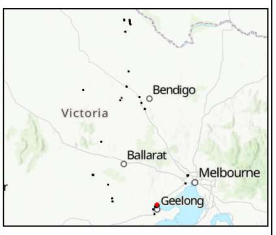
Figure 5-2.12. Swept paths and modelled EVCs

Project No: 24129.09
Project location: Macorna Wind Farm, VIC
Date: 27/07/2026

Swept path
Swept path buffer - 50m



N
Meters
0 20 40 60 80
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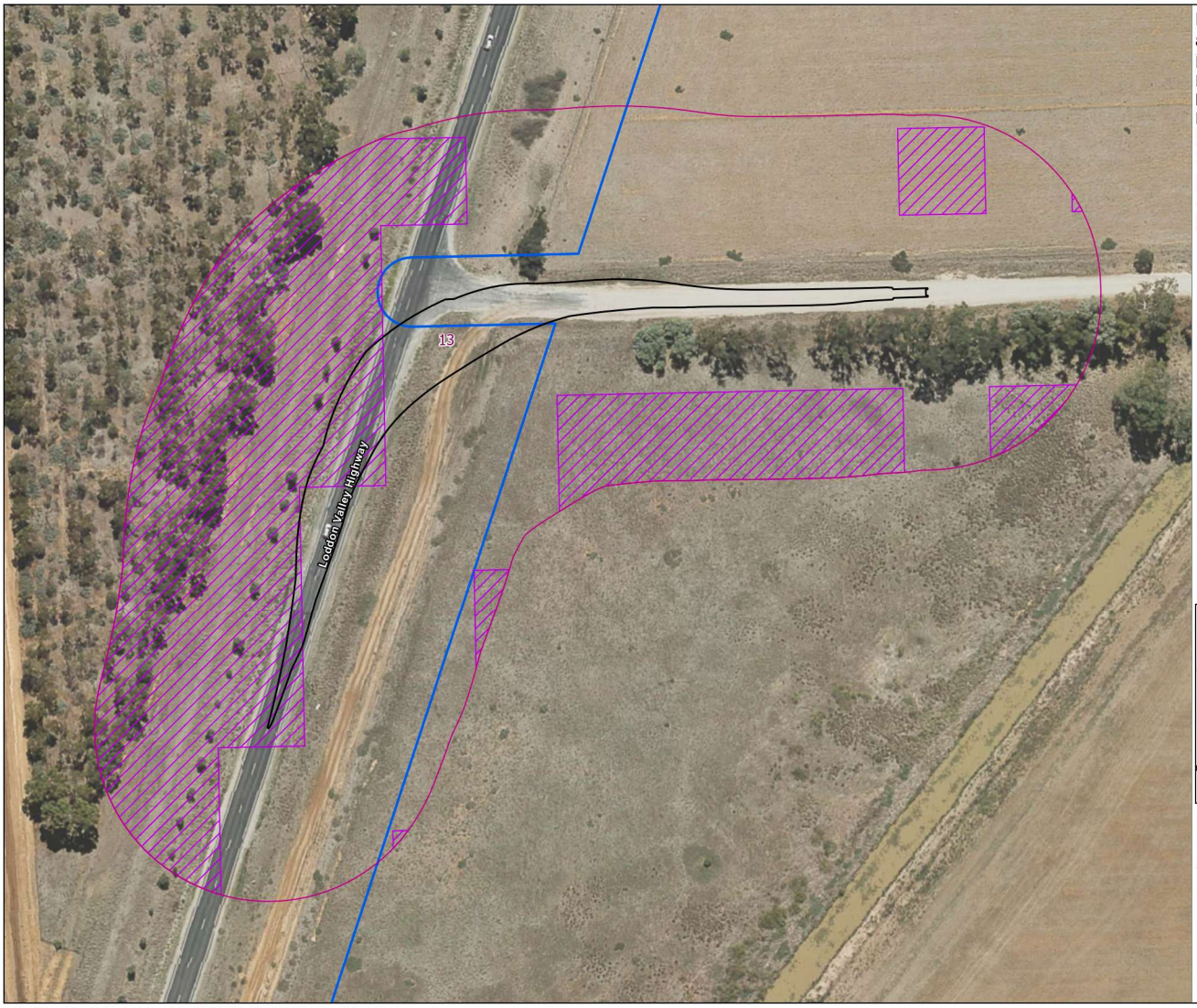


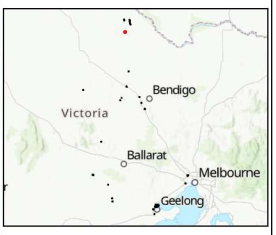
Figure 5-2.13. Swept paths and modelled EVCs

Project No: 24129.09
Project location: Macorna Wind Farm, VIC
Date: 27/07/2026

Project Area
Swept path
Swept path buffer - 50m

DEECA Modelled EVC

Chenopod Grassland



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Meters
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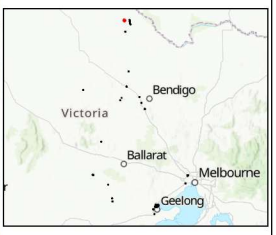
Figure 5-2.14. Swept paths and modelled EVCs

Project No: 24129.09
Project location: Macorna Wind Farm, VIC
Date: 27/07/2026

Swept path
Swept path buffer - 50m

DEECA Modelled EVC

Chenopod Grassland



N

Meters
0 20 40

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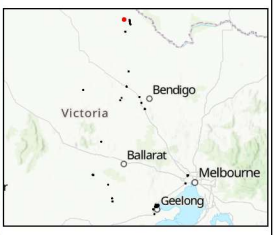
Figure 5-2.15. Swept paths and modelled EVCs

Project No: 24129.09
Project location: Macorna Wind Farm, VIC
Date: 27/07/2026

Swept path
Swept path buffer - 50m

DEECA Modelled EVC

Chenopod Grassland



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Meters
0 20 40

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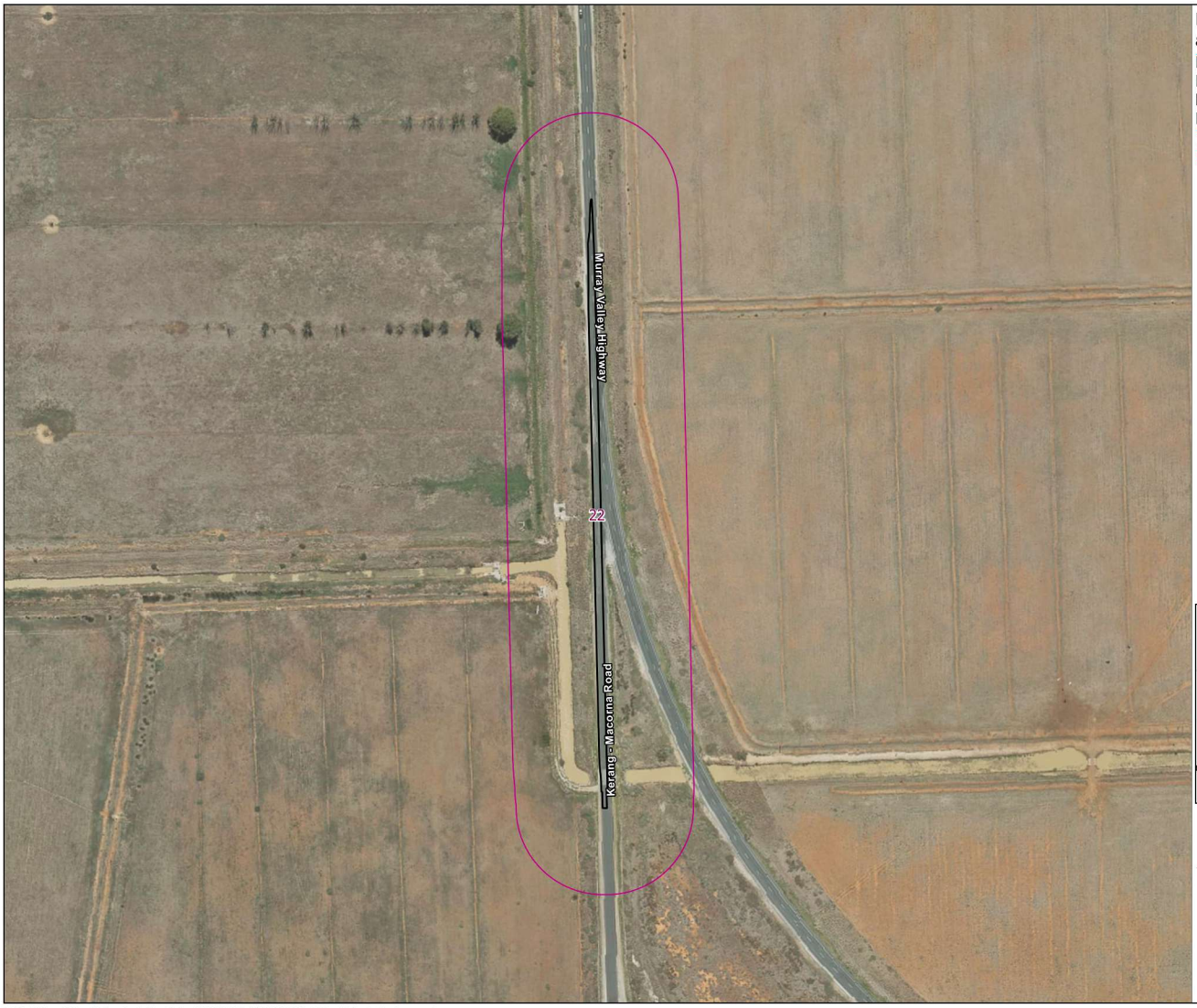
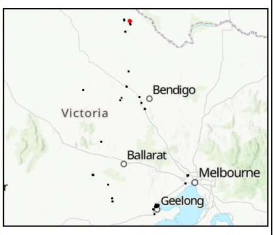


Figure 5-2.16. Swept paths and modelled EVCs

Project No: 24129.09
Project location: Macorna Wind Farm, VIC
Date: 27/07/2026

Swept path
Swept path buffer - 50m



N
Meters
0 20 40 60 80 100

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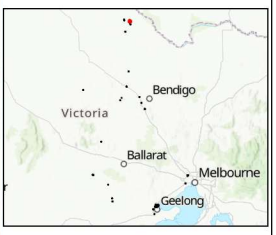
Figure 5-2.17. Swept paths and modelled EVCs

