

Appendix A

Revised Table 6-2 from Flora and Fauna Working Paper

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Revised Table 6-2 Details of proposed fauna crossings

Culvert no.	Station	Crossing type	Description	Height	Width	Length	Regional connectivity	Target species	Other species that may use the crossing
4	1020	Combined	Replace existing with single cell 3m x 3m box culvert. 0.5m flow height at max event. Therefore steps to account for terrestrial fauna together with enough flow to account for fish-friendly crossing can be accommodated by restricting the channel width to 1m.	3.0	3.0	52.8	Links mapped key habitat to the west and habitat to the east contiguous with vegetation in proximate subregional east-west corridor	Koala	Macropods, small mammals, reptiles and amphibians
6	1590	Incidental	Four 1.8 metres x 1.2m box culverts	1.2	1.8	60	Links native vegetation east and west, located in a mapped subregional corridor	No target species	Frogs reptiles Small mammals, if dry
6F	1620	Dedicated	Stand-alone fauna crossing. Sized at 2.4 metres x 3.0 metres. 50m length, would require a skylight. Entry-Exit re-grade works to prevent water entry into the fauna crossing.	3.0	3.0	45.6	Located within a mapped sub-regional corridor linking areas of key habitat to the east and west	Koala	Macropods, possums, small mammals, reptiles and amphibians
9	2605	Incidental	Four 1.8 metres x 1.8 metres box culverts	1.8	1.8	81.6	Not part of a mapped regional corridor	No target species	Frogs reptiles Small mammals, if dry
9F	2625	Dedicated	3m (w) x 2.7 metres (h) stand-alone fauna crossing	1.8	3.0	69.6	Not located within mapped regional or sub-regional corridor; mapped key habitat to the west and habitat to the east	Koala	Small to medium-sized mammals, reptiles and amphibians
10	3585	Incidental	Four 1.5m x 1.2m box culverts	1.2	1.5	46.8	Links native vegetation east and west, not part of a mapped regional corridor	No target species	Frogs Reptiles Small mammals if dry

Culvert no.	Station	Crossing type	Description	Height	Width	Length	Regional connectivity	Target species	Other species that may use the crossing
10F	3605	Dedicated	Single cell 3m x 2.1m box culvert	2.1	3.0	43.2	Not located within a mapped regional or sub-regional corridor; mapped key habitat to the west and habitat to the east	Koala	Small to medium-sized mammals, reptiles and amphibians
12	4231	Incidental	One 1.2m x 1.2m RCP	1.2 dia		69.6	Links native vegetation east and west, not part of a mapped regional corridor	No target species	Small mammals if dry Frogs reptiles
13	4456	Combined	Existing 3m(w) x 2.1m(h) box culvert. Extend to the west.	2.1	3.0	69.6	Links native vegetation east and west, not part of a mapped regional corridor	Koala	Small macropods, possums, small mammals, frogs and reptiles
15	4600-4900	Bridge	Fernbank Creek Bridge 104m long, 6 spans				Not part of a mapped regional corridor; patchy vegetation connectivity within riparian corridor to the east and west of proposed crossing	No target species	Koala Possums and macropods, wetland and open country birds, reptiles and amphibians
16	5180	Combined	3m x 2.1m box culvert x 4 cells	2.1	3.0	55	Not part of a regional corridor; floodplain	No target species	Macropods, frogs, reptiles depending on grazing levels
19	5540 and 6020	Bridge	Hastings River Bridge 468m long, 17 spans				Not part of a mapped regional corridor; patchy vegetation connectivity within riparian corridor to the east and west of proposed crossing	No target species	Koala Possums and macropods, wetland and open country birds, reptiles and amphibians
20	6283	Combined	3m x 3m single box culvert	3.0	3.0	50.4	Not part of a mapped regional corridor; floodplain	No target species	Macropods, frogs, reptiles depending on grazing levels

