

APA Technical Note - Western Outer Ring Main - Environment Effects Statement

TECHNICAL NOTE NUMBER: TN15

DATE: 30 September 2021

SUBJECT: Biodiversity assessment of Revision 10 alignment changes

SUMMARY This Technical Note provides an assessment of the biodiversity impacts associated with the Revision 10 pipeline alignment changes described in Technical Note No. 08.

ATTACHMENTS Technical Memorandum – Biodiversity assessment of pipeline alignment changes (dated 30/09/2021)

NOTE:

Background

- 1 Following exhibition of the Western Outer Ring Main (WORM) Environment Effects Statement (EES), the pipeline design has progressed and there are a number of minor amendments to the pipeline alignment and Project Area.
- 2 These amendments are described in Technical Note No. 08 and represent the Revision 10 of the pipeline design. The EES, including EES Technical Report A Biodiversity and Habitats (Technical Report A) assessed the Revision 7 pipeline design.

Response

- 3 The Technical Memorandum provided at Annexure 1 provides a summary of the proposed changes to the pipeline alignment and construction footprint associated with Revision 10 since the exhibition of EES Technical Report A, and the associated impacts on biodiversity.

ANNEXURE 1

Technical memorandum – Biodiversity assessment of pipeline alignment changes (dated 30/09/2021)

Technical Memorandum

September 30, 2021

To	APA	Tel	
From	GHD	Ref. No.	12529997
Subject	Biodiversity assessment of pipeline alignment changes		

1. Background

Following exhibition of the Western Outer Ring Main (WORM) Environment Effects Statement (EES), the pipeline design has progressed and there are a number of minor amendments to the pipeline alignment and Project Area. These amendments are described in Technical Note No. 08 and represent the Revision 10 of the pipeline design. The EES, including EES Technical Report A *Biodiversity and Habitats* (Technical Report A) assessed the Revision 7 pipeline design. This Technical Memorandum provides a summary of the proposed changes to the pipeline alignment and construction footprint associated with Revision 10 since the exhibition of EES Technical Report A, and the associated impacts on biodiversity.

2. Summary of alignment changes

The amendments to the Project Area under the Revision 10 Alignment include reductions, additions and realignments to the Project Area. The most significant change under Revision 10 is the realignment of the Horizontal Directional Drilling (HDD) crossing location at Deep Creek and the associated realignment of the Project Area either side of the creek between approximately KP 16.4 to KP 18.2.

The alignment amendments do not result in the Project Area traversing any new parcels.

Where alignment amendments (outside of the MSA) were beyond the extent of existing mapping, additional site assessments were undertaken. Table 1 details the parcels subject to changes and indicates the location of areas subject to additional onsite flora and fauna assessments.

Figures presented within Technical Report A Biodiversity and Habitats have been revised to reflect the alignment changes and are presented within Appendix A. The APA online mapping tool will be updated to include the new biodiversity data.

Table 1 *Parcels subject to an alignment amendment since the exhibition of the EES*

KP start	KP Finish	Inside/ outside MSA	Parcel Identifier	Addition/ deletion/ revision	Site assessment conducted Y/N	Date of flora and fauna site assessment
0	1.07	MSA	BPS832727, APSA832737, MPS825760	Deletion	N	N/A Removal
1.07	1.57	MSA	MPS825760	Revision	N	N/A within MSA

