



8 March 2021

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Re: The M12 Motorway Amendment Report Submissions Report - Amendment

Dear Michael,

Following Transport for NSW lodgment of the *M12 Motorway amendment report:* Submissions Report (the Submissions Report) (Transport for NSW, December 2020), we have identified some minor errors in some of the tables in Section 6.2 of the Submissions Report.

This letter identifies these minor errors and presents amended tables. For ease of reference, the tables have the same numbering as in Section 6.2 in the Submissions Report.

Table 6-5

Table 6-5 of the Submissions Report includes a value of 56.69 for the area of Woodland habitat in the refined construction footprint. To maintain consistency with the values for Plant Community Types (PCTs) and vegetation zones in Tables 6-2 and 6-7 of the Submissions Report, this value has been amended to 56.71.

Table 6-5 Fauna habitat identified in the construction footprint

Habitat type	Habitat description	Area within construction footprint as per the amendment report (October 2020) excluding certified areas (ha)	Area within refined construction footprint (December 2020) excluding certified areas (ha)	Change in area excluding certified areas (ha)
Woodland	All mature and regenerating grassy, shrubby and heathy woodland vegetation within the study area not associated with riparian corridors on alluvial flats	56.75 (PCTs 724, 830, 849, 850 and 883)	56.71 (PCTs 724, 830, 849, 850 and 883)	-0.04
Riparian forest	All mature and regenerating	5.83	6.00	+0.17

Habitat type	Habitat description	Area within construction footprint as per the amendment report (October 2020) excluding certified areas (ha)	Area within refined construction footprint (December 2020) excluding certified areas (ha)	Change in area excluding certified areas (ha)
	forest/woodland vegetation associated with drainage lines on alluvial flats	(PCTs 835 and 1800)	(PCTs 835 and 1800)	
Grassland	All native and exotic grasslands, pastures and parklands. Scattered trees and landscape plants may also be present	277.04 (no associated PCTs)	274.46 (no associated PCTs)	-2.58
Wetlands and watercourses	All naturally occurring and constructed permanent or ephemeral dams, ponds, creeks and drainage channels	4.53 (no associated PCTs)	5.01 (no associated PCTs)	+0.48
Total		344.15	342.18	-1.97

Table 6-10

The heading of the fourth column in Table 6-10 of the Submissions Report was incorrect, referencing the amended project when it should have been referencing the refined construction footprint. The column heading has been amended.

Table 6-10 Native vegetation subject to indirect impacts (potential edge effects)

Location	PCT	Condition	Area of indirect impacts as described in the amendment report excluding certified areas (ha)	Area of indirect impacts of refined construction footprint (December 2020) excluding certified areas (ha)	Change in area excluding certified areas (ha)
Western	Non-viable fragments				
Sydney Parklands (excluding certified areas)	Grey Box - Forest Red Gum grassy woodland	Moderate/ Good_Medium	0.18	0.11	-0.07
	on shale of the southern Cumberland Plain, Sydney Basin Bioregion (PCT 850)	Moderate/ Good_Other (Revegetation)	0.03	0.03	0.00

Location	PCT	Condition	Area of indirect impacts as described in the amendment report excluding certified areas (ha)	Area of indirect impacts of refined construction footprint (December 2020) excluding certified areas (ha)	Change in area excluding certified areas (ha)
	New edges				
	Forest Red Gum - Grey Box shrubby woodland on shale of the southern Cumberland Plain, Sydney Basin Bioregion (PCT 830)	Moderate/ Good_Poor	0.61	0.61	0.00
	Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion (PCT 849)	Moderate/ Good_Medium	0.57	0.57	0.00
	Grey Box - Forest Red Gum grassy woodland on shale of the southern Cumberland Plain, Sydney Basin Bioregion (PCT 850)	Moderate/ Good_High	1.24	1.61	+0.37
		Moderate/ Good_Medium	3.31	3.44	+0.13
		Moderate/ Good_Poor	1.14	0.56	-0.58
		Moderate/ Good_Other (Revegetation)	5.99	5.92	-0.07
	Total Western Sydney	Parklands	13.07	12.85	-0.22
East of Clifton Avenue	Broad-leaved Ironbark - Grey Box - Melaleuca decora grassy open forest on clay/gravel soils of the Cumberland Plain, Sydney Basin Bioregion (PCT 724)	Moderate/ Good_High	0.45	0.45	0.00
	Total East of Clifton A	venue	0.45	0.45	0
Grand total			13.52	13.30	-0.22

