

APPENDIX D TARGETED FAUNA SURVEY RESULTS AND MAPPING



Targeted Species Survey Results and Mapping

Golden Sun Moth

Golden Sun Moth (*Synemon plana*) is a medium sized, diurnal (day flying) moth with clubbed antennae (DEWHA 2009d). It is listed as Critically Endangered under the EPBC Act and Vulnerable under the FFG Act.

Targeted surveys were undertaken for Golden Sun Moth (*Synemon plana*), within the State Project Land. Surveys were conducted by two ecologists across two survey seasons, summer 2019-2020 and summer 2020-2021. Surveys were conducted in all areas of potential habitat for the species in the State Project Land as identified during fauna habitat assessments, literature review, and analysis of VBA records. Areas surveyed are mapped in D-1 and include:

- Sunshine Railway Linear Reserve
 - > 2019-2020 survey season (20/11/2019, 25/11/2019, 19/12/2019, and 09/01/2020)
- Matthews Hill Reserve
 - > Reserve proper surveyed 2019-2020 survey season (20/11/2019, 25/11/2019, 19/12/2019, and 09/01/2020)
 - > Rail corridor adjacent to reserve surveyed 2020-21 survey season (27/11/2020, 04/12/2020, 14/12/2020, and 08/01/2021)
- St. Albans Road Biosites
 - > 2020-21 survey season (27/11/2020, 4/12/2020, 14/12/2020, and 8/01/2021)
- The Old Sunshine Tip Site
 - > 2020-21 survey season (27/11/2020, 4/12/2020, 14/12/2020, and 8/01/2021)
- Rail Corridor Adjacent to Solomon Heights and the River Valley Estate
 - > 2019-2020 survey season (11/12/2019; 19/12/2019, 09/01/2020, and 17/01/2020)
- River Valley Estate
 - > Adjacent rail corridor surveyed 2019-2020 survey season (11/12/2019; 19/12/2019, 09/01/2020, and 17/01/2020)
 - > River Valley Estate Proper surveyed 2020-21 survey season (19/11/2020, 25/11/2020, 15/12/2020, 11/01/2021)
- M80 South Powerline Easement
 - > 2019-20 Survey season: (20/11/2019, 25/11/2019, 19/11/2019, 09/01/2020)
- M80 North Zone
 - > 2020-21 survey season (19/11/2020, 25/11/2020, 15/12/2020, 11/01/2021)

Results of the targeted surveys (including weather) are summarised in Table D.1 below.



Table D.1: Targeted Survey Results and Weather Conditions During Targeted Golden Sun Moth Survey

Site	Date	GSM recorded in assessment area	GSM Activity at Reference Site	Survey Start Time	Survey Finish Time	Temperature at start (°C)	Wind at start (km/h)	Humidity at start (%)	Cloud Cover at start (%)	Time since rainfall
Rail Corridor Adjacent to Solomon Heights	11/12/2019	None	Yes - Craigieburn Grassland NCR	12:30	13:00	20	27	52	30	<48 hours
Rail Corridor Adjacent to Solomon Heights	19/12/2019	None	Yes - Craigieburn Grassland NCR	10:55	12:00	20.3	20	64	30	<48 hours
Rail Corridor Adjacent to Solomon Heights	9/01/2020	None	Yes - Craigieburn Grassland NCR	10:45	11:15	23.1	7	60	0	<48 hours
Rail Corridor Adjacent to Solomon Heights	17/01/2020	None	No - Broadmeadows	12:00	12:30	25	20	54	70	<12 hours
M80 South Powerline Easement	20/11/2019	None	Yes - Craigieburn Grassland NCR	13:40	14:30	29.9	26	n/a	30	<48 hours
M80 South Powerline Easement	25/11/2019	None	Yes - Craigieburn Grassland NCR	14:00	15:00	28.2	2.5	30	100	<48 hours
M80 South Powerline Easement	19/11/2019	None	Yes - Craigieburn Grassland NCR	10:05	11:00	18.9	17	69	50	<48 hours
M80 South Powerline Easement	9/01/2020	None	Yes - Broadmeadows	9:50	10:50	20.9	9	69	0	<48 hours
Matthews Hill Reserve	20/11/2019	3 males	Yes - Craigieburn Grassland NCR	10:00	11:15	19	9	59	30	<48 hours

Site	Date	GSM recorded in assessment area	GSM Activity at Reference Site	Survey Start Time	Survey Finish Time	Temperature at start (°C)	Wind at start (km/h)	Humidity at start (%)	Cloud Cover at start (%)	Time since rainfall
Matthews Hill Reserve	25/11/2019	1 male	Yes - Craigieburn Grassland NCR	11:00	12:00	32.3	1.8	12	30	<48 hours
Matthews Hill Reserve	19/12/2019	None	Yes - Craigieburn Grassland NCR	10:55	12:00	20.3	20	64	30	<48 hours
Matthews Hill Reserve	9/01/2020	None	Yes - Craigieburn Grassland NCR	12:30	13:30	26.8	15	20	30	<48 hours
Sunshine Railway Linear Reserve	20/11/2019	None	Yes - Craigieburn Grassland NCR	11:15	12:30	26	15	20	30	<48 hours
Sunshine Railway Linear Reserve	25/11/2019	None	Yes - Craigieburn Grassland NCR	12:00	12:45	34.2	4.2	12	30	<48 hours
Sunshine Railway Linear Reserve	19/12/2019	None	Yes - Craigieburn Grassland NCR	12:30	13:30	22.4	19	54	30	<48 hours
Sunshine Railway Linear Reserve	9/01/2020	None	Yes - Craigieburn Grassland NCR	13:30	14:30	27.5	17	45	0	<48 hours
SC1 - M80 North Zone	19/11/2020	None	Yes - Broadmeadows	10:10	10:35	27.9	10.6	34.1	0	>48 hours (0.2 mm on 16/11)
SC1 - M80 North Zone	25/11/2020	None	Yes - Broadmeadows	11:57	12:05	27	6	47.2	0	<48 hours (2.0 mm on 24/11)
SC1 - M80 North Zone	15/12/2020	None	Yes - Broadmeadows	12:13	13:28	31.5	8.7	40.8	30	>48 hours

Site	Date	GSM recorded in assessment area	GSM Activity at Reference Site	Survey Start Time	Survey Finish Time	Temperature at start (°C)	Wind at start (km/h)	Humidity at start (%)	Cloud Cover at start (%)	Time since rainfall
SC1 - M80 North Zone	11/01/2021	None	Yes - Broadmeadows	10:57	12:00	33.9	10.4	27	5	>48 hours
SC2 - M80 North Zone	19/11/2020	None	Yes - Broadmeadows	10:37	10:40	27.9	10.6	34.1	0	>48 hours (0.2 mm on 16/11)
SC2 - M80 North Zone	25/11/2020	None	Yes - Broadmeadows	12:06	12:09	27	6	47.2	0	<48 hours (2.0 mm on 24/11)
SC2 - M80 North Zone	15/12/2020	None	Yes - Broadmeadows	12:13	13:28	31.5	8.7	40.8	30	>48 hours
SC2 - M80 North Zone	11/01/2021	None	Yes - Broadmeadows	10:57	12:00	33.9	10.4	27	5	>48 hours
SC3 - M80 North Zone	19/11/2020	None	Yes - Broadmeadows	10:46	10:58	27.9	10.6	34.1	0	>48 hours (0.2 mm on 16/11)
SC3 - M80 North Zone	25/11/2020	None	Yes - Broadmeadows	12:11	12:14	27	6	47.2	0	<48 hours (2.0 mm on 24/11)
SC3 - M80 North Zone	15/12/2020	None	Yes - Broadmeadows	12:13	13:28	31.5	8.7	40.8	30	>48 hours
SC3 - M80 North Zone	11/01/2021	None	Yes - Broadmeadows	10:57	12:00	33.9	10.4	27	5	>48 hours
SC4 - M80 North Zone	19/11/2020	None	Yes - Broadmeadows	10:58	11:06	27.9	10.6	34.1	0	>48 hours (0.2 mm on 16/11)
SC4 - M80 North Zone	25/11/2020	None	Yes - Broadmeadows	12:20	12:29	27	6	47.2	0	<48 hours (2.0 mm on 24/11)
SC4 - M80 North Zone	15/12/2020	None	Yes - Broadmeadows	12:13	13:28	31.5	8.7	40.8	30	>48 hours

