



**GAS IMPORT JETTY AND PIPELINE PROJECT
ENVIRONMENT EFFECTS STATEMENT
INQUIRY AND ADVISORY COMMITTEE**

TECHNICAL NOTE

TECHNICAL NOTE NUMBER: TN 041

DATE: 22 October 2020

LOCATION: Crib Point Jetty Works and Pipeline Works

EES/MAP BOOK REFERENCE: Chapter 7 – Terrestrial and freshwater biodiversity, Technical Report B, Tables 5, 7.1.7, 7.8, 7.9,

SUBJECT: Response to RFI 029 - Section 3.1 Native vegetation removal and RFIs 035 - 036 - Section 3.2 Avoid, minimise and offset

SUMMARY Further information regarding the occurrence of, and potential to further avoid, endangered EVC vegetation within the pipeline construction footprint. Provision of detail in the avoid and minimise statement describing a precautionary approach that aims to ensure that the removal of native vegetation is reasonably necessary. Explanation on how the avoid and minimise statement satisfies the Guidelines for the removal, destruction or lopping of native vegetation (Clause 72.04 of the Victoria Planning Provisions).

REQUEST: See below

NOTE:

[29] Outline opportunities to further avoid vegetation loss in endangered EVCs from pipeline micro-siting and trenching methods such as horizontal directional drilling (HDD), noting that native vegetation assessments show site condition scores better than 0.5 or better than half the pre-1750 condition of the EVC and some assessments include EVCs with endangered bioregional conservation ratings such as Swamp Scrub (EVC53).

Endangered EVCs within the Project footprint

1. EVCs with an 'Endangered' bioregional conservation status occurring within the Project construction footprint, as updated in the expert witness statement of Mr Brett Lane¹, are shown in Table 1 (noting that GipP0953 was incorrectly identified as 'Endangered' in Table 4 of Mr Lane's statement, whereas it is 'Least Concern'):

Table 1 – Endangered EVCs

Ecological Vegetation Class	EVC number	Extent (Ha)
Swamp Scrub	GipP0053	5.425
Swampy Riparian Woodland	GipP0083	0.933
Grassy Woodland	GipP0175	1.891

¹ Tabled Document 76

Aquatic Herbland	GipP0653	0.105
Swampy Woodland	GipP0937	0.299

Endangered EVCs with site condition scores better than 0.5

Occurrence

2. Site assessments of vegetation undertaken for the Project include the assessment of site condition. Site condition is a measure of the 'naturalness' or 'intactness' of a patch of vegetation using a number of site-based attributes assessed against a defined benchmark, expressed as a score from zero to 1 (Vegetation Quality Assessment Manual, DSE 2004).
3. Of the Endangered EVC vegetation listed in Table 1, some within the Pipeline Works construction footprint is assessed as having site condition scores better than 0.5:
 - Warringine Park
 - approx. KP 3.6 to 4.0 and 4.3 to 4.8 - Swamp Scrub (GipP0053)
 - approx. KP 4.6 – 4.8 - Swampy Riparian Woodland (GipP0083)
 - approx. KP 4.9 to 5.9 – Grassy Woodland (GipP0175)
 - BlueScope
 - approx. KP13.3 - Swamp Scrub (GipP0053)
 - A very small area (~0.01 Ha) of a larger patch overlaps into an HDD site.
 - approx. KP14.2 - Swampy Riparian Woodland (GipP0083)
 - A small area (~0.11 Ha) intersected associated with a minor ephemeral waterway.

Avoidance and mitigation

Warringine Park

4. Through Warringine Park, the proposed pipeline alignment follows existing pipeline easements to minimise impacts to surrounding land use.
5. Much of vegetation proposed to be removed is within or between existing pipeline easements, where it has been previously disturbed or cleared for pipeline construction. Within existing easements, it is subject to ongoing vegetation management by the licensee, in accordance with the conditions of the relevant licence.
6. Within the Park, the width of the construction right of way has been reduced to 20 m, where this reduces the area of vegetation impact.
7. The pipeline is proposed to be installed between existing pipelines, limiting alignment flexibility, and the native vegetation is assessed as occurring across almost the full width of the reduced construction right of way. It is therefore not possible to further avoid the vegetation through micro-siting.