Culvert no.	Station	Crossing type	Description	Height	Width	Length	Regional connectivity	Target species	Other species that may use the crossing
21	6727	Combined	3m x 2.4 metres single box culvert	2.4	3.0	40.8	Links vegetation east and west. Not part of a mapped regional corridor.	No target species	Koala and spotted-tailed quoll, possums, smaller macropods, small mammals, reptiles and amphibians
22	7272	Combined	3m x 2.4 metres single box culvert	2.4	3.0	43.2	Not part of a mapped regional corridor. Links vegetation to the east and west contiguous with State forest	Koala	Spotted-tailed quoll, possums, smaller macropods, small mammals, reptiles and amphibians
29	9209	Combined	Re-grade to allow for 3m x 3m fauna crossing. Look at dry crossings. No fish passage required.	3.0	3.0	52.8	Mapped regional corridor associated with key habitat in Rawdon Creek Nature Reserve to the west and key habitat in Cairncross State Forest to the east	Koala	Possoms, spotted-tailed quoll, macropods, small mammals, reptiles and amphibians (possibly green-thighed frog)
32	10680	Incidental	One 1.2m x 0.9m box culvert	0.9	1.2	43.2	Links native vegetation east and west within Cairncross State Forest, vegetation contiguous with mapped regional corridors located to the north and south	No target species	Frogs and some reptiles (dependent on flows and velocities etc) Small mammals, if dry
32A	11151	Incidental	Proposed 3m(w) x 2.4 metres(h) fauna crossing	2.4	3.0	43.2	Links native vegetation east and west within Cairncross State Forest, vegetation contiguous with mapped regional corridors located to the north and south	No target species	Frogs possibly Green-thighed frog reptiles Koala, spotted-tailed quoll and other small mammals possible if dry

Culvert no.	Station	Crossing type	Description	Height	Width	Length	Regional connectivity	Target species	Other species that may use the crossing
32B	11692	Incidental	3m x 2.4 metres single box culvert	2.4	3.0	48.0	Located within mapped regional corridor, links vegetation in Cairncross State Forest to the east and west	No target species	Frogs possibly Green-thighed frog Reptiles other small to medium-sized mammals possible if dry
34	12410	Incidental	Single cell 1.8 metres x 0.60 box culvert	0.6	1.8		Not part of a mapped regional corridor	No target species	Frogs, reptiles
40	16050	Bridge	Wilson River Bridge 559.7m long, 15 spans				Not part of a mapped regional corridor; narrow band of generally continuous vegetation within riparian corridor to the east and west of proposed crossing	No target species	Koala Small (dasyurids, rodents), medium (possums) and larger mammals (wallabies and macropods), birds, reptiles and amphibians
44	17175	Bridge	36m long, 3 spans				Not part of a mapped regional corridor	No target species	Koala Small-large mammals (including macropods) birds, reptiles and amphibians
50	17158	Combined	3m x 3m single cell box culvert	3.0	3.0	105.6	Not part of a mapped regional corridor	No target species	Koala, macropods Reptiles and frogs
51	17708	Multiuse crossing (livestock, vehicles, fauna)	Approx 4.5m (w) x 4.5m (w) to account for farm equipment	3.6	3.6	57.6	Not part of a mapped regional corridor network; fragmented vegetation to the east and west	No target species	Koala, macropods, small mammals, birds, reptiles and amphibians