Site	Date	GSM recorded in assessment area	GSM Activity at Reference Site	Survey Start Time	Survey Finish Time	Temperature at start (°C)	Wind at start (km/h)	Humidity at start (%)	Cloud Cover at start (%)	Time since rainfall
SC4 - M80 North Zone	11/01/2021	None	Yes - Broadmeadows	10:57	12:00	33.9	10.4	27	5	>48 hours
SC5 - M80 North Zone	19/11/2020	None	Yes - Broadmeadows	11:15	11:31	27.9	10.6	34.1	0	>48 hours (0.2 mm on 16/11)
SC5 - M80 North Zone	25/11/2020	None	Yes - Broadmeadows	12:40	12:51	27	6	47.2	0	<48 hours (2.0 mm on 24/11)
SC5 - M80 North Zone	15/12/2020	None	Yes - Broadmeadows	12:13	13:28	31.5	8.7	40.8	30	>48 hours
SC5 - M80 North Zone	11/01/2021	None	Yes - Broadmeadows	10:57	12:00	33.9	10.4	27	5	>48 hours
SC6 - M80 North Zone	19/11/2020	None	Yes - Broadmeadows	11:41	12:04	27.9	10.6	34.1	0	>48 hours (0.2 mm on 16/11)
SC6 - M80 North Zone	25/11/2020	None	Yes - Broadmeadows	13:02	13:11	27	6	47.2	0	<48 hours (2.0 mm on 24/11)
SC6 - M80 North Zone	15/12/2020	None	Yes - Broadmeadows	12:13	13:28	31.5	8.7	40.8	30	>48 hours
SC6 - M80 North Zone	11/01/2021	None	Yes - Broadmeadows	10:57	12:00	33.9	10.4	27	5	>48 hours
AL1 - River Valley Estate	19/11/2020	None	Yes - Broadmeadows	12:40	13:08	32.2	13.3	23.8	0	>48 hours (0.2 mm on 16/11)
AL1 - River Valley Estate	25/11/2020	None	Yes - Broadmeadows	13:35	13:45	29.5	14	40.4	0	<48 hours (2.0 mm on 24/11)
AL1 - River Valley Estate	15/12/2020	None	Yes - Broadmeadows	10:13	11:14	31	7.2	46.4	30	>48 hours

Site	Date	GSM recorded in assessment area	GSM Activity at Reference Site	Survey Start Time	Survey Finish Time	Temperature at start (°C)	Wind at start (km/h)	Humidity at start (%)	Cloud Cover at start (%)	Time since rainfall
AL1 - River Valley Estate	11/01/2021	None	Yes - Broadmeadows	10:00	10:26	32.1	9.8	29	10	>48 hours
AL2 - River Valley Estate	19/11/2020	None	Yes - Broadmeadows	13:08	13:55	32.2	13.3	23.8	0	>48 hours (0.2 mm on 16/11)
AL2 - River Valley Estate	25/11/2020	None	Yes - Broadmeadows	13:45	14:03	29.5	14	40.4	0	<48 hours (2.0 mm on 24/11)
AL2 - River Valley Estate	15/12/2020	None	Yes - Broadmeadows	10:13	11:14	31	7.2	46.4	30	>48 hours
AL2 - River Valley Estate	11/01/2021	None	Yes - Broadmeadows	10:00	10:26	32.1	9.8	29	10	>48 hours
Rail Corridor Adjacent to Matthews Hill Reserve	27/11/2020	None	Yes - Broadmeadows	11:08	11:27	28.8	3.6	54.1	5	>48 hours
Rail Corridor Adjacent to Matthews Hill Reserve	4/12/2020	None	Yes - Broadmeadows	11:05	11:23	23.1	2	41.5	10	>48 hours
Rail Corridor Adjacent to Matthews Hill Reserve	14/12/2020	None	Yes - Broadmeadows	11:37	11:50	30	5.4	33	0	>48 hours (0.2 mm on 11/12)
Rail Corridor Adjacent to Matthews Hill Reserve	8/01/2021	None	Yes - Broadmeadows	11:23	11:43	24.1	0	50.7	0	>48 hours (0.6 mm on 06/01)
St. Albans Road Biosites	27/11/2020	None	Yes - Broadmeadows	12:21	12:46	32.3	5.3	38.2	5	>48 hours
St. Albans Road Biosites	4/12/2020	None	Yes - Broadmeadows	12:30	13:30	25.5	4.7	34.8	5	>48 hours

Site	Date	GSM recorded in assessment area	GSM Activity at Reference Site	Survey Start Time	Survey Finish Time	Temperature at start (°C)	Wind at start (km/h)	Humidity at start (%)	Cloud Cover at start (%)	Time since rainfall
St. Albans Road Biosites	14/12/2020	None	Yes - Broadmeadows	13:04	13:47	32.2	10.3	20.5	0	>48 hours (0.2 mm on 11/12)
St. Albans Road Biosites	8/01/2021	None	Yes - Broadmeadows	12:37	13:40	24.2	9.9	45.4	0	>48 hours (0.6 mm on 06/01)
Old Sunshine Tip Site	27/11/2020	None	Yes - Broadmeadows	13:04	13:21	32.3	5.3	38.2	5	>48 hours
Old Sunshine Tip Site	4/12/2020	None	Yes - Broadmeadows	12:30	13:30	25.5	4.7	34.8	5	>48 hours
Old Sunshine Tip Site	14/12/2020	None	Yes - Broadmeadows	13:04	13:47	32.2	10.3	20.5	0	>48 hours (0.2 mm on 11/12)
Old Sunshine Tip Site	8/01/2021	None	Yes - Broadmeadows	12:37	13:40	24.2	9.9	45.4	0	>48 hours (0.6 mm on 06/01)



Growling Grass Frog



The Growling Grass Frog (*Litoria raniformis*) is a large frog, growing to 86 mm in length listed as Vulnerable under the EPBC Act and the FFG Act.


Targeted surveys were conducted in all other areas of potential habitat in the State Project Land identified for the species during fauna habitat assessments, literature review, and analysis of VBA records. Targeted surveys were conducted as per the survey guidelines outlined in the *Significant impact guidelines for the vulnerable growling grass frog (Litoria raniformis) (DEWHA 2009b)*. Areas of potential habitat identified and surveyed are described in table D.2 mapped in D-2 and include:



- Stony Creek East, assessed:
 - > 2019 survey season (20/11/2019 and 25/11/2019)
- Stony Creek West, assessed:
 - > 2018 survey season (5/12/2018 and 18/12/2018)
- The Maribyrnong River (upper, middle and lower), assessed:
 - > 2018 survey season (5/12/2018 and 18/12/2018)
- Steele Creek, assessed:
 - > 2018 survey season: (5/12/2018 and 18/12/2018)
- Steele Creek North, assessed:
 - > 2019 survey season: (20/11/2019 and 25/11/2019)
- The M80 retention basin at the M80 North Zone, assessed:
 - > 2018 survey season: (8/12/2018 and 17/01/2019)
 - > 2020 survey season: (14/12/2020 and 16/12/2020)
- Moonee Ponds Creek, assessed:
 - > 2020 survey season: (14/12/2020 and 16/12/2020)



Targeted surveys were conducted on 14 and 16 December 2020 with the associated time and weather conditions provided in Table D.3 below.

Table D.2: Habitat descriptions of areas of potential habitat identified and surveyed

Survey Location	Photo and Description
Stony Creek East	 <p>The site consists of a creek lined with River Red Gum (<i>Eucalyptus camaldulensis</i>) and introduced Willows (<i>Salix</i> spp.) and Ash (<i>Fraxinus</i> spp.) with largely introduced fringing and submergent wetland vegetation. Fringing native vegetation consisted of Narrowleaf Cumbungi (<i>Typha domingensis</i>), Slender Knotweed (<i>Persicaria decipiens</i>) and Native Rush (<i>Juncus</i> spp.). The majority of fringing vegetation consisted of introduced Water Couch (<i>Paspalum distichum</i>), Toowoomba Canary Grass (<i>Phalaris aquatica</i>), Dock (<i>Rumex</i> spp.) and Sticky weed (<i>Galium aparine</i>). Submergent vegetation consisted of Water Couch and Canadian Pondweed (<i>Elodia canadensis</i>). The waterbody is permanent and was slow moving during the time of assessment. The area contained some rocks and some debris present, which could provide suitable shelter for frog species.</p>
Stony Creek West	 <p>Fringing vegetation was present at the site (Photo 6), with the water way dominated by introduced species. The species included introduced species Toowoomba Canary-grass (<i>Phalaris aquatica</i>) Artichoke thistle (<i>Cynara cardunculus</i>), Fennel (<i>Foeniculum vulgare</i>) and Peppergrass (<i>Brassica</i> sp).</p> <p>The waterbody was permanent and still (Photo 6). At the time of the assessment other frog species were calling.</p>

Survey Location	Photo and Description
Upper Maribyrnong River	 <p>Fringing vegetation was present at the site (Photo 3), with species including Giant Rush (<i>Juncus ingens</i>) and Common reed (<i>Phragmites australis</i>). Introduced species present include Toowoomba Canary-grass (<i>Phalaris aquatica</i>).</p> <p>The waterbody was faster flowing (Photo 3). At the time of the assessment no frog species were calling.</p>
Middle Maribyrnong River	 <p>Fringing vegetation was present at the site (Photo 4), with species including Common reed (<i>Phragmites australis</i>), Knotweed (<i>Persicaria</i> sp). Introduced species present include Toowoomba Canary-grass (<i>Phalaris aquatica</i>).</p> <p>The waterbody was permanent and slow flowing. At the time of the assessment other frog species were calling.</p>

Survey Location	Photo and Description
Lower Maribyrnong River	 <p>Fringing vegetation was present at the site (Photo 5), with species including Typha (<i>Typha latifolia</i>) and Common reed (<i>Phragmites australis</i>). Introduced species present include Toowoomba Canary-grass (<i>Phalaris aquatica</i>).</p> <p>The waterbody was permanent and slow flowing (Photo 5). At the time of the assessment other frog species were calling.</p>
Steele Creek	 <p>Fringing vegetation was at the site (Photo 1), with species including Typha (<i>Typha latifolia</i>), Common reed (<i>Phragmites australis</i>), Knotweed (<i>Persicaria</i> sp) and River mint (<i>Mentha australis</i>). Introduced species present include Toowoomba Canary-grass (<i>Phalaris aquatica</i>) Spearmint (<i>Mentha spicata</i>) and Peppercreess (<i>Brassica</i> sp).</p> <p>The waterbody is permanent and still (Photo 1). At the time of the assessment other frog species were calling. The area had rocks and some debris present, which could provide suitable shelter for the frog species.</p>