- 8. Two HDDs would be undertaken within the Park to avoid significant areas of vegetation associated with waterways (KP 4.8 - 4.9) and the Ramsar site (KP 4.0 - 4.3).
- 9. A site specific Rehabilitation Plan will be prepared for Warringine Park in consultation with Mornington Peninsula Shire (Pipeline CEMP POS A2, A6 and R13).
- 10. Rehabilitation by assisted natural regeneration will be undertaken on the ROW, except within four metres of the pipeline (Pipeline CEMP POS R13).

BlueScope

- 11. At KP 13.3 the Project proposes to install the pipe using HDD to avoid swamp vegetation and habitat for threatened flora (River Swamp Wallaby-grass). Swamp Scrub (GipP0053) vegetation extends approximately 0.01 Ha into the construction area for the HDD entry site. This overlapping vegetation is along the boundary of the site and it may be possible to retain some of the vegetation, subject to an assessment of the required workspace and rig layout by the construction contractor, once appointed.
- 12. At KP14.2, the proposed alignment intersects a narrow band of Swampy Riparian Woodland (GipP0083) within extensive Heathy Woodland (GipP0048). The width of the construction right of way has been reduced to minimise impacts to vegetation. The patch extends the full width of the reduced right of way and there is no other means of accessing the right of way beyond the patch, so it cannot be avoided. If an alternative access could be established, installation of the pipe using HDD would require more extensive clearance of other adjacent native vegetation and is therefore not justified. Rehabilitation by assisted natural regeneration will be undertaken on the ROW, except within four metres of the pipeline (Pipeline CEMP POS R13).

Endangered EVCs with site condition scores below 0.5

- 13. Other than the areas of higher vegetation condition, the endangered vegetation proposed to be removed by the Project is predominantly Swamp Scrub (GipP0053). The expert witness statement of Mr Brett Lane provides an assessment of the relative significance of this vegetation type.
- 14. A small patch of vegetation at KP 8.8 was classified as Swampy Woodland (GipP0937) although it has no large trees or canopy and is dominated by weeds, scoring only 17 points out 75 in the site assessment. Aerial imagery from as recently as 2016 suggests it is recent regrowth. It extends the full width of the right of way and cannot be avoided.
- 15. Swampy Woodland (GipP0937) is identified at KP15.1 and Aquatic Herbland (GipP0653) at KP 16.2. APA is currently negotiating with the landowner for an alignment that avoids both patches of vegetation (EES Attachment VII Map Book, Mapsheet 9, Option BB-10).

Offset Strategy

- 16. The Offset Strategy (Technical Note 1, Tabled Document 90) contains an Implementation Strategy in Part 4 that requires the following sequential steps which provide for a process of review and refinement of the vegetation removal so that further opportunities for avoidance will occur. The following steps have been undertaken to date:

1. Initial Offset Assessment	Undertake desktop and field habitat hectares assessment of the study area. Calculate offset requirements for the proposed construction area
------------------------------	--

2. Review	<p>Identify high value vegetation patches to target for impact reduction during refinement</p> <ul style="list-style-type: none"> • high condition score • multiple species habitats • rare/threatened/hard to obtain species
3. Refinement (where practicable)	<p>Avoid – exclude native vegetation from work area if removal is not required (e.g. no-go zones/redraw work area boundary). Avoid – realign pipe to avoid areas of native vegetation Avoid – use/extend trenchless construction to retain vegetation within the easement. Substitute – preferentially locate works in areas of low value vegetation rather than high value vegetation, if avoidance is not practicable</p>
4. Resolve Offset Assessment	<p>Recalculate offset requirements for the refined construction area</p>

17. Steps 2 to 4 will be revisited in light of the additional vegetation information identified in the expert witness statement of Mr Brett Lane, and as alignment options are resolved.