Culvert no.	Station	Crossing type	Description	Height	Width	Length	Regional connectivity	Target species	Other species that may use the crossing
52	18623	Incidental	One 3m x 0.9m box culvert	0.9	3.0	48.0	Links fragmented vegetation east and west, not part of a mapped regional corridor	No target species	Frogs Reptiles Small mammals, if dry
53	18743	Incidental	Replace existing with 3m (w) x 2.1m (h) box culvert	2.1	3.0	50.4	Not part of a mapped regional corridor	No target species	Frogs Reptiles Small mammals, if dry
57	19660-19710	Bridge	Cooperabung Creek Bridge 32m long, 4 spans				Not part of a mapped regional corridor; riparian vegetation continuous within riparian corridor to the east and west of proposed crossing	No target species	Koala Small , medium and larger mammals (wallabies and macropods), birds, reptiles and amphibians
58S	20050	Incidental	One 1.2m x 1.2m RCP	1.2 dia		28.8	Not part of a mapped regional corridor	No target species	frogs and reptiles
59	20260	Incidental	Replace existing 2.1m RCP with 3m (w) x 2.4 metres (h) box culvert	2.4	3.0	43.2	Links native vegetation east and west adjacent to Cooperabung Nature Reserve, not part of a mapped regional corridor	No target species	frogs and reptiles small mammals possible if dry
60F	20528	Dedicated	Single cell 3m (w) x 3m (h) box culvert	3.0	3.0	55.2	Not part of a regional corridor. Links vegetation to the east and west that is contiguous with a mapped regional corridor in Cooperabung Nature Reserve and Ballengarra State Forest	Koala	Spotted-tailed quoll, macropods Small mammals, reptiles and amphibians

Culvert no.	Station	Crossing type	Description	Height	Width	Length	Regional connectivity	Target species	Other species that may use the crossing
63F	21255	Dedicated	Single cell 3m (w) x 3m (h) box culvert	3.0	3.0	84.0	Located in a mapped regional corridor linking mapped key habitat in Cooperabung Nature Reserve and Ballengarra State Forest	Koala	Macropods, spotted-tailed quoll Small mammals, reptiles and amphibians
64	21531	Combined	3m x 3m fauna crossing. Median is wide and therefore would need an opening for light. Existing 1200 mm RCP to be replaced	3.0	3.0	64.8	Located in a mapped regional corridor linking areas of key habitat to the east and west	Koala	Possums, spotted-tailed quoll, macropods, small mammals, reptiles and amphibians
65	21791	Combined	Replace existing with 3m (w) x 3m (h) box culvert to be installed. Look at open median with treatment	3.0	3.0	60.0	Located in a mapped regional corridor linking areas of key habitat to the east and west	Koala	Possums, spotted-tailed quoll, macropods, small mammals, reptiles and amphibians
66	22179	Combined	Existing 2 x 2.7 metres dia steel pipes to be replaced with single 3.6m (h) x 3.6m (h) box culvert	3.6	3.6	76.8	Located in a mapped regional corridor linking areas of key habitat to the east and west	Koala	Possums, spotted-tailed quoll, macropods, small mammals, reptiles and amphibians
67F	23325	Dedicated	Single cell 3m (w) x 3m (h) box culvert	3.0	3.0	48.0	Located in a mapped regional corridor linking areas of key habitat to the east and west; vegetation contiguous with mapped climate change corridor to the east	Koala	Possums, spotted-tailed quoll, macropods Small mammals, reptiles and amphibians
71	23140	Incidental	Single 900mm dia RCP. To be replaced with 3m (w) x 2.1m (h)	2.1	3.0	55.2	Located in a mapped regional corridor linking areas of key habitat to the east and west; vegetation contiguous with mapped climate change corridor to the east	No target species	Frogs and reptiles Smaller mammals if dry

Culvert no.	Station	Crossing type	Description	Height	Width	Length	Regional connectivity	Target species	Other species that may use the crossing
73	23967	Combined	5 x 3m x 3m box culvert to be extended to the east. Median opening required	3.0	3.0	31.2	Located in a mapped regional corridor linking areas of key habitat to the east and west; vegetation contiguous with mapped climate change corridor to the east	Koala	Possums, spotted-tailed quoll, macropods, small mammals, reptiles and amphibians
74	24441	Incidental	Replace existing 1500mm dia RCP with single 3m (w) x 1.8 metres (h) box culvert	1.8	3.0	45.6	Located in a mapped regional corridor linking areas of key habitat to the east and west; vegetation contiguous with mapped climate change corridor to the east	No target species	Frogs and reptiles Small to medium mammals possibly if dry
75	24732	Incidental	Replace existing with single 3m (w) x 2.4 metres (h) box culvert	2.4	3.0	62.4	Located in a mapped regional corridor linking areas of key habitat to the east and west; vegetation contiguous with mapped climate change corridor to the east	No target species	frogs and reptiles Small to medium mammals possibly if dry
76	25105	Incidental	Extend existing 1500mm dia RCP	1.5 dia		30.0	Located in a mapped regional corridor linking areas of key habitat to the east and west; vegetation contiguous with mapped climate change corridor to the east	No target species	frogs and reptiles Small to medium mammals possibly, if dry
78	25427	Incidental	Replace existing 1500mm dia RCP with 3m (w) x 1.5m (h) box culvert	1.5	3.0	45.6	Located on northern edge of mapped regional corridor; links vegetation to the east and west	No target species	frogs and reptiles Small to medium mammals possibly, if dry