Survey Location	Photo and Description
Steele Creek North	 <p>Fringing vegetation was at the site, with species including Typha (<i>Typha latifolia</i>), Common reed (<i>Phragmites australis</i>), Knotweed (<i>Persicaria</i> sp) and River mint (<i>Mentha australis</i>). Introduced species present include Toowoomba Canary-grass (<i>Phalaris aquatica</i>) Spearmint (<i>Mentha spicata</i>) and Peppergrass (<i>Brassica</i> sp).</p> <p>The waterbody is permanent and still (Photo 7). At the time of the assessment other frog species were calling. The area had rocks and some debris present, which could provide suitable shelter for the frog species.</p>
M80 Retention Basin	 <p>The M80 site consists of an open waterbody with little emergent vegetation in open water (1-2% Narrowleaf Cumbungi (<i>Typha domingensis</i>)). A high cover of fringing vegetation occurs, including Slender Knotweed (<i>Persicaria decipiens</i>), Poong'ort (<i>Carex tereticaulis</i>), Rush (<i>Juncus</i> sp.) and Starwort (<i>Stellaria</i> sp.). Surrounding the water body exists some remnant, but primarily planted vegetation adjacent to the M80 freeway, including River Red-gum and Yellow Box.</p> <p>The retention basin is considered to be permanent and slow/non-moving. The surrounding area contains limited rocks or bare ground for basking, but sufficient rocks and debris for suitable shelter/overwintering opportunities for frog species.</p>




Survey Location	Photo and Description
Moonee Ponds Creek	<div></div> <p>Moonee Ponds Creek site contains a fairly degraded creekline consisting of dense Common Reed (<i>Phragmites australis</i>) and regularly mown Cocksfoot (<i>Dactylis glomerata</i>). The creek is slow to fast-moving and contains limited rocks or bare ground for basking.</p>

Table D.3: Survey Results and Weather Conditions during Targeted Growling Grass Frog Surveys

Site	Date	Survey Start Time and Duration	Weather at Start	Species Recorded
Stony Creek East	20/11/2019	8:23 pm – 97 minutes	Temperature: 32.3 °C Wind: Ranged from 10 – 30 km/hr Humidity: 12% No rain in last 48 hour	Eastern Banjo Frog – <i>Limnodynastes dumerilii</i>
	25/11/2019	8:30 pm – 30 minutes	Temperature: 24.8 °C Wind: 0.7 km/hr Humidity: 41% No rain in last 48 hours	Eastern Banjo Frog – <i>Limnodynastes dumerilii</i>
6: Stony Creek West	5/12/2018	12:55am – 32 Minutes	Temperature 15.8 ° Celsius Wind 9 km/hr WNW Humidity 78% No rain since 2/12/2018	Eastern Common Froglet – <i>Crinia signifera</i>
	18/12/2018	1:42am – 16 Minutes	Temperature 17.3 ° Celsius Wind 17 km/hr WSW Humidity 100% No rain since 17/12/2018	Eastern Common Froglet – <i>Crinia signifera</i> Spotted Marsh Frog – <i>Limnodynastes tasmaniensis</i>
3: Upper Maribyrnong River	5/12/2018	11:05pm – 30 minutes	Temperature 17.4 ° Celsius Wind 13 km/hr W Humidity 72% No rain since 2/12/2018	-
	18/12/2018	12:00am – 15 minutes	Temperature 17.3 ° Celsius Wind 13 km/hr SSE Humidity 96% No rain since 17/12/2018	-
4: Middle Maribyrnong River	5/12/2018	11:37pm – 30 minutes	Temperature 17.1 ° Celsius Wind 17 km/hr WNW Humidity 72% No rain since 2/12/2018	Striped Marsh Frog – <i>Limnodynastes peronii</i>
	18/12/2018	12:34am – 13 minutes	Temperature 16.0 ° Celsius Wind 9 km/hr SSE Humidity 86% No rain since 17/12/2018	Eastern Common Froglet – <i>Crinia signifera</i>
5: Lower Maribyrnong River	5/12/2018	12:00am – 20 minutes	Temperature 16 ° Celsius Wind 13 km/hr W Humidity 78% No rain since 2/12/2018	Spotted Marsh Frog – <i>Limnodynastes tasmaniensis</i>

Site	Date	Survey Start Time and Duration	Weather at Start	Species Recorded
	18/12/2018	12:54am – 20 minutes	Temperature 17.3 ° Celsius Wind 13 km/hr SSE Humidity 99% No rain since 17/12/2018	Eastern Banjo Frog – <i>Limnodynastes dumerilii</i> Growling Grass Frog – <i>Litoria raniformis</i> Spotted Marsh Frog – <i>Limnodynastes tasmaniensis</i>
1: Steele Creek	5/12/2018	8:59pm – 46 minutes	Temperature 19.5 ° Celsius Wind 19 km/hr SW Humidity 68% No rain since 2/12/2018	Eastern Banjo Frog – <i>Limnodynastes dumerilii</i>
	18/12/2018	9:08pm – 20 minutes	Temperature 18.0 ° Celsius Wind 17 km/hr SSE Humidity 87% No rain since 17/12/2018	Eastern Common Froglet – <i>Crinia signifera</i> Eastern Banjo Frog – <i>Limnodynastes dumerilii</i>
7: Steele Creek North	20/11/2019	10:15pm – 50 minutes	Temperature 29.8 ° Celsius Wind 2.3/hr NNE Humidity 11% No rain in last 48 hours	Eastern Banjo Frog – <i>Limnodynastes dumerilii</i>
	25/11/2019	9:20pm – 60 minutes	Temperature 29.8 ° Celsius Wind 2.3/hr NNE Humidity 11% No rain in last 48 hours	Striped Marsh Frog – <i>Limnodynastes peronii</i>
M80 Retention Basin	18/12/2018	10:09pm – 35 minutes	Temperature 17.5 ° Celsius Wind 13 km/hr S Humidity 94% No rain since 17/12/2018	Eastern Common Froglet – <i>Crinia signifera</i> Growling Grass Frog – <i>Litoria raniformis</i> Spotted Marsh Frog – <i>Limnodynastes tasmaniensis</i> Striped Marsh Frog – <i>Limnodynastes peronii</i>
	17/01/2019	9:17pm – 90 minutes	Temperature 29.0 ° Celsius Wind 0 km/hr Humidity 41% No rain in 48 hours	None
	14/12/2020	8:30 pm – 60 minutes	Temperature: 28 °C Wind: 1 km/hr Humidity: 27.1% Cloud cover: Cloudless No rain in last 48 hours	None
	16/12/2020	8:35 pm – 56 minutes	Temperature: 19.9 °C Wind: 5.5 km/hr Humidity: 69.2% Cloud cover: Overcast No rain in last 48 hours	None

Site	Date	Survey Start Time and Duration	Weather at Start	Species Recorded
Moonee Ponds Creek	14/12/2020	9:40 pm – 60 minutes	Temperature: 23.2 °C Wind: 0 km/hr Humidity: 62.6% Cloud cover: Cloudless No rain in last 48 hours	Pobblebonk - <i>Limnodynastes dumerilii</i> Striped Marsh Frog <i>Limnodynastes peronii</i>
	16/12/2020	9:45 pm – 45 minutes	Temperature: 20.6 °C Wind: 2.8 km/hr Humidity: 63.8% Cloud cover: Overcast No rain in last 48 hours	30x Eastern Common Froglet - <i>Crinia signifera</i> Striped Marsh Frog - <i>Limnodynastes peronii</i>



Striped Legless Lizard

The Striped Legless Lizard (*Delma impar*) is a long, thin-bodied lizard, which like all members of the Pygopodidae family lacks forelimbs and has reduced or vestigial hind limbs (Cogger 2014). Striped Legless Lizard is listed as Vulnerable under the EPBC Act and Endangered under the FFG Act.

With the exception of locations where the species is known to occur (Solomon Heights and the Old Sunshine Tip Site), Targeted surveys were conducted in all other areas of potential habitat in the State Project Land, as identified for the species during fauna habitat assessments, literature review, and analysis of VBA records. Areas of potential habitat were identified in the below locations, with tile array locations mapped in D-3. Locations include:

- Matthews Hill Reserve (outside the State Project Land)
- St Albans Road Biosites
- Old Sunshine Tip Site
- Rail Corridor adjacent to Solomon Heights and the River Valley Estate
- River Valley Estate
- Sunshine North Escarpment
- Brimbank Park
- M80 South Powerline Easement
- M80 North Zone

Targeted surveys were conducted between September 2019 and February 2021. Associated time and weather conditions provided in Table D.4, and results are provided in D.5.