Table 6-11

Table 6-11 of the Submissions Report lists a value of 0.99 hectares for the area of the species polygon for Southern Myotis within the refined construction footprint (excluding certified areas). This value has been amended to 1.05 hectares which reflects the correct area of impact.

Table 6-11 Fauna species polygons in the construction footprint

Species name	Area of species polygon (ha) within construction footprint as per the amendment report (October 2020) excluding certified areas	Area of species polygon (ha) within refined construction footprint (December 2020) excluding certified areas	Change in area excluding certified areas (ha)
<i>Meridolum corneovirens</i> Cumberland Plain Land Snail	5.22	5.10	-0.12
Myotis macropus Southern Myotis	0.96	1.05	+0.09

Table 6-12

Table 6-12 of the Submissions Report lists the area of habitat for Grey-headed Flying-fox as 62.69 hectares. This area has been amended to 62.71 to maintain consistency with the updated Table 6-5.

Table 6-12 Comparison of MNES for the construction footprint as per the amendment report and the refined construction footprint

MNES	Number or area (ha) within construction footprint as per amendment report (October 2020) excluding certified areas	Number or area (ha) within refined construction footprint (December 2020) excluding certified areas	Significant impact assessment in EIS BAR/ amendment report?	Change in area excluding certified areas (ha)	Any change to significant impact assessment for project refinements?
Threatened ecologic	al communities				
Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest	42.47 ha (includes 22.04 ha of revegetation)	42.89 ha ((includes 22.05 ha of revegetation)	Yes	+0.42 ha	No. Still significantly impacted.
Western Sydney Dry Rainforest and Moist Woodland on Shale	0.44 ha	0.44 ha	No	0	No. There is no change in impact. Still not significant.
Threatened flora					
Pultenaea parviflora	Up to 100	Up to 100	Yes	0	No. Still

MNES	Number or area (ha) within construction footprint as per amendment report (October 2020) excluding certified areas	Number or area (ha) within refined construction footprint (December 2020) excluding certified areas	Significant impact assessment in EIS BAR/ amendment report?	Change in area excluding certified areas (ha)	Any change to significant impact assessment for project refinements?
	individuals	individuals			significantly impacted.
Pimelea spicata	0	0	No	0	No. There is no change in impact. Still not significant.
Threatened fauna					
Grey-headed Flying- fox	62.58 ha (foraging)	62.71 ha (foraging)	No. Foraging habitat is impacted, but this will be offset and no breeding habitat is affected.	+0.13 ha	No. Still not considered significant.
Migratory species					
Migratory species	N/A no migratory species recorded	N/A no migratory species recorded	No	N/A	No change. Not significant.
Commonwealth land	1				
Commonwealth land	0	0	No.	0	No change. Not significant.

Table 6-14

Table 6-14 of the Submissions Report lists the indirect impacts of the refined construction footprint on PCT 850 as 11.85 hectares. This value has been amended to 11.67 hectares which is the correct area of indirect impact, and results in a reduction of two ecosystem credits from 135 to 133. This amendment also affects the values in the Total row.

Additionally, there is an incorrect value of 12.85 hectares in the total area of EPBC TEC impacts in the refined construction footprint (excluding certified areas); this has been amended to 12.74 hectares.

Table 6-15

Table 6-15 of the Submissions Report lists a value of 0.99 hectares for the loss of habitat for Southern Myotis within the refined construction footprint (excluding certified areas). This value has been amended to 1.05 hectares. The area of 1.05 hectares was already

included in the credit calculator, so the credit offset requirement does not change as a result of this amendment.

Table 6-16

Table 6-16 of the Submissions Report, which comprises a summary of credit requirements, has been amended to reflect the reduction of two credits for offsetting indirect impacts to PCT 850.