Project No: 24129.09
Project location: Macorna Wind Farm, VIC
Date: 27/07/2026

Project Area
Swept path
Swept path buffer - 50m

DEECA Modelled EVC

Plains Grassland



N

Meters
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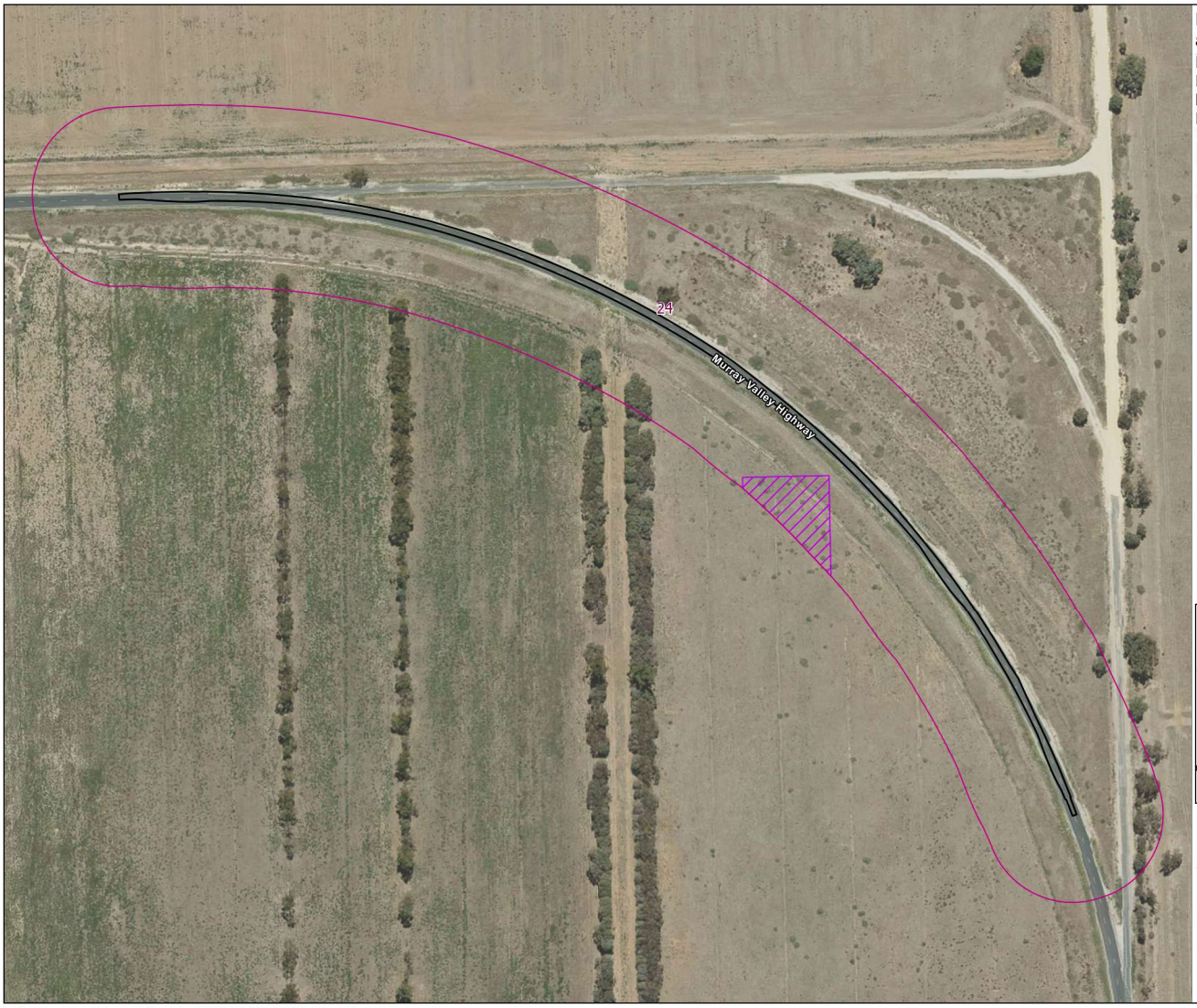


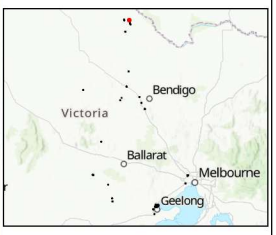
Figure 5-2.18. Swept paths and modelled EVCs

Project No: 24129.09
Project location: Macorna Wind Farm, VIC
Date: 27/07/2026

Swept path
Swept path buffer - 50m

DEECA Modelled EVC

Chenopod Grassland



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Meters
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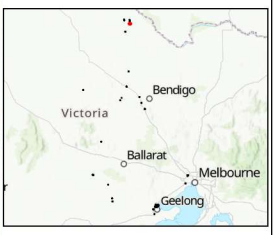
Figure 5-2.19. Swept paths and modelled EVCs

Project No: 24129.09
Project location: Macorna Wind Farm, VIC
Date: 27/07/2026

Project Area
Construction footprint - Rev03
Swept path
Swept path buffer - 50m

DEECA Modelled EVC

Lignum Swamp



N

Meters
0 20 40 60 80

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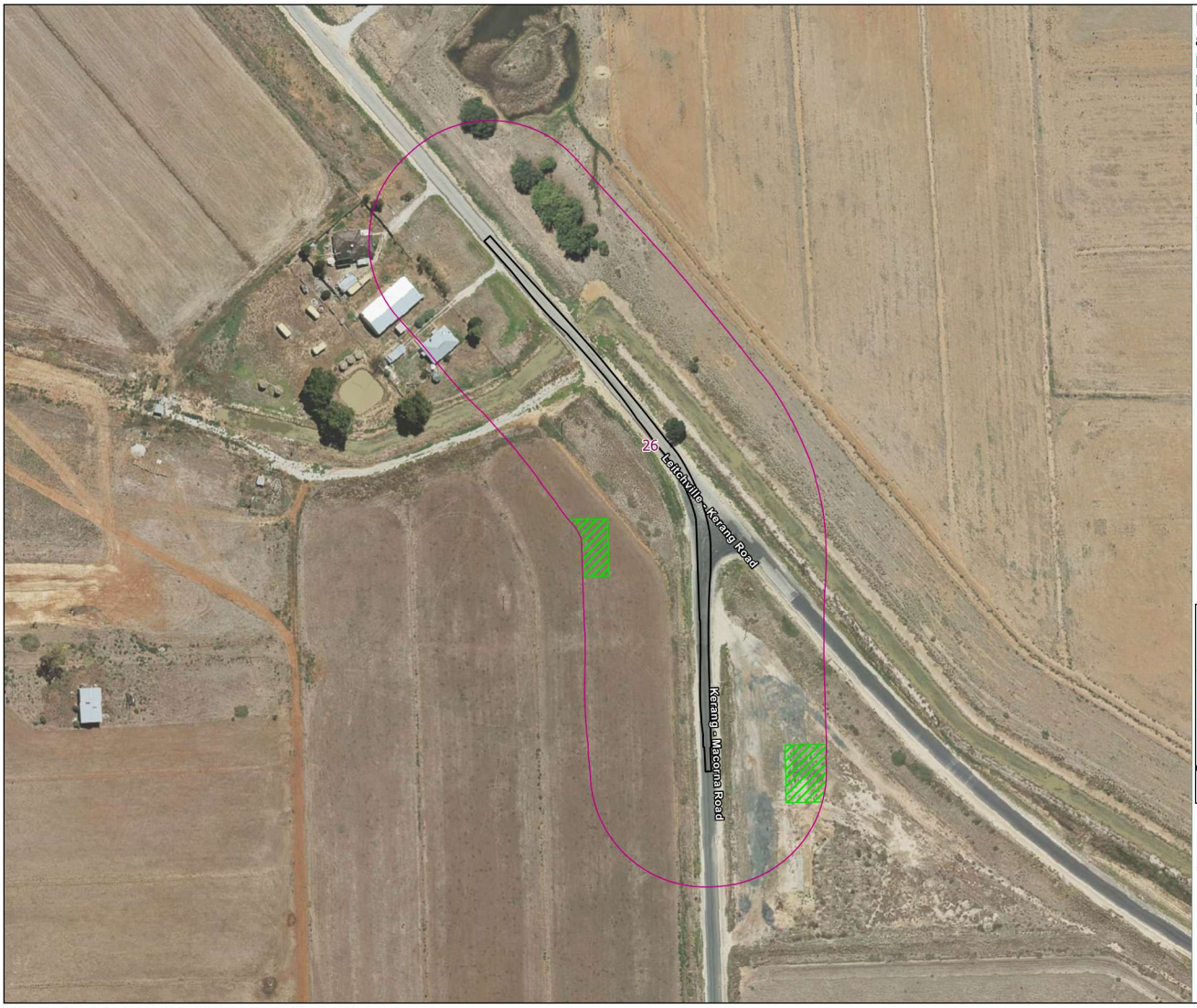


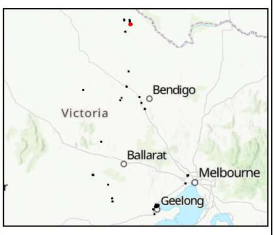
Figure 5-2.20. Swept paths and modelled EVCs

Project No: 24129.09
Project location: Macorna Wind Farm, VIC
Date: 27/07/2026

Project Area
Swept path
Swept path buffer - 50m

DEECA Modelled EVC

Plains Grassland



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Meters
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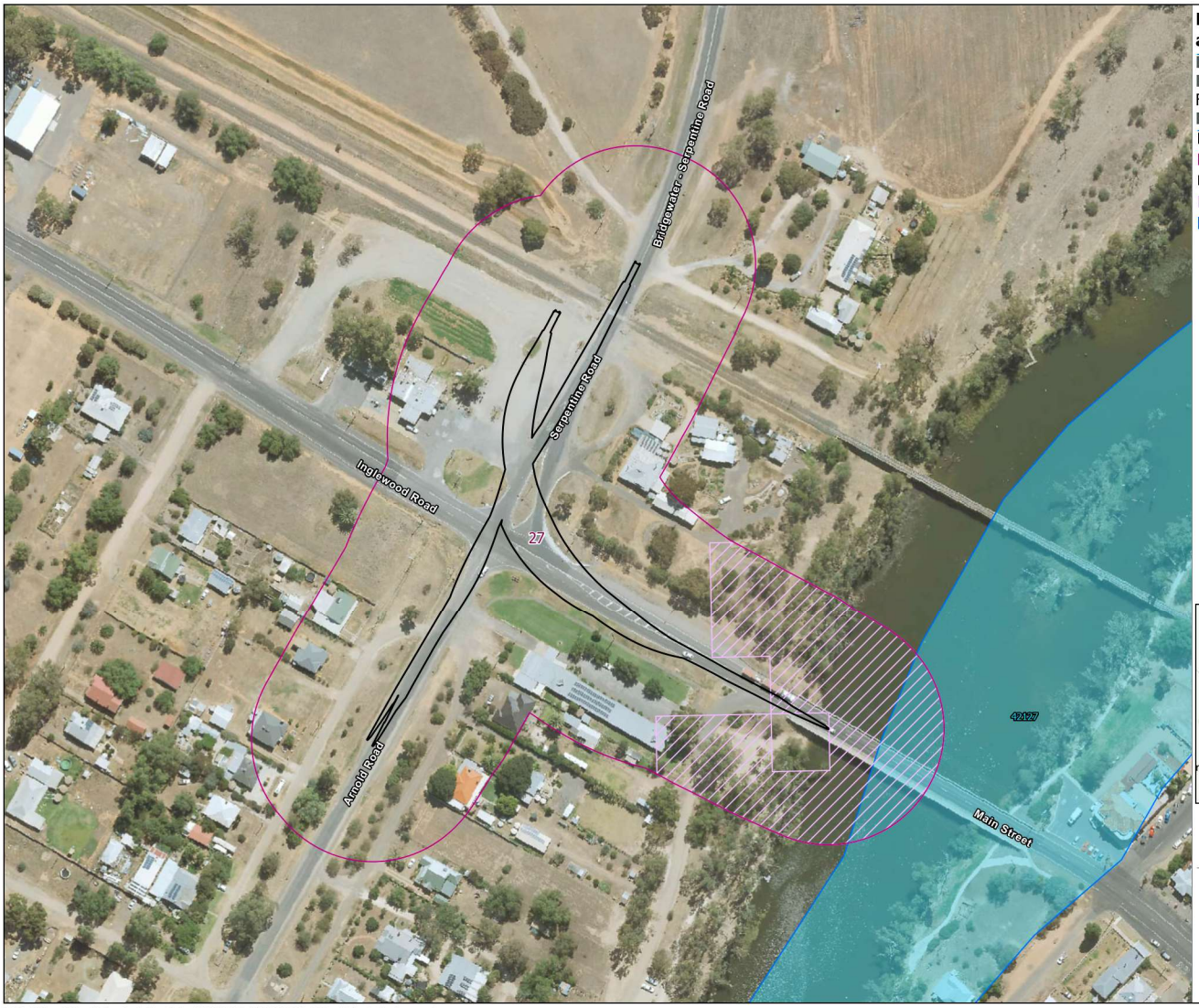