Table D.4: Survey Results and Weather Conditions during Targeted Striped Legless Lizard Surveys

Date	Start Time	Temp (°C)	Relative Humidity (%)	Cloud Cover (%)	Wind Speed (km/h)	End Time	Temp (°C)	Relative Humidity (%)	Cloud Cover (%)	Wind Speed (km/h)
2019-2020 Survey Season (MHE, MHW grids in the Matthews Hill Reserve)										
12/09/2019		22.2	47.8	90	12.5					
26/09/2019		20.3	49.7	15	2.9					
09/10/2019		14.6	61.6	90	5.2					
21/10/2019		17	55	50	15					
06/11/2019		26.5	27	65	25.5					
21/11/2019		31.3	19	0	4.2					
27/11/2019		28.2	25	0	4.2					
04/12/2019		18	46.5	90	5.1					
16/12/2019		20.9	55	100	4.4					
17/01/2020		20.5	64	100	3.8					
29/01/2020		27.5	41	0	2.5					
2019-2020 Survey Season (M0 transect at Solomon Heights, V1, V2, and V3 grids at the M80 South Powerline Easement)										
09/09/2019		20.5	39	15	6.3					
19/09/2019		21.6	46.4	0	21.2					
02/10/2019		26.6	23.1	35	15.9					
16/10/2019		17	65.6	100	8					
30/10/2019		27.9	41.9	0	4.1					
12/11/2019		19.4	37	75	11					
26/11/2019		16.2	58	75	6					
02/12/2019-		16.2	58	75	6					
11/12/2019-		21.7	49.9	35	7.9					
09/01/2020		20.9	68	0	11					
24/01/2020		21.7	51	25	1.2					
2020-21 Survey Season										
07/09/2020	09.00	19.2	43	40	15	12:30	21.8	40	0	31
08/09/2020	09.00	15.4	62	90	26	13:30	17.2	58	70	27
09/09/2020	09.00	14.4	53	60	11	13:00	13	51	60	22
10/09/2020	09.00	17.2	53	90	6	13:48	20.5	53	20	18
14/09/2020	09.30	13.4	54	90	11	14:15	16.7	48	20	20
15/09/2020	10.30	14.2	58	10	7	14:30	17.8	53	0	7
16/09/2020	10.00	17.2	49.4	10	24	13:20	20	37.2	90	30
07/10/2020	10.30	14.2	72.7	100	0	13:00	14.1	68.3	100	0
09/10/2020	10.30	14.1	62.8	100	6.7	16:15	18.5	48.6	75	15.7
12/10/2020	10.37	16.7	54.2	90	10	14:26	27.7	31.2	0	19
13/10/2020	10.35	14.8	68.7	100	17	14:40	18.6	60	90	20
14/10/2020	09.15	14.8	72.7	100	9	11:15	22.5	50	0	11
20/10/2020	09.00	13.2	67	-	1.3	15:30	16.5	37	-	0.6

Date	Start Time	Temp (°C)	Relative Humidity (%)	Cloud Cover (%)	Wind Speed (km/h)	End Time	Temp (°C)	Relative Humidity (%)	Cloud Cover (%)	Wind Speed (km/h)
21/10/2020	09.00	22.5	44.8	-	1.2	13:40	18.4	48.4	-	0.8
27/10/2020	10.27	18.1	51.4	60	28	14:30	19.7	46.8	95	33
28/10/2020	09.39	17.5	58.7	40	17	13:45	19.9	58.4	5	11
29/10/2020	10.07	23.8	45.7	0	7	13:54	28.5	30.5	90	17
02/11/2020	09.08	14.3	73	95	2.1	13:11	27.1	42	0	27
04/11/2020	09.23	23.2	48.1	100	13	12:45	20.5	75.5	100	8
06/11/2020	10.37	15.1	57.8	100	15	14:15	20.4	47.9	100	13
09/11/2020	07.21	13.5	68	0	6	10:32	27.3	34.1	0	17
10/11/2020	07.15	20.9	44.1	0	13	09:28	26.9	36.3	0	32
11/11/2020	08.15	24.6	38.2	0	28	11:42	26	37.7	100	13
16/11/2020	08.30	20.8	42.8	0	39	11:50	22	42.5	70	41
17/11/2020	08.15	15.3	59.9	0	19	11:01	19	44.1	70	20
18/11/2020	07.47	17	65	0	6	09:55	24.2	43.5	0	13
23/11/2020	09.44	17.3	88.1	100	17	12:37	19	76.6	70	20
24/11/2020	09.19	17.5	57.4	50	19	11:55	20	48.5	100	25
25/11/2020	08.05	20.8	65.1	0	7	09:45	25.5	46.6	0	13
10/12/2020	10.12	16	49.8	90	23	13:30	16.6	43	30	25
11/12/2020	09.05	16.1	53	-	11	13:20	19	53	-	22
21/12/2020	08.17	13.3	93	100	6	10:55	17	71	100	5
11/01/2021	07.54	24	32	-	27	12:05	34.4	20	0	30
12/01/2021	08.30	13	72	-	5	11:27	21	45	-	24
15/01/2021	08.30	14.8	70	100	11.8	14:50	20.7	34	20	14.6
19/01/2021	08.30	17.1	50.1	100	2.5	12:00	19.3	43.8	80	3.4
20/01/2021	08.30	18.3	51.7	0	5	10:50	20.2	45.9	0	2.6
21/01/2021	07.30	14.8	77.5	0	29	11:30	28.2	66.3	60	12
01/02/2021	09.46	18.8	60.7	0	7	12:43	20.4	67.9	100	16
03/02/2021	08.40	19.8	56.4	10	14.8	14:10	25.9	53.5	10	1.6
16/02/2021	07.30	16.6	80.1	25	2.4	12:30	27.8	44	0	7.3
17/02/2021	07.49	17.6	86	0	7	13:00	27	58	0	12
22/02/2021	07.30	22.2	39.8	40	7.3	9:00	22.2	40.4	50	3.5

. N.b. Weather at end time was not collected for the Spring/Summer 2019-2020 survey season as the tile checks lasted under an hour.



Table D.5: Survey Results and Weather Conditions during Targeted Striped Legless Lizard Surveys

Tile array	Count of vertebrate fauna observed at each tile array																	
	Blue Tongue Lizard	Brown Snake	Delicate Skink	Eastern Blue-tongue	Eastern Brown Snake	Eastern Common Frogs	Garden Skink	Grass Skink	House Mouse	Lowland Copperhead	Shingleback	Striped Legless Lizard	Striped Legless Lizard	Tiger Snake	Tussock Skink	Unidentified Skink	Weasel Skink	Whip Snake
GI1				4					4			16		4	16	5		
GI2				2					7			6		1	17	12		
MHE	8	1						2										2
MHW	4	1												2				
MR0								8							3			
MR1			1		2		1				1					2		
MR2					4				4						3	1		
MR3									7									
PV1					1				17									
PV2									10						1			
SC1			29	6								1	1		8	3	4	
SC2			85	1		1				10		1			6	9	8	
SC3			33							5		9			5			
SC4			45	1								2	1		5		1	
SC5			38	1					1	7		4	1		11	4	5	
V1; V2; V3																		
V2															2			
V3	1							3						1	6			
Total observations	13	2	231	15	7	1	1	13	50	22	1	39	3	8	83	36	18	2



Brown Toadlet species background

The Brown Toadlet (*Pseudophryne bibronii*) is a small toadlet around 2 cm long. The colour can vary from brown to black. The toadlet inhabits permanent and ephemeral wetlands and can be found in areas that are likely to be inundated after rain. Brown Toadlets prefer damp areas under logs or leaf litter. (Clemann and Gillespie 2010). The Brown Toadlet is listed as Endangered under the FFG Act. It is not listed under the EPBC Act.

The breeding season is between March and May. Females lay 7-200 eggs. Tadpoles typically metamorphosize between 3-7 months and if rain does not occur soon after laying, the eggs can survive unhatched for many weeks, and the tadpoles begin to develop inside these unhatched eggs (Heard et al. 2010).

The Brown Toadlet occupies a wide variety of habitats, including dry forests, shrubland, grassland, swamps and heathlands. The vegetation should comprise of emergent, submergent and floating types. High cover of vegetation as well as rock, logs and other forms of cover gives the greatest chance of occupancy at a site.

The primary threats to the species include the loss and degradation of habitat through the modification and loss of waterways and their associated wetlands. Chytrid fungus has additionally caused significant global declines of amphibians and is believed to be a major cause of recent population declines of Brown Toadlets.

Targeted surveys were conducted between 3 May 2021 to 12 May 2021 with the associated time and weather conditions provided in Table D-6.