[35] Provide further detail in the avoid and minimise statement describing a precautionary approach that aims to ensure that the removal of native vegetation is reasonably necessary, noting the Project seeks to achieve no net loss to biodiversity as a result of the removal of native vegetation.

18. Throughout the design of the Project, several key steps have been taken to ensure that any removal of native vegetation is restricted to that which is reasonably necessary for construction and operation. This has been achieved by avoiding and minimising impacts on native vegetation where possible, and through sourcing offsets for vegetation losses that are considered reasonably necessary, in order to ensure that the Project is consistent with the objective of no net loss in the contribution made by native vegetation to Victoria’s biodiversity (DELWP 2017).

19. The key steps that have been taken during the design of the Project to ensure that removal impacts on biodiversity from the removal of native vegetation have been minimised include:

- (a) Using existing easements that have been subject to previous disturbance wherever possible
- (b) Locating the pipeline in already cleared land wherever possible
- (c) Using HDD or reduced construction footprint width to avoid and minimise impacts to areas containing significant ecological values, such as the Western Port Ramsar site and known populations of significant flora and fauna
- (d) Locating temporary storage and compounds on existing disturbed land to minimise impacts to native vegetation

20. Further detail for each component of the Project is provided in 7.1.7.1 and 7.1.7.2 of EES Technical Report B: Terrestrial and freshwater biodiversity impact assessment.
21. The avoid and minimise statement in Appendix 8 of EES Technical Report B: Terrestrial and freshwater biodiversity impact assessment has been supplemented with the following additional information, which is provided in the form consistent with the requirements specified for avoid and minimise statements in the Guidelines for the removal, destruction or lopping of native vegetation (DELWP 2017).

Pipeline Works:

Strategic level planning

22. APA has consulted with Mornington Peninsula Shire, Cardinia Shire Council and City of Casey, as well as the Department of Environment Land Water and Planning.
23. No areas of the Pipeline Works have been incorporated into any regional or landscape scale strategic planning processes, such as precinct planning, regional growth plans or strategic environmental assessments that relate to avoiding or minimising impacts to native vegetation.

Site level planning

24. As part of the design development for the Pipeline Works, refinement of the pipeline alignment and selection of construction methodologies has been undertaken to avoid and minimise impacts on native vegetation and other biodiversity values along the length of the pipeline. The siting of the pipeline alignment has been chosen to closely follow existing pipeline easements and cleared land where possible to use already disturbed land and avoid impacts to native vegetation.
25. Except for some particular locations, the vegetation along the length of the proposed pipeline alignment has been assessed as being generally of low quality. North of South Boundary Road East KP 20, the landscape is extensively modified due to historical clearing of land for agriculture. As a result, most habitat zones support low quality vegetation that has recolonised peripheral areas such as along fence and drainage lines.
26. South of KP 20, while still highly modified, there are remnants of native vegetation that support a moderate diversity of native flora and large trees. As the proposed pipeline alignment closely follows existing pipeline easements where possible, much of the vegetation has already been partially cleared or impacted by previous pipeline construction activities. This has avoided the need for clearing other areas of native vegetation.
27. Site level planning has involved changes in the pipeline alignment, changes to the width of the construction footprint (ROW) and using HDD to avoid areas of native vegetation. Appendix 8 of Technical Report B: Terrestrial and freshwater biodiversity impact assessment provides the full list of design responses undertaken as part of the site level planning to avoid or minimise impacts to native vegetation and biodiversity values. The design responses shown in Table 1 below have been undertaken to avoid or minimise impacts specifically to native vegetation within the Pipeline Works.