Culvert no.	Station	Crossing type	Description	Height	Width	Length	Regional connectivity	Target species	Other species that may use the crossing
80	25706	Combined	Replace existing 1800mm with single cell 3m x 2.7 box culvert	2.7	3.0		Not part of a mapped regional corridor; links vegetation to the east and west	Koala	Possums, spotted-tailed quoll, macropods, small mammals, reptiles and amphibians
83	26383	Incidental	Existing 1800mm RCP to be replaced with 1500mm dia RCP	1.5 dia		26.4	Not part of a mapped regional corridor; links vegetation to the east and west	No target species	Frogs and reptiles Small to medium mammals possibly, if dry
83F	26400	Dedicated	Single cell 3m (w) x 3m (h) box culvert	3.0	3.0	40.8	Not part of a mapped regional corridor; links vegetated habitat east and west	Koala	Macropods, spotted-tailed quoll Small mammals, reptiles and amphibians
84	26785	Combined	Existing 1200 mm dia RCP to be replaced with 3m (w) x 3m (w) box culvert	3.0	3.0	45.6	Not part of mapped regional corridor network; limited connectivity to the west	Koala	Macropods, spotted-tailed quoll Small mammals, reptiles and amphibians
86	27510	Combined	Replace existing 1200 mm dia RCP with 3m x 3m box culvert	3.0	3.0	43.2	Located within sub-regional corridor linking extensive areas of mapped key habitat within state forests to the east and west	Koala	Macropods, spotted-tailed quoll Small mammals, reptiles and amphibians
88	28225-28270	Bridge	Smiths Creek Bridge 30m long, 3 spans				Located on edge of subregional corridor; riparian vegetation continuous within riparian corridor to the east and west of proposed crossing	No target species	Koala, spotted-tailed quoll Small, medium and larger mammals (wallabies and macropods), birds, reptiles and amphibians

Culvert no.	Station	Crossing type	Description	Height	Width	Length	Regional connectivity	Target species	Other species that may use the crossing
88a	28295	Dedicated	Two 3m x 3m box culverts	3.0	3.0	24.0	Located on the edge of a mapped sub-regional corridor linking extensive areas of key habitat within state forests to the east and west	Koala	Macropods, spotted-tailed quoll Small mammals, reptiles and amphibians
89	28673	Combined	Three 2.4 metres x 2.4 metres box culverts	2.4	2.4	28.8	Not part of mapped regional corridor; Links fragmented vegetation to the east and west	No target species	Koala, small mammals and macropods, reptiles and amphibians
90	29608	Incidental	Four 1.5m x 1.5m box culverts	1.5	1.5	21.6	Not part of mapped regional corridor; Links fragmented vegetation to the east and west	No target species	Frogs Reptiles Small mammals possible if dry
91	30077	Incidental	One 3m x 2.7 metres box culvert	2.7	3.0	45.6	Not part of mapped regional corridor; Links fragmented vegetation to the east and west	No target species	Frogs Reptiles Small mammals possible if dry
92	30660	Bridge	Pipers Creek Bridge 31m long, 3 spans				Not part of a mapped regional corridor; riparian vegetation continuous within riparian corridor to the east and west of proposed crossing	No target species	Koala, spotted-tailed quoll Small, medium and larger mammals (wallabies and macropods), birds, reptiles and amphibians
93	30957	Combined	One 3m x 1.5m box culvert				Located near a mapped regional corridor to the north; Links fragmented vegetation to the east and west	No target species	small mammals and macropods, reptiles and amphibians