Brown Toadlet Targeted Survey Results

Table D.6: Survey Results and Weather Conditions during Brown Toadlet Surveys

Site	Date	Survey Time	Weather and Conditions	Toadlet Species recorded
MR01 -Maribyrnong River	3/5/2021	5.45 – 6.25 pm (40 minutes)	Air Temperature: 16.5 °C Wind: None Sky Condition: Complete Overcast Average Wind: 0 km/hr Rain: Light Moon: Crescent Water Surface Present: No Water Surface Temp: n/a Water Conductivity: n/a Water pH: n/a	None Other species – Eastern Common Froglet (<i>Crinia signifera</i>)
	12/5/2021	6.27 - 6.40 pm (13 minutes)	Air Temperature: 9.9 °C Wind: None Sky Condition: Clear Average Wind: 0 km/hr Rain: Light Moon: No Moon Water Surface Present: Yes Water Surface Temp: 14.3 °C Water Conductivity: 1921 µS/cm Water pH: 8.02	None Other species – Eastern Common Froglet (<i>Crinia signifera</i>)
MR02 -Maribyrnong River	3/5/2021	6.30 - 7.00 pm (25 minutes)	Air Temperature: 16.5 °C Wind: None Sky Condition: Complete Overcast Average Wind: 0 km/hr Rain: Light Moon: Crescent Water Surface Present: Yes Water Surface Temp: n/a Water Conductivity: n/a Water pH: n/a	None
	12/5/2021	5.57- 6.22 pm (25 minutes)	Air Temperature: 14.5 °C Wind: None Sky Condition: Clear Average Wind: 0 km/hr Rain: Light Moon: No Moon Water Surface Present: Yes Water Surface Temp: 14.3 °C Water Conductivity: 1921 µS/cm	None Other species – Eastern Common Froglet (<i>Crinia signifera</i>)

Site	Date	Survey Time	Weather and Conditions	Toadlet Species recorded
SC01 – Steele Creek			Water pH: 8.02	
	3/5/2021	7.30 – 7.40 pm (10 minutes)	Air Temperature: 13.7 °C Wind: None Sky Condition: Complete Overcast Average Wind: 0 km/hr Rain: Heavy Moon: Crescent Water Surface Present: Yes Water Surface Temp: n/a Water Conductivity: n/a Water pH: n/a	None Other species – Eastern Common Froglet (<i>Crinia signifera</i>)
	12/5/2021	7.22 – 7.33 pm (11 minutes)	Air Temperature: 16.1 °C Wind: None Sky Condition: Clear Average Wind: 0 km/hr Rain: Light Moon: No Moon Water Surface Present: Yes Water Surface Temp: 15 °C Water Conductivity: 290 µS/cm Water pH: 8.41	None
SC02 – Steele Creek	3/5/2021	7.40 – 8.00 pm (20 minutes)	Air Temperature: 13.7 °C Wind: None Sky Condition: Complete Overcast Average Wind: 0 km/hr Rain: Heavy Moon: Crescent Water Surface Present: Yes Water Surface Temp: n/a Water Conductivity: n/a Water pH: n/a	None Other Species – Eastern Banjo Frog (<i>Limnodynastes dumerilii</i>)
	12/5/2021	7.39 – 7.49 pm (10 minutes)	Air Temperature: 12.4 °C Wind: None Sky Condition: Clear Average Wind: 0 km/hr Rain: Light Moon: No Moon Water Surface Present: Yes Water Surface Temp: 15 °C Water Conductivity: 290 µS/cm Water pH: 8.41	None



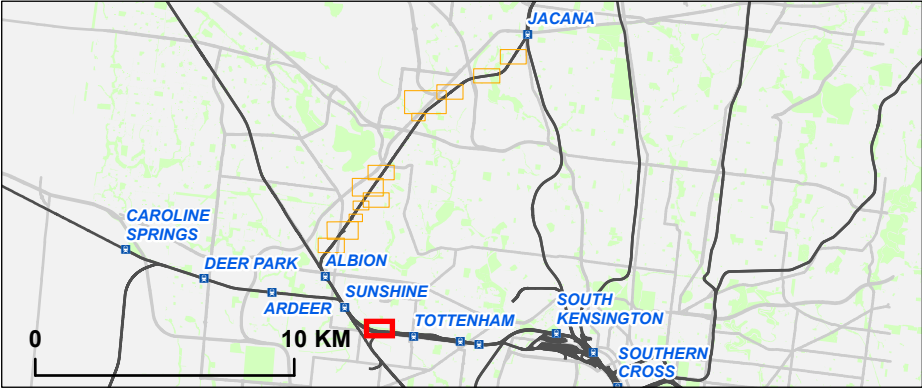
Appendix D-1 Threatened Fauna Survey Locations



- Rail
 - Watercourse
 - ▭ Project Land
 - ▭ Key Assessment Areas
 - ▭ Golden Sun Moth Survey Area
 - Growing Grass Frog Survey Location
- Native Vegetation**
- ▭ 132 Plains Grassland
 - ▭ 55 Plains Grassy Woodland

Map 1 of 18

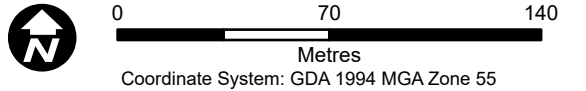
Data Sources:
AJMJV 2021
VicTrack 2021
Vicmap 2021
Aerial photo: DELWP Apr. 2021



**Melbourne Airport Rail
Project Wide**

Threatened fauna Survey locations

Drawing Number:		Revision:	
MAR-AJM-PWD-PWD-MAP-XEV-MMN-0490745		A.1	
Drawn By:	Approved By:	Date:	Map Size:
J. Rivera	L. McComb	7/09/2021	A3





Rail

Watercourse

Project Land

Key Assessment Areas

Striped Legless Lizard Tile Array

Golden Sun Moth Survey Area

Growing Grass Frog Survey Location

Native Vegetation

125 Plains Grassy Wetland

132 Plains Grassland

55 Plains Grassy Woodland

821 Tall Marsh

Map 2 of 18

Data Sources:
AJMJV 2021
VicTrack 2021
Vicmap 2021
Aerial photo: DELWP Apr. 2021

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Project Wide

Threatened fauna Survey locations

Drawing Number:
MAR-AJM-PWD-PWD-MAP-XEV-MMN-0490745

Revision:
A.1

Drawn By:
J. Rivera

Approved By:
L. McComb

Date:
7/09/2021

Map Size:
A3

0

70

140

Metres

Coordinate System: GDA 1994 MGA Zone 55

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Rail

Watercourse

Project Land

Key Assessment Areas

Growing Grass Frog Survey Location

Native Vegetation

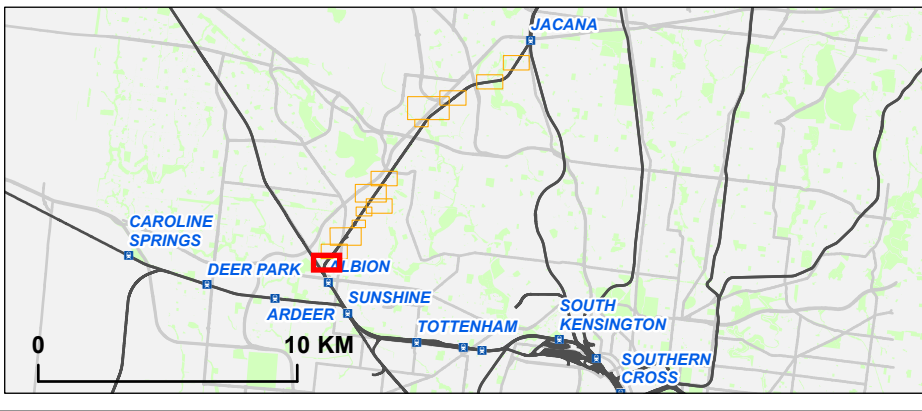
125 Plains Grassy Wetland

132 Plains Grassland

55 Plains Grassy Woodland

Map 3 of 18

Data Sources:
AJM JV 2021
VicTrack 2021
Vicmap 2021
Aerial photo: DELWP Apr. 2021



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Threatened fauna Survey locations

Drawing Number:
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Revision:
A.1

Drawn By:
J. Rivera

Approved By:
L. McComb

Date:
7/09/2021

Map Size:
A3

N

0

70

140

Metres

Coordinate System: GDA 1994 MGA Zone 55

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Rail

Project Land

Key Assessment Areas

Striped Legless Lizard Tile Array

Golden Sun Moth Survey Area

Native Vegetation

132 Plains Grassland

821 Tall Marsh

Map 4 of 18

Data Sources:
AJMJV 2021
VicTrack 2021
Vicmap 2021
Aerial photo: DELWP Apr. 2021

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Threatened fauna Survey locations

Drawing Number:
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Revision:
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Drawn By:
J. Rivera

Approved By:
L. McComb

Date:
7/09/2021

Map Size:
A3

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070140

Metres

Coordinate System: GDA 1994 MGA Zone 55

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Rail

Project Land

Key Assessment Areas

Striped Legless Lizard Tile Array

Golden Sun Moth Survey Area

Native Vegetation

132 Plains Grassland

Map 5 of 18

Data Sources:
AJMJV 2021
VicTrack 2021
Vicmap 2021
Aerial photo: DELWP Apr. 2021

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Project Wide

Threatened fauna Survey locations

Drawing Number:
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Revision:
A.1

Drawn By:
J. Rivera

Approved By:
L. McComb

Date:
7/09/2021

Map Size:
A3

N

070140

Metres

Coordinate System: GDA 1994 MGA Zone 55

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— Rail

▬ Project Land

Native Vegetation

■ 132 Plains Grassland

Map 6 of 18

Data Sources:
AJMJV 2021
VicTrack 2021
Vicmap 2021
Aerial photo: DELWP Apr. 2021

Melbourne Airport Rail
Project Wide

Threatened fauna Survey locations

Drawing Number:		Revision:	
MAR-AJM-PWD-PWD-MAP-XEV-MMN-0490745		A.1	
Drawn By:	Approved By:	Date:	Map Size:
J. Rivera	L. McComb	7/09/2021	A3