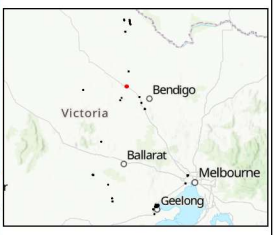
Figure 5-2.21. Swept paths and modelled EVCs

Project No: 24129.09
Project location: Macorna Wind Farm, VIC
Date: 27/07/2026

Swept path
Swept path buffer - 50m

DEECA Modelled EVC

Floodplain Riparian Woodland
DEECA mapped wetland



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Meters
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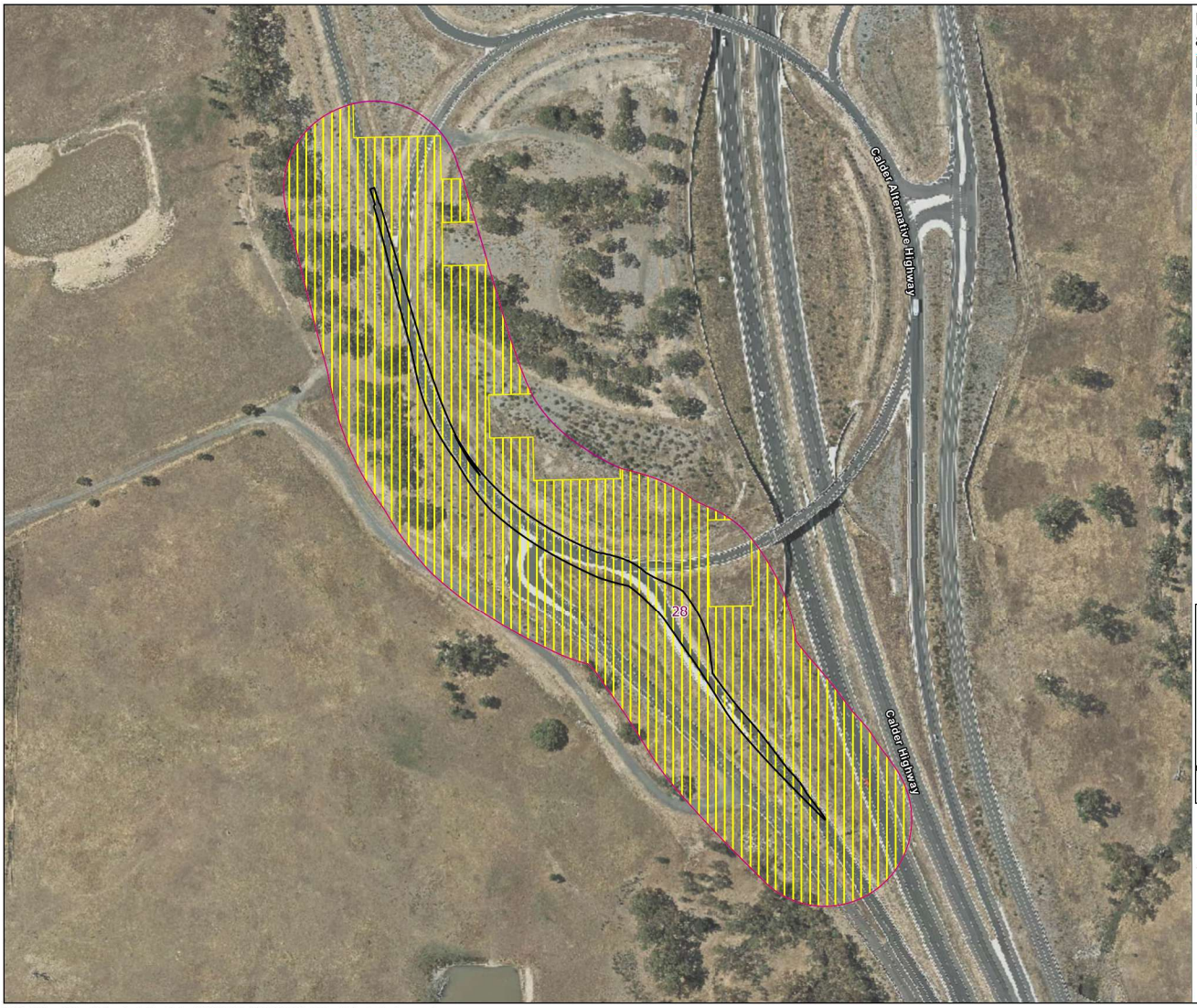


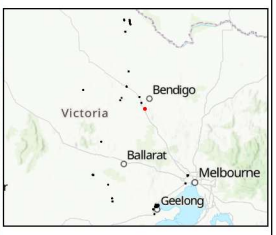
Figure 5-2.22. Swept paths and modelled EVCs

Project No: 24129.09
Project location: Macorna Wind Farm, VIC
Date: 27/07/2026

Swept path
Swept path buffer - 50m

DEECA Modelled EVC

Grassy Woodland



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Meters
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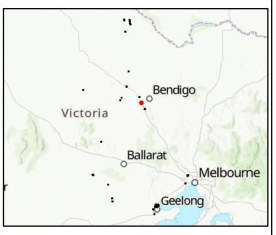
Figure 5-2.23. Swept paths and modelled EVCs

Project No: 24129.09
Project location: Macorna Wind Farm, VIC
Date: 27/07/2026

Swept path
Swept path buffer - 50m

DEECA Modelled EVC

Grassy Woodland
Plains Woodland



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Meters
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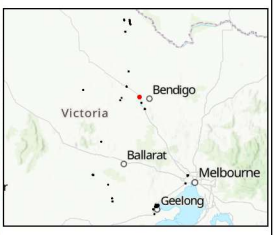
Figure 5-2.24. Swept paths and modelled EVCs

Project No: 24129.09
Project location: Macorna Wind Farm, VIC
Date: 27/07/2026

Swept path
Swept path buffer - 50m

DEECA Modelled EVC

Plains Woodland



N

Meters
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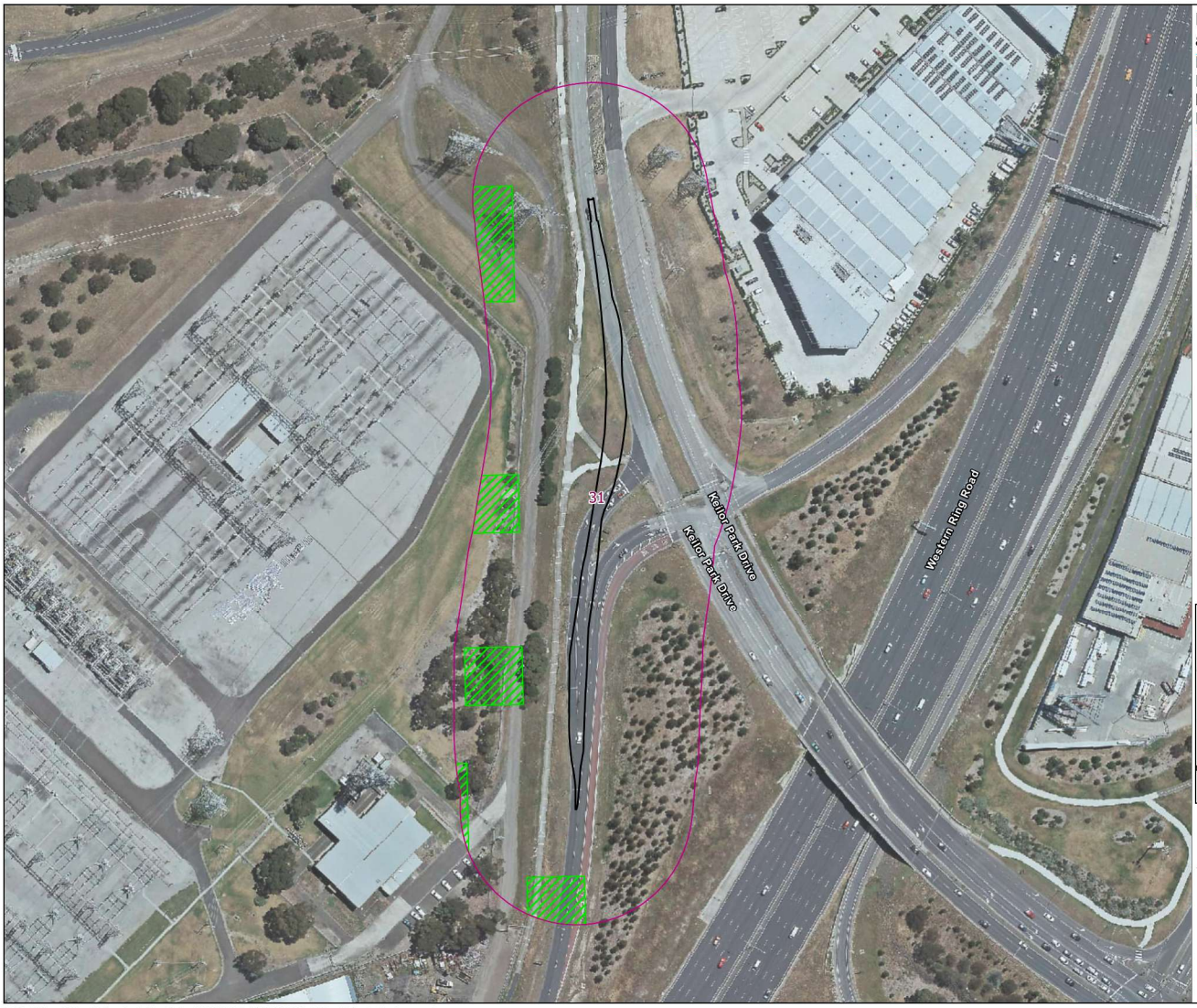


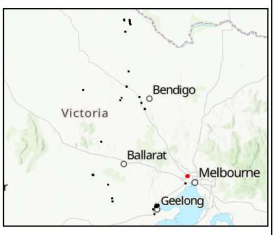
Figure 5-2.25. Swept paths and modelled EVCs