Culvert no.	Station	Crossing type	Description	Height	Width	Length	Regional connectivity	Target species	Other species that may use the crossing
94	31107	Combined	One 3m x 1.8 metres box culvert	1.8	3.0	45.6	Located near a mapped regional corridor to the north; Links fragmented vegetation to the east and west	No target species	small mammals and macropods, reptiles and amphibians
96	31887	Combined	Existing 1050mm dia RCP to be replaced by 3m x 3m box culvert	3.0	3.0	45.6	Located within a mapped regional corridor linking extensive areas key habitat in Maria River and Ballengarra state forests	Koala	Possums, macropods, reptiles and amphibians
97	32357	Combined	Existing 1050mm dia RCP to be replaced by 3m x 3m box culvert	3.0	3.0	43.2	Located within mapped regional corridor linking extensive areas key habitat in Maria River and Ballengarra state forests	Koala	Macropods, small mammals, reptiles and amphibians
98	32662	Combined	Existing 1350mm dia RCP to be replaced by 3m x 3m box culvert	3.0	3.0	40.8	Located within a mapped regional corridor linking extensive areas key habitat in Maria River and Ballengarra state forests	Koala	Possums, spotted-tailed quoll, macropods, small mammals, reptiles and amphibians
99	33103	Combined	3m x 3m box culvert	3.0	3.0	45.6	Located within a mapped regional corridor linking extensive areas key habitat in Maria River State Forest to the east and west	Koala	Possums, spotted-tailed quoll, macropods, small mammals, reptiles and amphibians (green-thighed frog)
100F	33390	Dedicated	3m x 3m single cell box culvert on new carriageways	3.0	3.0	43.2	Located within a mapped regional corridor linking extensive areas of key habitat within Maria River State Forest to the east and west	Koala	Possums, spotted-tailed quoll, macropods, small mammals, reptiles and amphibians (green-thighed frog)

Culvert no.	Station	Crossing type	Description	Height	Width	Length	Regional connectivity	Target species	Other species that may use the crossing
102	34086	Combined	3m (w) x 1.8 metres (h) box culvert cut in at western side. Min 1.8 metres (h) required	1.8	3.0	48.0	Located within a mapped regional corridor linking extensive areas key habitat in Maria River State Forest to the east and west		Small-medium macropods, spotted-tailed quoll, possums small mammals, reptiles and amphibians (green-thighed frog)
103	34714	Combined	3m x 2.4 metres single cell box culvert	3.0	3.0	45.6	Located within a mapped regional corridor linking extensive areas key habitat in Maria River State Forest to the east and west	Koala	Possums, spotted-tailed quoll, macropods, small mammals, reptiles and amphibians (green-thighed frog)
106	35727	Combined	3m x 3m single cell box culvert	3.0	3.0	40.8	Located within a mapped regional corridor linking extensive areas key habitat in Maria River State Forest to the east and west	Koala	Possums, spotted-tailed quoll, macropods, small mammals, reptiles and amphibians (green-thighed frog)
109	36356	Combined	3m x 3m single cell box culvert	3.0	3.0	57.6	Located within a mapped regional corridor linking extensive areas key habitat in Maria River State Forest to the east and west	Koala	Possums, spotted-tailed quoll, macropods, small mammals, reptiles and amphibians (green-thighed frog and possibly giant-barred frog)
N/A	37730-37790	Bridge	Stumpy Creek bridge 36m long, 3 spans				Located within a mapped regional corridor linking extensive areas key habitat in Maria River State Forest to the east and west	No target species	Koala, spotted-tailed quoll, green-thighed frog Small, medium and larger mammals (wallabies and macropods), birds, reptiles and amphibians

Note: These values / dimensions are subject to refinement during detailed design.