2.21	2.97	MSA	218165707, R1PS817163, 10LP116565	Revision	N	N/A within MSA
9.16	9.54	Outside	2LP90878	Deletion	N	N/A removal
16.3	17.3	Outside	4LP200366, 1TP424528, 2002PP2258, 218265262, 1TP1107502	Revision	Y	25/06/2021
17.32	18.32	Outside	1LP130112, 218268694, 218261314, 2LP130112,	Revision	Y	25/06/2021 9/09/2021
19.24	20.02	Outside	5LP88261, 10LP110642,	Revision	Y	25/11/2020
20.2	20.9	Outside	2LP218160	Revision	N	25/11/2020
21.66		Outside	218271946, 2LP68808,	Deletion	N	N/A removal
23.7	24.17	Outside	1PS733045	Deletion	N	N/A removal
25.97	26.25	Outside	2LP218323, 1PS503800	Revision	Y	9/09/2021
27.2		Outside	3LP93445	Deletion		N/A removal
30.3	32	Outside	APS702756, 1LP126752, 1PS714700, 1PS714688, 4LP126752, 2PS714701	Revision	N	20/11/2020
34.89		MSA	218299285	Addition	N	N/A within MSA
41.16		MSA	2PS328947, 1TP250233, 218349043	Deletion	N	N/A within MSA
42.13		MSA	2TP394032, 1TP250233, 2PS328947, 1PS328946, 218349043	Deletion	N	N/A within MSA
50.79		MSA	2LP130336, 1TP710356,	Addition	N	N/A within MSA

3. Changes to vegetation impacts

Amendments to the alignment since the previous submission have resulted in minor changes to impacted areas of native vegetation, FFG Act communities and listed EPBC communities. Minor changes in offsets are also expected including scattered and canopy trees. The largest change is an increase of 0.16 ha of Plains Grassy Woodland (EVC 55) due to Revision 10 alignment changes.

A Summary of changes as a result of the Rev 10 Alignment is presented in Table 2. The final column indicates the overall change. Appendix A, Figure 1 shows Project Area changes since the EES reported areas. Mapping of newly added areas is shown in Appendix A ,Figure 4 Native vegetation mapped within the Project Area.

Flora Species

The alignment amendments presented in Table 1 are not expected to result in impacts to any new flora species additional to those previously been described in the technical report, including any threatened or protected species, or significant weed species.

FFG Vegetation Communities

The alignment changes will result in minor adjustments to the area of impacted FFG communities. The area of Western (Basalt) Plains Grasslands Community impacted will decrease by 1.36 ha and the area of Western Basalt Plains (River Red Gum) Grassy Woodland community impacted will increase by 1.1 ha. The overall change in the area of FFG community impacted is a decrease in 0.26 ha of area impacted.

EPBC Communities

As a result of the changes described in this technical note, the area of Natural Temperate Grasslands of the Victorian Volcanic Plains (NTGVVP) impacted will increase by 0.02 ha. The area of Grassy Eucalypt Woodland of the Victorian (GEWVVP) impacted will decrease by 0.01ha. The total EPBC Community accounted for as a result of these changes (taking into account the impact of fragmented patches – which has decreased due to the current revision) has resulted in a decrease of 0.02 ha overall.

Scattered and Canopy trees.

Due to the proposed Rev 10 Alignment changes, fewer trees have been impacted, with a reduction of three large scattered trees, one large canopy tree and one small scattered tree.

Table 2 Vegetation calculation change

Community	Bioregion	Inside MSA (Timestamped Data)		Inside MSA (Field mapped Data)		Outside MSA Field Mapped Data		Total Field Mapped Data (ha)		change Ha +/-
		EES	R.10	EES	R.10	EES	R.10	EES	R.10	
<i>EVCs impacted (ha)</i>										
Plains Grassland (EVC 132)	VVP	1.89	1.71	1.38	1.38	8.73	7.62	10.11	10.15	+ 0.04
Plains Grassland (EVC 132)	CVU	0.00	0	0.00	0	0.25	0.25	0.25	0.25	0
Plains Grassy Woodland (EVC 55)	VVP	2.47	2.49	0.32	.32	4.30	5.4	4.62	5.72	+1.1
Plains Grassy Woodland (EVC 55)	CVU	n/a	n/a	n/a	n/a	n/a	0.16	n/a	0.16	+0.16
Aquatic Herbland (EVC 653)	VVP	0.00	0	0.00	0	0.06	0.06	0.06	0.06	0
Riparian Woodland (EVC 641)	VVP	0.01	.01	0.08	.08	0.05	0.05	0.13	0.13	0
Stony Knoll Shrubland (EVC 649)	VVP	1.37	1.37	0.14	0.14	0.00	0	0.14	0.14	0
Creekline Tussock Grassland (EVC 654)	VVP	0.03	.02	0.00	0	0.00	0	0.00	0	0
Plains Grassy Wetland (EVC 125)	VVP	0.17	.17	0.00	0	0.00	0	0.00	0	0
Total EVC's		5.94	5.77	1.92	1.92	6.04	13.54	15.31	16.61	+ 1.3 ha

