APPENDIX Q

INLAND RAIL

Operational Railway Noise and Vibration Technical Report

PART 3 OF 3

Appendices E to F

CALVERT TO KAGARU ENVIRONMENTAL IMPACT STATEMENT

IR_1381

ARTC

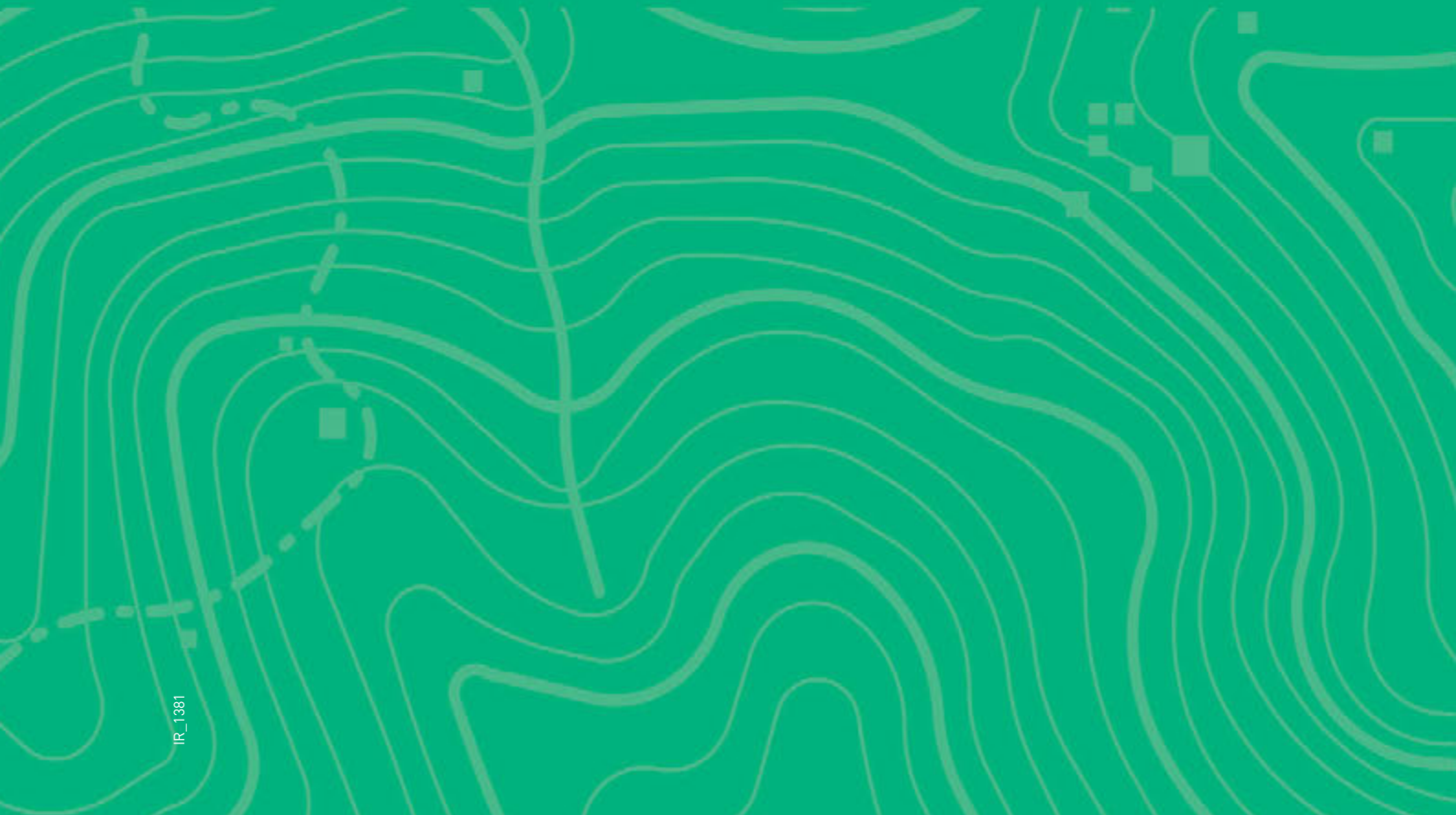
The Australian Government is delivering Inland Rail through the Australian Rail Track Corporation (ARTC), in partnership with the private sector.

APPENDIX Q

Operational Noise and Vibration Technical Report

Appendix E Predicted airborne railway noise levels—Year 2040 Design year

CALVERT TO KAGARU ENVIRONMENTAL IMPACT STATEMENT



IR_1381

The predicted railway noise levels for the future railway operations in 2040 are detailed in the following table and noise contour maps.

The predicted noise levels are provided for the identified sensitive receptors within the study area. This includes all sensitive receptors where the predicted noise levels triggered an investigation of noise mitigation. The sensitive receptors above the tunnel alignment are not included as there were no airborne noise emissions from train passbys within the tunnel.

The symbol (-) in the table denotes there was not a prediction of future rail noise as the sensitive receptor was located more than 2 km from the source of noise or, for existing rail noise, the receptors were outside the assessment area where the Project tied into the existing rail corridors.

Following the tabulated results are the predicted noise contour maps for the railway operations at the project design year 2040. The noise contours have been presented as the daytime and night-time assessment criteria applied by ARTC on the Project. All noise contours are predicted at 2.4 m above ground level and there are no airborne noise predictions where the trains are within the Teviot Range Tunnel.

The noise contours are calculated from the interpolation of thousands of calculation points and provide an overview of the railway noise levels to assist the interpretation of the assessment and its outcomes. The tabulated noise levels at the individual sensitive receptors should be referenced when assessing railway noise levels against the criteria.

Receptor ID	New rail corridor/ redevelopment of existing infrastructure	Rail noise criteria			Existing rail noise levels, dBA			Project rail noise levels dBA			Change in noise level, dBA		
		LAeq Day	LAeq Night	Lamax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax
256334	New	60	55	80	-	-	-	35	35	55	-	-	-
256337	New	60	55	80	-	-	-	30	30	51	-	-	-
256360	New	60	55	80	-	-	-	36	36	56	-	-	-
256363	New	60	55	80	-	-	-	32	31	58	-	-	-
256364	New	60	55	80	-	-	-	36	36	61	-	-	-
256366	New	60	55	80	-	-	-	44	44	66	-	-	-
256367	New	60	55	80	-	-	-	31	30	58	-	-	-
256368	New	60	55	80	-	-	-	34	33	60	-	-	-
256370	New	60	55	80	-	-	-	33	33	59	-	-	-
256373	New	60	55	80	-	-	-	29	29	55	-	-	-
256374	New	60	55	80	-	-	-	29	28	56	-	-	-
256376	New	60	55	80	-	-	-	38	38	59	-	-	-
256377	New	60	55	80	-	-	-	39	39	59	-	-	-
256380	Redevelopment	65	60	85	34	32	65	38	38	61	3.2	5.5	-4.2
256382	New	60	55	80	-	-	-	39	39	59	-	-	-
256384	New	60	55	80	-	-	-	40	40	59	-	-	-
256385	Redevelopment	65	60	85	40	37	71	41	41	63	1.5	3.8	-8.0
256386	Redevelopment	65	60	85	40	37	71	40	40	63	0.6	3.1	-7.8
256389	New	60	55	80	-	-	-	45	45	67	-	-	-
256394	Redevelopment	65	60	85	38	36	69	39	39	61	0.9	3.4	-7.8
256395	New	60	55	80	-	-	-	44	45	67	-	-	-
256397	Redevelopment	65	60	85	39	37	70	39	39	61	-0.2	2.3	-9.4
256401	Redevelopment	65	60	85	34	32	65	40	40	62	5.5	7.9	-3.4
256403	Redevelopment	65	60	85	41	39	72	41	41	63	-0.2	2.2	-9.1
256405	Redevelopment	65	60	85	40	38	71	40	40	62	-0.2	2.3	-9.1
256406	Redevelopment	65	60	85	44	41	75	43	43	65	-0.8	1.8	-9.9
256409	Redevelopment	65	60	85	41	39	72	41	41	63	-0.2	2.4	-9.0
256411	Redevelopment	65	60	85	41	39	72	40	40	62	-0.7	1.8	-9.7
256418	New	60	55	80	-	-	-	51	52	73	-	-	-
256420	New	60	55	80	-	-	-	49	49	71	-	-	-
256422	Redevelopment	65	60	85	37	35	68	38	38	60	1.3	3.5	-8.1
256432	Redevelopment	65	60	85	42	40	73	41	41	63	-0.6	1.9	-9.6
256454	Redevelopment	65	60	85	36	34	67	41	41	63	4.7	7.1	-3.9
256456	Redevelopment	65	60	85	40	38	71	41	41	63	0.5	3.0	-8.6
256474	Redevelopment	65	60	85	43	41	75	40	40	62	-3.2	-0.7	-13.2
256476	Redevelopment	65	60	85	47	44	78	44	44	66	-3.2	-0.7	-12.5
256477	Redevelopment	65	60	85	45	43	76	44	44	66	-1.2	1.3	-10.2
256480	Redevelopment	65	60	85	31	29	63	34	33	56	2.4	4.5	-6.6
256490	New	60	55	80	-	-	-	51	51	71	-	-	-
256495	Redevelopment	65	60	85	43	41	75	44	45	67	1.0	3.5	-8.1
256496	Redevelopment	65	60	85	40	38	72	45	45	67	4.4	6.8	-4.9
256503	Redevelopment	65	60	85	42	40	74	46	46	67	3.7	6.2	-6.3
256504	Redevelopment	65	60	85	44	41	75	43	44	65	-0.2	2.3	-10.3
256507	New	60	55	80	-	-	-	36	36	56	-	-	-
256509	New	60	55	80	-	-	-	37	37	57	-	-	-
256517	Redevelopment	65	60	85	43	41	74	44	44	65	0.5	2.8	-9.7
256521	Redevelopment	65	60	85	44	42	76	46	46	67	2.1	4.4	-8.2
256522	New	60	55	80	-	-	-	25	26	47	-	-	-
256523	Redevelopment	65	60	85	43	41	74	46	46	67	3.5	5.8	-6.8
256538	Redevelopment	65	60	85	43	41	74	48	48	71	4.7	6.8	-2.4
256540	New	60	55	80	-	-	-	39	39	61	-	-	-

Receptor ID	New rail corridor/ redevelopment of existing infrastructure	Rail noise criteria			Existing rail noise levels, dBA			Project rail noise levels dBA			Change in noise level, dBA		
		LAeq Day	LAeq Night	Lamax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax
256546	New	60	55	80	-	-	-	41	41	63	-	-	-
256547	Redevelopment	65	60	85	44	42	74	51	50	76	6.9	8.6	1.6
256551	Redevelopment	65	60	85	41	39	71	50	49	75	9.0	10.8	3.3
256554	New	60	55	80	-	-	-	38	38	59	-	-	-
256555	Redevelopment	65	60	85	42	39	73	52	52	77	10.8	12.5	4.7
256557	Redevelopment	65	60	85	42	40	73	52	51	77	9.4	11.0	4.2
256558	Redevelopment	65	60	85	43	41	74	53	53	78	10.2	11.8	4.1
256576	New	60	55	80	-	-	-	41	40	63	-	-	-
256577	New	60	55	80	-	-	-	39	39	61	-	-	-
256580	Redevelopment	65	60	85	38	36	69	48	47	73	10.0	11.6	4.1
256586	Redevelopment	65	60	85	41	39	72	49	48	74	7.8	9.5	1.5
256599	New	60	55	80	-	-	-	39	39	60	-	-	-
256605	New	60	55	80	-	-	-	54	54	76	-	-	-
256606	New	60	55	80	-	-	-	40	40	59	-	-	-
256609	New	60	55	80	-	-	-	54	55	78	-	-	-
256612	New	60	55	80	-	-	-	42	42	61	-	-	-
256627	Redevelopment	65	60	85	43	41	75	53	52	78	9.2	10.6	3.5
256628	Redevelopment	65	60	85	39	36	69	49	48	73	10.1	11.9	3.9
256629	Redevelopment	65	60	85	42	40	73	52	52	76	10.4	12.5	2.8
256631	Redevelopment	65	60	85	36	34	66	48	48	68	11.2	13.6	1.4
256637	New	60	55	80	-	-	-	60	**61**	**83**	-	-	-
256643	New	60	55	80	-	-	-	42	42	61	-	-	-
256650	Redevelopment	65	60	85	44	42	74	**72**	**72**	**94**	27.7	30.1	19.7
256652	New	60	55	80	-	-	-	41	41	61	-	-	-
256654	New	60	55	80	-	-	-	41	42	61	-	-	-
256658	New	60	55	80	-	-	-	40	40	60	-	-	-
256661	New	60	55	80	-	-	-	57	**57**	80	-	-	-
256662	New	60	55	80	-	-	-	56	**56**	78	-	-	-
256668	New	60	55	80	-	-	-	54	55	77	-	-	-
256672	New	60	55	80	-	-	-	54	54	77	-	-	-
256696	New	60	55	80	-	-	-	53	53	76	-	-	-
256743	New	60	55	80	-	-	-	48	49	71	-	-	-
256749	New	60	55	80	-	-	-	47	48	71	-	-	-
256750	Redevelopment	65	60	85	47	44	78	50	51	74	3.6	6.6	-3.8
256755	New	60	55	80	-	-	-	54	54	76	-	-	-
256756	New	60	55	80	-	-	-	49	50	74	-	-	-
256757	Redevelopment	65	60	85	45	43	76	49	50	73	4.4	7.4	-2.6
256765	New	60	55	80	-	-	-	53	54	76	-	-	-
256766	New	60	55	80	-	-	-	42	43	66	-	-	-
256771	Redevelopment	65	60	85	45	43	76	46	47	67	0.9	3.6	-9.1
256793	New	60	55	80	-	-	-	56	**57**	79	-	-	-
256797	New	60	55	80	-	-	-	56	**56**	80	-	-	-
256805	New	60	55	80	-	-	-	54	55	78	-	-	-
256807	Redevelopment	65	60	85	41	39	72	43	44	66	2.1	4.8	-6.8
256808	New	60	55	80	-	-	-	53	53	76	-	-	-
256809	Redevelopment	65	60	85	40	38	71	44	44	66	3.6	6.4	-5.3
256818	New	60	55	80	-	-	-	49	49	70	-	-	-
256832	New	60	55	80	-	-	-	55	**56**	80	-	-	-
256844	New	60	55	80	-	-	-	50	50	72	-	-	-
256848	New	60	55	80	-	-	-	57	**58**	**82**	-	-	-
256849	New	60	55	80	-	-	-	49	49	70	-	-	-

Receptor ID	New rail corridor/ redevelopment of existing infrastructure	Rail noise criteria			Existing rail noise levels, dBA			Project rail noise levels dBA			Change in noise level, dBA		
		LAeq Day	LAeq Night	Lamax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax
256850	New	60	55	80	-	-	-	48	49	70	-	-	-
256852	New	60	55	80	-	-	-	43	44	66	-	-	-
256854	New	60	55	80	-	-	-	47	47	69	-	-	-
256855	New	60	55	80	-	-	-	48	48	69	-	-	-
256856	New	60	55	80	-	-	-	54	54	78	-	-	-
256862	New	60	55	80	-	-	-	49	50	71	-	-	-
256866	New	60	55	80	-	-	-	47	47	69	-	-	-
256876	New	60	55	80	-	-	-	57	**58**	**81**	-	-	-
256887	New	60	55	80	-	-	-	50	50	74	-	-	-
256889	New	60	55	80	-	-	-	45	46	69	-	-	-
256890	New	60	55	80	-	-	-	49	49	71	-	-	-
256896	New	60	55	80	-	-	-	48	49	70	-	-	-
256908	New	60	55	80	-	-	-	59	**59**	**83**	-	-	-
256911	New	60	55	80	-	-	-	58	**58**	**82**	-	-	-
256920	New	60	55	80	-	-	-	46	46	67	-	-	-
256922	New	60	55	80	-	-	-	44	44	65	-	-	-
256942	New	60	55	80	-	-	-	34	34	56	-	-	-
256949	New	60	55	80	-	-	-	38	38	61	-	-	-
256957	New	60	55	80	-	-	-	33	34	56	-	-	-
256994	New	60	55	80	-	-	-	43	43	67	-	-	-
256995	New	60	55	80	-	-	-	42	43	66	-	-	-
256996	New	60	55	80	-	-	-	45	45	69	-	-	-
257013	New	60	55	80	-	-	-	53	54	78	-	-	-
257104	New	60	55	80	-	-	-	52	52	76	-	-	-
257108	New	60	55	80	-	-	-	44	45	66	-	-	-
257110	New	60	55	80	-	-	-	51	51	75	-	-	-
257112	New	60	55	80	-	-	-	46	47	67	-	-	-
257127	New	60	55	80	-	-	-	47	47	68	-	-	-
257134	New	60	55	80	-	-	-	46	46	66	-	-	-
257137	New	60	55	80	-	-	-	46	46	69	-	-	-
257144	New	60	55	80	-	-	-	48	48	70	-	-	-
257236	New	60	55	80	-	-	-	50	50	70	-	-	-
257239	New	60	55	80	-	-	-	44	45	66	-	-	-
257245	New	60	55	80	-	-	-	46	47	68	-	-	-
257256	New	60	55	80	-	-	-	47	47	66	-	-	-
257295	New	60	55	80	-	-	-	51	51	74	-	-	-
257345	New	60	55	80	-	-	-	43	43	66	-	-	-
257372	New	60	55	80	-	-	-	43	43	66	-	-	-
257380	New	60	55	80	-	-	-	**66**	**66**	**86**	-	-	-
257384	New	60	55	80	-	-	-	51	51	75	-	-	-
257394	New	60	55	80	-	-	-	49	49	73	-	-	-
257398	New	60	55	80	-	-	-	55	55	76	-	-	-
257409	New	60	55	80	-	-	-	49	49	73	-	-	-
257412	New	60	55	80	-	-	-	39	39	59	-	-	-
257420	New	60	55	80	-	-	-	46	46	69	-	-	-
257422	New	60	55	80	-	-	-	54	55	76	-	-	-
257424	New	60	55	80	-	-	-	55	55	76	-	-	-
257425	New	60	55	80	-	-	-	44	44	67	-	-	-
257489	New	60	55	80	-	-	-	45	46	68	-	-	-
257499	New	60	55	80	-	-	-	48	48	72	-	-	-
257509	New	60	55	80	-	-	-	48	49	72	-	-	-

Receptor ID	New rail corridor/ redevelopment of existing infrastructure	Rail noise criteria			Existing rail noise levels, dBA			Project rail noise levels dBA			Change in noise level, dBA		
		LAeq Day	LAeq Night	Lamax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax
257516	New	60	55	80	-	-	-	41	41	64	-	-	-
257523	New	60	55	80	-	-	-	45	46	68	-	-	-
257588	New	60	55	80	-	-	-	47	48	70	-	-	-
257632	New	60	55	80	-	-	-	55	55	77	-	-	-
257656	New	60	55	80	-	-	-	55	55	77	-	-	-
257667	New	60	55	80	-	-	-	54	55	77	-	-	-
257687	New	60	55	80	-	-	-	56	**56**	78	-	-	-
257742	New	60	55	80	-	-	-	49	49	71	-	-	-
257770	New	60	55	80	-	-	-	47	47	70	-	-	-
257775	New	60	55	80	-	-	-	50	51	73	-	-	-
257780	New	60	55	80	-	-	-	48	48	70	-	-	-
257787	New	60	55	80	-	-	-	51	51	73	-	-	-
257808	New	60	55	80	-	-	-	50	51	73	-	-	-
257819	New	60	55	80	-	-	-	48	49	70	-	-	-
257849	New	60	55	80	-	-	-	48	49	70	-	-	-
257929	New	60	55	80	-	-	-	46	47	69	-	-	-
257935	New	60	55	80	-	-	-	46	46	68	-	-	-
258002	New	60	55	80	-	-	-	46	47	69	-	-	-
258047	New	60	55	80	-	-	-	49	49	71	-	-	-
258048	New	60	55	80	-	-	-	47	48	70	-	-	-
258056	New	60	55	80	-	-	-	46	46	68	-	-	-
258057	New	60	55	80	-	-	-	49	50	71	-	-	-
258058	New	60	55	80	-	-	-	45	45	67	-	-	-
258061	New	60	55	80	-	-	-	50	51	73	-	-	-
258065	New	60	55	80	-	-	-	50	50	72	-	-	-
258066	New	60	55	80	-	-	-	42	43	63	-	-	-
258070	New	60	55	80	-	-	-	48	49	70	-	-	-
258100	New	60	55	80	-	-	-	49	49	70	-	-	-
258103	New	60	55	80	-	-	-	46	47	68	-	-	-
258288	New	60	55	80	-	-	-	**61**	**61**	**85**	-	-	-
258522	New	60	55	80	-	-	-	50	50	71	-	-	-
258550	New	60	55	80	-	-	-	48	48	69	-	-	-
258557	New	60	55	80	-	-	-	49	50	70	-	-	-
258565	New	60	55	80	-	-	-	47	47	70	-	-	-
258582	New	60	55	80	-	-	-	50	50	71	-	-	-
258583	New	60	55	80	-	-	-	47	48	69	-	-	-
258600	New	60	55	80	-	-	-	48	49	70	-	-	-
258616	New	60	55	80	-	-	-	47	47	68	-	-	-
258621	New	60	55	80	-	-	-	48	49	70	-	-	-
258687	New	60	55	80	-	-	-	52	52	73	-	-	-
258711	New	60	55	80	-	-	-	49	49	70	-	-	-
258722	New	60	55	80	-	-	-	52	52	73	-	-	-
258739	New	60	55	80	-	-	-	51	51	72	-	-	-
258762	New	60	55	80	-	-	-	49	50	71	-	-	-
258789	New	60	55	80	-	-	-	47	48	68	-	-	-
258847	New	60	55	80	-	-	-	46	47	68	-	-	-
258962	New	60	55	80	-	-	-	49	50	71	-	-	-
259020	New	60	55	80	-	-	-	49	49	70	-	-	-
259247	New	60	55	80	-	-	-	48	48	69	-	-	-
259253	New	60	55	80	-	-	-	46	47	69	-	-	-
259276	New	60	55	80	-	-	-	**65**	**65**	**88**	-	-	-