Project No: 24129.09
Project location: Macorna Wind Farm, VIC
Date: 27/07/2026

Swept path
Swept path buffer - 50m

DEECA Modelled EVC

Plains Grassland



N

Meters
0 20 40 60 80

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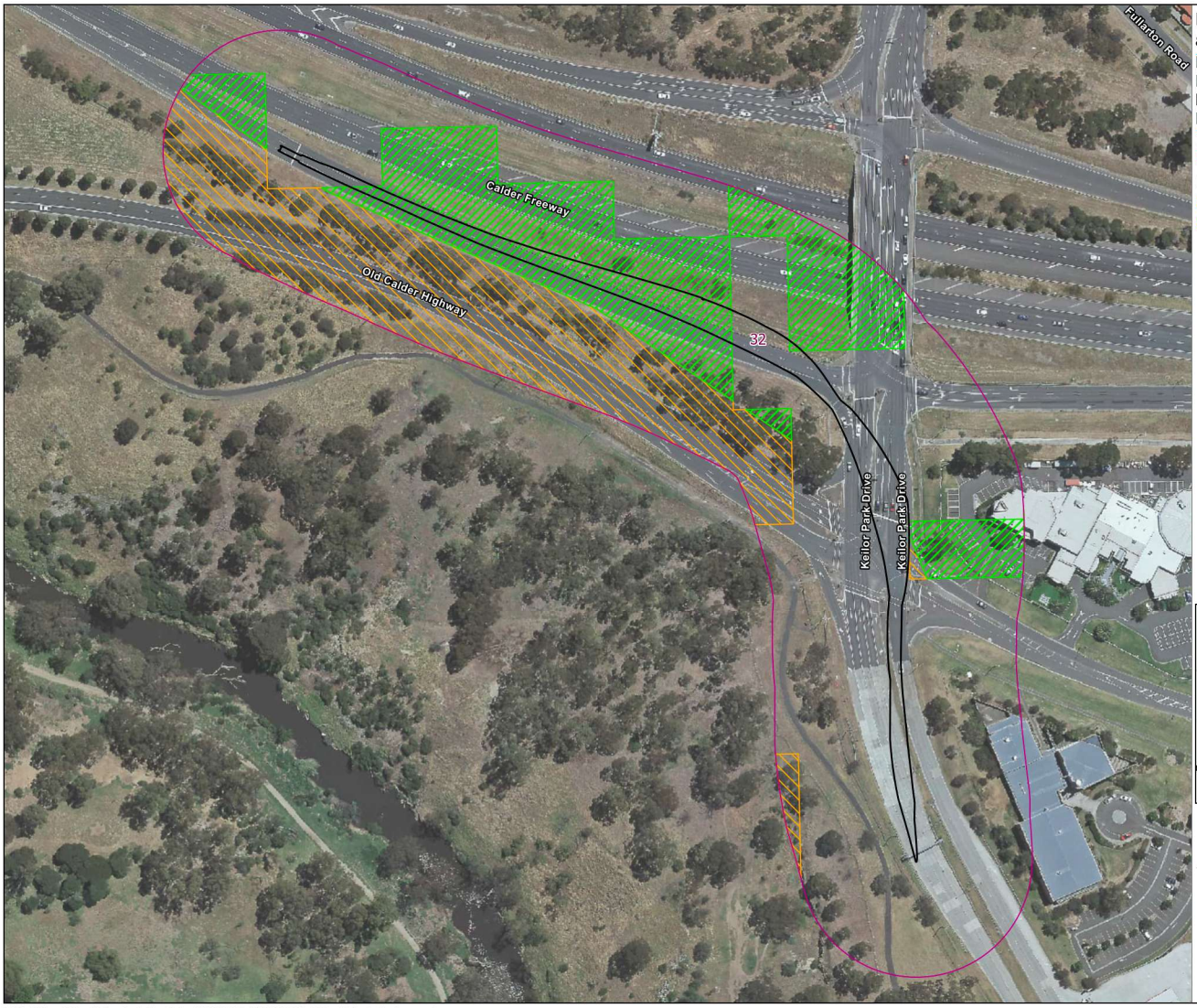


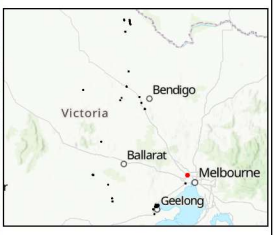
Figure 5-2.26. Swept paths and modelled EVCs

Project No: 24129.09
Project location: Macorna Wind Farm, VIC
Date: 27/07/2026

Swept path
Swept path buffer - 50m

DEECA Modelled EVC

Escarpment Shrubland
Plains Grassland



N
Meters
0 20 40 60 80
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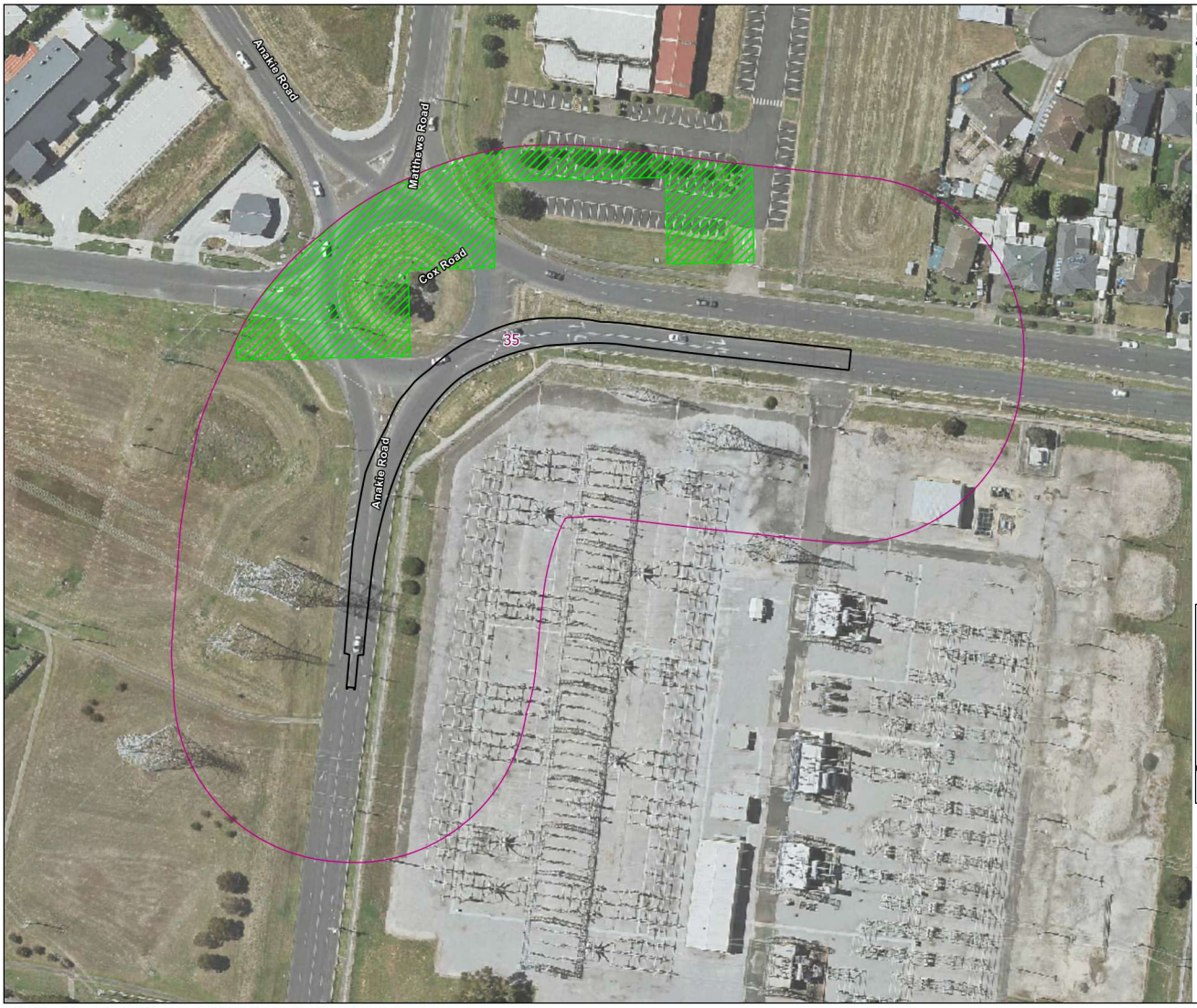


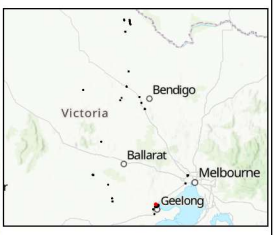
Figure 5-2.28. Swept paths and modelled EVCs

Project No: 24129.09
Project location: Macorna Wind Farm, VIC
Date: 27/07/2026

Swept path
Swept path buffer - 50m

DEECA Modelled EVC

Plains Grassland



N

Meters
0 20 40

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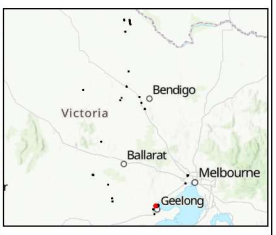
Figure 5-2.29. Swept paths and modelled EVCs

Project No: 24129.09
Project location: Macorna Wind Farm, VIC
Date: 27/07/2026

Swept path
Swept path buffer - 50m



N
Meters
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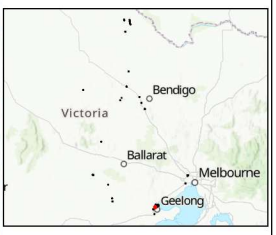
Figure 5-2.30. Swept paths and modelled EVCs

Project No: 24129.09
Project location: Macorna Wind Farm, VIC
Date: 27/07/2026

Swept path
Swept path buffer - 50m



N
Meters
0 20 40
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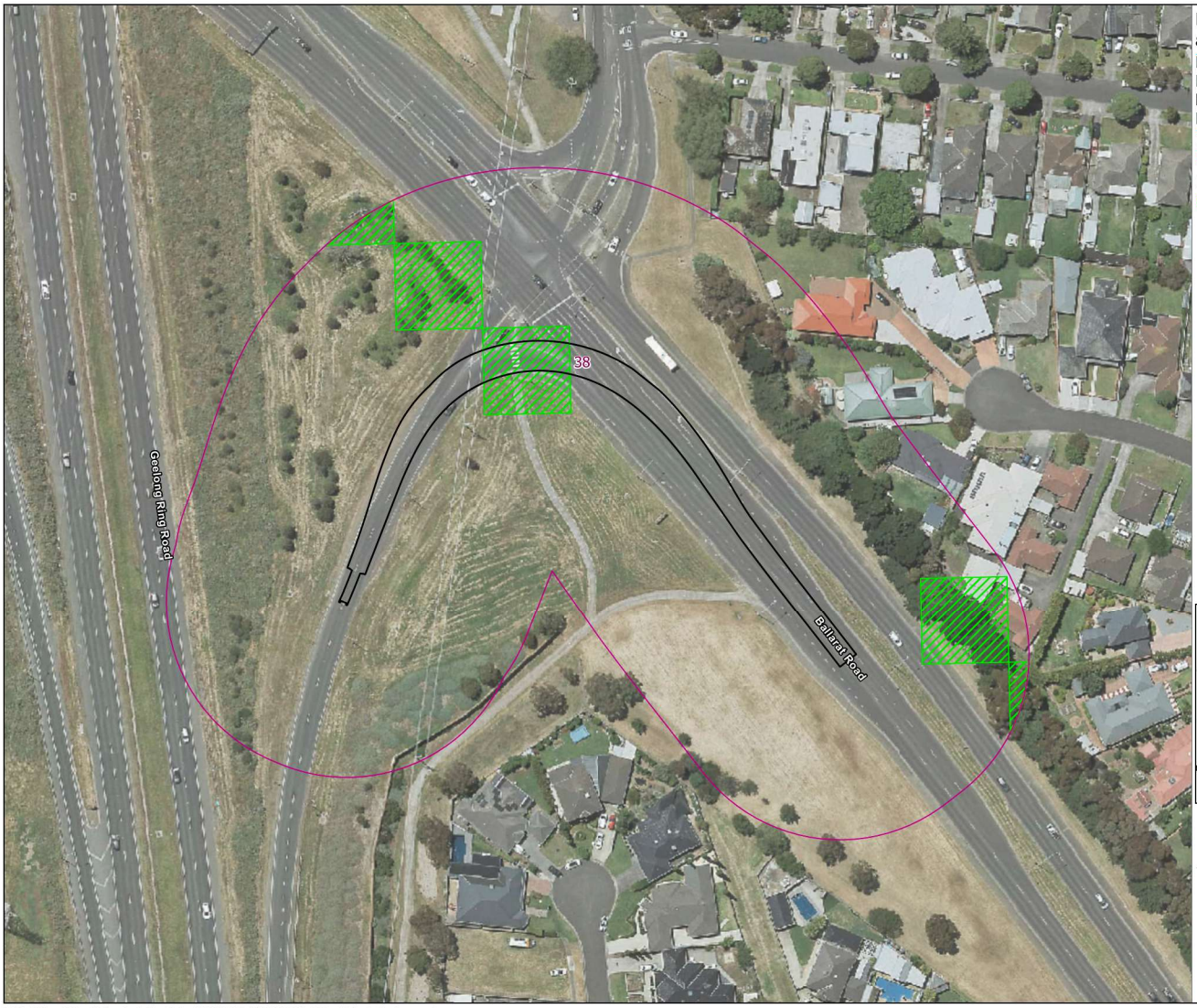