<i>FFG community impacted (ha)</i>										
Western (Basalt) Plains Grasslands Community	VVP	1.89	1.71	1.38	1.38	8.98	7.62	10.36	9	-1.36
Western Basalt Plains (River Red Gum) Grassy Woodland	VVP	2.47	2.47	0.32	0.32	4.30	5.4	4.62	5.72	1.1
Total		4.36	4.18	1.71	1.71	13.28	13.02	14.98	14.72	-.026
<i>EPBC Community Impacted (ha)</i>										
NTGVVP				0.73	0.72	3.43	3.46	4.16	4.18	+ 0.02
GEWVVP				0.06	.05	2.20	2.2	2.26	2.25	-0.01
NTGVVP Fragmented patches			x	0.02	.02	0.28	0.26	0.30	0.28	- 0.02
GEWVVP Fragmented patches			x	0.00	0	0.04	0.04	0.04	0.04	0
Total EPBC community (removal)			x	0.79	0.77	5.63	5.66	6.42	6.43	+ 0.01
Total fragmented patches			x	0.02	0.01	0.32	0.30	0.34	.31	- 0.03
Total EPBC Community accounted for			x	0.81	0.78	5.95	5.96	6.76	6.74	- 0.02
<i>Native Trees impacted (trees)</i>										
Small scattered trees				6	6	10	9	16 trees	15 trees	- 1
Large Scattered trees				6	6	10	7	16 trees	13 trees	-3
Large Canopy trees				3	2	9	9	12 trees	11 trees	-1
<i>NVR report - offsets</i>										
Extent of proposed removal				0.013 ha	0.134	14.775 ha	15.652 ha	14.789	15.787	+ .998
Large trees to be removed				0	2 trees	19 trees	16	19 trees	18 trees	- 1 trees
Offset amount				0.006 GHU	.006	5.521 GHU	5.499	5.527 GHU	5.559 GHU	+ 0.032

4. Implications of Rev 10 Alignment – fauna values

The alignment amendments are not expected to result in impacts to fauna species that are not already considered within Technical Report A Biodiversity and Habitats. The impacts of the amendments are expected to be limited to minor changes in the extent of habitat considered to support The Striped Legless Lizard (*Delma impar*) and Golden Sun Moth (*Synemon plana*) and do not affect the opinions expressed in Technical Report A Biodiversity and Habitats.

4.1 Striped Legless Lizard (*Delma impar*)

The total expected change to the extent of the Project Area that is considered habitat for the Striped Legless Lizard is an increase of 0.58 ha (Table 3).

Table 3 Extent of change to Striped Legless Lizard habitat outside the MSA area

Species' habitat presence/absence	Striped Legless Lizard surveys	Extent of Project Area (ha) (Rev 7)	Extent of Project Area (ha) (Rev 10)	Extent of change
Habitat Present (habitat where species detected)	15 surveys completed – species detected (12LP92520)	0.49	0.49	0.00
Habitat Assumed (potential habitat where species assumed to be present)	Parcel adjacent confirmed habitat (11LP92520)	0.18	0.17	-0.01
	No access to assess habitat (4LP126752)	1.0	1.07	0.07
	15 surveys completed – species not detected	14.73	14.62	-0.11
	10 surveys completed – species not detected	2.17	2.12	-0.05
	Habitat present – not surveyed	20.74	21.45	0.71
Total area considered habitat		39.34	39.92	0.58
Habitat Absent (no suitable habitat)	No surveys	50.39	49.54	-0.85
Total area not considered habitat		50.39	49.54	-0.85
Total Project Area outside MSA		89.73	91.86	2.13

*Note the sum of habitat present/absence categories does not exactly equal the total Project Area outside the MSA due to minor parcel overlap of 0.04 ha.