Receptor ID	New rail corridor/ redevelopment of existing infrastructure	Rail noise criteria			Existing rail noise levels, dBA			Project rail noise levels dBA			Change in noise level, dBA		
		LAeq Day	LAeq Night	Lamax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax
259278	New	60	55	80	-	-	-	54	54	76	-	-	-
259451	New	60	55	80	-	-	-	55	**56**	77	-	-	-
259456	New	60	55	80	-	-	-	51	52	74	-	-	-
259477	New	60	55	80	-	-	-	48	49	69	-	-	-
259508	New	60	55	80	-	-	-	49	49	70	-	-	-
259534	New	60	55	80	-	-	-	48	49	69	-	-	-
259541	New	60	55	80	-	-	-	59	**59**	**81**	-	-	-
259567	New	60	55	80	-	-	-	49	49	69	-	-	-
259604	New	60	55	80	-	-	-	49	49	69	-	-	-
259621	New	60	55	80	-	-	-	51	51	74	-	-	-
259632	New	60	55	80	-	-	-	49	50	71	-	-	-
259642	New	60	55	80	-	-	-	48	49	69	-	-	-
259655	New	60	55	80	-	-	-	51	51	72	-	-	-
259656	New	60	55	80	-	-	-	51	51	73	-	-	-
259657	New	60	55	80	-	-	-	51	51	72	-	-	-
259678	New	60	55	80	-	-	-	48	49	69	-	-	-
259696	New	60	55	80	-	-	-	50	50	71	-	-	-
259713	New	60	55	80	-	-	-	48	49	69	-	-	-
259719	New	60	55	80	-	-	-	47	48	70	-	-	-
259726	New	60	55	80	-	-	-	45	46	67	-	-	-
259734	New	60	55	80	-	-	-	46	46	67	-	-	-
259744	New	60	55	80	-	-	-	46	47	67	-	-	-
259752	New	60	55	80	-	-	-	46	47	68	-	-	-
259753	New	60	55	80	-	-	-	49	49	69	-	-	-
259762	New	60	55	80	-	-	-	46	46	67	-	-	-
259769	New	60	55	80	-	-	-	46	46	68	-	-	-
259779	New	60	55	80	-	-	-	47	47	68	-	-	-
259792	New	60	55	80	-	-	-	47	48	69	-	-	-
259797	New	60	55	80	-	-	-	49	49	71	-	-	-
259800	New	60	55	80	-	-	-	47	48	69	-	-	-
259802	New	60	55	80	-	-	-	50	51	72	-	-	-
259804	New	60	55	80	-	-	-	46	47	69	-	-	-
259806	New	60	55	80	-	-	-	60	**60**	**84**	-	-	-
259810	New	60	55	80	-	-	-	48	48	70	-	-	-
259831	New	60	55	80	-	-	-	52	52	74	-	-	-
259839	New	60	55	80	-	-	-	46	46	67	-	-	-
259869	New	60	55	80	-	-	-	50	51	71	-	-	-
259959	New	60	55	80	-	-	-	**69**	**70**	**94**	-	-	-
259971	New	60	55	80	-	-	-	46	47	68	-	-	-
259983	New	60	55	80	-	-	-	46	47	68	-	-	-
259995	New	60	55	80	-	-	-	46	47	68	-	-	-
260013	New	60	55	80	-	-	-	46	46	68	-	-	-
260021	New	60	55	80	-	-	-	46	46	68	-	-	-
260024	New	60	55	80	-	-	-	43	44	65	-	-	-
260025	New	60	55	80	-	-	-	41	42	65	-	-	-
260037	New	60	55	80	-	-	-	49	50	70	-	-	-
260048	New	60	55	80	-	-	-	50	51	73	-	-	-
260060	New	60	55	80	-	-	-	52	52	74	-	-	-
260065	New	60	55	80	-	-	-	49	49	70	-	-	-
260105	New	60	55	80	-	-	-	47	48	71	-	-	-
260110	New	60	55	80	-	-	-	41	42	64	-	-	-

Receptor ID	New rail corridor/ redevelopment of existing infrastructure	Rail noise criteria			Existing rail noise levels, dBA			Project rail noise levels dBA			Change in noise level, dBA		
		LAeq Day	LAeq Night	Lamax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax
260112	New	60	55	80	-	-	-	48	48	70	-	-	-
260117	New	60	55	80	-	-	-	48	48	71	-	-	-
260121	New	60	55	80	-	-	-	49	49	71	-	-	-
260126	New	60	55	80	-	-	-	45	45	67	-	-	-
260135	New	60	55	80	-	-	-	49	50	71	-	-	-
260158	New	60	55	80	-	-	-	48	48	69	-	-	-
260184	New	60	55	80	-	-	-	48	49	69	-	-	-
260212	New	60	55	80	-	-	-	49	49	70	-	-	-
260227	New	60	55	80	-	-	-	49	49	71	-	-	-
260241	New	60	55	80	-	-	-	49	50	72	-	-	-
260290	New	60	55	80	-	-	-	33	34	54	-	-	-
260293	New	60	55	80	-	-	-	49	50	72	-	-	-
260309	New	60	55	80	-	-	-	35	36	56	-	-	-
260319	New	60	55	80	-	-	-	50	50	72	-	-	-
260326	New	60	55	80	-	-	-	49	49	71	-	-	-
260331	New	60	55	80	-	-	-	34	35	55	-	-	-
260338	New	60	55	80	-	-	-	47	48	70	-	-	-
260340	New	60	55	80	-	-	-	49	50	70	-	-	-
260344	New	60	55	80	-	-	-	34	36	57	-	-	-
260347	New	60	55	80	-	-	-	35	36	57	-	-	-
260356	New	60	55	80	-	-	-	50	50	72	-	-	-
260366	New	60	55	80	-	-	-	48	49	69	-	-	-
260379	New	60	55	80	-	-	-	49	49	70	-	-	-
260392	New	60	55	80	-	-	-	34	35	58	-	-	-
260413	New	60	55	80	-	-	-	49	49	70	-	-	-
260415	New	60	55	80	-	-	-	35	36	59	-	-	-
260442	New	60	55	80	-	-	-	44	45	68	-	-	-
260443	New	60	55	80	-	-	-	49	49	70	-	-	-
260445	New	60	55	80	-	-	-	43	44	67	-	-	-
260448	New	60	55	80	-	-	-	47	48	69	-	-	-
260483	New	60	55	80	-	-	-	42	44	68	-	-	-
260499	New	60	55	80	-	-	-	53	54	77	-	-	-
260561	New	60	55	80	-	-	-	42	42	66	-	-	-
260579	New	60	55	80	-	-	-	36	36	60	-	-	-
260581	New	60	55	80	-	-	-	46	46	70	-	-	-
260586	New	60	55	80	-	-	-	42	42	66	-	-	-
260592	New	60	55	80	-	-	-	41	41	65	-	-	-
260594	New	60	55	80	-	-	-	43	44	67	-	-	-
260599	New	60	55	80	-	-	-	42	42	66	-	-	-
260606	New	60	55	80	-	-	-	50	51	71	-	-	-
260608	New	60	55	80	-	-	-	50	51	71	-	-	-
260609	New	60	55	80	-	-	-	51	51	72	-	-	-
260622	New	60	55	80	-	-	-	41	41	65	-	-	-
260624	New	60	55	80	-	-	-	43	43	67	-	-	-
260648	New	60	55	80	-	-	-	47	47	70	-	-	-
260649	New	60	55	80	-	-	-	47	47	70	-	-	-
260653	New	60	55	80	-	-	-	50	51	72	-	-	-
260657	New	60	55	80	-	-	-	43	43	67	-	-	-
260658	New	60	55	80	-	-	-	47	47	68	-	-	-
260660	New	60	55	80	-	-	-	49	50	71	-	-	-
260670	New	60	55	80	-	-	-	41	41	65	-	-	-

Receptor ID	New rail corridor/ redevelopment of existing infrastructure	Rail noise criteria			Existing rail noise levels, dBA			Project rail noise levels dBA			Change in noise level, dBA		
		LAeq Day	LAeq Night	Lamax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax
260671	New	60	55	80	-	-	-	48	48	70	-	-	-
260677	New	60	55	80	-	-	-	49	49	70	-	-	-
260692	New	60	55	80	-	-	-	47	48	72	-	-	-
260706	New	60	55	80	-	-	-	37	37	61	-	-	-
260710	New	60	55	80	-	-	-	41	41	65	-	-	-
260711	New	60	55	80	-	-	-	47	48	72	-	-	-
260718	New	60	55	80	-	-	-	41	42	66	-	-	-
260733	New	60	55	80	-	-	-	38	38	62	-	-	-
260751	New	60	55	80	-	-	-	60	**61**	**85**	-	-	-
260767	New	60	55	80	-	-	-	43	43	67	-	-	-
260772	New	60	55	80	-	-	-	43	43	67	-	-	-
260783	New	60	55	80	-	-	-	47	47	71	-	-	-
260785	New	60	55	80	-	-	-	**63**	**64**	**88**	-	-	-
260788	New	60	55	80	-	-	-	47	48	71	-	-	-
260792	New	60	55	80	-	-	-	47	48	72	-	-	-
260808	New	60	55	80	-	-	-	47	47	69	-	-	-
260813	New	60	55	80	-	-	-	48	48	70	-	-	-
260816	New	60	55	80	-	-	-	49	49	70	-	-	-
260819	New	60	55	80	-	-	-	55	55	78	-	-	-
260824	New	60	55	80	-	-	-	40	40	64	-	-	-
260828	New	60	55	80	-	-	-	51	52	75	-	-	-
260833	New	60	55	80	-	-	-	49	49	71	-	-	-
260841	New	60	55	80	-	-	-	50	50	74	-	-	-
260844	New	60	55	80	-	-	-	48	49	70	-	-	-
260856	New	60	55	80	-	-	-	55	55	79	-	-	-
260862	New	60	55	80	-	-	-	54	54	78	-	-	-
260863	New	60	55	80	-	-	-	55	**56**	79	-	-	-
260864	New	60	55	80	-	-	-	50	50	73	-	-	-
260866	New	60	55	80	-	-	-	53	54	77	-	-	-
260873	New	60	55	80	-	-	-	53	54	78	-	-	-
260879	New	60	55	80	-	-	-	53	53	77	-	-	-
260887	New	60	55	80	-	-	-	50	50	73	-	-	-
260890	New	60	55	80	-	-	-	55	55	79	-	-	-
260910	New	60	55	80	-	-	-	52	52	76	-	-	-
260919	New	60	55	80	-	-	-	52	52	76	-	-	-
260922	New	60	55	80	-	-	-	51	51	75	-	-	-
260925	New	60	55	80	-	-	-	51	51	75	-	-	-
260926	New	60	55	80	-	-	-	50	50	72	-	-	-
260950	New	60	55	80	-	-	-	56	**57**	**81**	-	-	-
260977	New	60	55	80	-	-	-	51	52	75	-	-	-
260978	New	60	55	80	-	-	-	42	42	66	-	-	-
260981	New	60	55	80	-	-	-	50	51	73	-	-	-
260984	New	60	55	80	-	-	-	47	47	69	-	-	-
260988	New	60	55	80	-	-	-	52	52	76	-	-	-
260989	New	60	55	80	-	-	-	33	34	57	-	-	-
260992	New	60	55	80	-	-	-	49	49	71	-	-	-
260993	New	60	55	80	-	-	-	50	51	74	-	-	-
260994	New	60	55	80	-	-	-	**65**	**66**	**90**	-	-	-
260996	New	60	55	80	-	-	-	50	51	73	-	-	-
261006	New	60	55	80	-	-	-	52	52	76	-	-	-
261010	New	60	55	80	-	-	-	56	**56**	79	-	-	-

Receptor ID	New rail corridor/ redevelopment of existing infrastructure	Rail noise criteria			Existing rail noise levels, dBA			Project rail noise levels dBA			Change in noise level, dBA		
		LAeq Day	LAeq Night	Lamax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax
261011	New	60	55	80	-	-	-	49	50	71	-	-	-
261029	New	60	55	80	-	-	-	50	51	74	-	-	-
261033	New	60	55	80	-	-	-	47	48	68	-	-	-
261034	New	60	55	80	-	-	-	54	55	78	-	-	-
261040	New	60	55	80	-	-	-	54	54	78	-	-	-
261041	New	60	55	80	-	-	-	59	**60**	**84**	-	-	-
261048	New	60	55	80	-	-	-	56	**56**	80	-	-	-
261060	New	60	55	80	-	-	-	47	47	69	-	-	-
261061	New	60	55	80	-	-	-	48	48	69	-	-	-
261062	New	60	55	80	-	-	-	48	48	69	-	-	-
261064	New	60	55	80	-	-	-	50	50	71	-	-	-
261066	New	60	55	80	-	-	-	54	54	78	-	-	-
261067	New	60	55	80	-	-	-	36	36	59	-	-	-
261073	New	60	55	80	-	-	-	49	49	71	-	-	-
261074	New	60	55	80	-	-	-	46	47	69	-	-	-
261075	New	60	55	80	-	-	-	53	54	77	-	-	-
261076	New	60	55	80	-	-	-	49	49	71	-	-	-
261077	New	60	55	80	-	-	-	48	48	70	-	-	-
261078	New	60	55	80	-	-	-	49	50	71	-	-	-
261082	New	60	55	80	-	-	-	49	49	70	-	-	-
261092	New	60	55	80	-	-	-	31	31	54	-	-	-
261096	New	60	55	80	-	-	-	55	55	79	-	-	-
261101	New	60	55	80	-	-	-	48	49	70	-	-	-
261102	New	60	55	80	-	-	-	49	49	72	-	-	-
261106	New	60	55	80	-	-	-	52	52	76	-	-	-
261121	New	60	55	80	-	-	-	48	48	70	-	-	-
261123	New	60	55	80	-	-	-	33	33	56	-	-	-
261136	New	60	55	80	-	-	-	50	50	72	-	-	-
261137	New	60	55	80	-	-	-	48	49	70	-	-	-
261138	New	60	55	80	-	-	-	49	50	71	-	-	-
261140	New	60	55	80	-	-	-	51	52	74	-	-	-
261143	New	60	55	80	-	-	-	52	53	76	-	-	-
261144	New	60	55	80	-	-	-	52	52	75	-	-	-
261148	New	60	55	80	-	-	-	52	53	75	-	-	-
261151	New	60	55	80	-	-	-	49	50	71	-	-	-
261152	New	60	55	80	-	-	-	51	51	74	-	-	-
261154	New	60	55	80	-	-	-	52	52	75	-	-	-
261156	New	60	55	80	-	-	-	52	52	74	-	-	-
261158	New	60	55	80	-	-	-	48	49	70	-	-	-
261165	New	60	55	80	-	-	-	49	49	71	-	-	-
261170	New	60	55	80	-	-	-	45	46	67	-	-	-
261174	New	60	55	80	-	-	-	48	48	70	-	-	-
261183	New	60	55	80	-	-	-	50	50	71	-	-	-
261189	New	60	55	80	-	-	-	48	49	70	-	-	-
261196	New	60	55	80	-	-	-	50	51	71	-	-	-
261204	New	60	55	80	-	-	-	50	51	71	-	-	-
261212	New	60	55	80	-	-	-	52	52	76	-	-	-
261230	New	60	55	80	-	-	-	50	51	74	-	-	-
261232	New	60	55	80	-	-	-	54	55	78	-	-	-
261238	New	60	55	80	-	-	-	52	52	74	-	-	-
261239	New	60	55	80	-	-	-	51	51	73	-	-	-

Receptor ID	New rail corridor/ redevelopment of existing infrastructure	Rail noise criteria			Existing rail noise levels, dBA			Project rail noise levels dBA			Change in noise level, dBA		
		LAeq Day	LAeq Night	Lamax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax
261240	New	60	55	80	-	-	-	43	44	67	-	-	-
261242	New	60	55	80	-	-	-	49	50	72	-	-	-
261244	New	60	55	80	-	-	-	50	51	72	-	-	-
261245	New	60	55	80	-	-	-	51	51	75	-	-	-
261249	New	60	55	80	-	-	-	50	51	73	-	-	-
261251	New	60	55	80	-	-	-	49	49	72	-	-	-
261252	New	60	55	80	-	-	-	44	44	68	-	-	-
261263	New	60	55	80	-	-	-	52	52	75	-	-	-
261271	New	60	55	80	-	-	-	52	53	75	-	-	-
261275	New	60	55	80	-	-	-	50	50	73	-	-	-
261279	New	60	55	80	-	-	-	50	51	74	-	-	-
261281	New	60	55	80	-	-	-	46	46	70	-	-	-
261286	New	60	55	80	-	-	-	39	40	63	-	-	-
261335	New	60	55	80	-	-	-	50	50	73	-	-	-
261344	New	60	55	80	-	-	-	53	53	77	-	-	-
261356	New	60	55	80	-	-	-	51	51	74	-	-	-
261357	New	60	55	80	-	-	-	53	53	77	-	-	-
261358	New	60	55	80	-	-	-	50	50	72	-	-	-
261372	New	60	55	80	-	-	-	50	51	73	-	-	-
261390	New	60	55	80	-	-	-	50	51	73	-	-	-
261433	New	60	55	80	-	-	-	53	54	76	-	-	-
261449	New	60	55	80	-	-	-	54	55	78	-	-	-
261460	New	60	55	80	-	-	-	54	55	77	-	-	-
261477	New	60	55	80	-	-	-	54	54	77	-	-	-
261515	New	60	55	80	-	-	-	51	51	74	-	-	-
261553	New	60	55	80	-	-	-	50	50	73	-	-	-
261557	New	60	55	80	-	-	-	47	47	70	-	-	-
261558	New	60	55	80	-	-	-	47	47	69	-	-	-
261564	New	60	55	80	-	-	-	48	48	70	-	-	-
261566	New	60	55	80	-	-	-	52	52	75	-	-	-
261642	New	60	55	80	-	-	-	49	50	72	-	-	-
261655	New	60	55	80	-	-	-	53	53	76	-	-	-
261677	New	60	55	80	-	-	-	53	53	76	-	-	-
261722	New	60	55	80	-	-	-	52	53	76	-	-	-
261751	New	60	55	80	-	-	-	54	54	77	-	-	-
261779	New	60	55	80	-	-	-	53	54	77	-	-	-
261951	New	60	55	80	-	-	-	60	**60**	**84**	-	-	-
262146	New	60	55	80	-	-	-	59	**59**	**83**	-	-	-
262240	New	60	55	80	-	-	-	60	**61**	**85**	-	-	-
262297	New	60	55	80	-	-	-	47	48	72	-	-	-
262321	New	60	55	80	-	-	-	41	41	60	-	-	-
262323	New	60	55	80	-	-	-	48	49	72	-	-	-
262359	New	60	55	80	-	-	-	47	48	71	-	-	-
262373	New	60	55	80	-	-	-	47	47	71	-	-	-
262407	New	60	55	80	-	-	-	52	52	76	-	-	-
262422	New	60	55	80	-	-	-	48	49	72	-	-	-
262423	New	60	55	80	-	-	-	48	48	70	-	-	-
262425	New	60	55	80	-	-	-	53	53	76	-	-	-
262440	New	60	55	80	-	-	-	51	51	73	-	-	-
262449	New	60	55	80	-	-	-	53	54	77	-	-	-
262454	New	60	55	80	-	-	-	50	50	72	-	-	-

Receptor ID	New rail corridor/ redevelopment of existing infrastructure	Rail noise criteria			Existing rail noise levels, dBA			Project rail noise levels dBA			Change in noise level, dBA		
		LAeq Day	LAeq Night	Lamax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax
262494	New	60	55	80	-	-	-	50	50	74	-	-	-
262502	New	60	55	80	-	-	-	50	50	74	-	-	-
262507	New	60	55	80	-	-	-	41	41	60	-	-	-
262513	New	60	55	80	-	-	-	44	45	68	-	-	-
262514	New	60	55	80	-	-	-	48	48	68	-	-	-
262517	New	60	55	80	-	-	-	46	47	68	-	-	-
262533	New	60	55	80	-	-	-	53	53	77	-	-	-
262554	New	60	55	80	-	-	-	44	45	67	-	-	-
262560	New	60	55	80	-	-	-	48	48	71	-	-	-
262564	New	60	55	80	-	-	-	55	55	79	-	-	-
262569	New	60	55	80	-	-	-	47	47	68	-	-	-
262570	New	60	55	80	-	-	-	51	52	75	-	-	-
262572	New	60	55	80	-	-	-	47	47	71	-	-	-
262584	New	60	55	80	-	-	-	48	49	72	-	-	-
262587	New	60	55	80	-	-	-	36	36	57	-	-	-
262593	New	60	55	80	-	-	-	52	52	76	-	-	-
262622	New	60	55	80	-	-	-	49	49	71	-	-	-
262629	New	60	55	80	-	-	-	52	53	76	-	-	-
262657	New	60	55	80	-	-	-	46	46	68	-	-	-
262671	New	60	55	80	-	-	-	50	50	74	-	-	-
262672	New	60	55	80	-	-	-	49	49	71	-	-	-
262713	New	60	55	80	-	-	-	51	52	73	-	-	-
262724	New	60	55	80	-	-	-	54	55	78	-	-	-
262746	New	60	55	80	-	-	-	57	**58**	**81**	-	-	-
262785	New	60	55	80	-	-	-	59	**60**	**84**	-	-	-
262846	New	60	55	80	-	-	-	47	47	66	-	-	-
262870	New	60	55	80	-	-	-	46	47	68	-	-	-
262909	New	60	55	80	-	-	-	58	**58**	**82**	-	-	-
262918	New	60	55	80	-	-	-	49	49	70	-	-	-
262984	New	60	55	80	-	-	-	50	51	71	-	-	-
263016	New	60	55	80	-	-	-	48	48	71	-	-	-
263021	New	60	55	80	-	-	-	45	45	64	-	-	-
263028	New	60	55	80	-	-	-	51	51	73	-	-	-
263039	New	60	55	80	-	-	-	50	50	72	-	-	-
263050	New	60	55	80	-	-	-	51	52	73	-	-	-
263053	New	60	55	80	-	-	-	54	54	77	-	-	-
263072	New	60	55	80	-	-	-	49	50	72	-	-	-
263091	New	60	55	80	-	-	-	52	52	76	-	-	-
263094	New	60	55	80	-	-	-	50	50	71	-	-	-
263178	New	60	55	80	-	-	-	51	52	72	-	-	-
263199	New	60	55	80	-	-	-	54	54	76	-	-	-
263210	New	60	55	80	-	-	-	51	52	75	-	-	-
263263	New	60	55	80	-	-	-	51	52	72	-	-	-
263278	New	60	55	80	-	-	-	51	51	74	-	-	-
263280	New	60	55	80	-	-	-	52	52	72	-	-	-
263286	New	60	55	80	-	-	-	52	53	73	-	-	-
263287	New	60	55	80	-	-	-	52	52	73	-	-	-
263303	New	60	55	80	-	-	-	53	53	76	-	-	-
263314	New	60	55	80	-	-	-	52	53	76	-	-	-
263317	New	60	55	80	-	-	-	52	52	73	-	-	-
263331	New	60	55	80	-	-	-	51	52	75	-	-	-