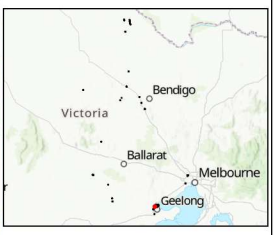
Figure 5-2.31. Swept paths and modelled EVCs

Project No: 24129.09
Project location: Macorna Wind Farm, VIC
Date: 27/07/2026

Swept path
Swept path buffer - 50m

DEECA Modelled EVC

Plains Grassland



N

Meters
0 20 40

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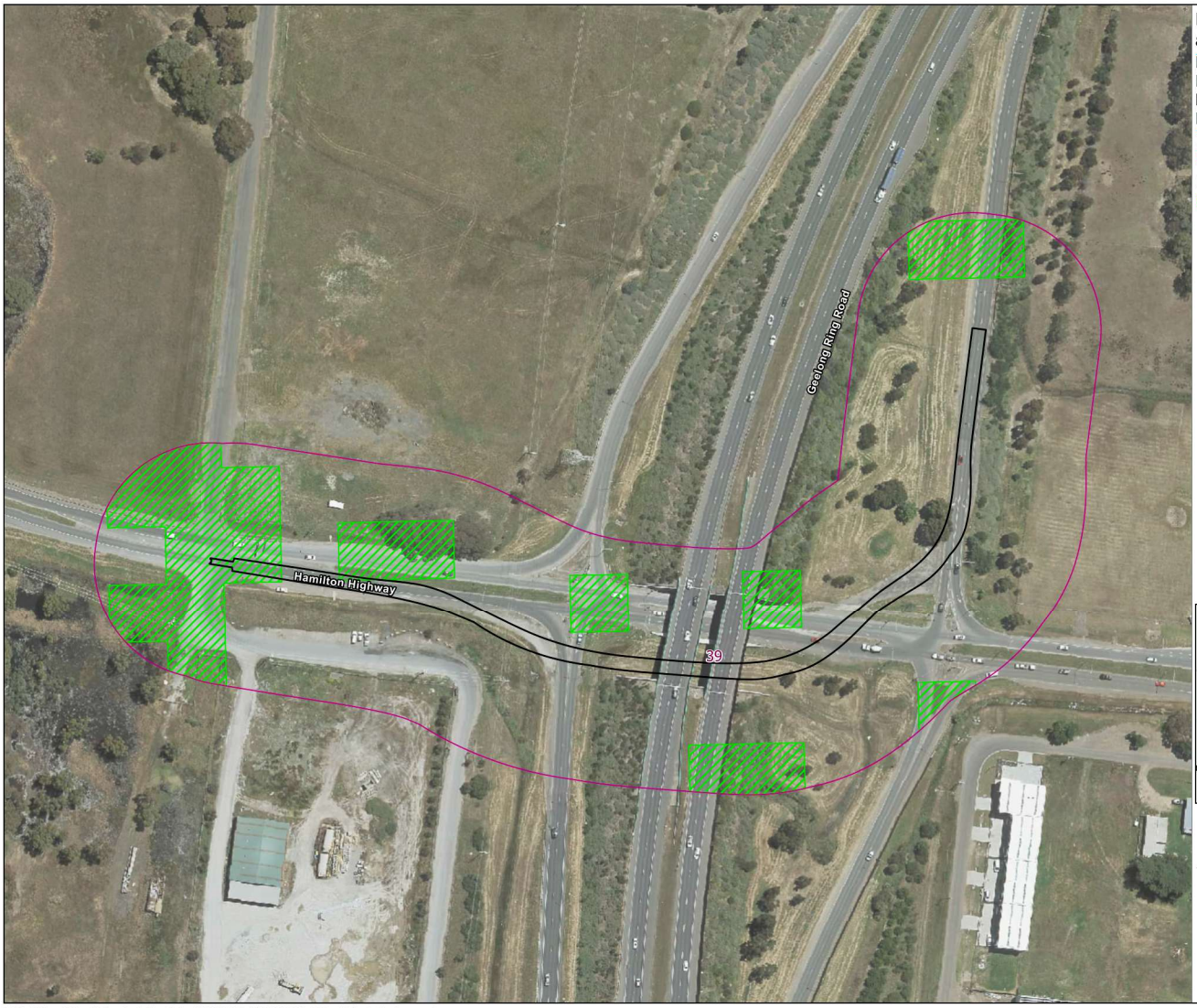


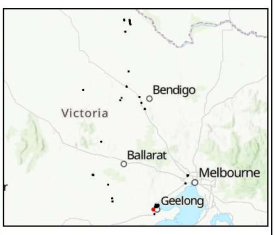
Figure 5-2.32. Swept paths and modelled EVCs

Project No: 24129.09
Project location: Macorna Wind Farm, VIC
Date: 27/07/2026

Swept path
Swept path buffer - 50m

DEECA Modelled EVC

Plains Grassland



N

Meters
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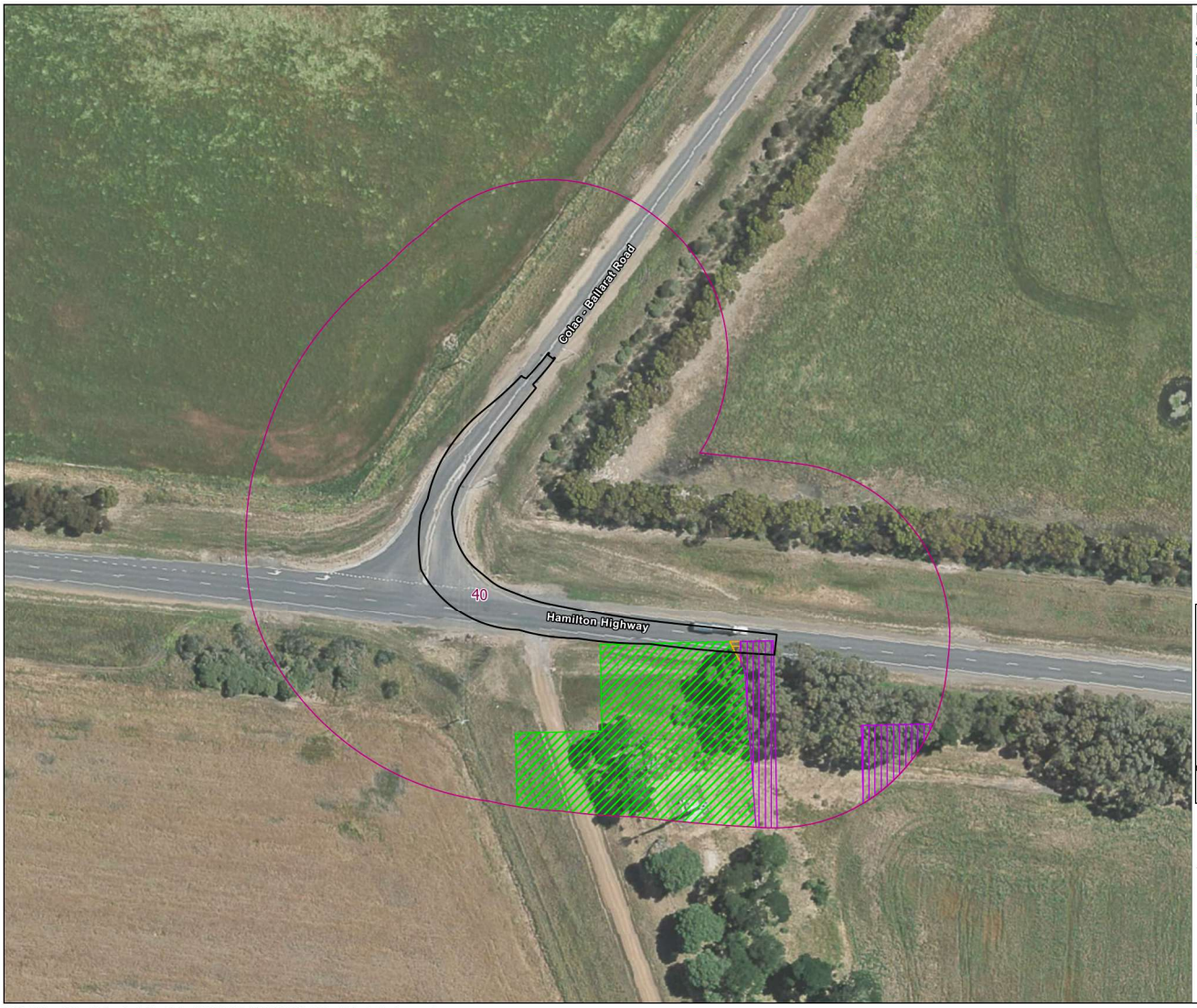


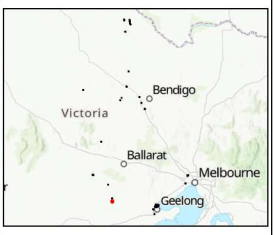
Figure 5-2.33. Swept paths and modelled EVCs

Project No: 24129.09
Project location: Macorna Wind Farm, VIC
Date: 27/07/2026

Swept path
Swept path buffer - 50m

DEECA Modelled EVC

Plains Grassland
Plains Grassland/Plains Grassy Woodland Mosaic
Swamp Scrub



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Meters
0 20 40
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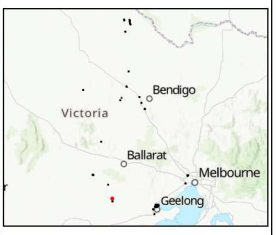
Figure 5-2.34. Swept paths and modelled EVCs