070140

Metres

Coordinate System: GDA 1994 MGA Zone 55



Rail

Watercourse

Project Land

Native Vegetation

132 Plains Grassland

55 Plains Grassy Woodland

Map 7 of 18

Data Sources:
AJMJV 2021
VicTrack 2021
Vicmap 2021
Aerial photo: DELWP Apr. 2021

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Project Wide

Threatened fauna Survey locations

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L. McComb

Date:
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Map Size:
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070140

Metres

Coordinate System: GDA 1994 MGA Zone 55

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Rail

Project Land

Native Vegetation

132 Plains Grassland

Map 8 of 18

Data Sources:
AJMJV 2021
VicTrack 2021
Vicmap 2021
Aerial photo: DELWP Apr. 2021

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Project Wide

Threatened fauna Survey locations

Drawing Number:

MAR-AJM-PWD-PWD-MAP-XEV-MMN-0490745

Revision:

A.1

Drawn By:

J. Rivera

Approved By:

L. McComb

Date:

7/09/2021

Map Size:

A3

N

0

80

160

Metres

Coordinate System: GDA 1994 MGA Zone 55

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Rail

Project Land

Key Assessment Areas

Native Vegetation

132 Plains Grassland

Map 9 of 18

Data Sources:
AJMJV 2021
VicTrack 2021
Vicmap 2021
Aerial photo: DELWP Apr. 2021

Melbourne Airport Rail
Project Wide

Threatened fauna Survey locations

Drawing Number:
MAR-AJM-PWD-PWD-MAP-XEV-MMN-0490745

Approved By:
L. McComb

Date:
7/09/2021

Revision:
A.1

Map Size:
A3

03060

Metres

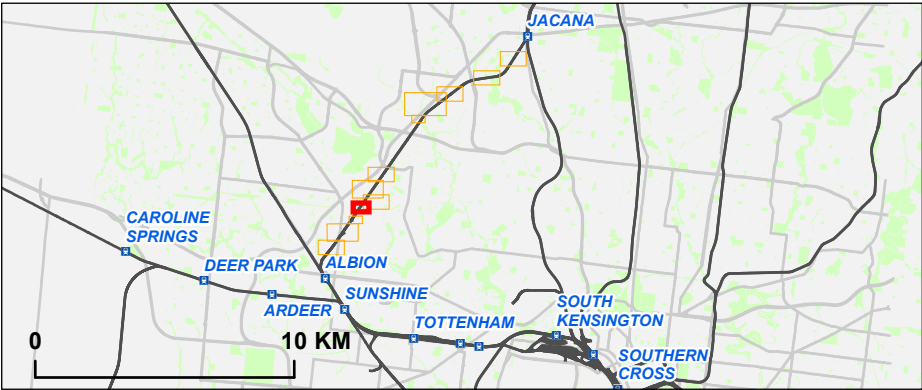
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Map 10 of 18

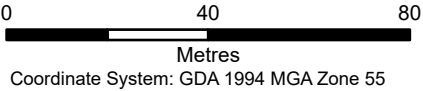
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Aerial photo: DELWP Apr. 2021

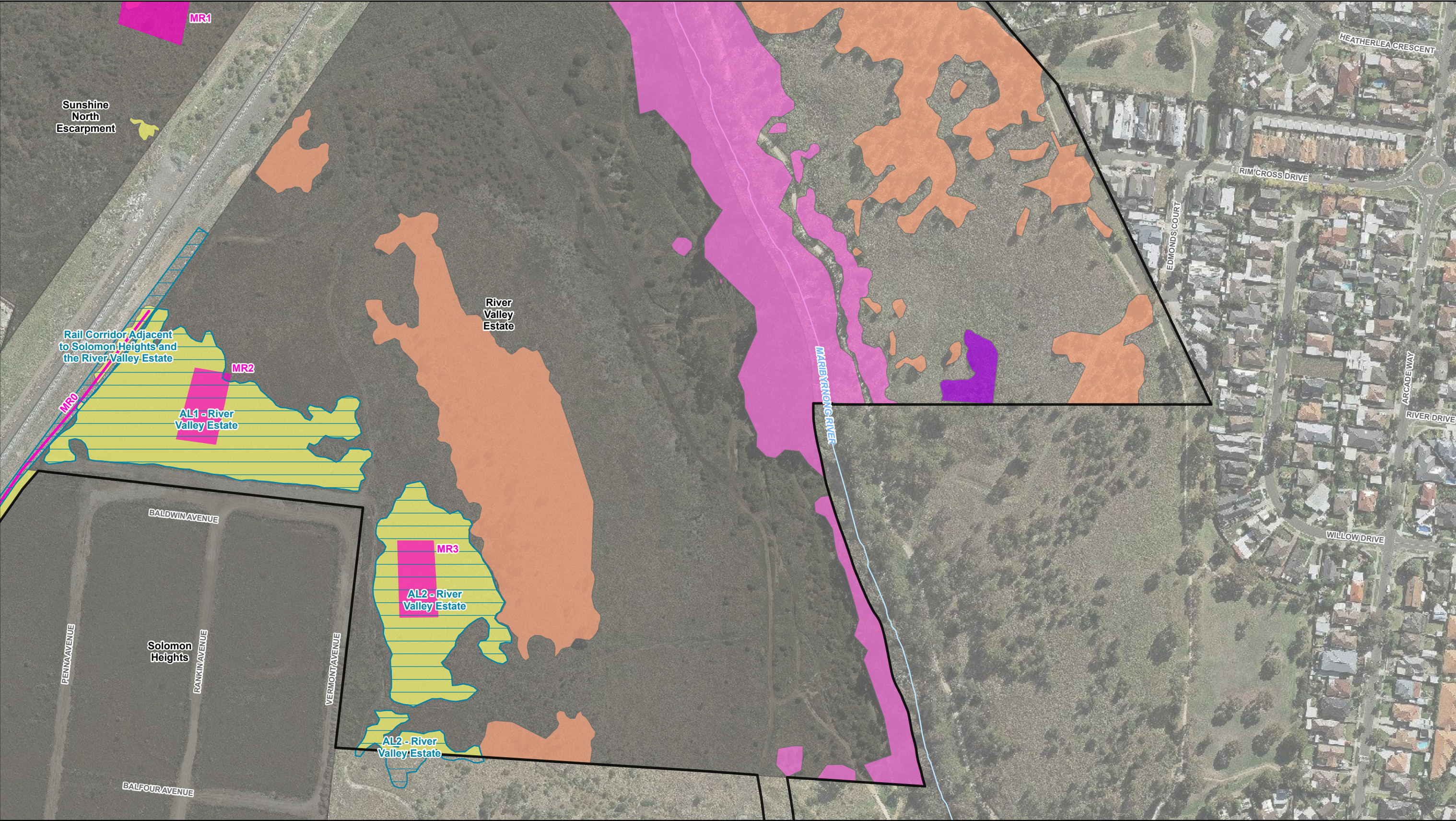


**Melbourne Airport Rail
Project Wide**

Threatened fauna Survey locations

Drawing Number:		Revision:	
MAR-AJM-PWD-PWD-MAP-XEV-MMN-0490745		A.1	
Drawn By:	Approved By:	Date:	Map Size:
J. Rivera	L. McComb	7/09/2021	A3