Receptor ID	New rail corridor/ redevelopment of existing infrastructure	Rail noise criteria			Existing rail noise levels, dBA			Project rail noise levels dBA			Change in noise level, dBA		
		LAeq Day	LAeq Night	Lamax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax
263379	New	60	55	80	-	-	-	47	48	72	-	-	-
263407	New	60	55	80	-	-	-	54	55	75	-	-	-
263419	New	60	55	80	-	-	-	53	53	76	-	-	-
263420	New	60	55	80	-	-	-	54	54	73	-	-	-
263433	New	60	55	80	-	-	-	56	**56**	79	-	-	-
263476	New	60	55	80	-	-	-	51	52	74	-	-	-
263506	New	60	55	80	-	-	-	55	55	75	-	-	-
263522	New	60	55	80	-	-	-	41	41	65	-	-	-
263538	New	60	55	80	-	-	-	58	**58**	77	-	-	-
263606	New	60	55	80	-	-	-	57	**57**	76	-	-	-
263632	New	60	55	80	-	-	-	50	50	73	-	-	-
263634	New	60	55	80	-	-	-	58	**58**	78	-	-	-
263650	New	60	55	80	-	-	-	50	50	72	-	-	-
263722	New	60	55	80	-	-	-	52	52	75	-	-	-
263798	New	60	55	80	-	-	-	60	**60**	80	-	-	-
263821	New	60	55	80	-	-	-	50	50	74	-	-	-
263833	New	60	55	80	-	-	-	50	50	73	-	-	-
263864	New	60	55	80	-	-	-	48	48	70	-	-	-
263889	New	60	55	80	-	-	-	47	47	70	-	-	-
263973	New	60	55	80	-	-	-	45	46	69	-	-	-
263988	New	60	55	80	-	-	-	46	46	69	-	-	-
263990	New	60	55	80	-	-	-	47	48	70	-	-	-
264003	New	60	55	80	-	-	-	49	50	72	-	-	-
264004	New	60	55	80	-	-	-	47	48	70	-	-	-
264005	New	60	55	80	-	-	-	**71**	**71**	**93**	-	-	-
264031	New	60	55	80	-	-	-	47	47	70	-	-	-
264125	New	60	55	80	-	-	-	47	47	70	-	-	-
264138	New	60	55	80	-	-	-	46	46	69	-	-	-
264158	New	60	55	80	-	-	-	49	49	71	-	-	-
264159	New	60	55	80	-	-	-	**65**	**65**	**84**	-	-	-
264175	New	60	55	80	-	-	-	48	48	70	-	-	-
264176	New	60	55	80	-	-	-	45	45	68	-	-	-
264198	New	60	55	80	-	-	-	46	46	69	-	-	-
264230	New	60	55	80	-	-	-	46	47	68	-	-	-
264245	New	60	55	80	-	-	-	47	47	69	-	-	-
264252	New	60	55	80	-	-	-	47	47	69	-	-	-
264269	New	60	55	80	-	-	-	**62**	**62**	80	-	-	-
264283	New	60	55	80	-	-	-	57	**58**	77	-	-	-
264340	New	60	55	80	-	-	-	59	**59**	78	-	-	-
264366	New	60	55	80	-	-	-	**64**	**64**	**87**	-	-	-
264404	New	60	55	80	-	-	-	50	51	72	-	-	-
264420	New	60	55	80	-	-	-	48	49	71	-	-	-
264427	New	60	55	80	-	-	-	51	51	73	-	-	-
264440	New	60	55	80	-	-	-	50	50	73	-	-	-
264441	New	60	55	80	-	-	-	49	50	72	-	-	-
264449	New	60	55	80	-	-	-	49	50	72	-	-	-
264470	New	60	55	80	-	-	-	51	52	74	-	-	-
264475	New	60	55	80	-	-	-	51	51	73	-	-	-
264481	New	60	55	80	-	-	-	55	55	75	-	-	-
264487	New	60	55	80	-	-	-	**65**	**66**	**89**	-	-	-
264498	New	60	55	80	-	-	-	50	51	71	-	-	-

Receptor ID	New rail corridor/ redevelopment of existing infrastructure	Rail noise criteria			Existing rail noise levels, dBA			Project rail noise levels dBA			Change in noise level, dBA		
		LAeq Day	LAeq Night	Lamax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax
264501	New	60	55	80	-	-	-	49	49	72	-	-	-
264510	New	60	55	80	-	-	-	49	49	71	-	-	-
264543	New	60	55	80	-	-	-	57	**58**	79	-	-	-
264553	New	60	55	80	-	-	-	48	49	70	-	-	-
264554	New	60	55	80	-	-	-	48	48	70	-	-	-
264555	New	60	55	80	-	-	-	49	49	71	-	-	-
264558	New	60	55	80	-	-	-	46	47	70	-	-	-
264562	New	60	55	80	-	-	-	47	47	69	-	-	-
264573	New	60	55	80	-	-	-	55	55	75	-	-	-
264578	New	60	55	80	-	-	-	48	48	70	-	-	-
264584	New	60	55	80	-	-	-	54	54	75	-	-	-
264600	New	60	55	80	-	-	-	49	49	70	-	-	-
264604	New	60	55	80	-	-	-	46	47	69	-	-	-
264622	New	60	55	80	-	-	-	44	45	67	-	-	-
264650	New	60	55	80	-	-	-	**65**	**65**	**85**	-	-	-
264661	New	60	55	80	-	-	-	54	55	76	-	-	-
264683	New	60	55	80	-	-	-	55	55	77	-	-	-
264698	New	60	55	80	-	-	-	53	53	73	-	-	-
264714	New	60	55	80	-	-	-	48	48	70	-	-	-
264715	New	60	55	80	-	-	-	52	53	73	-	-	-
264721	New	60	55	80	-	-	-	48	48	70	-	-	-
264727	New	60	55	80	-	-	-	52	52	73	-	-	-
264733	New	60	55	80	-	-	-	44	44	66	-	-	-
264751	New	60	55	80	-	-	-	47	47	68	-	-	-
264778	New	60	55	80	-	-	-	47	48	69	-	-	-
264801	New	60	55	80	-	-	-	**67**	**67**	**87**	-	-	-
264808	New	60	55	80	-	-	-	47	47	69	-	-	-
264811	New	60	55	80	-	-	-	47	47	69	-	-	-
264819	New	60	55	80	-	-	-	46	46	69	-	-	-
264832	New	60	55	80	-	-	-	47	48	69	-	-	-
264866	New	60	55	80	-	-	-	51	52	72	-	-	-
264868	New	60	55	80	-	-	-	52	52	73	-	-	-
264883	New	60	55	80	-	-	-	51	51	71	-	-	-
264906	New	60	55	80	-	-	-	46	47	68	-	-	-
264920	New	60	55	80	-	-	-	54	54	74	-	-	-
264928	New	60	55	80	-	-	-	52	53	71	-	-	-
264930	New	60	55	80	-	-	-	54	54	75	-	-	-
264948	New	60	55	80	-	-	-	55	55	77	-	-	-
264988	New	60	55	80	-	-	-	50	50	70	-	-	-
264999	New	60	55	80	-	-	-	51	51	71	-	-	-
265002	New	60	55	80	-	-	-	52	53	73	-	-	-
265011	New	60	55	80	-	-	-	**61**	**61**	**81**	-	-	-
265019	New	60	55	80	-	-	-	50	50	71	-	-	-
265035	New	60	55	80	-	-	-	59	**60**	79	-	-	-
265045	New	60	55	80	-	-	-	52	53	73	-	-	-
265074	New	60	55	80	-	-	-	52	52	73	-	-	-
265139	New	60	55	80	-	-	-	49	50	69	-	-	-
265177	New	60	55	80	-	-	-	51	51	72	-	-	-
265181	New	60	55	80	-	-	-	52	52	73	-	-	-
265184	New	60	55	80	-	-	-	49	49	70	-	-	-
265185	New	60	55	80	-	-	-	50	50	71	-	-	-

Receptor ID	New rail corridor/ redevelopment of existing infrastructure	Rail noise criteria			Existing rail noise levels, dBA			Project rail noise levels dBA			Change in noise level, dBA		
		LAeq Day	LAeq Night	Lamax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax
265193	New	60	55	80	-	-	-	50	50	71	-	-	-
265194	New	60	55	80	-	-	-	51	52	72	-	-	-
265233	New	60	55	80	-	-	-	50	50	71	-	-	-
265241	New	60	55	80	-	-	-	52	52	73	-	-	-
265250	New	60	55	80	-	-	-	52	53	73	-	-	-
265285	New	60	55	80	-	-	-	53	53	73	-	-	-
265299	New	60	55	80	-	-	-	52	52	73	-	-	-
265302	New	60	55	80	-	-	-	48	49	69	-	-	-
265303	New	60	55	80	-	-	-	49	50	69	-	-	-
265313	New	60	55	80	-	-	-	51	51	71	-	-	-
265331	New	60	55	80	-	-	-	49	49	70	-	-	-
265360	New	60	55	80	-	-	-	52	52	73	-	-	-
265362	New	60	55	80	-	-	-	51	51	72	-	-	-
265369	New	60	55	80	-	-	-	52	52	73	-	-	-
265425	New	60	55	80	-	-	-	45	45	68	-	-	-
265427	New	60	55	80	-	-	-	47	47	69	-	-	-
265467	New	60	55	80	-	-	-	54	54	76	-	-	-
265480	New	60	55	80	-	-	-	55	55	77	-	-	-
265483	New	60	55	80	-	-	-	54	54	76	-	-	-
265488	New	60	55	80	-	-	-	49	49	71	-	-	-
265508	New	60	55	80	-	-	-	48	49	70	-	-	-
265517	New	60	55	80	-	-	-	48	48	70	-	-	-
265526	New	60	55	80	-	-	-	52	53	75	-	-	-
265529	New	60	55	80	-	-	-	54	54	76	-	-	-
265536	New	60	55	80	-	-	-	55	55	77	-	-	-
265538	New	60	55	80	-	-	-	55	55	77	-	-	-
265551	New	60	55	80	-	-	-	50	50	73	-	-	-
265552	New	60	55	80	-	-	-	47	47	70	-	-	-
265556	New	60	55	80	-	-	-	54	55	77	-	-	-
265557	New	60	55	80	-	-	-	47	47	69	-	-	-
265558	New	60	55	80	-	-	-	46	46	68	-	-	-
265564	New	60	55	80	-	-	-	47	47	70	-	-	-
265598	New	60	55	80	-	-	-	49	49	71	-	-	-
265603	New	60	55	80	-	-	-	45	45	68	-	-	-
265617	New	60	55	80	-	-	-	46	46	68	-	-	-
265618	New	60	55	80	-	-	-	44	44	66	-	-	-
265621	New	60	55	80	-	-	-	50	50	72	-	-	-
265629	New	60	55	80	-	-	-	50	50	72	-	-	-
265634	New	60	55	80	-	-	-	50	51	72	-	-	-
265635	New	60	55	80	-	-	-	46	46	68	-	-	-
265642	New	60	55	80	-	-	-	50	50	72	-	-	-
265643	New	60	55	80	-	-	-	47	48	69	-	-	-
265645	New	60	55	80	-	-	-	46	46	67	-	-	-
265648	New	60	55	80	-	-	-	45	45	67	-	-	-
265650	New	60	55	80	-	-	-	45	46	67	-	-	-
265651	New	60	55	80	-	-	-	47	47	69	-	-	-
265657	New	60	55	80	-	-	-	47	47	69	-	-	-
265660	New	60	55	80	-	-	-	41	42	64	-	-	-
265661	New	60	55	80	-	-	-	48	48	71	-	-	-
265663	New	60	55	80	-	-	-	50	50	71	-	-	-
265673	New	60	55	80	-	-	-	49	49	70	-	-	-

Receptor ID	New rail corridor/ redevelopment of existing infrastructure	Rail noise criteria			Existing rail noise levels, dBA			Project rail noise levels dBA			Change in noise level, dBA		
		LAeq Day	LAeq Night	Lamax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax
265683	New	60	55	80	-	-	-	48	48	70	-	-	-
265697	New	60	55	80	-	-	-	49	49	70	-	-	-
265724	New	60	55	80	-	-	-	47	47	68	-	-	-
265743	New	60	55	80	-	-	-	42	42	63	-	-	-
265750	New	60	55	80	-	-	-	50	50	71	-	-	-
265758	New	60	55	80	-	-	-	50	50	72	-	-	-
265764	New	60	55	80	-	-	-	42	42	64	-	-	-
265766	New	60	55	80	-	-	-	47	47	69	-	-	-
265771	New	60	55	80	-	-	-	47	48	69	-	-	-
265785	New	60	55	80	-	-	-	41	42	62	-	-	-
265786	New	60	55	80	-	-	-	49	50	70	-	-	-
265796	New	60	55	80	-	-	-	41	42	63	-	-	-
265800	New	60	55	80	-	-	-	54	54	77	-	-	-
265803	New	60	55	80	-	-	-	49	50	71	-	-	-
265825	New	60	55	80	-	-	-	42	43	64	-	-	-
265831	New	60	55	80	-	-	-	53	53	76	-	-	-
265864	New	60	55	80	-	-	-	53	54	76	-	-	-
265872	New	60	55	80	-	-	-	52	52	75	-	-	-
265890	New	60	55	80	-	-	-	47	47	68	-	-	-
265898	New	60	55	80	-	-	-	48	48	70	-	-	-
265905	New	60	55	80	-	-	-	47	48	69	-	-	-
265915	New	60	55	80	-	-	-	41	41	61	-	-	-
265929	New	60	55	80	-	-	-	47	48	70	-	-	-
265934	New	60	55	80	-	-	-	39	39	60	-	-	-
265936	New	60	55	80	-	-	-	37	37	59	-	-	-
265952	New	60	55	80	-	-	-	54	55	77	-	-	-
265955	New	60	55	80	-	-	-	48	48	69	-	-	-
265975	New	60	55	80	-	-	-	39	39	61	-	-	-
265979	New	60	55	80	-	-	-	48	48	69	-	-	-
265990	New	60	55	80	-	-	-	47	47	69	-	-	-
266001	New	60	55	80	-	-	-	42	43	65	-	-	-
266016	New	60	55	80	-	-	-	47	47	68	-	-	-
266028	New	60	55	80	-	-	-	47	48	69	-	-	-
266040	New	60	55	80	-	-	-	54	55	77	-	-	-
266046	New	60	55	80	-	-	-	45	46	67	-	-	-
266060	New	60	55	80	-	-	-	43	43	66	-	-	-
266062	New	60	55	80	-	-	-	52	52	75	-	-	-
266065	New	60	55	80	-	-	-	47	47	68	-	-	-
266069	New	60	55	80	-	-	-	50	50	71	-	-	-
266070	New	60	55	80	-	-	-	51	51	73	-	-	-
266074	New	60	55	80	-	-	-	49	50	72	-	-	-
266079	New	60	55	80	-	-	-	48	48	70	-	-	-
266081	New	60	55	80	-	-	-	47	47	69	-	-	-
266107	New	60	55	80	-	-	-	46	46	68	-	-	-
266203	New	60	55	80	-	-	-	50	50	71	-	-	-
266219	New	60	55	80	-	-	-	50	51	72	-	-	-
266242	New	60	55	80	-	-	-	53	53	76	-	-	-
266258	New	60	55	80	-	-	-	51	51	73	-	-	-
266274	New	60	55	80	-	-	-	51	51	72	-	-	-
266275	New	60	55	80	-	-	-	51	52	74	-	-	-
266277	New	60	55	80	-	-	-	48	48	69	-	-	-

Receptor ID	New rail corridor/ redevelopment of existing infrastructure	Rail noise criteria			Existing rail noise levels, dBA			Project rail noise levels dBA			Change in noise level, dBA		
		LAeq Day	LAeq Night	Lamax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax
266281	New	60	55	80	-	-	-	56	**56**	79	-	-	-
266292	New	60	55	80	-	-	-	46	47	69	-	-	-
266293	New	60	55	80	-	-	-	50	51	71	-	-	-
266297	New	60	55	80	-	-	-	45	45	67	-	-	-
266305	New	60	55	80	-	-	-	50	51	73	-	-	-
266331	New	60	55	80	-	-	-	47	48	68	-	-	-
266336	New	60	55	80	-	-	-	48	48	71	-	-	-
266342	New	60	55	80	-	-	-	52	53	74	-	-	-
266348	New	60	55	80	-	-	-	53	54	75	-	-	-
266357	New	60	55	80	-	-	-	41	41	61	-	-	-
266363	New	60	55	80	-	-	-	43	43	62	-	-	-
266365	New	60	55	80	-	-	-	42	43	62	-	-	-
266368	New	60	55	80	-	-	-	42	42	61	-	-	-
266369	New	60	55	80	-	-	-	45	46	67	-	-	-
266381	New	60	55	80	-	-	-	45	45	67	-	-	-
266385	New	60	55	80	-	-	-	51	52	73	-	-	-
266387	New	60	55	80	-	-	-	50	51	72	-	-	-
266399	New	60	55	80	-	-	-	47	48	71	-	-	-
266402	New	60	55	80	-	-	-	44	44	66	-	-	-
266411	New	60	55	80	-	-	-	49	49	71	-	-	-
266412	New	60	55	80	-	-	-	49	49	71	-	-	-
266440	New	60	55	80	-	-	-	49	49	72	-	-	-
266444	New	60	55	80	-	-	-	51	52	74	-	-	-
266447	New	60	55	80	-	-	-	49	49	72	-	-	-
266451	New	60	55	80	-	-	-	45	45	68	-	-	-
266479	New	60	55	80	-	-	-	52	53	75	-	-	-
266483	New	60	55	80	-	-	-	51	52	73	-	-	-
266488	New	60	55	80	-	-	-	53	53	75	-	-	-
266497	New	60	55	80	-	-	-	55	55	76	-	-	-
266500	New	60	55	80	-	-	-	54	54	77	-	-	-
266502	New	60	55	80	-	-	-	56	**56**	76	-	-	-
266525	New	60	55	80	-	-	-	47	48	70	-	-	-
266564	New	60	55	80	-	-	-	48	48	71	-	-	-
266566	New	60	55	80	-	-	-	50	51	73	-	-	-
266603	New	60	55	80	-	-	-	43	44	66	-	-	-
266604	New	60	55	80	-	-	-	40	40	61	-	-	-
266626	New	60	55	80	-	-	-	47	47	71	-	-	-
266628	New	60	55	80	-	-	-	41	42	62	-	-	-
266653	New	60	55	80	-	-	-	41	41	62	-	-	-
266664	New	60	55	80	-	-	-	41	41	62	-	-	-
266679	New	60	55	80	-	-	-	43	43	63	-	-	-
266696	New	60	55	80	-	-	-	59	**59**	78	-	-	-
266728	New	60	55	80	-	-	-	46	46	68	-	-	-
266738	New	60	55	80	-	-	-	46	47	69	-	-	-
266745	New	60	55	80	-	-	-	44	45	65	-	-	-
266746	New	60	55	80	-	-	-	44	44	65	-	-	-
266751	New	60	55	80	-	-	-	44	45	66	-	-	-
266756	New	60	55	80	-	-	-	45	46	68	-	-	-
266765	New	60	55	80	-	-	-	48	48	70	-	-	-
266767	New	60	55	80	-	-	-	45	46	68	-	-	-
266768	New	60	55	80	-	-	-	47	47	69	-	-	-

