Describe how the waste hierarchy will be applied to control and manage waste.
- Identify suitable off-site disposal options for waste materials, and processes for waste and spoil tracking.
- Identify options for reducing direct and indirect greenhouse gas emissions resulting from the construction and operation of the project, including the potential for fugitive emissions.
- Describe measures to minimise the risk of spills.
- Describe measures for emergency and spill response.

Likely effects

- Identify potential environmental effects resulting from the generation, storage, treatment, transport and disposal of solid and liquid wastes, including contaminated, sodic or potential acid sulphate soil, from project construction and operation.
- Quantify anticipated greenhouse gas emissions from the project during its construction and operations, and assess the implications of these emissions in the context of the targets outlined in the *Climate Change Act 2017*.
- Assess risks associated with unplanned spills/leakages of gas or other pollutants.

Performance criteria

- Describe proposed measures to monitor the management of solid and liquid wastes during all project phases.
- Describe proposed measures to reduce, monitor and audit greenhouse gas emissions from the project.
- Describe proposed measures to reduce, monitor and audit discharges to water from the project.
- Describe contingency measures for responding to unexpected impacts resulting from waste management or discharges.

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) 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 the investigation and avoidance of potential environmental effects of the proposed project, including for any relevant alternatives (such as realignment of the pipeline route), as well as associated environmental mitigation and management measures. In particular, the EES should address:
 - a. Effects on biodiversity and ecological values within and near the site, associated with adjacent road/rail reserves, conservation and riparian areas, including: native vegetation; ecological communities and species of flora and fauna listed under the *Flora and Fauna Guarantee Act 1988*; and other habitats or protected species;
 - b. Effects on waterways, wetlands and groundwater hydrology, quality and aquatic ecology, including groundwater dependent ecosystems within and near the project site;
 - c. Effects on Aboriginal and non-Aboriginal cultural heritage values in the vicinity of the project site;
 - d. Effects on the land uses of the site and surrounding areas;
 - e. Effects on land stability and erosion related to the construction and operation of the project, including rehabilitation works;
 - f. Effects of project construction and operation on amenity, including potential air quality and noise effects on nearby sensitive receptors (especially residents);
 - g. Positive and adverse socio-economic effects, at local and regional scales, potentially generated by the project, including indirect effects of the project construction workforce on the capacity of local community infrastructure; and
 - h. Waste management during construction and operation.
- (ii) The matters to be investigated and documented in the EES will be set out in detail in scoping requirements prepared by the Department of Environment, Land, Water and Planning (the department). Draft scoping requirements will be exhibited for 15 business days for public comment, before being finalised and then issued by the Minister for Planning.
- (iii) The level of detail of investigation for the EES studies should be consistent with the scoping requirements issued for this project and be adequate to inform an assessment of the potential environmental effects (and their acceptability) of the project and any relevant alternatives, in the context of the Ministerial Guidelines.
- (iv) The proponent is to prepare and submit to the department a draft EES study program to inform the preparation of scoping requirements.
- (v) The department is to convene an inter-agency technical reference group (TRG) to advise the proponent and the department, as appropriate, on scoping and adequacy of the EES studies during the preparation of the EES, as well as coordination with statutory approval processes.
- (vi) The proponent is to prepare and submit to the department its proposed EES consultation plan for consulting the public and engaging with stakeholders during the preparation of the EES. Once completed to the satisfaction of the department, the EES consultation plan is to be implemented by the proponent, having regard to advice from the department and the TRG.
- (vii) The proponent is also to prepare and submit to the department its proposed schedule for the studies, preparation and exhibition of the EES, following confirmation of draft scoping requirements. This is to enable effective management of the EES process on the basis of an agreed alignment of the proponent's and department's schedules, including for TRG review of technical investigations and the EES documentation.
- (viii) The proponent is to apply appropriate peer review and quality management procedures to enable the completion of EES studies and documentation to an acceptable standard.

- (ix) The EES is to be exhibited for a period of no 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 and report on the environmental effects of the proposal.

Appendix B

Decision under section 75 of the Environment Protection and Biodiversity Conservation Act 1999



Australian Government
Department of Agriculture,
Water and the Environment

**Notification of
REFERRAL DECISION AND DESIGNATED PROPONENT – controlled action
Western Outer Ring Main (WORM) high pressure gas transmission pipeline from
Plumpton to Lindum Vale, Victoria (EPBC 2019/8569)**

This decision is made under section 75 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

proposed action	The construction and operation of the Western Outer Ring Main (WORM) high pressure gas transmission pipeline between Plumpton and Lindum Vale, northwest of Melbourne CBD, Victoria [See EPBC Act referral 2019/8569]
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decision on proposed action	The proposed action is a controlled action. The project will require assessment and approval under the EPBC Act before it can proceed.
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relevant controlling provisions	<ul style="list-style-type: none">Listed threatened species and communities (sections 18 & 18A)
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designated proponent	APA VTS AUSTRALIA (OPERATIONS) PTY LIMITED ABN: 65 083 009 278
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assessment approach	The project will be assessed under the assessment bilateral agreement with Victoria.
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Decision-maker

Name and position	Andrew McNee Assistant Secretary Assessments and Governance Branch
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Signature

date of decision	21 February 2020
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