Rail

Watercourse

Project Land

Key Assessment Areas

Striped Legless Lizard Tile Array

Striped Legless Lizard Tile Array

Golden Sun Moth Survey Area

Native Vegetation

132 Plains Grassland

56 Floodplain Riparian Woodland

821 Tall Marsh

895 Escarpment Shrubland

Map 11 of 18

Data Sources:
AJMJV 2021
VicTrack 2021
Vicmap 2021
Aerial photo: DELWP Apr. 2021

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Project Wide

Threatened fauna Survey locations

Drawing Number:
MAR-AJM-PWD-PWD-MAP-XEV-MMN-0490745

Revision:
A.1

Drawn By:
J. Rivera

Approved By:
L. McComb

Date:
7/09/2021

Map Size:
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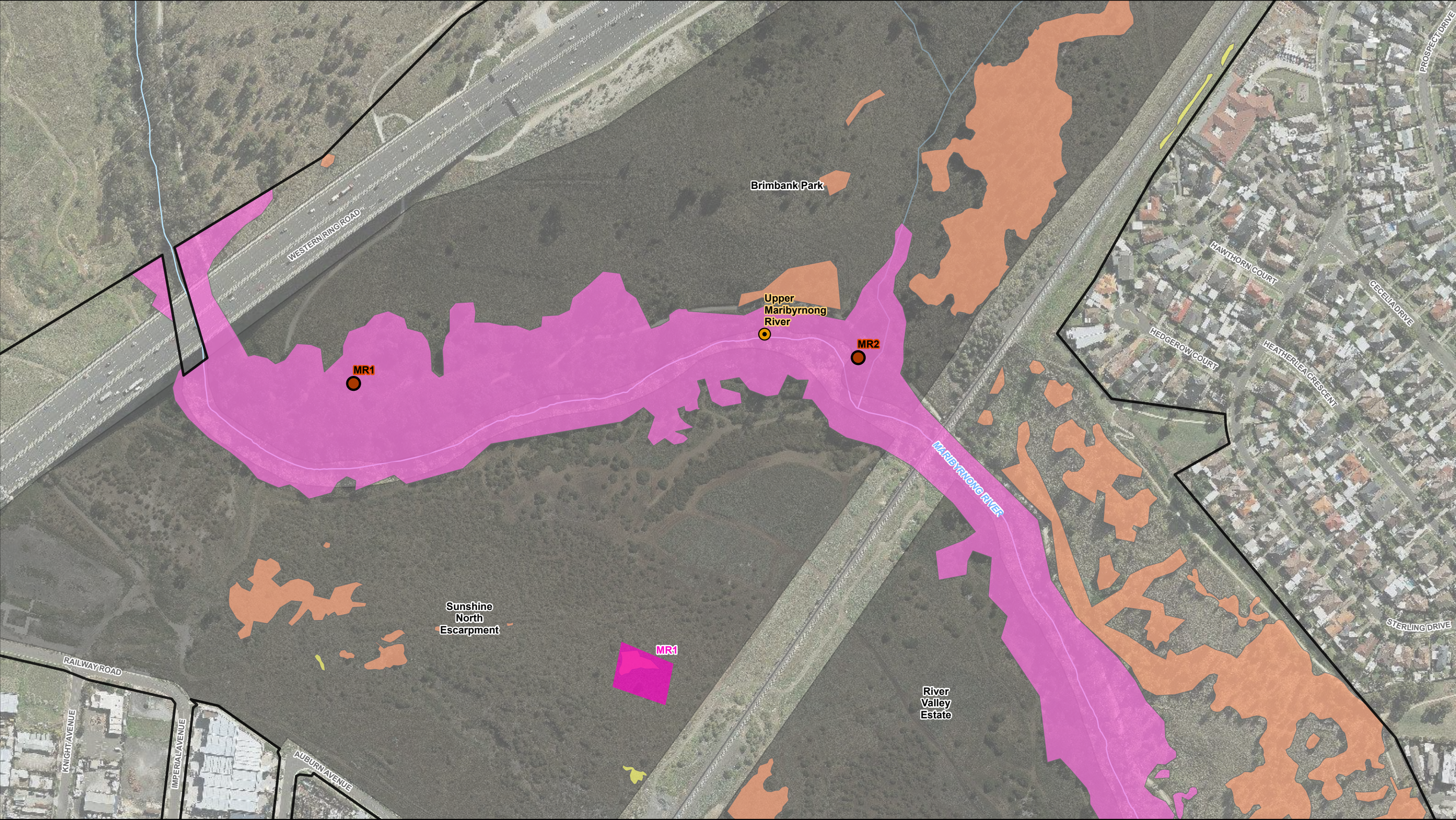
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140

Metres

Coordinate System: GDA 1994 MGA Zone 55

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Rail

Watercourse

Project Land

Key Assessment Areas

Striped Legless Lizard Tile Array

Brown Toadlet Survey Location

Growing Grass Frog Survey Location

Native Vegetation

132 Plains Grassland

56 Floodplain Riparian Woodland

895 Escarpment Shrubland

Map 12 of 18

Data Sources:
AJMJV 2021
VicTrack 2021
Vicmap 2021
Aerial photo: DELWP Apr. 2021

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Project Wide

Threatened fauna Survey locations

Drawing Number:
MAR-AJM-PWD-PWD-MAP-XEV-MMN-0490745

Revision:
A.1

Drawn By:
J. Rivera

Approved By:
L. McComb

Date:
7/09/2021

Map Size:
A3

N

0

80

160

Metres

Coordinate System: GDA 1994 MGA Zone 55

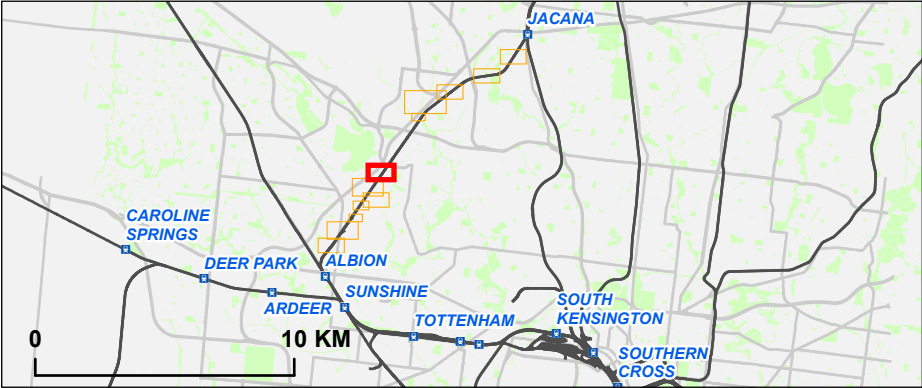
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- Rail
 - Watercourse
 - ▭ Project Land
 - ▭ Key Assessment Areas
 - ▭ Striped Legless Lizard Tile Array
- Native Vegetation**
- 132 Plains Grassland
 - 55 Plains Grassy Woodland
 - 895 Escarpment Shrubland

Map 13 of 18

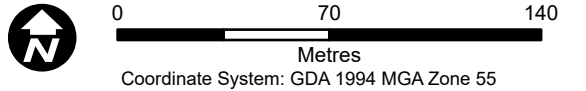
Data Sources:
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VicTrack 2021
Vicmap 2021
Aerial photo: DELWP Apr. 2021

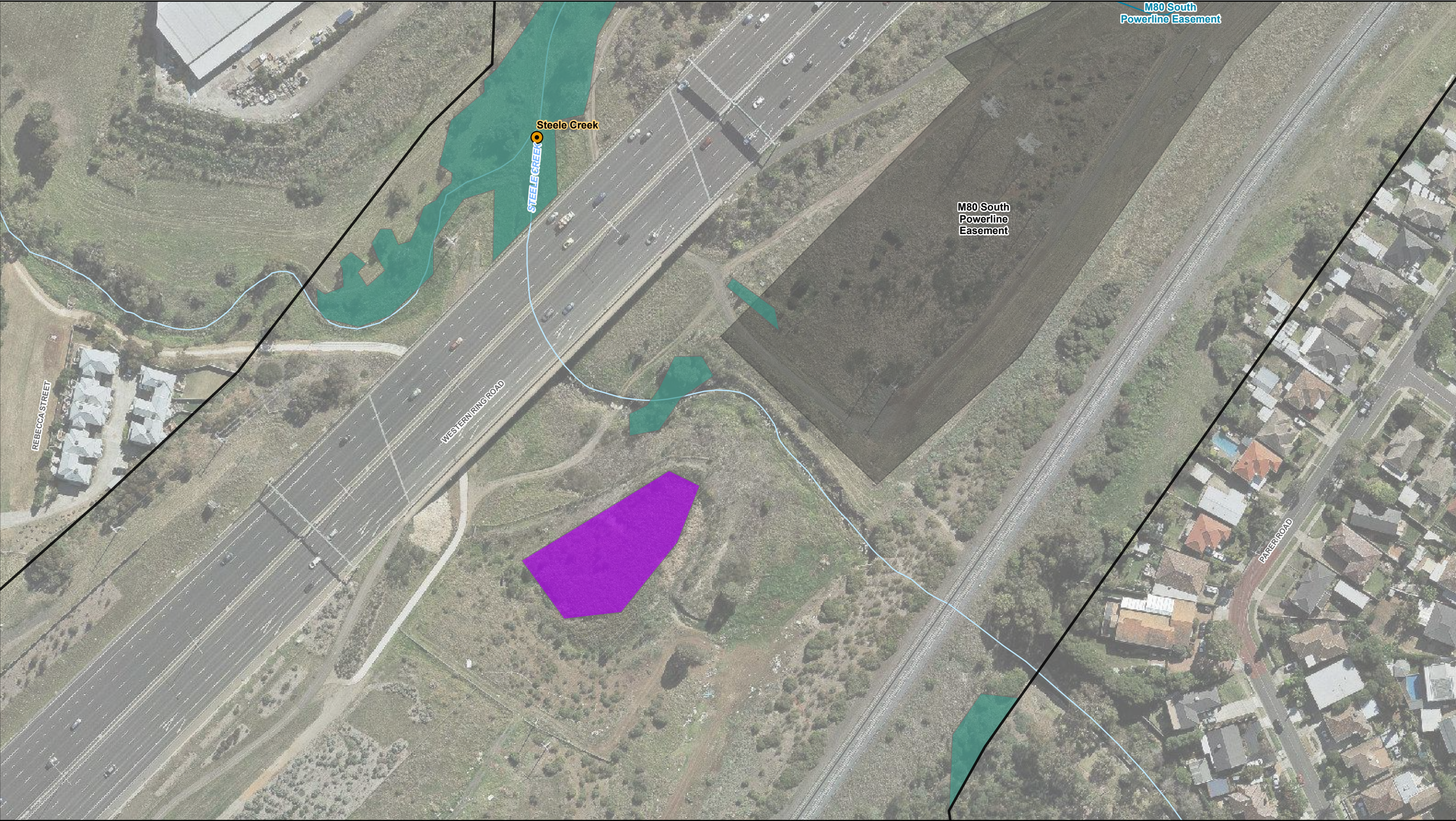


**Melbourne Airport Rail
Project Wide**

Threatened fauna Survey locations

Drawing Number:		Revision:	
MAR-AJM-PWD-PWD-MAP-XEV-MMN-0490745		A.1	
Drawn By:	Approved By:	Date:	Map Size:
J. Rivera	L. McComb	7/09/2021	A3