Receptor ID	New rail corridor/ redevelopment of existing infrastructure	Rail noise criteria			Existing rail noise levels, dBA			Project rail noise levels dBA			Change in noise level, dBA		
		LAeq Day	LAeq Night	Lamax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax
266774	New	60	55	80	-	-	-	51	51	72	-	-	-
266778	New	60	55	80	-	-	-	48	48	70	-	-	-
266811	New	60	55	80	-	-	-	52	52	75	-	-	-
266814	New	60	55	80	-	-	-	49	49	70	-	-	-
266825	New	60	55	80	-	-	-	50	50	72	-	-	-
266832	New	60	55	80	-	-	-	51	52	74	-	-	-
266838	New	60	55	80	-	-	-	50	50	70	-	-	-
266841	New	60	55	80	-	-	-	51	51	74	-	-	-
266869	New	60	55	80	-	-	-	49	49	71	-	-	-
266897	New	60	55	80	-	-	-	50	50	73	-	-	-
266933	New	60	55	80	-	-	-	51	51	74	-	-	-
266953	New	60	55	80	-	-	-	54	55	78	-	-	-
266956	New	60	55	80	-	-	-	48	48	70	-	-	-
267013	New	60	55	80	-	-	-	50	50	72	-	-	-
267031	New	60	55	80	-	-	-	48	48	70	-	-	-
267168	New	60	55	80	-	-	-	50	50	71	-	-	-
267452	New	60	55	80	-	-	-	52	53	75	-	-	-
267468	New	60	55	80	-	-	-	50	50	71	-	-	-
267487	New	60	55	80	-	-	-	49	50	72	-	-	-
267578	New	60	55	80	-	-	-	51	51	74	-	-	-
267609	New	60	55	80	-	-	-	52	53	76	-	-	-
267629	New	60	55	80	-	-	-	50	50	71	-	-	-
267630	New	60	55	80	-	-	-	51	52	74	-	-	-
267694	New	60	55	80	-	-	-	51	52	71	-	-	-
267699	New	60	55	80	-	-	-	53	53	76	-	-	-
267751	New	60	55	80	-	-	-	51	51	73	-	-	-
267753	New	60	55	80	-	-	-	51	51	74	-	-	-
267777	New	60	55	80	-	-	-	52	52	73	-	-	-
267815	New	60	55	80	-	-	-	50	51	73	-	-	-
267855	New	60	55	80	-	-	-	51	52	75	-	-	-
267856	New	60	55	80	-	-	-	53	53	76	-	-	-
267949	New	60	55	80	-	-	-	50	51	74	-	-	-
268008	New	60	55	80	-	-	-	47	48	70	-	-	-
268064	New	60	55	80	-	-	-	52	52	75	-	-	-
268111	New	60	55	80	-	-	-	51	52	72	-	-	-
268134	New	60	55	80	-	-	-	46	47	69	-	-	-
268168	New	60	55	80	-	-	-	54	54	77	-	-	-
268179	New	60	55	80	-	-	-	50	50	71	-	-	-
268180	New	60	55	80	-	-	-	50	50	71	-	-	-
268183	New	60	55	80	-	-	-	**63**	**64**	**89**	-	-	-
268188	New	60	55	80	-	-	-	51	51	72	-	-	-
268201	New	60	55	80	-	-	-	49	49	72	-	-	-
268309	New	60	55	80	-	-	-	50	50	73	-	-	-
268352	New	60	55	80	-	-	-	50	51	73	-	-	-
268538	New	60	55	80	-	-	-	60	**60**	**83**	-	-	-
268646	New	60	55	80	-	-	-	48	49	70	-	-	-
268681	New	60	55	80	-	-	-	57	**58**	80	-	-	-
268718	New	60	55	80	-	-	-	54	55	78	-	-	-
268720	New	60	55	80	-	-	-	51	51	74	-	-	-
268797	New	60	55	80	-	-	-	49	49	72	-	-	-
268808	New	60	55	80	-	-	-	58	**58**	78	-	-	-

Receptor ID	New rail corridor/ redevelopment of existing infrastructure	Rail noise criteria			Existing rail noise levels, dBA			Project rail noise levels dBA			Change in noise level, dBA		
		LAeq Day	LAeq Night	Lamax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax
268834	New	60	55	80	-	-	-	50	50	72	-	-	-
268858	New	60	55	80	-	-	-	48	48	71	-	-	-
268885	New	60	55	80	-	-	-	49	49	73	-	-	-
268924	New	60	55	80	-	-	-	46	46	69	-	-	-
268972	New	60	55	80	-	-	-	50	50	71	-	-	-
268997	New	60	55	80	-	-	-	47	47	70	-	-	-
269011	New	60	55	80	-	-	-	49	49	71	-	-	-
269031	New	60	55	80	-	-	-	48	48	70	-	-	-
269067	New	60	55	80	-	-	-	48	49	70	-	-	-
269074	New	60	55	80	-	-	-	48	49	71	-	-	-
269080	New	60	55	80	-	-	-	46	46	67	-	-	-
269089	New	60	55	80	-	-	-	49	49	71	-	-	-
269111	New	60	55	80	-	-	-	52	52	72	-	-	-
269119	New	60	55	80	-	-	-	52	52	74	-	-	-
269136	New	60	55	80	-	-	-	49	49	70	-	-	-
269149	New	60	55	80	-	-	-	55	55	76	-	-	-
269156	New	60	55	80	-	-	-	55	**56**	78	-	-	-
269161	New	60	55	80	-	-	-	53	53	75	-	-	-
269163	New	60	55	80	-	-	-	50	50	71	-	-	-
269250	New	60	55	80	-	-	-	51	51	73	-	-	-
269271	New	60	55	80	-	-	-	49	49	70	-	-	-
269287	New	60	55	80	-	-	-	46	47	69	-	-	-
269311	New	60	55	80	-	-	-	48	49	70	-	-	-
269328	New	60	55	80	-	-	-	48	48	70	-	-	-
269344	New	60	55	80	-	-	-	48	48	70	-	-	-
269390	New	60	55	80	-	-	-	46	46	67	-	-	-
269457	New	60	55	80	-	-	-	46	46	69	-	-	-
269464	New	60	55	80	-	-	-	54	55	77	-	-	-
269510	New	60	55	80	-	-	-	47	48	70	-	-	-
269517	New	60	55	80	-	-	-	53	53	76	-	-	-
269580	New	60	55	80	-	-	-	45	46	69	-	-	-
269634	New	60	55	80	-	-	-	45	45	66	-	-	-
269645	New	60	55	80	-	-	-	57	**57**	79	-	-	-
269661	New	60	55	80	-	-	-	45	45	65	-	-	-
269734	New	60	55	80	-	-	-	44	45	66	-	-	-
269772	New	60	55	80	-	-	-	46	47	68	-	-	-
269839	New	60	55	80	-	-	-	46	46	69	-	-	-
269868	New	60	55	80	-	-	-	46	47	70	-	-	-
269900	New	60	55	80	-	-	-	47	47	70	-	-	-
269954	New	60	55	80	-	-	-	45	46	69	-	-	-
269989	New	60	55	80	-	-	-	44	45	66	-	-	-
270009	New	60	55	80	-	-	-	47	48	71	-	-	-
270023	New	60	55	80	-	-	-	53	53	75	-	-	-
270038	New	60	55	80	-	-	-	45	45	68	-	-	-
270058	New	60	55	80	-	-	-	45	45	69	-	-	-
270067	New	60	55	80	-	-	-	47	47	70	-	-	-
270123	New	60	55	80	-	-	-	44	44	67	-	-	-
270135	New	60	55	80	-	-	-	47	48	70	-	-	-
270279	New	60	55	80	-	-	-	41	42	63	-	-	-
270319	New	60	55	80	-	-	-	41	42	63	-	-	-
270331	New	60	55	80	-	-	-	39	39	62	-	-	-

Receptor ID	New rail corridor/ redevelopment of existing infrastructure	Rail noise criteria			Existing rail noise levels, dBA			Project rail noise levels dBA			Change in noise level, dBA		
		LAeq Day	LAeq Night	Lamax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax
270341	New	60	55	80	-	-	-	42	42	61	-	-	-
270400	New	60	55	80	-	-	-	42	42	63	-	-	-
270415	New	60	55	80	-	-	-	43	43	66	-	-	-
270439	New	60	55	80	-	-	-	43	43	62	-	-	-
270470	New	60	55	80	-	-	-	44	45	68	-	-	-
270537	New	60	55	80	-	-	-	40	41	61	-	-	-
270600	New	60	55	80	-	-	-	42	42	61	-	-	-
270610	New	60	55	80	-	-	-	41	42	62	-	-	-
270651	New	60	55	80	-	-	-	60	**60**	**83**	-	-	-
270656	New	60	55	80	-	-	-	41	41	62	-	-	-
270691	New	60	55	80	-	-	-	40	40	60	-	-	-
270706	New	60	55	80	-	-	-	40	40	59	-	-	-
270747	New	60	55	80	-	-	-	40	40	60	-	-	-
270769	New	60	55	80	-	-	-	40	41	60	-	-	-
270811	New	60	55	80	-	-	-	42	42	61	-	-	-
270828	New	60	55	80	-	-	-	42	42	60	-	-	-
270830	New	60	55	80	-	-	-	42	42	61	-	-	-
270857	New	60	55	80	-	-	-	40	41	60	-	-	-
270868	New	60	55	80	-	-	-	40	41	61	-	-	-
270878	New	60	55	80	-	-	-	45	45	68	-	-	-
270894	New	60	55	80	-	-	-	46	47	70	-	-	-
270935	New	60	55	80	-	-	-	45	45	69	-	-	-
270963	New	60	55	80	-	-	-	40	40	59	-	-	-
270967	New	60	55	80	-	-	-	41	41	62	-	-	-
271004	New	60	55	80	-	-	-	41	41	60	-	-	-
271027	New	60	55	80	-	-	-	41	41	61	-	-	-
271053	New	60	55	80	-	-	-	40	40	59	-	-	-
271083	New	60	55	80	-	-	-	44	44	68	-	-	-
271087	New	60	55	80	-	-	-	40	41	59	-	-	-
271096	New	60	55	80	-	-	-	40	40	59	-	-	-
271110	New	60	55	80	-	-	-	41	41	59	-	-	-
271152	New	60	55	80	-	-	-	40	41	60	-	-	-
271173	New	60	55	80	-	-	-	**61**	**61**	**84**	-	-	-
271202	New	60	55	80	-	-	-	51	51	72	-	-	-
271278	New	60	55	80	-	-	-	50	51	73	-	-	-
271328	New	60	55	80	-	-	-	45	45	68	-	-	-
271331	New	60	55	80	-	-	-	39	39	59	-	-	-
271332	New	60	55	80	-	-	-	49	49	71	-	-	-
271353	New	60	55	80	-	-	-	46	47	70	-	-	-
271361	New	60	55	80	-	-	-	40	41	64	-	-	-
271362	New	60	55	80	-	-	-	45	45	69	-	-	-
271364	New	60	55	80	-	-	-	34	35	58	-	-	-
271446	New	60	55	80	-	-	-	52	53	74	-	-	-
271476	New	60	55	80	-	-	-	50	50	73	-	-	-
271518	New	60	55	80	-	-	-	44	44	65	-	-	-
271519	New	60	55	80	-	-	-	33	34	56	-	-	-
271528	New	60	55	80	-	-	-	43	44	65	-	-	-
271540	New	60	55	80	-	-	-	43	44	67	-	-	-
271541	New	60	55	80	-	-	-	39	40	63	-	-	-
271558	New	60	55	80	-	-	-	42	43	63	-	-	-
271583	New	60	55	80	-	-	-	44	45	68	-	-	-

Receptor ID	New rail corridor/ redevelopment of existing infrastructure	Rail noise criteria			Existing rail noise levels, dBA			Project rail noise levels dBA			Change in noise level, dBA		
		LAeq Day	LAeq Night	Lamax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax
271603	New	60	55	80	-	-	-	43	43	66	-	-	-
271607	New	60	55	80	-	-	-	40	40	58	-	-	-
271628	New	60	55	80	-	-	-	43	43	63	-	-	-
271673	New	60	55	80	-	-	-	38	38	59	-	-	-
271675	New	60	55	80	-	-	-	41	41	60	-	-	-
271684	New	60	55	80	-	-	-	45	45	68	-	-	-
271717	New	60	55	80	-	-	-	38	38	58	-	-	-
271763	New	60	55	80	-	-	-	36	37	58	-	-	-
271831	New	60	55	80	-	-	-	38	38	58	-	-	-
271858	New	60	55	80	-	-	-	54	55	77	-	-	-
271885	New	60	55	80	-	-	-	39	39	60	-	-	-
271914	New	60	55	80	-	-	-	38	38	58	-	-	-
271920	New	60	55	80	-	-	-	40	40	59	-	-	-
271932	New	60	55	80	-	-	-	37	37	57	-	-	-
271935	New	60	55	80	-	-	-	38	39	60	-	-	-
271944	New	60	55	80	-	-	-	39	39	58	-	-	-
271946	New	60	55	80	-	-	-	37	37	57	-	-	-
271966	New	60	55	80	-	-	-	37	38	57	-	-	-
271968	New	60	55	80	-	-	-	39	40	59	-	-	-
271979	New	60	55	80	-	-	-	38	38	58	-	-	-
272007	New	60	55	80	-	-	-	47	47	69	-	-	-
272049	New	60	55	80	-	-	-	39	40	59	-	-	-
272056	New	60	55	80	-	-	-	47	48	70	-	-	-
272064	New	60	55	80	-	-	-	40	40	59	-	-	-
272074	New	60	55	80	-	-	-	44	45	65	-	-	-
272084	New	60	55	80	-	-	-	37	37	56	-	-	-
272105	New	60	55	80	-	-	-	44	45	65	-	-	-
272141	New	60	55	80	-	-	-	37	37	57	-	-	-
272155	New	60	55	80	-	-	-	41	41	62	-	-	-
272187	New	60	55	80	-	-	-	45	46	67	-	-	-
272202	New	60	55	80	-	-	-	47	48	70	-	-	-
272205	New	60	55	80	-	-	-	44	45	65	-	-	-
272224	New	60	55	80	-	-	-	41	41	61	-	-	-
272228	New	60	55	80	-	-	-	37	37	56	-	-	-
272247	New	60	55	80	-	-	-	41	41	61	-	-	-
272259	New	60	55	80	-	-	-	41	41	61	-	-	-
272273	New	60	55	80	-	-	-	45	46	68	-	-	-
272275	New	60	55	80	-	-	-	38	38	58	-	-	-
272283	New	60	55	80	-	-	-	44	44	66	-	-	-
272288	New	60	55	80	-	-	-	39	40	59	-	-	-
272293	New	60	55	80	-	-	-	40	40	60	-	-	-
272295	New	60	55	80	-	-	-	40	40	60	-	-	-
272313	New	60	55	80	-	-	-	37	38	58	-	-	-
272329	New	60	55	80	-	-	-	37	38	59	-	-	-
272348	New	60	55	80	-	-	-	39	39	59	-	-	-
272356	New	60	55	80	-	-	-	38	39	59	-	-	-
272367	New	60	55	80	-	-	-	36	37	58	-	-	-
272380	New	60	55	80	-	-	-	43	44	65	-	-	-
272390	New	60	55	80	-	-	-	38	39	57	-	-	-
272392	New	60	55	80	-	-	-	36	36	57	-	-	-
272396	New	60	55	80	-	-	-	36	36	56	-	-	-

Receptor ID	New rail corridor/ redevelopment of existing infrastructure	Rail noise criteria			Existing rail noise levels, dBA			Project rail noise levels dBA			Change in noise level, dBA		
		LAeq Day	LAeq Night	Lamax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax
272420	New	60	55	80	-	-	-	37	37	57	-	-	-
272421	New	60	55	80	-	-	-	36	36	57	-	-	-
272422	New	60	55	80	-	-	-	38	39	56	-	-	-
272444	New	60	55	80	-	-	-	36	36	56	-	-	-
272450	New	60	55	80	-	-	-	36	36	55	-	-	-
272452	New	60	55	80	-	-	-	39	39	58	-	-	-
272476	New	60	55	80	-	-	-	41	41	60	-	-	-
272477	New	60	55	80	-	-	-	39	39	59	-	-	-
272478	New	60	55	80	-	-	-	52	52	74	-	-	-
272482	New	60	55	80	-	-	-	36	37	57	-	-	-
272518	New	60	55	80	-	-	-	36	37	56	-	-	-
272532	New	60	55	80	-	-	-	37	37	57	-	-	-
272538	New	60	55	80	-	-	-	37	37	57	-	-	-
272545	New	60	55	80	-	-	-	53	53	75	-	-	-
272548	New	60	55	80	-	-	-	54	54	76	-	-	-
272578	New	60	55	80	-	-	-	37	37	57	-	-	-
272598	New	60	55	80	-	-	-	52	52	73	-	-	-
272608	New	60	55	80	-	-	-	52	53	75	-	-	-
272611	New	60	55	80	-	-	-	36	36	56	-	-	-
272613	New	60	55	80	-	-	-	36	37	56	-	-	-
272624	New	60	55	80	-	-	-	52	53	74	-	-	-
272626	New	60	55	80	-	-	-	36	36	56	-	-	-
272647	New	60	55	80	-	-	-	54	54	75	-	-	-
272649	New	60	55	80	-	-	-	36	37	57	-	-	-
272656	New	60	55	80	-	-	-	36	37	57	-	-	-
272659	New	60	55	80	-	-	-	36	37	56	-	-	-
272676	New	60	55	80	-	-	-	38	39	60	-	-	-
272687	New	60	55	80	-	-	-	37	37	57	-	-	-
272695	New	60	55	80	-	-	-	36	37	54	-	-	-
272703	New	60	55	80	-	-	-	36	37	57	-	-	-
272733	New	60	55	80	-	-	-	36	36	55	-	-	-
272741	New	60	55	80	-	-	-	37	37	58	-	-	-
272743	New	60	55	80	-	-	-	37	37	57	-	-	-
272793	New	60	55	80	-	-	-	36	36	56	-	-	-
272806	New	60	55	80	-	-	-	36	36	54	-	-	-
272810	New	60	55	80	-	-	-	38	39	60	-	-	-
272829	New	60	55	80	-	-	-	36	37	57	-	-	-
272835	New	60	55	80	-	-	-	36	36	55	-	-	-
272849	New	60	55	80	-	-	-	36	37	58	-	-	-
272863	New	60	55	80	-	-	-	36	36	56	-	-	-
272897	New	60	55	80	-	-	-	36	37	57	-	-	-
272918	New	60	55	80	-	-	-	36	36	55	-	-	-
272922	New	60	55	80	-	-	-	36	37	56	-	-	-
272971	New	60	55	80	-	-	-	37	38	57	-	-	-
273039	New	60	55	80	-	-	-	36	36	57	-	-	-
273049	New	60	55	80	-	-	-	53	53	73	-	-	-
273068	New	60	55	80	-	-	-	38	38	57	-	-	-
273072	New	60	55	80	-	-	-	52	53	73	-	-	-
273085	New	60	55	80	-	-	-	36	37	56	-	-	-
273104	New	60	55	80	-	-	-	52	53	73	-	-	-
273122	New	60	55	80	-	-	-	**65**	**66**	**88**	-	-	-

Receptor ID	New rail corridor/ redevelopment of existing infrastructure	Rail noise criteria			Existing rail noise levels, dBA			Project rail noise levels dBA			Change in noise level, dBA		
		LAeq Day	LAeq Night	Lamax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax
273141	New	60	55	80	-	-	-	36	37	57	-	-	-
273147	New	60	55	80	-	-	-	51	51	73	-	-	-
273152	New	60	55	80	-	-	-	36	36	55	-	-	-
273154	New	60	55	80	-	-	-	36	36	57	-	-	-
273174	New	60	55	80	-	-	-	37	37	57	-	-	-
273202	New	60	55	80	-	-	-	36	37	55	-	-	-
273206	New	60	55	80	-	-	-	36	36	55	-	-	-
273219	New	60	55	80	-	-	-	38	38	57	-	-	-
273226	New	60	55	80	-	-	-	34	35	54	-	-	-
273231	New	60	55	80	-	-	-	51	51	72	-	-	-
273246	New	60	55	80	-	-	-	39	39	59	-	-	-
273248	New	60	55	80	-	-	-	46	47	70	-	-	-
273255	New	60	55	80	-	-	-	46	47	70	-	-	-
273310	New	60	55	80	-	-	-	40	41	62	-	-	-
273322	New	60	55	80	-	-	-	40	41	62	-	-	-
273354	New	60	55	80	-	-	-	36	36	55	-	-	-
273372	New	60	55	80	-	-	-	39	39	60	-	-	-
273373	New	60	55	80	-	-	-	49	50	72	-	-	-
273390	New	60	55	80	-	-	-	35	36	54	-	-	-
273402	New	60	55	80	-	-	-	38	38	57	-	-	-
273424	New	60	55	80	-	-	-	37	38	56	-	-	-
273435	New	60	55	80	-	-	-	38	38	58	-	-	-
273459	New	60	55	80	-	-	-	36	37	56	-	-	-
273466	New	60	55	80	-	-	-	36	36	54	-	-	-
273470	New	60	55	80	-	-	-	34	34	53	-	-	-
273477	New	60	55	80	-	-	-	35	35	53	-	-	-
273545	New	60	55	80	-	-	-	50	51	73	-	-	-
273651	New	60	55	80	-	-	-	49	50	71	-	-	-
273669	New	60	55	80	-	-	-	43	43	66	-	-	-
273675	New	60	55	80	-	-	-	41	42	64	-	-	-
273678	New	60	55	80	-	-	-	36	36	56	-	-	-
273692	New	60	55	80	-	-	-	49	49	71	-	-	-
273695	New	60	55	80	-	-	-	**63**	**63**	**82**	-	-	-
273710	New	60	55	80	-	-	-	49	49	72	-	-	-
273712	New	60	55	80	-	-	-	42	42	65	-	-	-
273721	New	60	55	80	-	-	-	42	43	66	-	-	-
273724	New	60	55	80	-	-	-	39	40	61	-	-	-
273729	New	60	55	80	-	-	-	37	37	57	-	-	-
273730	New	60	55	80	-	-	-	36	36	57	-	-	-
273740	New	60	55	80	-	-	-	33	34	54	-	-	-
273744	New	60	55	80	-	-	-	42	42	65	-	-	-
273745	New	60	55	80	-	-	-	47	48	71	-	-	-
273753	New	60	55	80	-	-	-	33	34	54	-	-	-
273757	New	60	55	80	-	-	-	50	50	72	-	-	-
273771	New	60	55	80	-	-	-	49	50	72	-	-	-
273775	New	60	55	80	-	-	-	42	42	65	-	-	-
273789	New	60	55	80	-	-	-	50	50	73	-	-	-
273802	New	60	55	80	-	-	-	42	42	65	-	-	-
273807	New	60	55	80	-	-	-	36	36	58	-	-	-
273814	New	60	55	80	-	-	-	40	41	63	-	-	-
273815	New	60	55	80	-	-	-	34	34	55	-	-	-