Table 1: design responses undertaken as part of the site level planning to avoid or minimise impacts to native vegetation and biodiversity values

KP start	KP finish	Feature	Design response	Mitigation provided
0.80	1.0	Native vegetation	HDD	Area of Damp Heathy Woodland habitat

1.1.6	1.80	Native vegetation	HDD for approx 650 m	Area of Damp Heathy Woodland avoided.
1.80	1.90	Native vegetation	Bore	Area of Damp Heathy Woodland avoided.
3.20	3.50	Native vegetation	ROW width reduced to 20 m	Minimise disturbance of native vegetation.
7.35	8.45	Native vegetation	ROW width reduced to 20 m	Reduce clearing of Grassy Woodland
8.55	9.0	Native vegetation	ROW width reduced to 25 m	Minimise disturbance to landowner and native vegetation
9.0	9.10	Native vegetation/ Scattered trees	Bore	Avoid disturbance to scattered trees and native vegetation
13.72	14.40	Native vegetation	ROW width reduced to 20 m	Minimise disturbance to Heathy Woodland
18.78	19.38	Native vegetation	HDD	Avoid impacts to heathy woodland and other native vegetation in this location
20.90	21.25	Native vegetation	HDD	Avoid impacts to Langwarrin Creek, scattered trees and other native vegetation in this location
46.0	46.05	Planted native trees	ROW width reduced to 20 m	Avoid impacts to planted native trees
54.72	54.84	Native vegetation	ROW width reduced to 20 m	Reduce impacts to planted native vegetation

No feasible opportunities exist to further avoid and minimise impacts on native vegetation

28. Site level planning has involved several design responses being adopted in the Pipeline Works to avoid and minimise impacts on native vegetation as far as practicable. There is a possibility of limited opportunities for small amounts of additional avoidance at particular sites during construction, as set out in the response to RFI 029 above. Generally however, there are no feasible opportunities to further avoid and minimise impacts on native vegetation without undermining the key objectives of the proposal or causing other consequential impacts.

Gas Import Jetty Works

Strategic level planning

29. AGL has consulted with Mornington Peninsula Shire and Department of Environment Land Water and Planning.

30. No area of the Gas Import Jetty Works has been incorporated into any regional or landscape scale strategic planning processes, such as precinct planning, regional growth plans or strategic environmental assessments that relate to avoiding or minimising impacts to native vegetation.

Site level planning

31. The siting of the landside component of the Gas Import Jetty Works has considered minimising environmental impacts including impacts on native vegetation. The proposed location is highly disturbed with significantly degraded vegetation that does not offer much ecological value.

32. The land-side component of the Gas Import Jetty Works area is located on an area that was cleared of native vegetation in the 1960s and has been allowed to regenerate since the mid-1970s. Native vegetation in the site is significantly degraded as the area is heavily modified.



While there is an abundance of Australian-native planted shrubs and trees, there is also an abundance of invasive weeds.

33. The proposed Crib Point Receiving Facility location on the north side of the Crib Point Jetty has a relatively lower condition score than adjacent undisturbed vegetation outside of the Gas Import Jetty Works. This site location makes use of the existing, available infrastructure in a contextually appropriate setting (Port zoning and adjacent to the former BP refinery land). Potential native vegetation impacts would be reduced due to the area proposed for the Crib Point Receiving Facility being highly disturbed and of low-quality vegetation.

No feasible opportunities exist to further avoid and minimise impacts on native vegetation

34. No feasible opportunities exist to further avoid and minimise impacts on native vegetation without undermining the key objectives of the proposal or causing other consequential impacts.

[36] Describe how the avoid and minimise statement satisfies the Guidelines for the removal, destruction or lopping of native vegetation (Clause 72.04 of the Victoria Planning Provisions).

35. Technical Report B: Terrestrial and freshwater biodiversity impact assessment (Section 7.1.7 and Appendix 8), combined with this Technical Note, meet the requirements for an avoid and minimise statement as set out in the Guidelines for the removal, destruction or lopping of native vegetation (DELWP 2017).

CORRESPONDENCE: N/A

ATTACHMENTS: N/A