Table 6-14 Ecosystem credit offset requirements: indirect impacts

PCT name	All indirect impacts (including EPBC TEC impacts)			Change in					Change in	
	Construction footprint as per the amendment report excluding certified areas		Refined construction footprint (December 2020) excluding certified areas		credits required	Construction footprint as per the amendment report excluding certified areas		Refined construction footprint (December 2020) excluding certified areas		credits required
	Area (ha)	Credits	Area (ha)	Credits		Area (ha)	Credits	Area (ha)	Credits	
Broad-leaved Ironbark - Grey Box - Melaleuca decora grassy open forest on clay/gravel soils of the Cumberland Plain, Sydney Basin Bioregion PCT: 724 BVT: HN512	0.45	6	0.45	6	0	0.45	6	0.45	6	0
Forest Red Gum - Grey Box shrubby woodland on shale of the southern Cumberland Plain, Sydney Basin Bioregion	0.61	6	0.61	6	0	0.61	6	0.61	6	0
PCT: 830 BVT: HN524										
Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion	0.57	6	0.57	6	0	0.57	6	0.57	6	0
PCT: 849										
BVT: HN528										
Grey Box - Forest Red Gum grassy woodland on shale of the southern Cumberland Plain, Sydney Basin Bioregion	11.89	137	11.67	133	-4	10.75	125	11.11	127	+2

PCT name	Construction	on footprint	Refined con	struction	Change in credits required	EPBC TEC i	n footprint	Refined con		Change in credits required
	report excluding		footprint (December 2020) excluding certified areas			as per the amendment report excluding certified areas		footprint (December 2020) excluding certified areas		
	Area (ha)	Credits	Area (ha)	Credits		Area (ha)	Credits	Area (ha)	Credits	
PCT: 850										
BVT: HN529										
Total	13.52	155	13.30	151	-4	12.38	143	12.74	145	+2

Table 6-15 Species credit offset requirements

Species name	Loss of habitat (ha) or individuals within construction footprint as per the amendment report excluding certified areas	Species credits required for impacts of construction footprint as per the amendment report	Loss of habitat (ha) or individuals within refined construction footprint excluding certified areas	Species credits required for impacts of refined construction footprint	Change in credits required
Dillwynia tenuifolia	244 individuals	4392	244 individuals	4392	0
Pultenaea parviflora Sydney Bush-pea	Up to 100 individuals	1500	Up to 100 individuals	1500	0
Meridolum corneovirens Cumberland Plain Land Snail	5.22	68	5.10	66	-2
Myotis macropus Southern Myotis	0.96	21	1.05	23	+2
Total species credits		5,981		5,981	0

Table 6-16 Summary of credit offset requirements

PCT / BVT /Species name	Credits required to	ed to offset direct impacts Credits required to offset indirect impacts		Credits required to offset all impacts		
	All impacts (including EPBC listed impacts)	EPBC listed impacts only	All impacts (including EPBC listed impacts)	EPBC listed impacts only	All impacts (including EPBC listed impacts)	EPBC listed impacts only
Ecosystem credits						
PCT 724 / HN512	372	276	6	6	378	282
PCT 830 / HN524	15	15	6	6	21	21
PCT 835 / HN526	105	N/A	0	N/A	105	N/A
PCT 849 / HN528	210	65	6	6	216	71
PCT 850 / HN529	1908	1659	133	127	2041	1786
PCT 1800 / HN674	75	0	0	0	75	0
Total ecosystem credits	2685	2015	151	145	2836	2160
Species credits						
Dillwynia tenuifolia	4392	N/A	0	0	4392	0
Pultenaea parviflora Sydney Bush-pea	1500	1500	0	0	1500	1500
Meridolum corneovirens Cumberland Plain Land Snail	66	N/A	0	0	66	0
Myotis macropus Southern Myotis	23	N/A	0	0	23	0
Total species credits	5981	1500	0	0	5981	1500





If you have any further questions, please contact Jane Rodd, Senior Ecologist (M: 02 8907 8266 E: jane.rodd@arcadis.com). I hope this has been of assistance.

Yours sincerely

Jane Rodd

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