Receptor ID	New rail corridor/ redevelopment of existing infrastructure	Rail noise criteria			Existing rail noise levels, dBA			Project rail noise levels dBA			Change in noise level, dBA		
		LAeq Day	LAeq Night	Lamax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax
273818	New	60	55	80	-	-	-	33	34	54	-	-	-
273829	New	60	55	80	-	-	-	37	37	57	-	-	-
273832	New	60	55	80	-	-	-	35	35	55	-	-	-
273853	New	60	55	80	-	-	-	43	44	66	-	-	-
273865	New	60	55	80	-	-	-	35	35	55	-	-	-
273869	New	60	55	80	-	-	-	35	36	56	-	-	-
273914	New	60	55	80	-	-	-	37	38	59	-	-	-
273932	New	60	55	80	-	-	-	43	44	66	-	-	-
273958	New	60	55	80	-	-	-	49	50	73	-	-	-
273999	New	60	55	80	-	-	-	43	43	66	-	-	-
274032	New	60	55	80	-	-	-	48	48	70	-	-	-
274046	New	60	55	80	-	-	-	48	48	70	-	-	-
274047	New	60	55	80	-	-	-	47	47	69	-	-	-
274068	New	60	55	80	-	-	-	40	40	63	-	-	-
274080	New	60	55	80	-	-	-	48	48	70	-	-	-
274083	New	60	55	80	-	-	-	48	49	71	-	-	-
274090	New	60	55	80	-	-	-	43	43	65	-	-	-
274099	New	60	55	80	-	-	-	42	43	65	-	-	-
274111	New	60	55	80	-	-	-	50	51	74	-	-	-
274118	New	60	55	80	-	-	-	48	49	70	-	-	-
274122	New	60	55	80	-	-	-	34	35	55	-	-	-
274211	New	60	55	80	-	-	-	45	45	68	-	-	-
274294	New	60	55	80	-	-	-	45	46	68	-	-	-
274308	New	60	55	80	-	-	-	43	43	65	-	-	-
274311	New	60	55	80	-	-	-	41	42	62	-	-	-
274339	New	60	55	80	-	-	-	40	41	63	-	-	-
274364	New	60	55	80	-	-	-	43	44	67	-	-	-
274389	New	60	55	80	-	-	-	45	46	68	-	-	-
274397	Redevelopment	65	60	85	43	42	70	44	45	68	1.0	2.7	-2.0
274401	Redevelopment	65	60	85	43	42	70	44	45	68	1.1	2.9	-1.9
274407	New	60	55	80	-	-	-	38	38	60	-	-	-
274421	Redevelopment	65	60	85	43	42	69	44	45	68	1.3	3.2	-1.5
274423	New	60	55	80	-	-	-	54	54	76	-	-	-
274486	Redevelopment	65	60	85	37	36	65	40	40	63	2.5	4.4	-1.8
274496	New	60	55	80	-	-	-	52	53	74	-	-	-
274500	Redevelopment	65	60	85	48	46	75	47	48	71	-0.5	1.2	-4.0
274514	New	60	55	80	-	-	-	43	43	66	-	-	-
274538	Redevelopment	65	60	85	43	42	70	46	46	70	2.9	4.7	-0.2
274563	New	60	55	80	-	-	-	43	43	66	-	-	-
274583	New	60	55	80	-	-	-	53	53	75	-	-	-
274584	New	60	55	80	-	-	-	**69**	**69**	**90**	-	-	-
274702	Redevelopment	65	60	85	49	47	76	47	48	71	-1.4	0.5	-5.1
274865	New	60	55	80	-	-	-	51	52	72	-	-	-
274866	New	60	55	80	-	-	-	52	53	74	-	-	-
274956	Redevelopment	65	60	85	47	45	74	54	54	77	7.0	8.8	3.4
274961	New	60	55	80	-	-	-	51	52	74	-	-	-
275088	Redevelopment	65	60	85	44	43	71	44	44	68	0.2	1.9	-3.4
275135	Redevelopment	65	60	85	44	43	71	44	45	68	0.4	2.2	-3.0
275140	Redevelopment	65	60	85	48	47	73	56	56	79	7.7	9.5	6.2
275197	Redevelopment	65	60	85	40	39	68	43	43	67	2.6	4.4	-0.8
275240	Redevelopment	65	60	85	43	42	70	44	45	68	1.0	2.8	-2.4

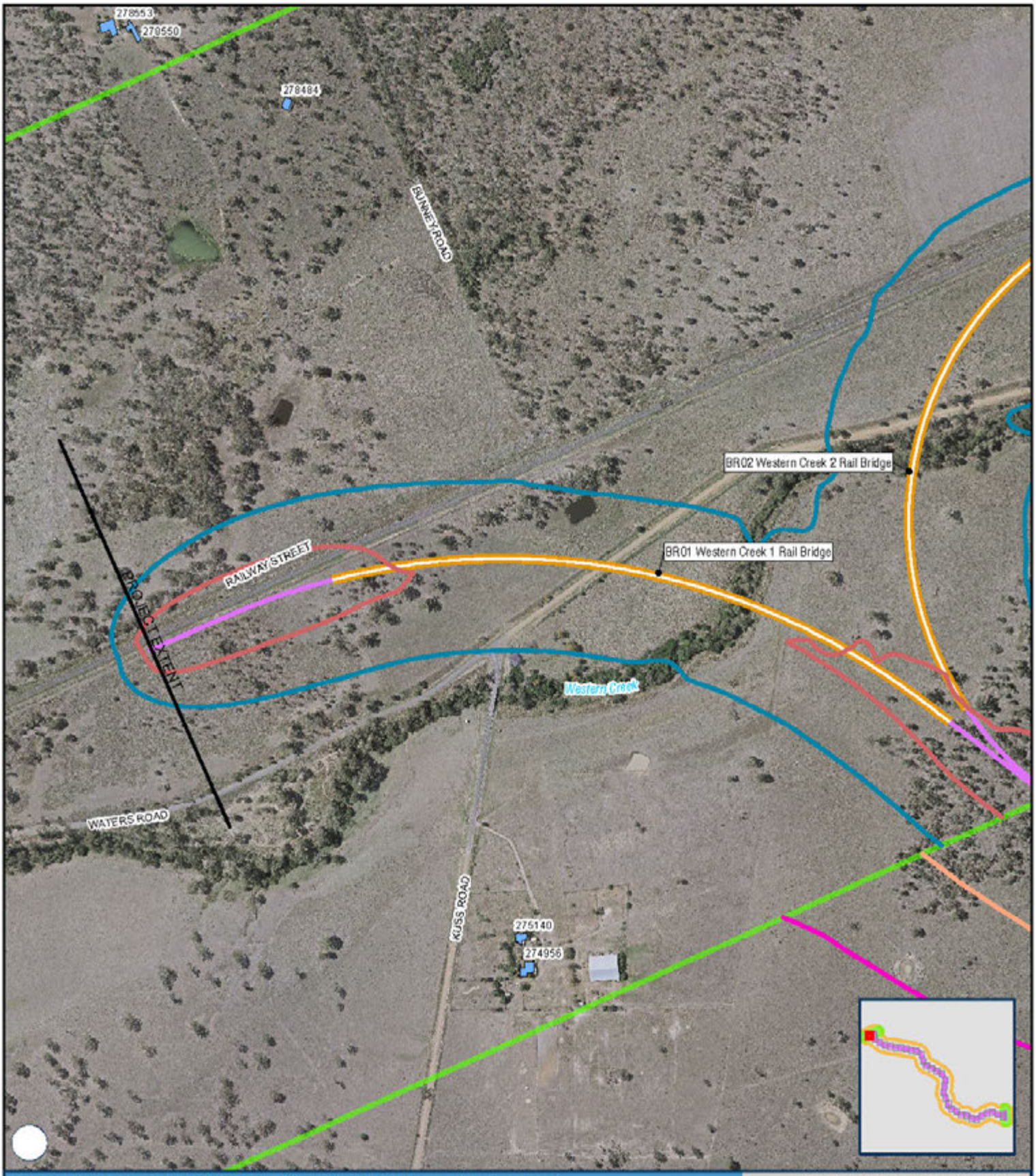
Receptor ID	New rail corridor/ redevelopment of existing infrastructure	Rail noise criteria			Existing rail noise levels, dBA			Project rail noise levels dBA			Change in noise level, dBA		
		LAeq Day	LAeq Night	Lamax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax
275274	Redevelopment	65	60	85	47	46	75	40	41	64	-6.5	-4.7	-11.1
275283	Redevelopment	65	60	85	47	46	74	47	47	70	-0.6	1.2	-4.2
275295	Redevelopment	65	60	85	45	43	72	47	47	70	1.7	3.5	-1.7
275297	Redevelopment	65	60	85	49	47	76	43	44	67	-5.3	-3.6	-9.6
275308	Redevelopment	65	60	85	37	36	64	39	40	63	2.1	3.9	-1.0
275337	Redevelopment	65	60	85	50	49	78	47	47	70	-3.5	-1.7	-7.6
275357	Redevelopment	65	60	85	42	40	69	43	43	67	1.2	2.9	-2.4
275359	Redevelopment	65	60	85	44	42	71	45	46	69	1.6	3.3	-2.2
275399	Redevelopment	65	60	85	42	41	70	44	44	68	1.5	3.2	-2.1
275421	Redevelopment	65	60	85	51	50	79	47	47	71	-4.2	-2.4	-8.4
275424	Redevelopment	65	60	85	43	42	71	45	45	69	1.7	3.4	-1.8
275461	Redevelopment	65	60	85	36	35	63	39	40	63	3.4	5.2	0.4
275500	Redevelopment	65	60	85	44	43	72	46	47	70	1.9	3.6	-1.8
275538	Redevelopment	65	60	85	40	39	68	42	43	66	1.9	3.6	-1.9
275561	Redevelopment	65	60	85	42	40	69	43	44	67	1.6	3.5	-2.0
275565	Redevelopment	65	60	85	37	36	65	38	38	62	0.5	2.4	-3.8
275643	Redevelopment	65	60	85	41	40	69	43	44	67	1.7	3.4	-2.0
275644	Redevelopment	65	60	85	41	39	68	42	43	66	1.6	3.5	-2.1
275752	New	60	55	80	-	-	-	39	39	63	-	-	-
275775	New	60	55	80	-	-	-	36	36	59	-	-	-
275783	New	60	55	80	-	-	-	42	42	65	-	-	-
275793	New	60	55	80	-	-	-	49	50	72	-	-	-
275845	New	60	55	80	-	-	-	39	39	62	-	-	-
275937	New	60	55	80	-	-	-	51	52	72	-	-	-
275977	New	60	55	80	-	-	-	40	41	64	-	-	-
276007	New	60	55	80	-	-	-	42	42	65	-	-	-
276084	New	60	55	80	-	-	-	38	39	62	-	-	-
276140	New	60	55	80	-	-	-	37	38	61	-	-	-
276141	New	60	55	80	-	-	-	50	50	71	-	-	-
276186	Redevelopment	65	60	85	42	41	70	41	42	65	-0.9	1.0	-5.2
276220	Redevelopment	65	60	85	43	41	71	41	42	65	-1.7	0.2	-6.1
276242	Redevelopment	65	60	85	43	42	71	42	43	66	-0.7	1.2	-5.0
276244	New	60	55	80	-	-	-	39	40	63	-	-	-
276246	New	60	55	80	-	-	-	39	39	63	-	-	-
276288	New	60	55	80	-	-	-	40	41	64	-	-	-
276338	Redevelopment	65	60	85	45	44	73	44	45	68	-0.8	1.0	-5.1
276379	Redevelopment	65	60	85	37	36	65	40	40	64	2.5	4.3	-1.8
276388	New	60	55	80	-	-	-	40	40	64	-	-	-
276416	New	60	55	80	-	-	-	41	42	65	-	-	-
276470	Redevelopment	65	60	85	44	42	72	42	43	66	-1.5	0.3	-6.0
276494	New	60	55	80	-	-	-	38	39	62	-	-	-
276507	New	60	55	80	-	-	-	38	39	62	-	-	-
276517	New	60	55	80	-	-	-	39	39	62	-	-	-
276546	Redevelopment	65	60	85	40	39	68	39	40	63	-1.0	0.9	-5.3
276585	New	60	55	80	-	-	-	38	38	61	-	-	-
276593	New	60	55	80	-	-	-	39	40	63	-	-	-
276594	New	60	55	80	-	-	-	34	35	58	-	-	-
276621	New	60	55	80	-	-	-	52	52	73	-	-	-
276624	New	60	55	80	-	-	-	51	52	73	-	-	-
276634	New	60	55	80	-	-	-	34	34	58	-	-	-
276661	New	60	55	80	-	-	-	36	36	60	-	-	-

Receptor ID	New rail corridor/ redevelopment of existing infrastructure	Rail noise criteria			Existing rail noise levels, dBA			Project rail noise levels dBA			Change in noise level, dBA		
		LAeq Day	LAeq Night	Lamax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax
277078	New	60	55	80	-	-	-	52	53	74	-	-	-
277155	New	60	55	80	-	-	-	51	52	73	-	-	-
277164	New	60	55	80	-	-	-	51	51	72	-	-	-
277265	Redevelopment	65	60	85	49	47	76	49	49	73	0.3	2.2	-3.3
277294	Redevelopment	65	60	85	47	46	75	46	46	69	-1.7	0.1	-6.4
277519	New	60	55	80	-	-	-	51	52	72	-	-	-
277590	New	60	55	80	-	-	-	49	49	70	-	-	-
277593	Redevelopment	65	60	85	47	45	71	52	52	72	5.1	6.9	0.7
277602	New	60	55	80	-	-	-	51	51	72	-	-	-
277632	New	60	55	80	-	-	-	46	46	67	-	-	-
277666	New	60	55	80	-	-	-	51	52	73	-	-	-
277670	New	60	55	80	-	-	-	47	47	69	-	-	-
277790	New	60	55	80	-	-	-	49	49	70	-	-	-
277833	New	60	55	80	-	-	-	30	30	54	-	-	-
277952	New	60	55	80	-	-	-	33	34	57	-	-	-
278118	Redevelopment	65	60	85	45	44	70	49	50	73	4.0	6.0	2.8
278163	Redevelopment	65	60	85	43	41	67	47	48	71	4.4	6.2	3.3
278174	New	60	55	80	-	-	-	31	31	55	-	-	-
278232	New	60	55	80	-	-	-	31	31	55	-	-	-
278348	New	60	55	80	-	-	-	30	30	53	-	-	-
278351	New	60	55	80	-	-	-	34	35	58	-	-	-
278358	New	60	55	80	-	-	-	31	32	55	-	-	-
278370	New	60	55	80	-	-	-	34	34	58	-	-	-
278380	New	60	55	80	-	-	-	34	34	58	-	-	-
278387	New	60	55	80	-	-	-	30	31	54	-	-	-
278396	Redevelopment	65	60	85	48	46	74	49	50	71	1.9	3.7	-3.3
278456	Redevelopment	65	60	85	46	45	73	49	49	69	2.2	4.0	-3.9
278481	Redevelopment	65	60	85	48	47	75	47	47	69	-1.3	0.5	-6.2
278484	Redevelopment	65	60	85	47	46	72	52	53	76	5.2	7.0	3.1
278529	New	60	55	80	-	-	-	38	39	62	-	-	-
278550	New	60	55	80	-	-	-	51	52	74	-	-	-
278553	New	60	55	80	-	-	-	51	51	74	-	-	-
278593	Redevelopment	65	60	85	51	50	78	50	51	78	-1.7	0.6	0.4
278603	New	60	55	80	-	-	-	49	50	73	-	-	-
278614	Redevelopment	65	60	85	51	50	78	48	49	78	-2.7	-0.4	0.2
278615	New	60	55	80	-	-	-	48	49	73	-	-	-
278621	New	60	55	80	-	-	-	42	43	66	-	-	-
278623	New	60	55	80	-	-	-	47	47	71	-	-	-
278626	Redevelopment	65	60	85	50	49	77	48	49	77	-1.8	0.4	0.2
278631	Redevelopment	65	60	85	49	48	76	49	49	76	-0.8	1.2	0.5
278666	New	60	55	80	-	-	-	50	50	73	-	-	-
278667	New	60	55	80	-	-	-	49	49	72	-	-	-
278712	New	60	55	80	-	-	-	49	50	74	-	-	-
278721	Redevelopment	65	60	85	47	46	72	48	48	73	0.7	2.6	0.3
278728	Redevelopment	65	60	85	46	45	72	47	48	72	0.9	2.9	0.4
278735	Redevelopment	65	60	85	43	42	69	46	47	71	2.8	4.8	1.6
278748	New	60	55	80	-	-	-	47	47	71	-	-	-
278749	New	60	55	80	-	-	-	47	47	70	-	-	-
278752	New	60	55	80	-	-	-	47	47	70	-	-	-
278753	New	60	55	80	-	-	-	44	45	68	-	-	-
278756	New	60	55	80	-	-	-	44	45	68	-	-	-

Receptor ID	New rail corridor/ redevelopment of existing infrastructure	Rail noise criteria			Existing rail noise levels, dBA			Project rail noise levels dBA			Change in noise level, dBA		
		LAeq Day	LAeq Night	Lamax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax
278778	New	60	55	80	-	-	-	47	47	70	-	-	-
278793	New	60	55	80	-	-	-	46	47	70	-	-	-
278795	New	60	55	80	-	-	-	47	48	71	-	-	-
278813	New	60	55	80	-	-	-	46	47	70	-	-	-
278822	New	60	55	80	-	-	-	47	47	71	-	-	-
278831	New	60	55	80	-	-	-	42	43	66	-	-	-
278832	New	60	55	80	-	-	-	45	46	69	-	-	-
323948	New	60	55	80	-	-	-	39	40	64	-	-	-
323949	New	60	55	80	-	-	-	42	43	66	-	-	-
323950	New	60	55	80	-	-	-	47	47	68	-	-	-
323951	New	60	55	80	-	-	-	41	42	64	-	-	-
323952	Redevelopment	65	60	85	45	44	72	43	43	65	-2.8	-1.0	-6.8
323953	New	60	55	80	-	-	-	46	47	68	-	-	-
323954	Redevelopment	65	60	85	45	43	71	39	40	65	-5.8	-3.6	-6.5
323955	Redevelopment	65	60	85	43	42	70	34	35	64	-8.5	-6.2	-5.7
323956	New	60	55	80	-	-	-	35	36	59	-	-	-
323957	New	60	55	80	-	-	-	42	43	68	-	-	-
323958	Redevelopment	65	60	85	44	43	72	43	44	68	-0.9	1.0	-4.0
323959	Redevelopment	65	60	85	45	44	71	42	42	65	-3.4	-1.4	-5.7
323960	New	60	55	80	-	-	-	42	42	66	-	-	-
323961	New	60	55	80	-	-	-	44	44	68	-	-	-
323962	New	60	55	80	-	-	-	26	29	62	-	-	-
323963	New	60	55	80	-	-	-	37	38	66	-	-	-
323964	New	60	55	80	-	-	-	44	45	68	-	-	-
323965	New	60	55	80	-	-	-	45	45	68	-	-	-
323966	New	60	55	80	-	-	-	38	39	68	-	-	-
323967	New	60	55	80	-	-	-	30	32	64	-	-	-
323968	New	60	55	80	-	-	-	28	30	63	-	-	-
323969	New	60	55	80	-	-	-	27	30	62	-	-	-
323970	New	60	55	80	-	-	-	43	44	67	-	-	-
323971	New	60	55	80	-	-	-	43	44	67	-	-	-
323972	New	60	55	80	-	-	-	43	44	67	-	-	-
323973	New	60	55	80	-	-	-	46	46	69	-	-	-
323974	New	60	55	80	-	-	-	46	47	70	-	-	-
323975	Redevelopment	65	60	85	41	40	67	42	43	65	1.3	3.2	-2.7
323976	Redevelopment	65	60	85	43	42	70	45	45	67	1.4	3.1	-3.4
323977	Redevelopment	65	60	85	42	41	68	47	47	68	4.1	5.9	-0.3
323978	New	60	55	80	-	-	-	45	45	67	-	-	-
323979	Redevelopment	65	60	85	45	43	72	36	37	64	-8.5	-6.5	-7.8
323980	Redevelopment	65	60	85	45	44	72	44	45	69	-0.7	1.3	-3.1
323981	New	60	55	80	-	-	-	41	42	65	-	-	-
323982	New	60	55	80	-	-	-	43	43	68	-	-	-
323983	New	60	55	80	-	-	-	43	43	66	-	-	-
323984	New	60	55	80	-	-	-	30	31	57	-	-	-
323985	New	60	55	80	-	-	-	37	38	65	-	-	-
323986	New	60	55	80	-	-	-	33	35	65	-	-	-
323987	New	60	55	80	-	-	-	43	44	66	-	-	-
323988	New	60	55	80	-	-	-	45	45	69	-	-	-
323989	New	60	55	80	-	-	-	41	42	67	-	-	-
323990	New	60	55	80	-	-	-	47	47	70	-	-	-
323991	Redevelopment	65	60	85	43	42	69	41	42	64	-1.5	0.3	-5.2