Project No: 24129.09
Project location: Macorna Wind Farm, VIC
Date: 27/07/2026

Swept path
Swept path buffer - 50m

DEECA Modelled EVC

Floodplain Riparian Woodland



N

Meters
0 20 40

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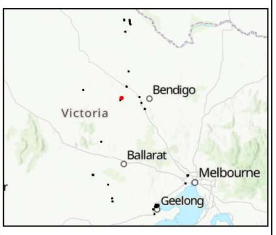
Figure 5-2.35. Swept paths and modelled EVCs

Project No: 24129.09
Project location: Macorna Wind Farm, VIC
Date: 27/07/2026

Swept path
Swept path buffer - 50m

DEECA Modelled EVC

Grassy Woodland



N

Meters
0 20 40

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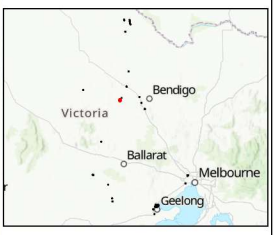
Figure 5-2.36. Swept paths and modelled EVCs

Project No: 24129.09
Project location: Macorna Wind Farm, VIC
Date: 27/07/2026

Swept path
Swept path buffer - 50m

DEECA Modelled EVC

Grassy Woodland



N

Meters
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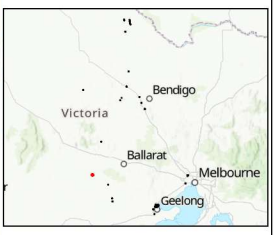
Figure 5-2.37. Swept paths and modelled EVCs

Project No: 24129.09
Project location: Macorna Wind Farm, VIC
Date: 27/07/2026

Swept path
Swept path buffer - 50m



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GDA2020 MGA Zone 55

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Figure 5-2.38. Swept paths and modelled EVCs

Project No: 24129.09
Project location: Macorna Wind Farm, VIC
Date: 27/07/2026

Swept path
Swept path buffer - 50m

DEECA Modelled EVC

Plains Grassland

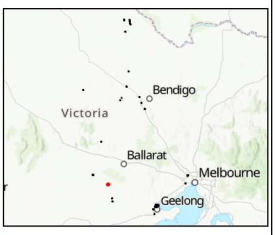

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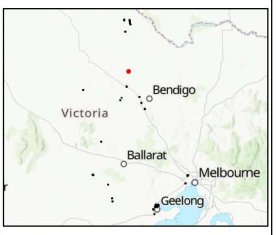
Figure 5-2.39. Swept paths and modelled EVCs

Project No: 24129.09
Project location: Macorna Wind Farm, VIC
Date: 27/07/2026

Swept path
Swept path buffer - 50m

DEECA Modelled EVC

Plains Woodland
DEECA mapped wetland



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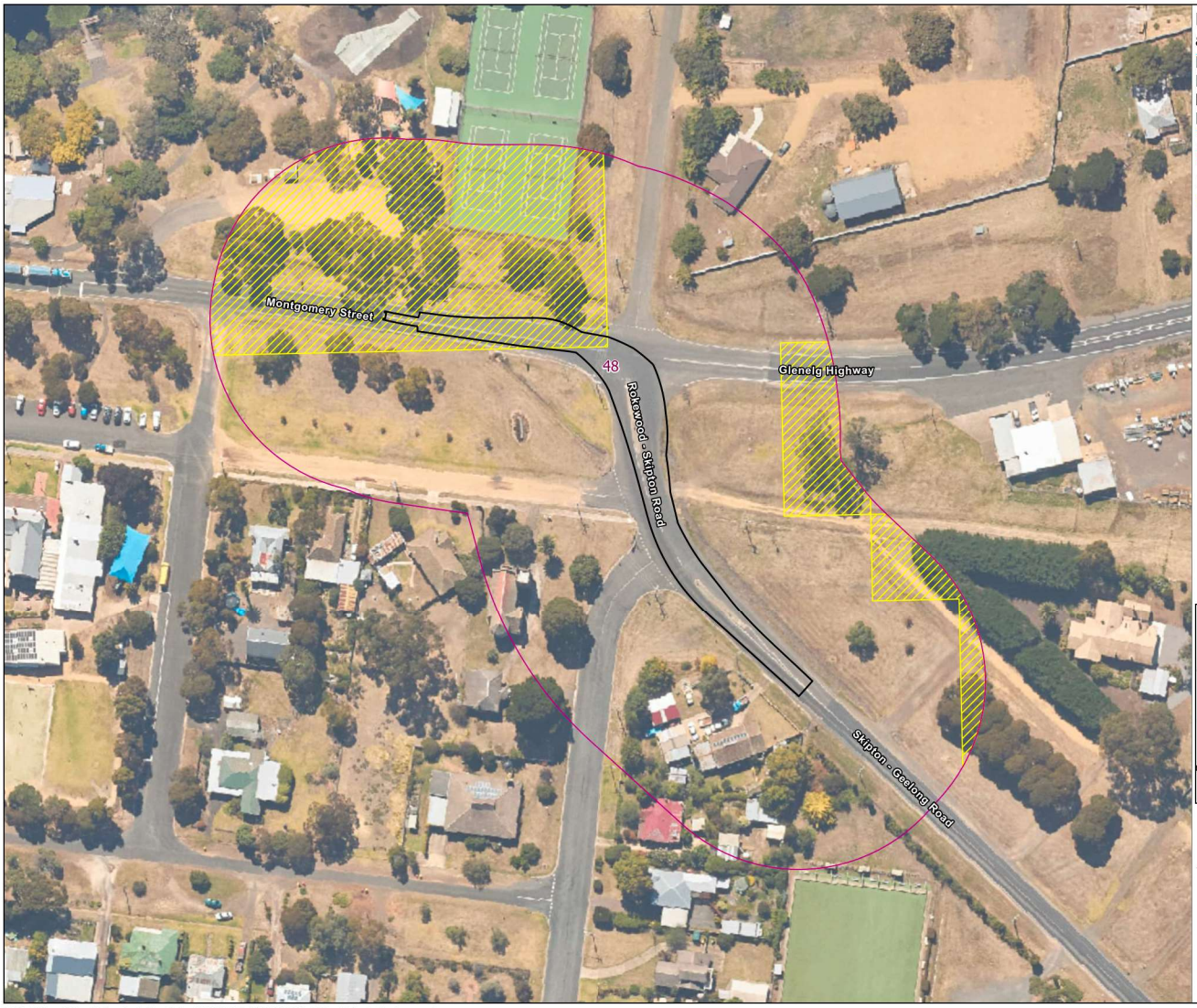

Figure 5-2.40. Swept paths and modelled EVCs

Project No: 24129.09
Project location: Macorna Wind Farm, VIC
Date: 27/07/2026

Swept path
Swept path buffer - 50m

DEECA Modelled EVC

Plains Grassy Woodland

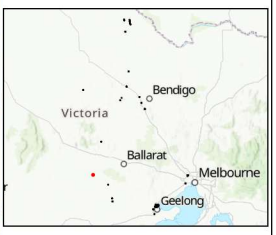

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Figure 5-2.41. Swept paths and modelled EVCs

Project No: 24129.09
Project location: Macorna Wind Farm, VIC
Date: 27/07/2026

Swept path
Swept path buffer - 50m

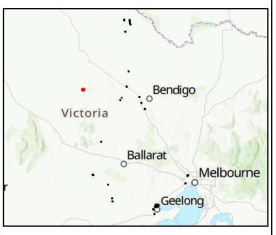

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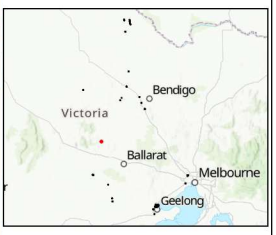
Figure 5-2.42. Swept paths and modelled EVCs

Project No: 24129.09
Project location: Macorna Wind Farm, VIC
Date: 27/07/2026

Swept path
Swept path buffer - 50m



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Meters
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5.3. Flora species

5.3.1. Species recorded

During the field assessments, 106 plant species were recorded, of which 58 (55 %) were indigenous, and 48 (45 %) were introduced or non-indigenous native in origin (Appendix 3).

5.3.2. Listed threatened species

The following threatened flora species were recorded during the field survey:

- Spiny Lignum (*Duma horrida*) (FFG Act: Critically Endangered)

The VBA (DEECA 2026e) and Commonwealth EPBC PMST (DCCEEW 2026b) contained records or modelled habitat within the search region of 13 threatened flora species listed under the EPBC Act. 12 of these are also listed as threatened under the FFG Act. The VBA (DEECA 2026e) contains records of a further 59 species listed only under the FFG Act. Nine additional FFG Act-listed species occurred in previous searches conducted by Ecology and Heritage Partners (EHP), but not in those of Nature Advisory on the same databases. For completeness, these nine species have been considered in the likelihood of occurrence at Appendix 4.

One additional FFG Act-listed species (Annual Buttons) has habitat modelled across the study area by DEECA. These have been considered in our likelihood of occurrence analysis for completeness, bringing the number of FFG Act-only listed species to 69. The likelihood of occurrence of species listed under the EPBC Act and FFG Act in the study area is addressed in Appendix 4.

The likelihood of occurrence analysis indicated that the following 50 listed flora species have the potential to occur in the Project Area (Table 5-5). The broad habitat types and corresponding EVCs in which they could occur are included in Table 5-5. We note that where impacts to DEECA-mapped wetlands occur, these are not related to the native vegetation habitat types, rather occur in paddock vegetation that may become inundated. As such, the 20 species that occur within swamps, watercourses, and waterbodies are not expected to be impacted.

Targeted surveys for the remaining 30 threatened flora species with potential to occur within the Development Footprint (highlighted in grey in Table 5-5) will be undertaken according to the timing shown in Table 5-2.

Table 5-5: Listed Flora species that are likely, or have the potential, to occur within the study area.