Rail

Watercourse

Project Land

Key Assessment Areas

Golden Sun Moth Survey Area

Growing Grass Frog Survey Location

Native Vegetation

821 Tall Marsh

851 Stream Bank Shrubland

Map 14 of 18

Data Sources:
AJMJV 2021
VicTrack 2021
Vicmap 2021
Aerial photo: DELWP Apr. 2021

CAROLINE SPRINGS

DEER PARK

ALBION

SUNSHINE

ARDEER

TOTTENHAM

SOUTH KENSINGTON

SOUTHERN CROSS

JACANA

0

10 KM

RAIL PROJECTS VICTORIA

AJM

Joint Venture

aurecon JACOBS

MOTT MACDONALD

Melbourne Airport Rail

Project Wide

Threatened fauna Survey locations

Drawing Number:
MAR-AJM-PWD-PWD-MAP-XEV-MMN-0490745

Revision:
A.1

Drawn By:
J. Rivera

Approved By:
L. McComb

Date:
7/09/2021

Map Size:
A3

N

0

30

60

Metres

Coordinate System: GDA 1994 MGA Zone 55

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Rail

Project Land

Key Assessment Areas

Native Vegetation

132 Plains Grassland

Map 16 of 18

Data Sources:
AJMJV 2021
VicTrack 2021
Vicmap 2021
Aerial photo: DELWP Apr. 2021

RAIL PROJECTS VICTORIA

AJM

Joint Venture

aurecon

JACOBS

M

MOTT MACDONALD

Melbourne Airport Rail
Project Wide

Threatened fauna Survey locations

Drawing Number:
MAR-AJM-PWD-PWD-MAP-XEV-MMN-0490745

Revision:
A.1

Drawn By:
J. Rivera

Approved By:
L. McComb

Date:
7/09/2021

Map Size:
A3

N

0

70

140

Metres

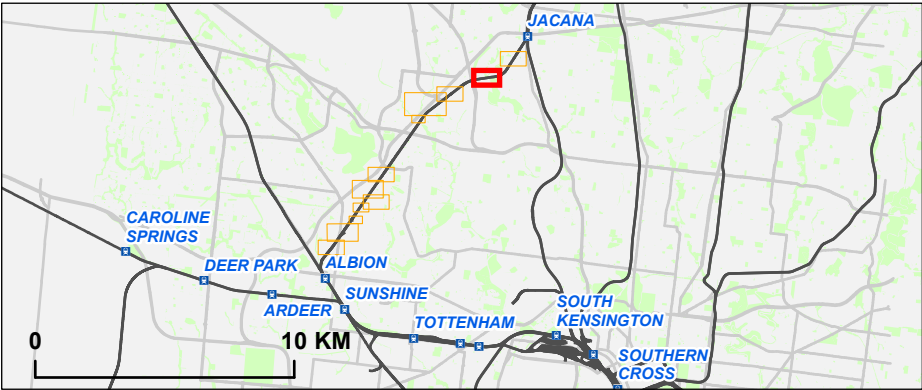
Coordinate System: GDA 1994 MGA Zone 55

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Map 17 of 18

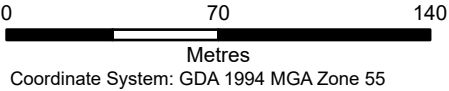
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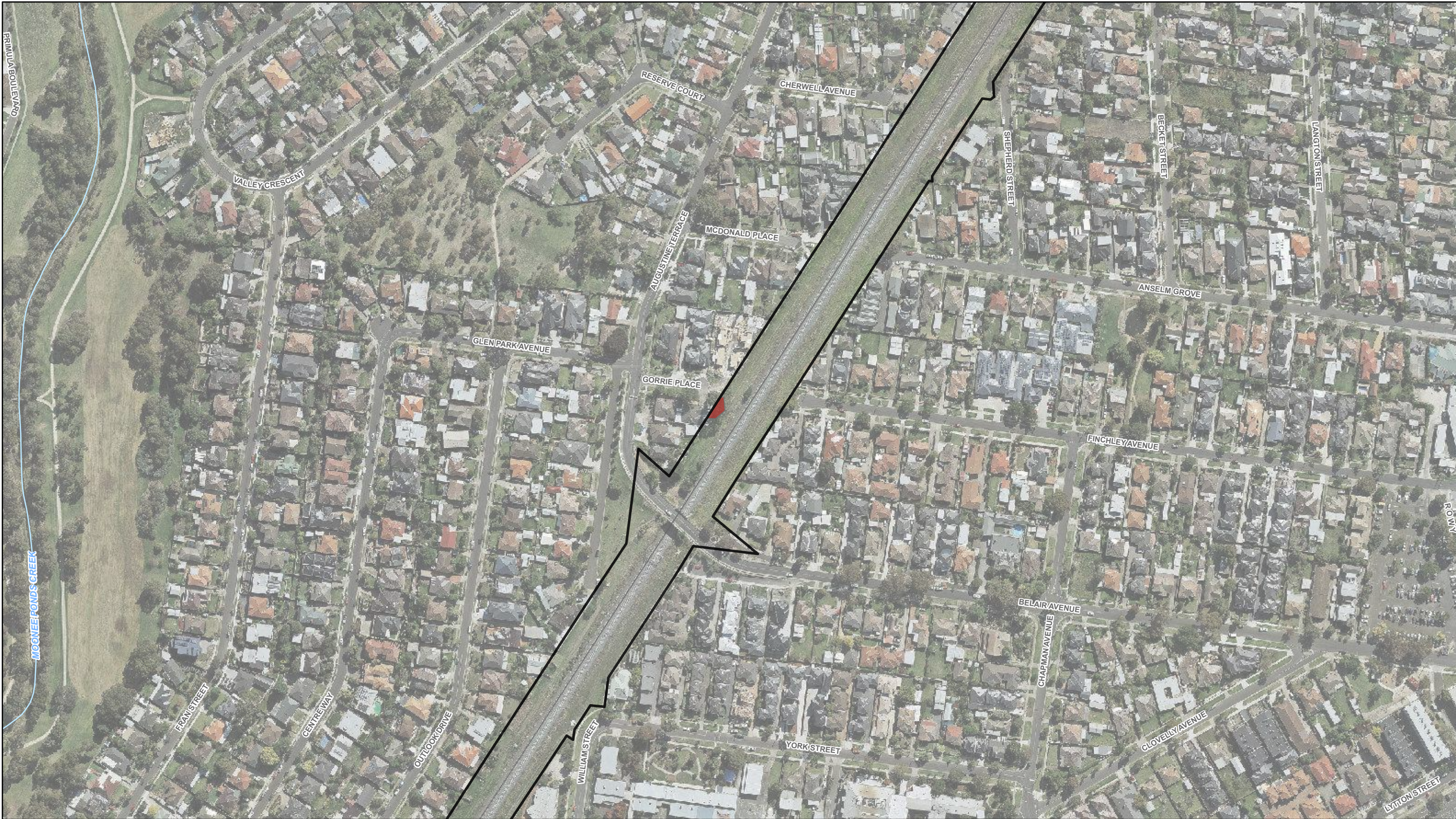


**Melbourne Airport Rail
Project Wide**

Threatened fauna Survey locations

Drawing Number:		Revision:	
MAR-AJM-PWD-PWD-MAP-XEV-MMN-0490745		A.1	
Drawn By:	Approved By:	Date:	Map Size:
J. Rivera	L. McComb	7/09/2021	A3

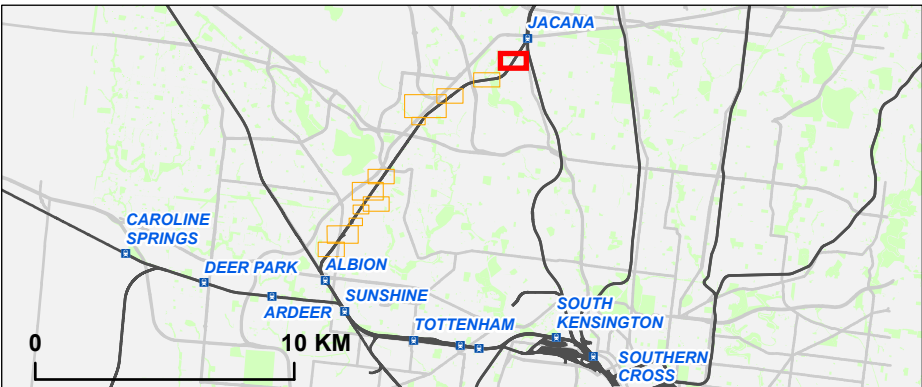




- Rail
- Watercourse
- ▭ Project Land
- Native Vegetation**
- 55 Plains Grassy Woodland

Map 18 of 18

Data Sources:
AJMJV 2021
VicTrack 2021
Vicmap 2021
Aerial photo: DELWP Apr. 2021



Melbourne Airport Rail Project Wide

Threatened fauna Survey locations

Drawing Number:		Revision:	
MAR-AJM-PWD-PWD-MAP-XEV-MMN-0490745		A.1	
Drawn By:	Approved By:	Date:	Map Size:
J. Rivera	L. McComb	7/09/2021	A3