Receptor ID	New rail corridor/ redevelopment of existing infrastructure	Rail noise criteria			Existing rail noise levels, dBA			Project rail noise levels dBA			Change in noise level, dBA		
		LAeq Day	LAeq Night	Lamax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax
323992	Redevelopment	65	60	85	41	40	68	45	45	67	3.8	5.6	-0.9
323993	New	60	55	80	-	-	-	47	48	69	-	-	-
323994	Redevelopment	65	60	85	45	43	71	33	34	64	-12.2	-9.5	-7.4
323995	Redevelopment	65	60	85	45	44	72	33	35	64	-11.5	-9.0	-8.3
323996	Redevelopment	65	60	85	45	44	71	39	40	65	-6.0	-4.0	-6.8
323997	Redevelopment	65	60	85	47	45	74	36	37	66	-10.9	-8.4	-8.0
323998	Redevelopment	65	60	85	45	44	71	41	42	66	-4.2	-2.2	-4.8
323999	Redevelopment	65	60	85	46	45	72	45	46	69	-1.3	0.7	-3.8
324000	New	60	55	80	-	-	-	32	33	63	-	-	-
324001	New	60	55	80	-	-	-	33	35	65	-	-	-
324002	New	60	55	80	-	-	-	43	44	66	-	-	-
324003	New	60	55	80	-	-	-	39	40	66	-	-	-
324004	New	60	55	80	-	-	-	37	38	66	-	-	-
324005	New	60	55	80	-	-	-	38	39	66	-	-	-
324006	New	60	55	80	-	-	-	44	44	67	-	-	-
324007	New	60	55	80	-	-	-	36	37	66	-	-	-
324008	New	60	55	80	-	-	-	44	44	67	-	-	-
324009	New	60	55	80	-	-	-	44	45	68	-	-	-
324010	New	60	55	80	-	-	-	43	44	66	-	-	-
324011	New	60	55	80	-	-	-	41	41	65	-	-	-
324012	New	60	55	80	-	-	-	41	42	65	-	-	-
324013	New	60	55	80	-	-	-	41	42	65	-	-	-
324014	New	60	55	80	-	-	-	44	44	67	-	-	-
324015	New	60	55	80	-	-	-	35	36	63	-	-	-
324016	New	60	55	80	-	-	-	38	38	61	-	-	-
324017	New	60	55	80	-	-	-	44	45	67	-	-	-
324018	New	60	55	80	-	-	-	41	42	65	-	-	-
324019	New	60	55	80	-	-	-	37	38	60	-	-	-
324020	Redevelopment	65	60	85	45	43	72	46	46	67	1.0	3.0	-5.0
324021	Redevelopment	65	60	85	47	45	74	38	39	66	-8.7	-6.7	-7.9
324022	Redevelopment	65	60	85	44	43	71	41	42	65	-3.5	-1.6	-6.5
324023	Redevelopment	65	60	85	46	45	72	45	46	69	-0.9	1.2	-3.0
324024	New	60	55	80	-	-	-	42	42	66	-	-	-
324025	New	60	55	80	-	-	-	41	41	67	-	-	-
324026	New	60	55	80	-	-	-	27	29	62	-	-	-
324027	New	60	55	80	-	-	-	43	44	67	-	-	-
324028	New	60	55	80	-	-	-	36	37	65	-	-	-
324029	New	60	55	80	-	-	-	42	43	66	-	-	-
324030	New	60	55	80	-	-	-	36	37	65	-	-	-
324031	New	60	55	80	-	-	-	32	34	66	-	-	-
324032	New	60	55	80	-	-	-	44	44	66	-	-	-
324033	New	60	55	80	-	-	-	34	35	65	-	-	-
324034	New	60	55	80	-	-	-	26	29	62	-	-	-
324036	New	60	55	80	-	-	-	32	33	64	-	-	-
324037	New	60	55	80	-	-	-	27	29	62	-	-	-
324038	New	60	55	80	-	-	-	44	45	68	-	-	-
324039	New	60	55	80	-	-	-	44	44	67	-	-	-
324040	New	60	55	80	-	-	-	41	42	65	-	-	-
324042	New	60	55	80	-	-	-	45	46	69	-	-	-
324044	New	60	55	80	-	-	-	44	44	69	-	-	-
324045	New	60	55	80	-	-	-	37	37	60	-	-	-

Receptor ID	New rail corridor/ redevelopment of existing infrastructure	Rail noise criteria			Existing rail noise levels, dBA			Project rail noise levels dBA			Change in noise level, dBA		
		LAeq Day	LAeq Night	Lamax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax	LAeq,15hr	LAeq,9hr	LAmax
324046	New	60	55	80	-	-	-	46	46	68	-	-	-
324047	New	60	55	80	-	-	-	37	38	61	-	-	-
324048	Redevelopment	65	60	85	45	44	72	34	35	64	-10.9	-8.6	-8.3
324049	New	60	55	80	-	-	-	51	51	73	-	-	-
324050	New	60	55	80	-	-	-	48	48	70	-	-	-
324052	Redevelopment	65	60	85	45	44	72	46	46	69	0.5	2.4	-2.4
324053	Redevelopment	65	60	85	46	45	72	46	46	69	-0.9	1.1	-3.1
324055	New	60	55	80	-	-	-	37	37	56	-	-	-
324056	New	60	55	80	-	-	-	52	52	72	-	-	-
324057	New	60	55	80	-	-	-	51	52	73	-	-	-
324058	New	60	55	80	-	-	-	28	30	62	-	-	-
324060	New	60	55	80	-	-	-	39	40	65	-	-	-
324061	New	60	55	80	-	-	-	30	32	62	-	-	-
324062	New	60	55	80	-	-	-	28	30	63	-	-	-
324063	Redevelopment	65	60	85	47	45	72	45	45	68	-1.9	0.1	-4.0
324064	New	60	55	80	-	-	-	46	47	69	-	-	-
324065	New	60	55	80	-	-	-	53	53	76	-	-	-
324067	New	60	55	80	-	-	-	44	44	67	-	-	-
324068	New	60	55	80	-	-	-	43	44	67	-	-	-
324069	New	60	55	80	-	-	-	53	53	74	-	-	-
324070	New	60	55	80	-	-	-	**74**	**74**	**96**	-	-	-
324071	New	60	55	80	-	-	-	48	48	71	-	-	-
324072	New	60	55	80	-	-	-	33	34	57	-	-	-
324074	New	60	55	80	-	-	-	54	55	78	-	-	-



CALVERT TO KAGARU

Year 2040 Daytime rail noise level

APPENDIX E - Map 1 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 17-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
- Teviot Range Tunnel
- Noise Assessment Area – Upgrading Existing Railway

Noise contours are based on a set distance above the local terrain level of 2.4m.

- Daytime noise criteria LAeq15hr 60dBA New rail corridor
- Daytime noise criteria LAeq15hr 65dBA upgrading existing rail corridor
- Daytime noise criteria LA max 80dBA New rail corridor
- Daytime noise criteria LA max 85dBA upgrading existing rail corridor
- Receptors

ARTC InlandRail

The Australian Government is delivering Inland Rail through the Australian Rail Track Corporation, in partnership with the private sector.

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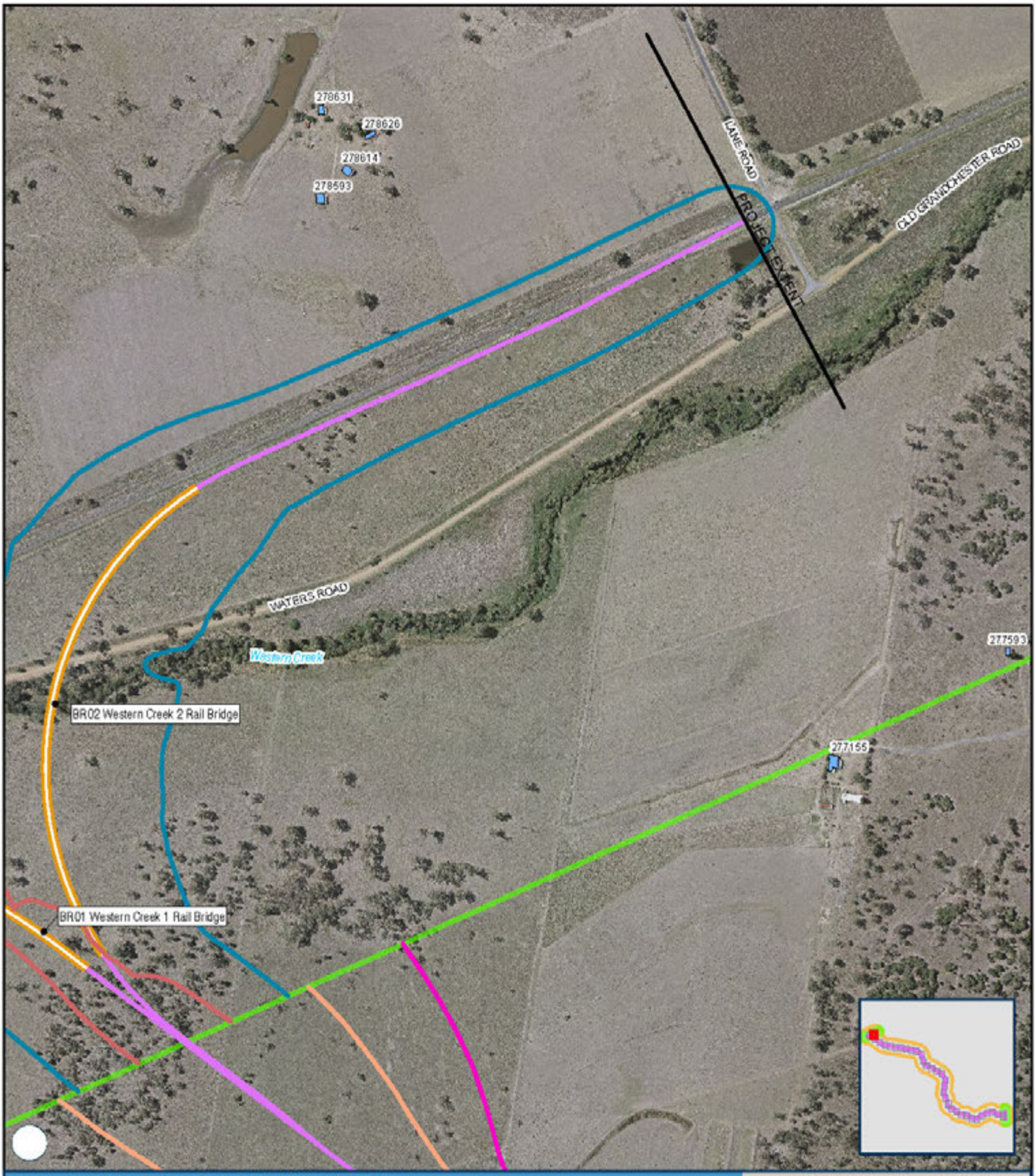
Service Layer Credits: Imagery ARTC 2015 and 2017



CALVERT TO KAGARU

Year 2040 Daytime rail noise levels

APPENDIX E - Map 2 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 17-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
- Teviot Range Tunnel
- Noise Assessment Area – Upgrading Existing Railway

Noise contours are based on a set distance above the local terrain level of 2.4m.

- Daytime noise criteria LAeq15hr 60dBA New rail corridor
- Daytime noise criteria LAeq15hr 65dBA upgrading existing rail corridor
- Daytime noise criteria LA max 80dBA New rail corridor
- Daytime noise criteria LA max 85dBA upgrading existing rail corridor
- Receptors

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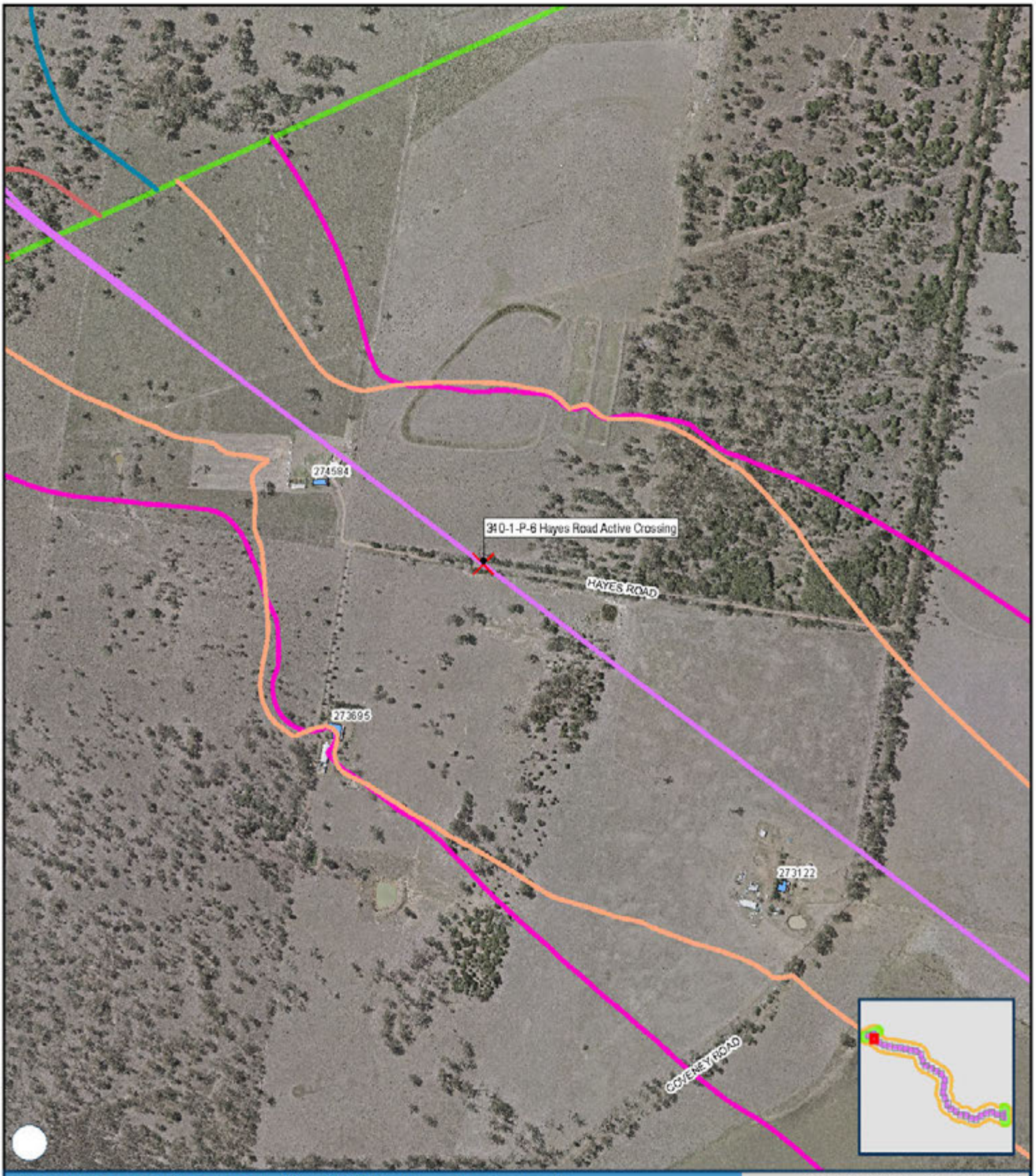

CALVERT TO KAGARU

Year 2040 Daytime rail noise levels

APPENDIX E - Map 3 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 17-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
- Teviot Range Tunnel
- Noise Assessment Area – Upgrading Existing Railway

Noise contours are based on a set distance above the local terrain level of 2.4m.

- Daytime noise criteria LAeq15hr 60dBA New rail corridor
- Daytime noise criteria LAeq15hr 65dBA upgrading existing rail corridor
- Daytime noise criteria LA max 80dBA New rail corridor
- Daytime noise criteria LA max 85dBA upgrading existing rail corridor
- Receptors

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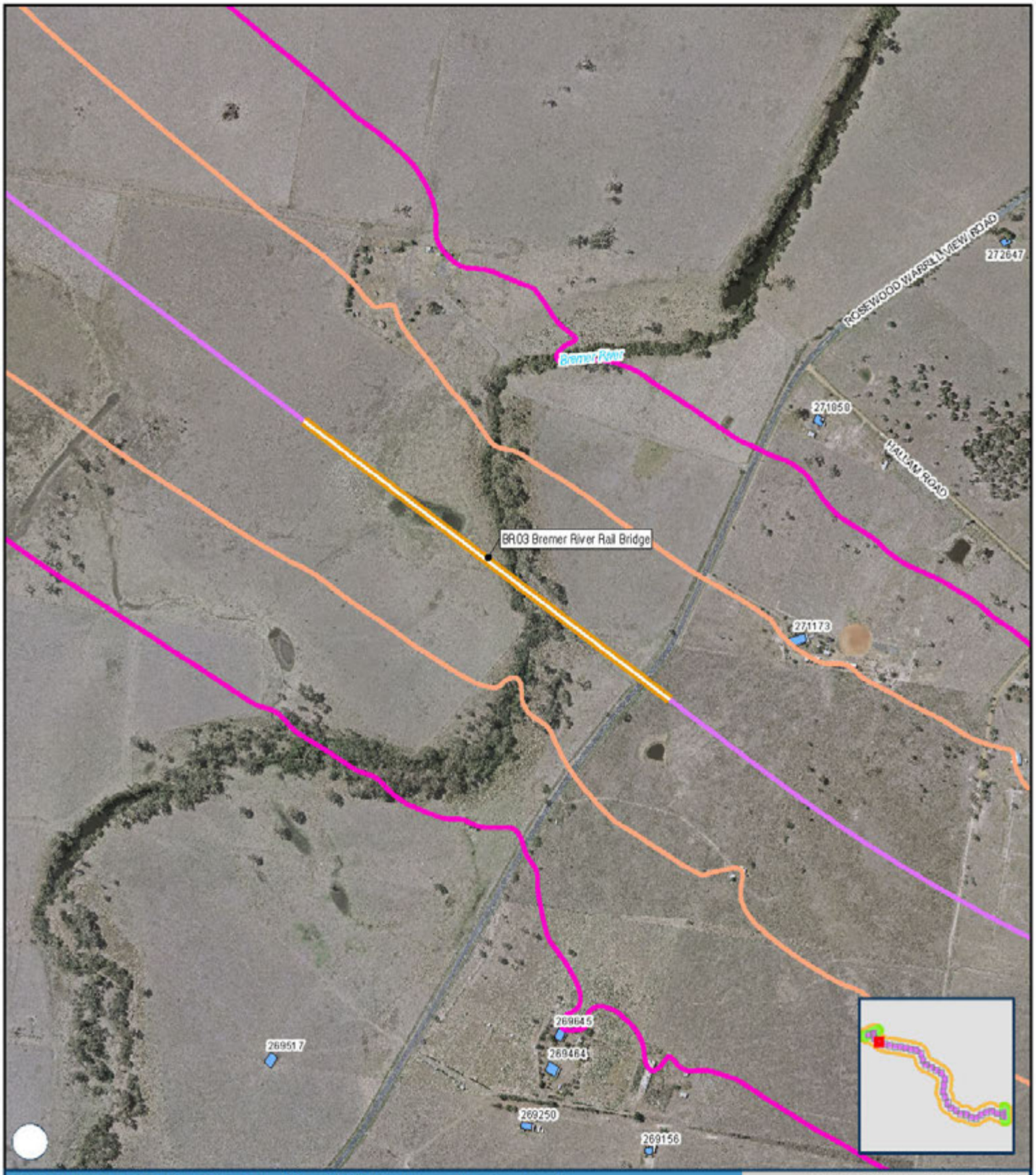
Service Layer Credits: Imagery ARTC 2015 and 2017



CALVERT TO KAGARU

Year 2040 Daytime rail noise levels

APPENDIX E - Map 4 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 17-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
- Teviot Range Tunnel
- Noise Assessment Area – Upgrading Existing Railway

Noise contours are based on a set distance above the local terrain level of 2.4m.

- Daytime noise criteria LAeq15hr 60dBA New rail corridor
- Daytime noise criteria LAeq15hr 65dBA upgrading existing rail corridor
- Daytime noise criteria LA max 80dBA New rail corridor
- Daytime noise criteria LA max 85dBA upgrading existing rail corridor
- Receptors

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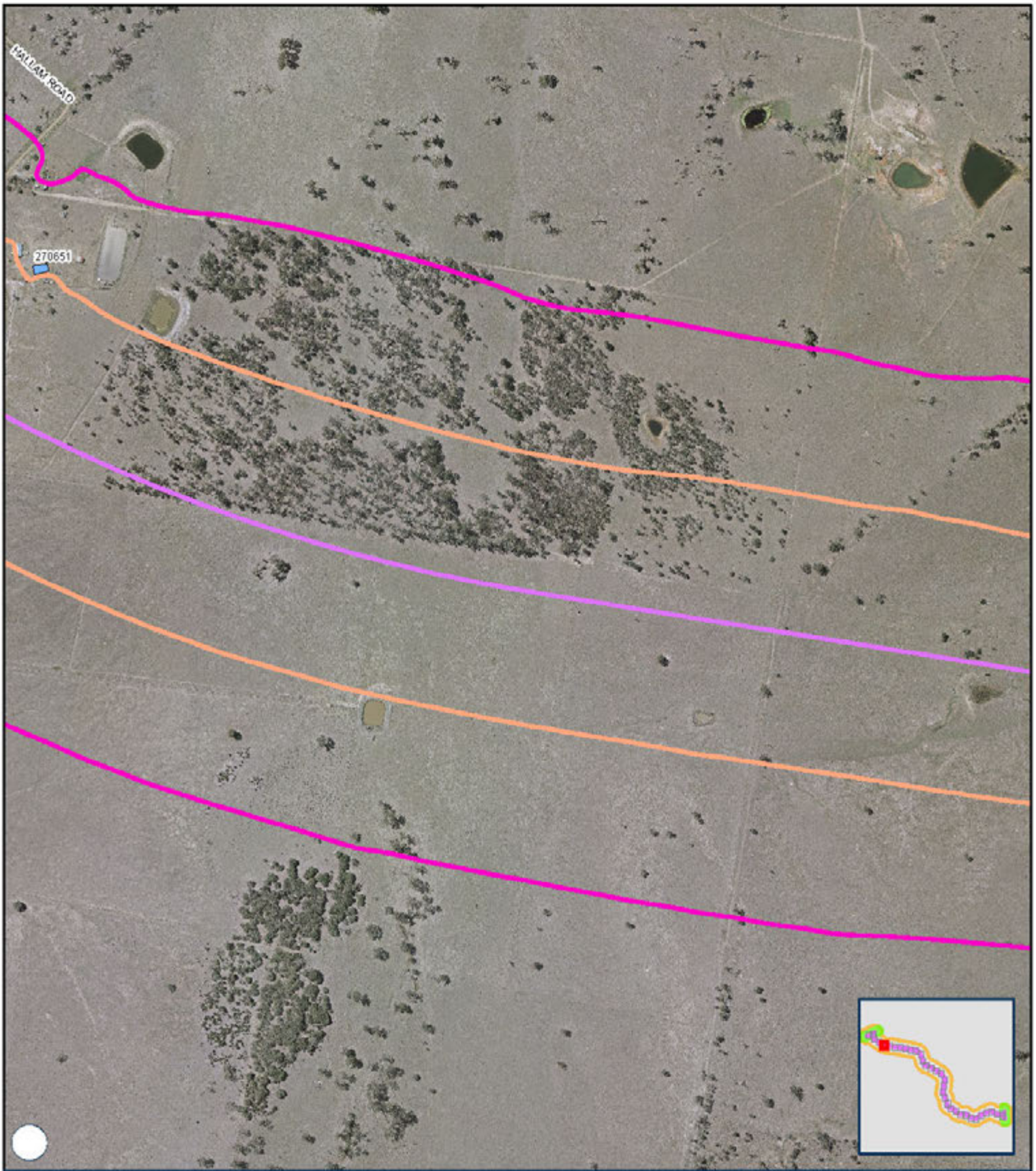
Service Layer Credits: Imagery ARTC 2015 and 2017



CALVERT TO KAGARU

Year 2040 Daytime rail noise levels

APPENDIX E - Map 5 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 17-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
- Teviot Range Tunnel
- Noise Assessment Area – Upgrading Existing Railway

Noise contours are based on a set distance above the local terrain level of 2.4m.