Common Name	Scientific name	EPBC	FFG	Habitat preference
Dwarf Amaranth	*Amaranthus macrocarpus var. macrocarpus*	-	Endangered	Grassland (EVCs 829, 132)
Jerry-jerry	*Ammannia multiflora*	-	Endangered	Swamps, watercourses and man-made waterbodies (EVCs 823, 104)
River Swamp Wallaby-grass	*Amphibromus fluitans*	Vulnerable	-	Swamps, watercourses and man-made waterbodies (EVCs 823, 104)
Twin-leaf Bedstraw	*Asperula gemella*	-	Endangered	Periodically inundated areas, riparian areas (EVCs 103, 823, 104)
Wimmera Woodruff	*Asperula wimmerana*	-	Endangered	Grasslands or Woodlands (EVCs 829, 132, 103, 823)

Common Name	Scientific name	EPBC	FFG	Habitat preference
Mallee Cucumber	*Austrobryonia micrantha*	-	Endangered	Swamps, watercourses and man-made waterbodies (EVCs 823, 104)
Small Water-fire	*Bergia trimera*	-	Endangered	Swamps, watercourses and man-made waterbodies (EVCs 823, 104)
Yellow-tongue Daisy	*Brachyscome chrysoglossa*	-	Endangered	Grassland (EVCs 829, 132)
Winged Water-starwort	*Callitriche umbonata*	-	Endangered	Swamps, watercourses and man-made waterbodies (EVCs 823, 104)
Riverina Bitter-cress	*Cardamine moirensis*	-	Endangered	Swamps, watercourses and man-made waterbodies (EVCs 823, 104)
Lagoon Sneezeweed	*Centipeda crateriformis subsp. crateriformis*	-	Endangered	Swamps, watercourses and man-made waterbodies (EVCs 823, 104)
Cotton Sneezeweed	*Centipeda nidiformis*	-	Endangered	Swamps, watercourses and man-made waterbodies (EVCs 823, 104)
Hoary Scurf-pea	*Cullen cinereum*	-	Endangered	All habitats (EVCs 829, 132, 103, 104, 823)
Tough Scurf-pea	*Cullen tenax*	-	Endangered	Grassland (EVCs 829, 132)
Slender Water-ribbons	*Cycnogeton dubium*	-	Endangered	Periodically inundated areas, riparian areas (EVCs 103, 823, 104)
Downs Nutgrass	*Cyperus bifax*	-	Critically Endangered	Periodically inundated areas, riparian areas (EVCs 103, 823, 104)
Trim Flat-sedge	*Cyperus concinnus*	-	Critically Endangered	Periodically inundated areas, riparian areas (EVCs 103, 823, 104)
Umbrella Grass	*Digitaria divaricatissima var. divaricatissima*	-	Endangered	Periodically inundated areas, riparian areas (EVCs 103, 823, 104)
Brown Beetle-grass	*Diplachne fusca subsp. fusca*	-	Endangered	Swamps, watercourses and man-made waterbodies (EVCs 823, 104)
Spiny Lignum	*Duma horrida subsp. horrida*	-	Critically Endangered	Swamps, watercourses and man-made waterbodies (EVCs 823, 104)
Small Monkey-flower	*Elacholoma prostrata*	-	Endangered	Swamps, watercourses and man-made waterbodies (EVCs 823, 104)
Flat Spike-sedge	*Eleocharis plana*	-	Critically Endangered	Swamps, watercourses and man-made waterbodies (EVCs 823, 104)
Cane Grass	*Eragrostis australasica*	-	Critically Endangered	Swamps, watercourses and man-made waterbodies (EVCs 823, 104)
Bristly Love-grass	*Eragrostis setifolia*	-	Endangered	Swamps, watercourses and man-made waterbodies (EVCs 823, 104)
Scaly Mantle	*Eriochlamys squamata*	-	Endangered	Woodlands (EVCs 103, 823)

Common Name	Scientific name	EPBC	FFG	Habitat preference
Long Eryngium	*Eryngium paludosum*	-	Endangered	Periodically inundated areas, riparian areas (EVCs 103, 823, 104)
Plains Spurge	*Euphorbia planitiicola*	-	Endangered	All habitats (EVCs 829, 132, 103, 104, 823)
Soft Sunray	*Leucochrysum molle*	-	Endangered	Grassland (EVCs 829, 132)
Annual Buttons	*Leptorhynchos orientalis*	-	Endangered	Grassland (EVCs 829, 132)
Chariot Wheels	*Maireana cheelii*	Vulnerable	Endangered	Grassland (EVCs 829, 132)
Bush Minuria	*Minuria cunninghamii*	-	Vulnerable	All habitats (EVCs 829, 132, 103, 104, 823)
Smooth Minuria	*Minuria integerrima*	-	Vulnerable	Grasslands or Woodlands (EVCs 829, 132, 103, 823)
Ridged Water-milfoil	*Myriophyllum porcatum*	Vulnerable	Critically Endangered	Swamps, watercourses and man-made waterbodies (EVCs 823, 104)
Striped Water-milfoil	*Myriophyllum striatum*	-	Endangered	Swamps, watercourses and man-made waterbodies (EVCs 823, 104)
Wavy Marshwort	*Nymphoides crenata*	-	Endangered	Swamps, watercourses and man-made waterbodies (EVCs 823, 104)
Squat Picris	*Picris squarrosa*	-	Endangered	Woodlands (EVCs 103, 823)
Swamp Buttercup	*Ranunculus undosus*	-	Endangered	All habitats (EVCs 829, 132, 103, 104, 823)
Dwarf Bitter-cress	*Rorippa eustylis*	-	Endangered	Periodically inundated areas, riparian areas (EVCs 103, 823, 104)
Stiff Groundsel	*Senecio behrianus*	Endangered	Critically Endangered	All habitats (EVCs 829, 132, 103, 104, 823)
Branching Groundsel	*Senecio cunninghamii var. cunninghamii*	-	Endangered	All habitats (EVCs 829, 132, 103, 104, 823)
Riverina Groundsel	*Senecio productus subsp. productus*	-	Endangered	Grasslands or Woodlands (EVCs 829, 132, 103, 823)
Twiggy Sida	*Sida intricata*	-	Endangered	All habitats (EVCs 829, 132, 103, 104, 823)
Yakka Grass	*Sporobolus caroli*	-	Endangered	Swamps, watercourses and man-made waterbodies (EVCs 823, 104)
Slender Darling-pea	*Swainsona murrayana*	Vulnerable	Endangered	All habitats (EVCs 829, 132, 103, 104, 823)
Downy Swainson-pea	*Swainsona swainsonioides*	-	Endangered	Woodlands (EVCs 103, 823)
Blackseed Glasswort	*Tecticornia pergranulata subsp. divaricata*	-	Endangered	Swamps, watercourses and man-made waterbodies (EVCs 823, 104)
Sweet Fenugreek	*Trigonella suavissima*	-	Endangered	All habitats (EVCs 829, 132, 103, 104, 823)
Club-hair New Holland Daisy	*Vittadinia condyloides*	-	Endangered	Grasslands or Woodlands (EVCs 829, 132, 103, 823)
Winged New Holland Daisy	*Vittadinia pterochaeta*	-	Endangered	Grasslands or Woodlands (EVCs 829, 132, 103, 823)

Common Name	Scientific name	EPBC	FFG	Habitat preference
Horned Pondweed	*Zannichellia palustris*	-	Critically Endangered	Swamps, watercourses and man-made waterbodies (EVCs 823, 104)

NOTE: Flora species with potential to occur within the Development Footprint are highlighted in grey.

5.3.3. Listed protected species

The following FFG Act-listed generally protected flora species were recorded during the field survey:

- Spiny Lignum (FFG: Critically Endangered)

Targeted surveys would be required to establish counts within the study area. Targeted surveys for other species are planned to begin in October 2026, with several surveys undertaken to target the various flowering periods.

5.4. Threatened ecological communities

EPBC Act-listed communities

The EPBC PMST (DCCEEW 2026b) indicated that six threatened ecological communities listed under the EPBC Act had the potential to occur in the search region (Table 5-6). Their occurrence in the study area has been determined based on the results of site assessment.

Table 5-6: EPBC Act-listed threatened ecological communities and likelihood of occurrence in the study area.

Ecological community	EPBC status	Occurrence in the study area
Buloke Woodlands of the Riverina and Murray-Darling Depression Bioregions	Endangered	The Project Area is within the modelled distribution of this community (DCCEEW 2023a). The vegetation structure of the community is described as woodland in which Buloke is the dominant or co-dominant canopy species (DCCEEW 2023a). Buloke records are scarce in the search region, and no Buloke were recorded within the study area. **Does not occur.**
Grey Box (*Eucalyptus microcarpa*) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia	Endangered	The Grey Box Grassy Woodlands and Derived Native Grasslands of South-eastern Australia ecological community is generally categorised by a woodland to open forest, with a canopy layer of Grey Box (TSSC 2010). A variety of other tree species may be present with Grey Box at some sites. The mid-layer varies, ranging from absent to moderately dense cover. The ground layer comprises graminoids, forbs and chenopods (TSSC 2010). The project site is within the modelled distribution of this community (TSSC 2010). However, there were no areas of Plains Woodland

Ecological community	EPBC status	Occurrence in the study area
		mapped, and no Grey Box were recorded within the study area. **Does not occur.**
Mallee Bird Community of the Murray Darling Depression Bioregion	Endangered	The Mallee Bird Community (MBC) is an assemblage of 20 bird species that rely on mallee habitats. There are several key diagnostics to identify this community (TSSC 2021): ▪ Located within the geographic boundary: ▫ No, the Project Area is within the Riverina IBRA bioregion but not within the listed subregions (Murray Fans, Robinvale Plains or Murray Scroll Belt) ▪ Presence of native vegetation patches that are ≥ 5 ha and dominated by mallee vegetation: ▫ No mallee-specific EVCs are modelled to occur within the Project Area (DEECA 2026a), and none have been recorded during detailed vegetation surveys (see Section 5) ▪ Number of MBC species recorded within 20 km: ▫ 0 of the 8 mallee-specialist bird species, ▫ 9 of 12 mallee-dependent bird species Although many of the mallee-dependent bird species have been recorded within 20 km, this is likely a result of the proximity of the Murray Fans bioregion, where mallee habitats are known to exist. As the Project Area is not within the specified bioregions and there is no mallee vegetation modelled or known to occur within the Project Area, the community is considered not to occur within the MAWF. **Does not occur.**
Natural Grasslands of the Murray Valley Plains	Critically Endangered	Natural Grasslands of the Murray Valley Plains are characterised by grasses and herbs and lack woody plants. The condition thresholds for the community are outlined below (TSSC 2012): ▪ Occurs within the Riverina Bioregion and the Wimmera Plains of the Murray Darling Depression Bioregion; ▪ Occurs on a landscape of flat alluvial lowland plains with heavy-textured grey, brown and red clays;

Ecological community	EPBC status	Occurrence in the study area
		▪ Dominated by perennial grasses and/or forbs or small shrubs; and ▪ Trees and large shrubs are absent. The Project Area is within the modelled distribution for the Natural Grassland of the Murray Valley Plains community. 431.685 ha of native vegetation recorded in the study area met the condition thresholds for the community (i.e. presence is confirmed. **Occurs in Project Area.** Due to recent assessments being undertaken outside of the optimal surveying period, some native vegetation was not definitively able to be confirmed or ruled out as the community (483.067 ha). Thus, native vegetation that met some key diagnostic criteria and could not be excluded as the community was further classified into three categories: potential, likely, and unlikely to qualify as the Natural Grassland of the Murray Valley Plains community. This classification was based on the diagnostic criteria and the number of threshold species in each patch. ▪ 6 species - likely to qualify ▪ 4-6 species - potential to qualify ▪ < 4 species - unlikely to qualify
Plains mallee box woodlands of the Murray Darling Depression, Riverina and Naracoorte Coastal Plain Bioregions	Critically Endangered	The community is characterised by a canopy of Mallee Eucalyptus species, a saltbush shrub understory and a ground layer of tussock grasses and herbs (TSSC 2020). No mallee vegetation has been recorded within the Project Area previously (EHP 2024, 2025a) or during the current surveys. As a result, the community is considered unlikely to be present within the Project Area. **Does not occur.**
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland ecological community is categorised by a discontinuous canopy layer of White Box, Yellow Box or Blakely's Red Gum, with a species-rich understorey dominated by native tussock grasses, herbs and scattered shrubs (TSSC 2006). The study area is within the modelled distribution of this community. However, it has a low potential to occur as there are no areas of Plains Woodland mapped or modelled to occur, and there are no records of the three

Ecological community	EPBC status	Occurrence in the study area
		characteristic Eucalypt species within the study area. **Does not occur.**

Notes: EPBC status = conservation status under the EPBC Act. Grey shading indicates threatened ecological communities with the potential to occur in the study area.

The following threatened ecological community was recorded in the study area. A justification for the presence of this community is also provided below.