4.2 Golden Sun Moth (*Synemon plana*)

The total expected change to the extent of the Project Area that is considered habitat for the Golden Sun Moth is a reduction of 0.34 ha (Table 4).

Table 4 Extent of change to known and assumed Golden Sun Moth habitat outside the MSA area

Species/habitat presence/absence	Golden Sun Moth surveys	Extent of Project Area (ha) (Rev 7)	Extent of Project Area (ha) (Rev 10)	Extent of change
Known habitat – species present	Surveys completed – species detected	11.05	10.72	-0.33
	Surveys incomplete – species detected	0.80	0.80	0.00
Potential habitat – species assumed present	Surveys incomplete – species not detected	8.08	8.08	0.00
Total area considered habitat		19.93	19.59	-0.34
Potential habitat	Surveys completed – species not detected	56.53	56.52	-0.01

No suitable habitat	No surveys	13.13	13.34	0.21
Total area not considered habitat		69.66	69.86	-0.20

4.3 Growing Grass Frog (*Litoria raniformis*)

The proposed Rev 10 Alignment changes are not expected to result in a change to impacts to Growling Grass Frog outlined within Technical Report A Biodiversity and Habitats.

5. Implications of Rev 10 Alignment – Aquatic values

The proposed Rev 10 Alignment changes are not expected to result in a change to impacts to aquatic values outlined within Technical Report A Biodiversity and Habitats.

6. Implications of Rev 10 Alignment – Melbourne Strategic Assessment Area

The total expected changes to the extent of the Project Area that is subject to Melbourne Strategic Assessment (Environment Mitigation Levy) Act 2020 is detailed within Table 4. Note that these figures do not include the extent of the Project Area within Conservation Areas or the Outer Metropolitan Ring Road which are not subject to the Environment Mitigation Levy. The Projects leviable extent is now 2.93 ha; an increase of 2.92 ha from the previously assessed 0.01 ha of Golden Sun Moth levy type only.

Table 5 Melbourne Strategic Assessment Area

Levy type	Extent of levy type within Project Area (ha) (Rev 10)	Extent of change of levy type within Project (ha)	Levy triggers			
			Extent of levy type within Project Area that is Crown land (ha) (Rev 10)	Extent of change of levy type within Crown land (ha)	Extent of levy type within Project Area subject to subdivision (ha) (Rev 10)	Extent of change of levy type subject to subdivision (ha)
Golden Sun Moth	36.96	-11.61	0.00	0.00	1.83	1.82
Growling Grass Frog	6.97	-1.77	0.00	0.00	1.10	1.10
Native vegetation area and Matted Flax-lily habitat area	3.99	2.92	0.00	0.00	0.00	0.00
Native vegetation area and Spiny Rice-flower habitat area	0.91	-3.15	0.00	0.00	0.00	0.00
None applicable	1.79	-0.06	0.00	0.00	0.00	0.00
Total	50.61	-13.67	0.00	0.00	2.93	2.92

7. Implications of Rev 10 Alignment – Melbourne Strategic Assessment conservation areas

No changes to the Project Area were made within MSA Conservation Areas, however 0.13 ha of native vegetation and 2 large trees within the conservation areas were previously omitted from offset totals (see Figure 9). These impacts have been amended and included with this revision and are now included in vegetation removal totals and in the offset strategy.

8. Conclusion

The amendments to the Project Area under the Revision 10 Alignment include reductions, additions and realignments to the Project Area. These changes have resulted in minor additions and reductions to ecological impacts as described above.

Compared to the results presented in the EES Technical Report A *Biodiversity and Habitats* (Technical Report A) the following changes are noted:

- The area of native vegetation impacted has increased by 1.3 ha.
- The area of FFG community impacted has decreased by 0.26 ha
- The area of EPBC Community impacted decreased by 0.02
- The area of impacted habitat for the Striped Legless Lizard has increased by 0.58 ha
- The area of impacted habitat for the Golden Sun Moth has decreased by 0.34 ha.