- Daytime noise criteria LAeq15hr 60dBA New rail corridor
- Daytime noise criteria LAeq15hr 65dBA upgrading existing rail corridor
- Daytime noise criteria LA max 80dBA New rail corridor
- Daytime noise criteria LA max 85dBA upgrading existing rail corridor
- Receptors

ARTC InlandRail

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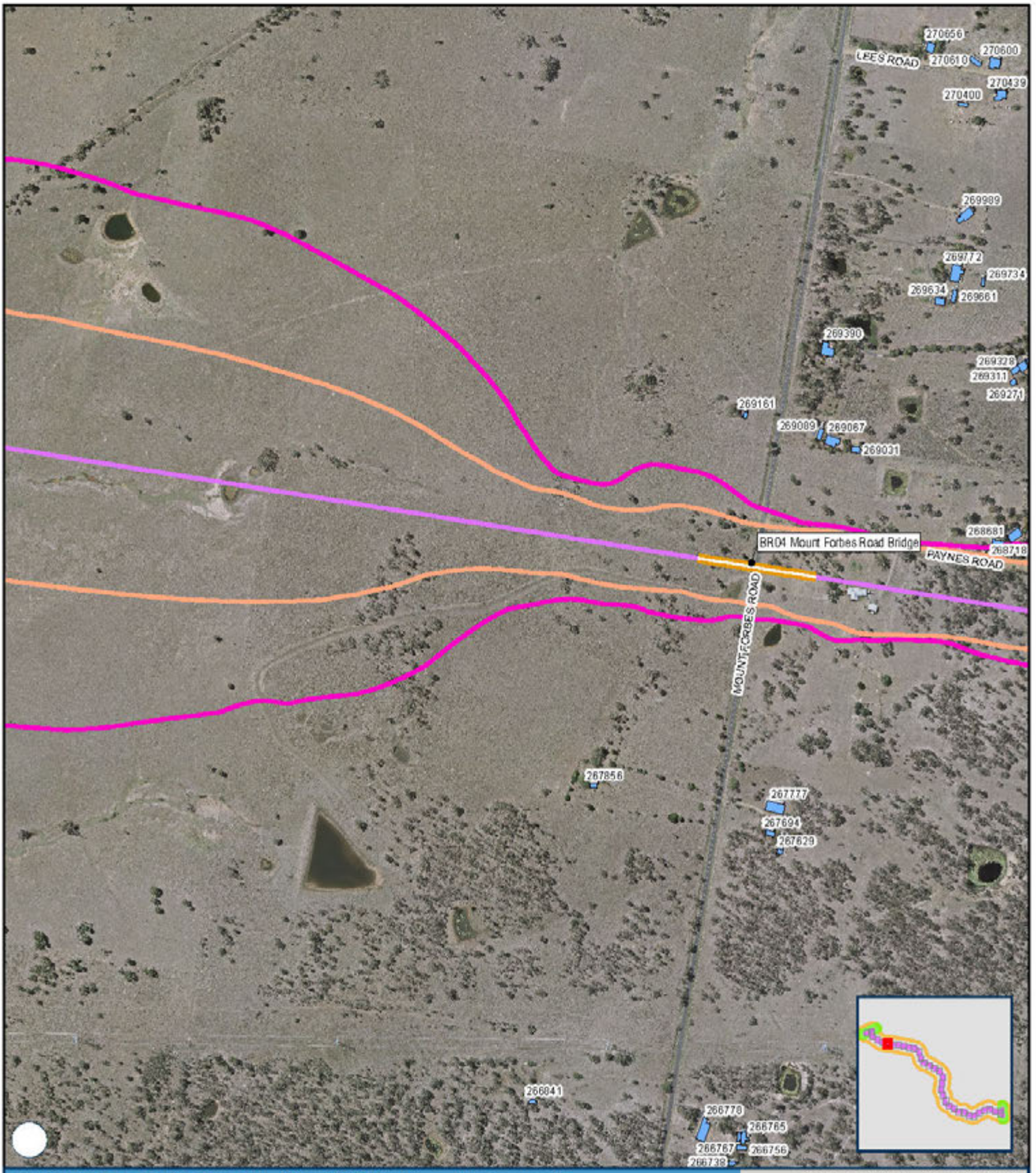

CALVERT TO KAGARU

Year 2040 Daytime rail noise levels

APPENDIX E - Map 6 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 17-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
- Tevlot Range Tunnel
- Noise Assessment Area – Upgrading Existing Railway

Noise contours are based on a set distance above the local terrain level of 2.4m.

- Daytime noise criteria LAeq15hr 60dBA New rail corridor
- Daytime noise criteria LAeq15hr 65dBA upgrading existing rail corridor
- Daytime noise criteria LA max 80dBA New rail corridor
- Daytime noise criteria LA max 85dBA upgrading existing rail corridor
- Receptors

ARTC InlandRail

The Australian Government is delivering Inland Rail through the Australian Rail Track Corporation, in partnership with the private sector.

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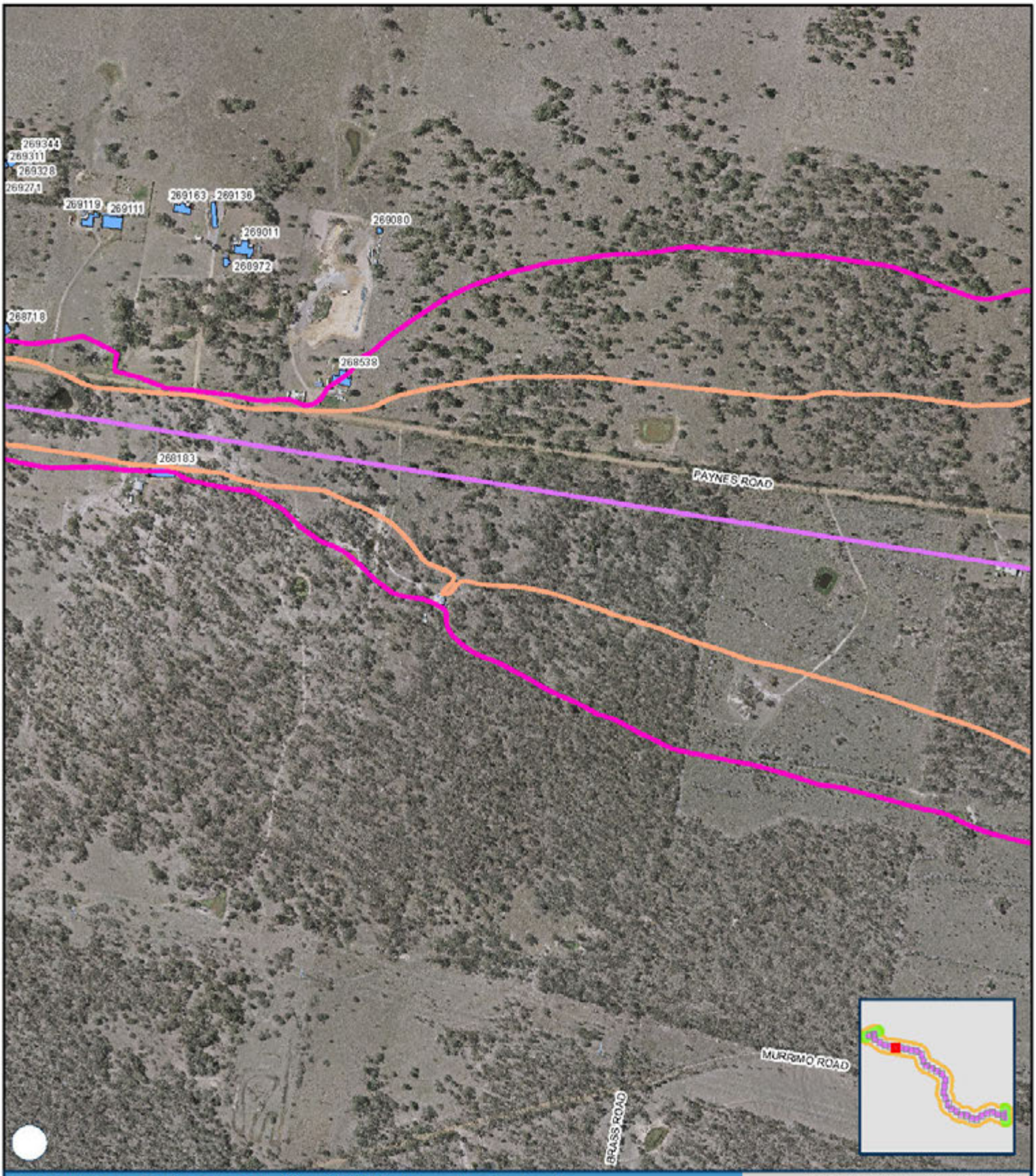
Service Layer Credits: Imagery ARTC 2015 and 2017



CALVERT TO KAGARU

Year 2040 Daytime rail noise levels

APPENDIX E - Map 7 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 17-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
- Teviot Range Tunnel
- Noise Assessment Area – Upgrading Existing Railway

Noise contours are based on a set distance above the local terrain level of 2.4m.

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- Daytime noise criteria LAeq15hr 65dBA upgrading existing rail corridor
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- Receptors

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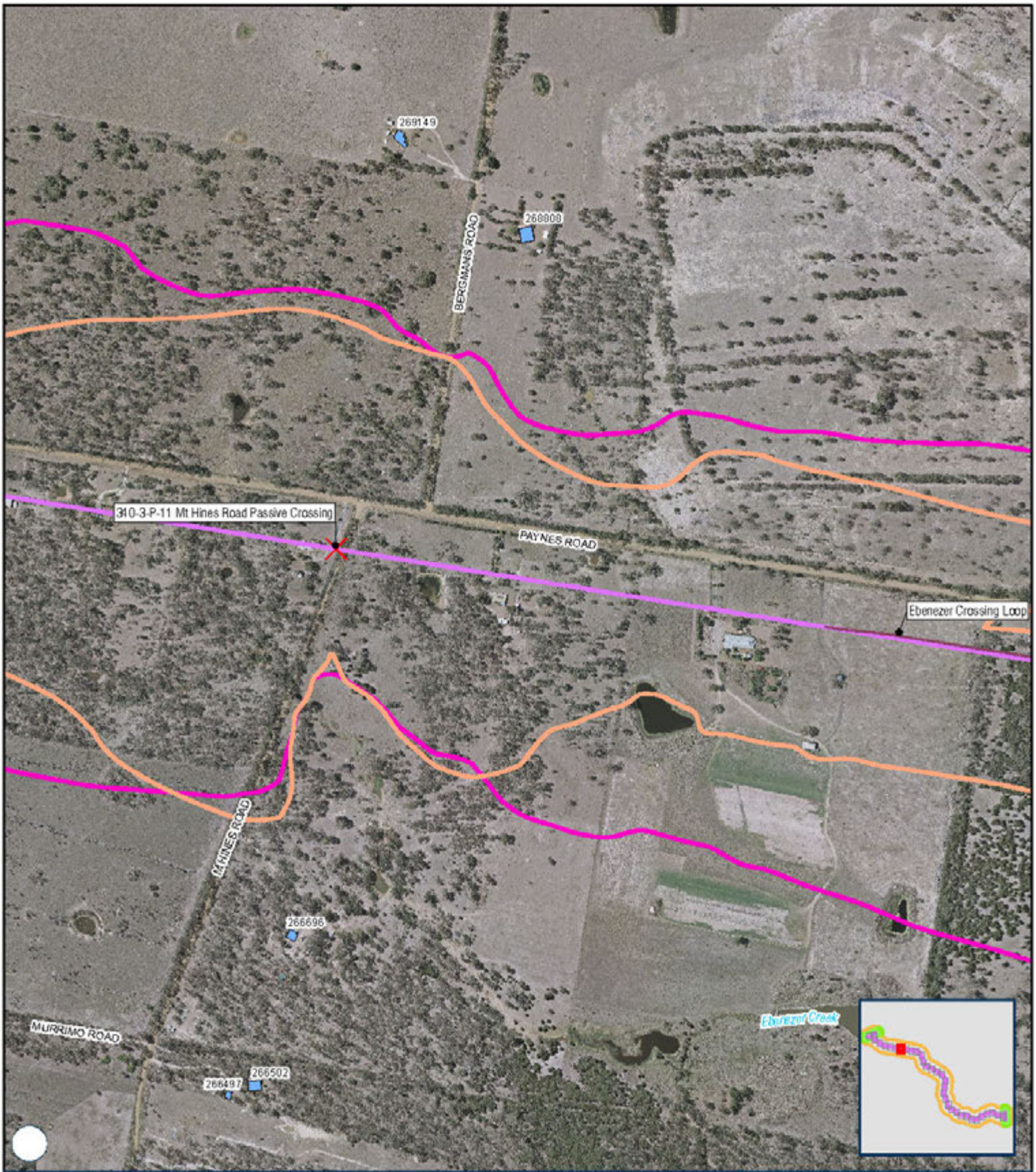
Service Layer Credits: Imagery ARTC 2015 and 2017



CALVERT TO KAGARU

Year 2040 Daytime rail noise levels

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 17-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
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- Daytime noise criteria LA max 85dBA upgrading existing rail corridor
- Receptors

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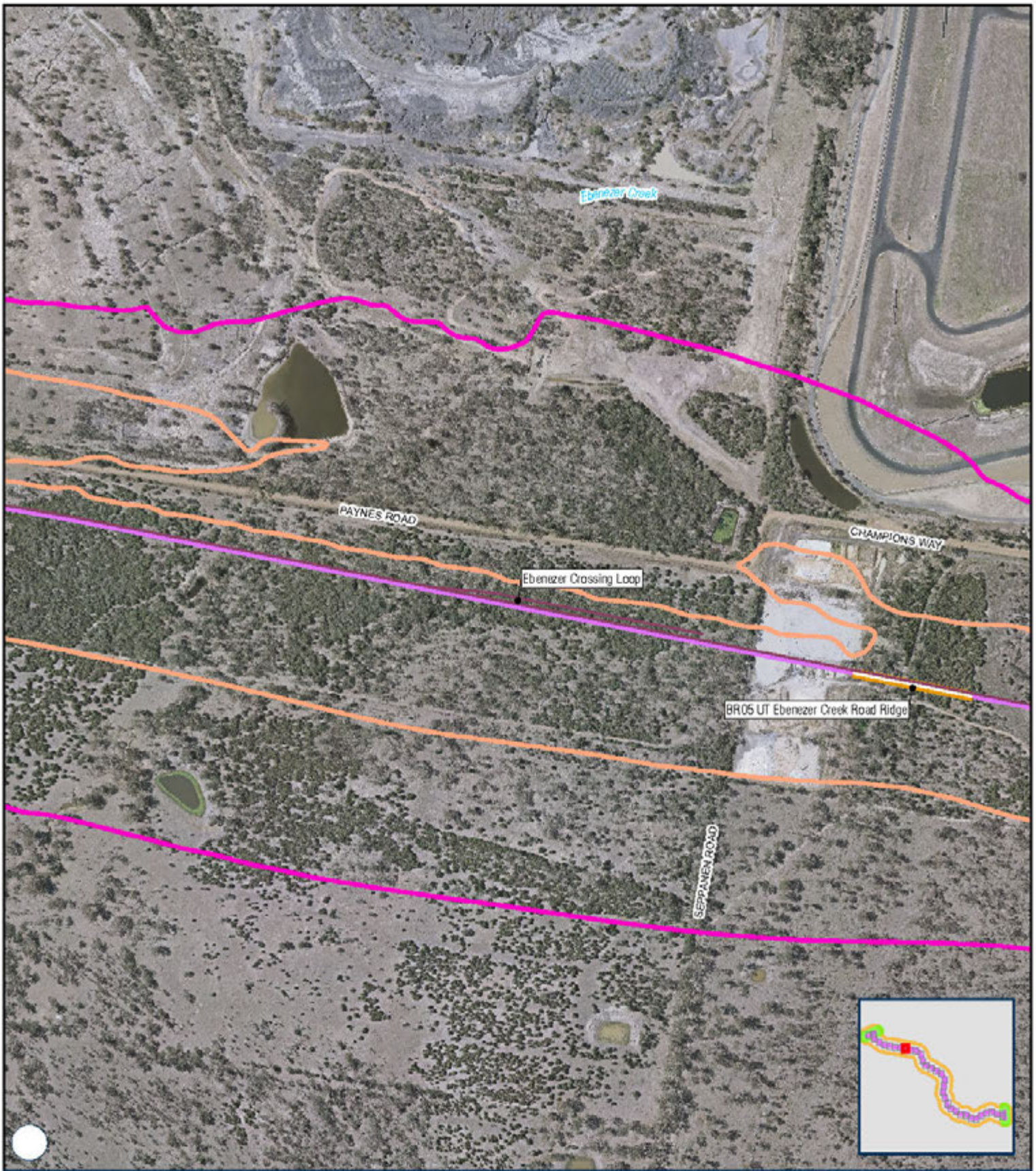
Service Layer Credits: Imagery ARTC 2015 and 2017



CALVERT TO KAGARU

Year 2040 Daytime rail noise levels

APPENDIX E - Map 9 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 17-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
- Teviot Range Tunnel
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Noise contours are based on a set distance above the local terrain level of 2.4m.

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- Daytime noise criteria LA max 85dBA upgrading existing rail corridor
- Receptors

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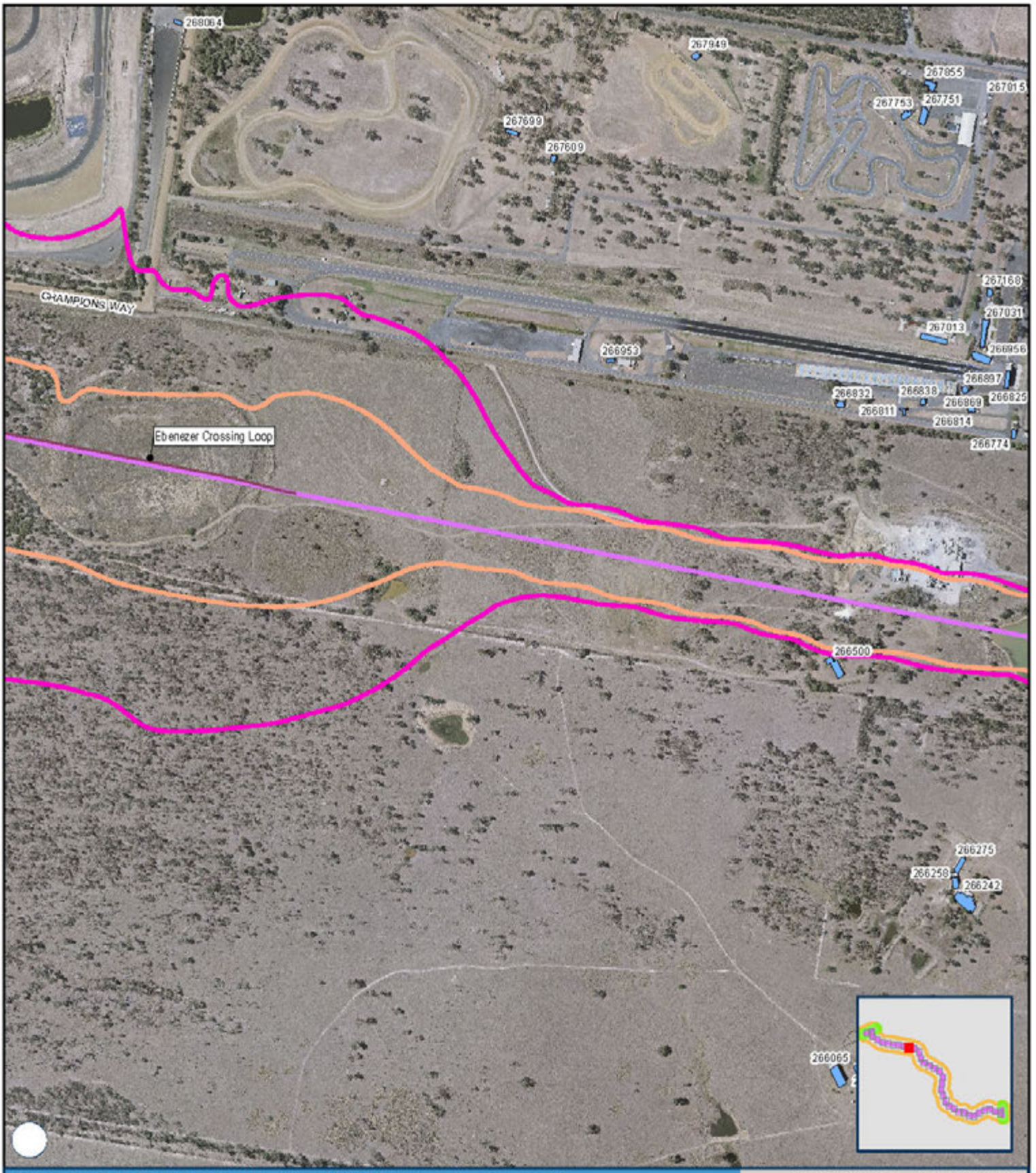
Service Layer Credits: Imagery ARTC 2015 and 2017



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Year 2040 Daytime rail noise levels

APPENDIX E - Map 10 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 17-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
- Teviot Range Tunnel
- Noise Assessment Area – Upgrading Existing Railway

Noise contours are based on a set distance above the local terrain level of 2.4m.