Natural Grasslands of the Murray Valley Plains (EPBC Act: Critically Endangered) – a total of 914.752 ha of this listed community was recorded in the study area. Of this, 431.685 ha was confirmed to qualify as the community, while the remainder was either likely, potential or unlikely to qualify as the community based on site characteristics (see Table 5-7). In accordance with the key diagnostic characteristics and condition thresholds included in the Listing Advice for this community (TSSC 2012), patches of native vegetation that met the following criteria were included in the community:

- Trees and large shrubs were naturally absent or sparse (i.e. dominated by perennial grasses, forbs or low shrubs with no evidence of past clearing of trees or large shrubs such as stumps);
- Included species typical of the community (in the study area, these included Spider Grass [*Enteropogon acicularis*], Wallaby grasses [*Rytidosperma* spp.], Berry Saltbush [*Atriplex semibaccata*], Variable Sida [*Sida corrugata*] and Black Roly-poly [*Sclerolaena muricata*]); and
- Either met the Category A condition thresholds of 15 or more native vascular plant species, one or more indicator species and a patch size of 0.04 ha or more, or the Category B condition thresholds of 10 or more native vascular plant species and a patch size of 1 ha or more.

Table 5-7: Qualification of native vegetation within the study area.

Qualification of Natural Grasslands of the Murray Valley Plains	Area in hectares within the study area
Confirmed	431.685 ha
Likely	52.276 ha
Potential	183.720 ha
Unlikely	247.071 ha
TOTAL	**914.752 ha**

FFG Act-listed communities

FFG Act-listed vegetation-based TEC are modelled on DEECA's *Native Vegetation - Flora and Fauna Guarantee Act Listed Communities* layer (DEECA 2025g), and a description of all FFG Act-listed TEC is available (SAC 2015).

Table 5-8: FFG Act-listed threatened ecological communities and likelihood of occurrence in the study area.

Ecological community	Occurrence in the study area
Grey Box - Buloke Grassy Woodland Community	The Grey Box - Buloke Grassy Woodland Community is a predominantly grassy woodland found on flat or very gently undulating plains in northern Victoria and a few areas in central Victoria (SAC 2015). The Grey Box – Buloke grassy Woodland Community may occur in areas where Grey Box or Buloke occur as the dominant tree species, such as Plains Woodland or Grassy Woodland EVCs. This does not occur as no areas of Plains Woodland (EVC 803) are modelled to occur (DEECA 2025f) or have been recorded within the project site previously (EHP 2024, 2025a) or during the current survey, and no records of Grey Box exist from the project site. **Does not occur**.
Northern Plains Grassland Community	The Northern Plains Grassland Community is found on the naturally treeless plains of northern Victoria and is characterised by perennial tussock grasses with sparse trees and large shrubs (SAC 2015). Dominant grasses include Wallaby-grass and Spear-grass, along with various shrubs and herbs. Characteristic plant families include Chenopodiaceae. This community occurs in Plains Grassland and Chenopod Grassland EVCs, totalling 1,458.035 hectares. **Recorded to occur.**
Semi-arid Northwest Plains Buloke Grassy Woodland Community	The Semi-arid Northwest Plains Buloke Grassy Woodland Community is an open woodland dominated by Buloke, often found alongside Black Box *Eucalyptus largiflorens* and/or Yellow Gum (SAC 2015). Buloke records are scarce in the search region, and no Buloke were recorded within the study area. **Does not occur.**
Victorian Mallee Bird Community	The Victorian Mallee Bird Community comprises 20 mallee-dependent bird species and subspecies, and an additional 23 that occur in such habitats but are not largely or totally restricted to mallee (SAC 2002): ▪ The Project Area does not occur within the defined Mallee bioregion; ▪ No mallee-specific EVCs are modelled to occur within the Project Area (DEECA 2026a), and none have been recorded during detailed vegetation surveys (see Section 5); ▪ 8 of 20 mallee-dependent bird species recorded within 20 km; and ▪ 22 of 23 mallee-associated bird species recorded within 20 km Although many of the mallee-dependent and mallee-associated bird species have been recorded within 20 km, this is likely resulting from the proximity of the Murray Fans bioregion, where mallee habitats are

Ecological community	Occurrence in the study area
	known to exist. As there is no mallee vegetation modelled or known to occur within the Project Area, the community is considered unlikely to be present within the MAWF. **Unlikely to occur.**
Victorian Temperate Woodland Bird Community	The Victorian Temperate Woodland Bird Community comprises 24 bird species primarily linked to drier woodlands north of the Great Dividing Range, many of which have significantly declined since records began (SAC 2015). Commonly occurring birds in this community are associated with box-ironbark, yellow box, cypress pine and other woodlands (SAC 2000). An additional 21 woodland-associated species are included within the community, but whose occurrence extends beyond woodlands (SAC 2000): ▪ The Project Area occurs within the general area defined by the community's listing; ▪ Two types of woodland EVCs are both modelled (DEECA 2026a), and known to occur within the Project Area (see Section 5); ▪ 19 of 24 woodland-dependent bird species recorded within 20 km; and ▪ 16 of 21 woodland-dependent bird species recorded within 20 km. As a result, the community is considered to be potentially present, albeit restricted to woodland habitats, which are generally sparse across the Project Area (approximately <1% of the Project Area). **Potential to occur.**

NOTES: Grey shading indicates threatened ecological communities with the potential to occur in the study area.

The following threatened ecological community was recorded in the study area:

- **Northern Plains Grassland Community.** A total of 1458.035 ha was recorded in the study area.

The location of areas qualifying as this threatened ecological community is shown in Figure 5-1.

5.5. Conclusions and further investigations

5.5.1. Impacts

The proposal will result in the removal of 45.523 ha of native vegetation, including 8.216 ha of exempt regrowth.

Impacts to native vegetation comprise the following:

- 45.210 ha of native vegetation in patches (including one large tree in a patch)
    - Including 1.216 ha of DEECA-mapped wetlands
- Five scattered trees (namely, four large scattered trees and one small scattered tree), equating to an area loss of 0.313 ha

The impacted patches included the following areas of low, medium, and high quality:

- **Low quality** – 19.886 ha
- **Medium quality** – 21.692 ha
- **High quality** – 2.416 ha

An analysis using aerial photography and landowner information about recent land use concluded that 8.216 hectares of native vegetation proposed to be removed is regrowth and qualifies for the 10-year regrowth exemption under Cl. 52.17. These areas of native vegetation include Plains Grassland (EVC 132) and Chenopod Grassland (EVC 829), some of which have been determined to qualify as FFG and EPBC-listed ecological communities.

The proposal will impact the following listed ecological communities:

- Natural Grasslands of the Murray Valley Plains (EPBC Act: Critically Endangered) – 25.254 ha impacted
- Northern Plains Grasslands Community (FFG Act: Threatened) – 40.470 ha

The proposal also has the *potential* to impact the following listed ecological community, if it is confirmed to occur:

- Victorian Temperate Woodland Bird Community (FFG Act: Threatened) – 0.644 ha

Furthermore, the likelihood of occurrence of species listed under the EPBC Act and FFG Act indicates that 50 listed flora species have the potential to occur. Of these species, 20 have the potential to occur only in swamps, watercourses, and man-made waterbodies. These are areas located outside of the development footprint and thus will not be impacted. The remaining 30 species require further targeted surveys to verify their presence with the aim to mitigate impacts through avoidance by way of layout changes and/or micro-siting.

A more detailed assessment of impacts to native vegetation, flora and ecological communities is provided in Section 13.1.

5.5.2. Legislative implications

The Guidelines

A permit for the proposed removal of native vegetation is required under Cl. 52.17

The proposal must be assessed under the Detailed assessment pathway. This would trigger a referral to the Department of Energy, Environment and Climate Action (DEECA).

Offsets required to compensate for the proposed removal of native vegetation from the study area are:

- 1.3790 general habitat units (GHU), with the following offset attribute requirements:
    - A minimum strategic biodiversity value (SBV) of 0.3918
    - Located within the North Central CMA boundary or the Gannawarra Shire, Loddon Shire Council municipal district
    - Include protection of at least four large trees

Species habitat units (SHUs), with the following offset attribute requirements:

- Comprises 31.397 mapped habitat according to the habitat importance map for:
    - 9.027 SHUs of habitat for Downs Nutgrass *Cyperus bifax*
    - 8.165 SHUs of habitat for Soft Sunray *Leucochrysum molle*
    - 14.205 SHUs of habitat for Annual Buttons *Leptorhynchos orientalis*
    - Include protection of at least one large tree.

An online search of the Native Vegetation Credit Register identified suitable GHU credits, however suitable SHU credits were not available at the time of assessment. A desktop assessment of potential third-party offset opportunities identified a property capable of satisfying both the project's GHU and SHU requirements, subject to landholder agreement and confirmation of offset suitability (Appendix 25). An Offset Strategy is currently being prepared to support the identification and securing of suitable offset sites.

EPBC Act

A Referral under the EPBC Act will be prepared as the project has the potential to impact MNES values.

FFG Act

A Protected Flora Permit under the FFG Act would be required for the current proposal for impacts to 8.310 ha of the *Northern Plains Grassland Community* on public land, as well as any FFG Act-listed threatened values if targeted surveys determine that they occur on public land.

A Protected Flora Permit may also be required for impacts to 0.517 ha of the *Victorian Temperate Woodland Bird Community* on public land. However, this community is only listed as potential to occur with further surveys to confirm that it qualifies as this community.

EE Act

A Referral to the Minister for Planning *will* be required under the EE Act and is currently being prepared. The project meets the Ministerial Guidelines referral criterion relating to the potential removal of more than 10 ha of native vegetation associated with endangered, vulnerable or rare Ecological Vegetation Classes (EVCs), including Plains Grassland (EVC 132) and Chenopod Grassland (EVC 829).

A more detailed assessment of legislative implications is provided in Section 14.

5.5.3. Recommended protections for EPBC Act listed flora species if found

As yet, no EPBC Act-listed flora have been found, and no targeted surveys undertaken. Pending the results of targeted flora surveys (see Section 5.5.4), the following protections are recommended for EPBC Act-listed flora species if found:

- If EPBC Act listed flora species are identified during targeted surveys, the Development Footprint will be microsited to avoid directly removing individuals.
- It is recommended that the microsited Development Footprint also ensure appropriate buffers around newly identified subpopulations. No suitable buffer is documented for the EPBC Act listed species in question. As such, a 30 m buffer, based on the Conservation Advice for NGMVP (TSSC 2012), is recommended.
- Construction mitigation measures should be employed to avoid any changes to hydrological flows and unnecessary disturbance to newly identified subpopulations.

5.5.4. Further assessments

The following investigations are required to confirm native vegetation, flora and ecological community values in the Project Area:

- Targeted surveys for listed flora species at appropriate survey times (i.e. October, December and March) later in 2026 and in 2027;
- Targeted surveys for ecological communities, specifically NGMVP, in Spring 2026; and
- MNES assessment.

It is not anticipated that the results of these surveys will substantially alter the analysis of impacts, given that:

- Listed flora are inherently rare, and, if found, any individuals are likely to be able to be avoided through micrositing; and
- Potential impacts to listed ecological communities (notably NGMVP) have been conservative (i.e. all potential areas of NGMVP have been identified). Therefore, the actual impact to confirmed NGMVP following surveys is anticipated to be less than currently assessed.