- Daytime noise criteria LAeq15hr 60dBA New rail corridor
- Daytime noise criteria LAeq15hr 65dBA upgrading existing rail corridor
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- Daytime noise criteria LA max 85dBA upgrading existing rail corridor
- Receptors

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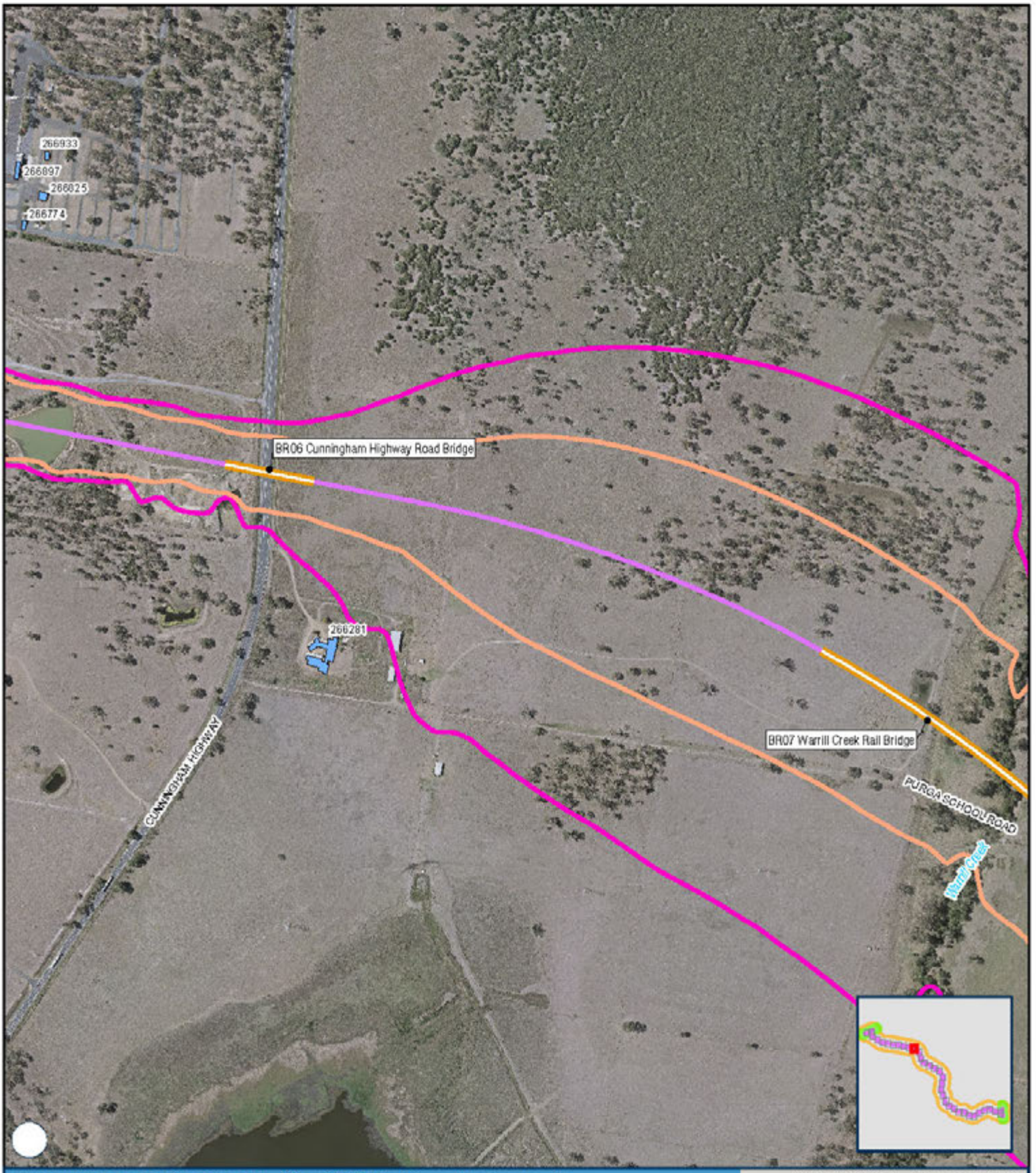
Service Layer Credits: Imagery ARTC 2015 and 2017



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Year 2040 Daytime rail noise levels

APPENDIX E - Map 11 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 17-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
- Teviot Range Tunnel
- Noise Assessment Area – Upgrading Existing Railway

Noise contours are based on a set distance above the local terrain level of 2.4m.

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- Daytime noise criteria LA max 85dBA upgrading existing rail corridor
- Receptors

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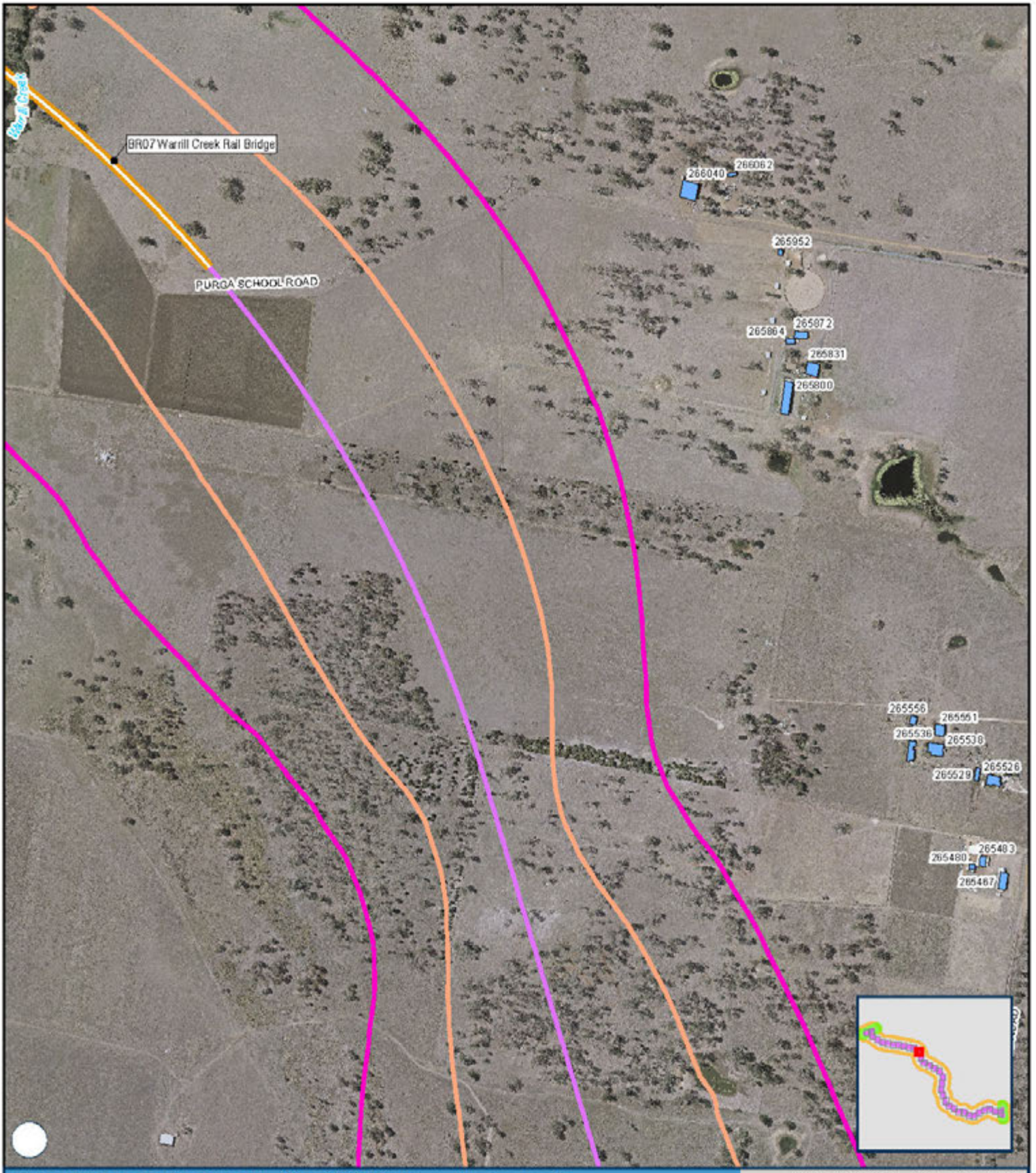
Service Layer Credits: Imagery ARTC 2015 and 2017



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Year 2040 Daytime rail noise levels

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 17-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
- Teviot Range Tunnel
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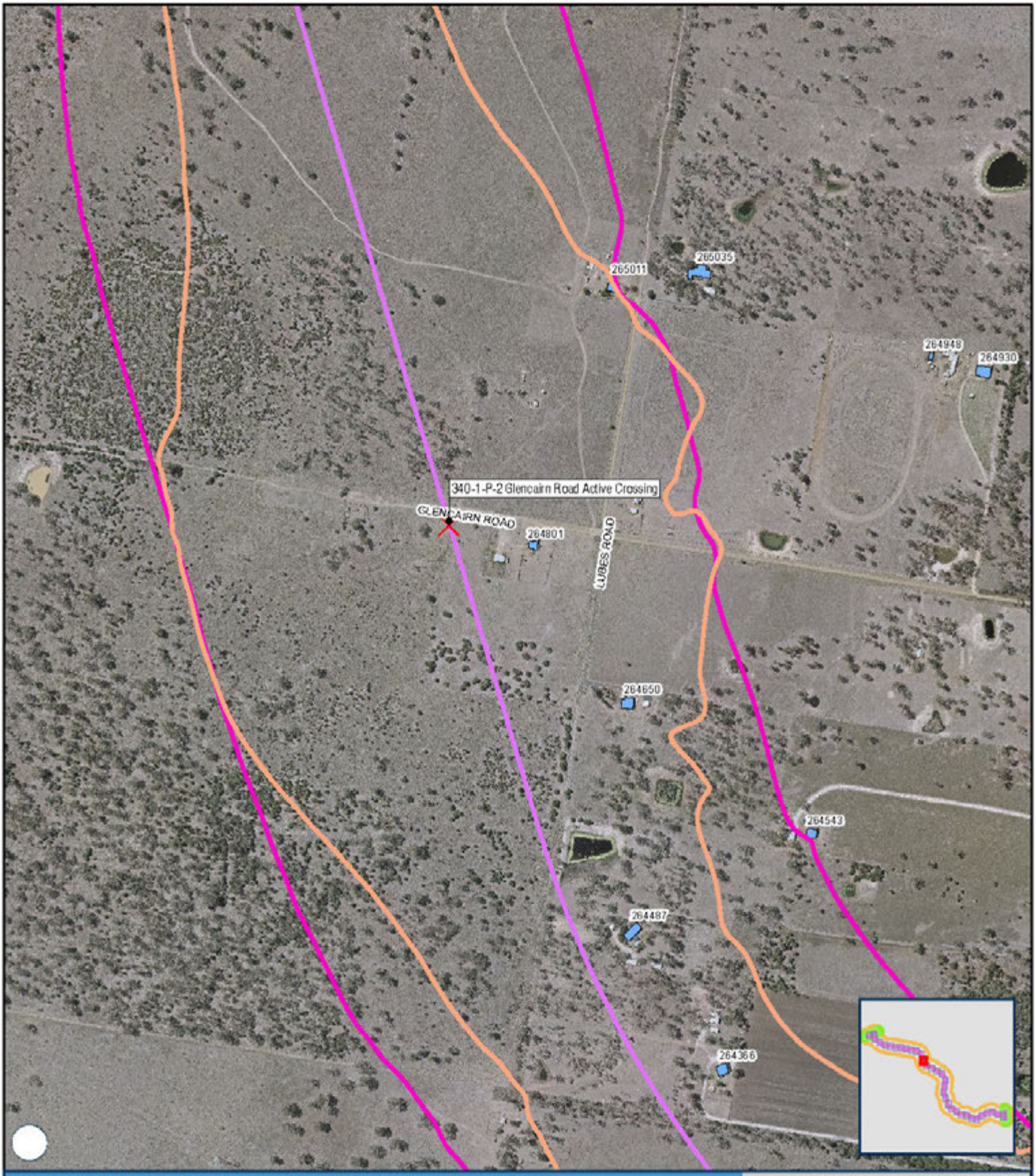

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Year 2040 Daytime rail noise levels

APPENDIX E - Map 13 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 17-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
- Teviot Range Tunnel
- Noise Assessment Area – Upgrading Existing Railway

Noise contours are based on a set distance above the local terrain level of 2.4m.

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- Daytime noise criteria LA max 85dBA upgrading existing rail corridor
- Receptors

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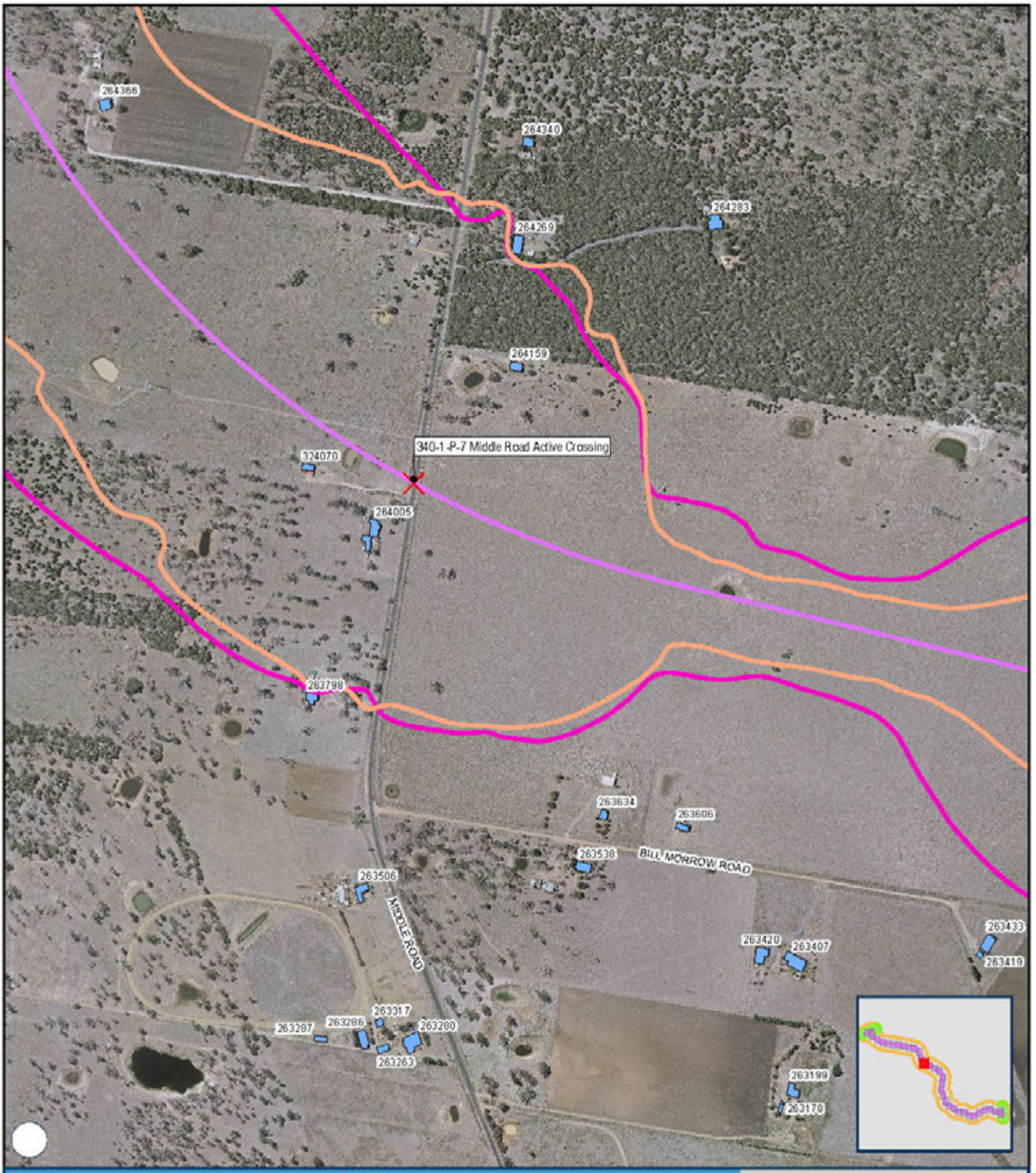
Service Layer Credits: Imagery ARTC 2015 and 2017



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Year 2040 Daytime rail noise levels

APPENDIX E - Map 14 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 17-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
- Teviot Range Tunnel
- Noise Assessment Area – Upgrading Existing Railway

Noise contours are based on a set distance above the local terrain level of 2.4m.

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- Daytime noise criteria LA max 85dBA upgrading existing rail corridor
- Receptors

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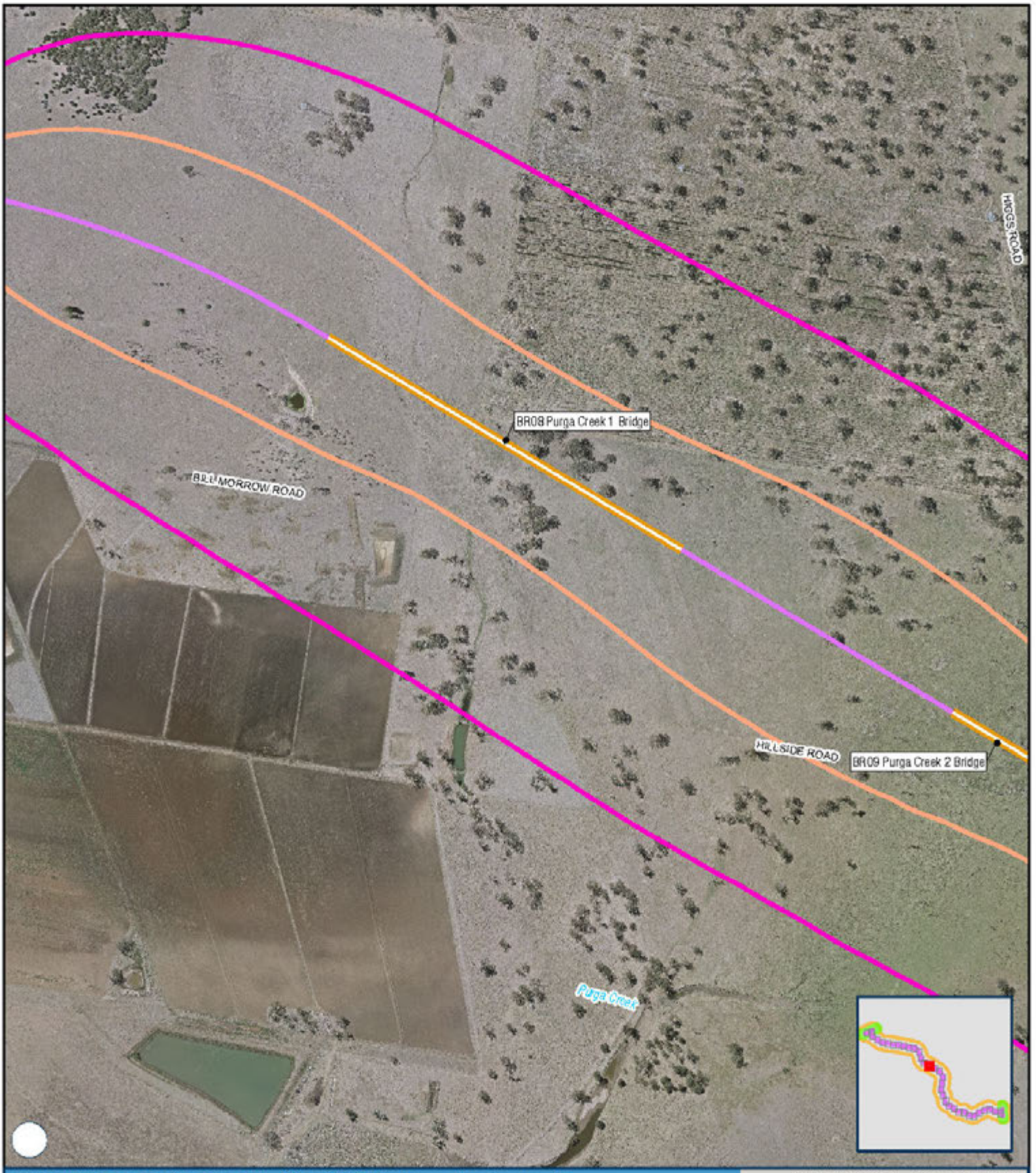
Service Layer Credits: Imagery ARTC 2015 and 2017



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Year 2040 Daytime rail noise levels

APPENDIX E - Map 15 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 17-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
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- Daytime noise criteria LA max 85dBA upgrading existing rail corridor
- Receptors

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Service Layer Credits: Imagery ARTC 2015 and 2017

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Year 2040 Daytime rail noise levels

APPENDIX E - Map 16 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 17-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
- Teviot Range Tunnel
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Service Layer Credits: Imagery ARTC 2015 and 2017

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Year 2040 Daytime rail noise levels

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 17-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
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- Daytime noise criteria LA max 85dBA upgrading existing rail corridor
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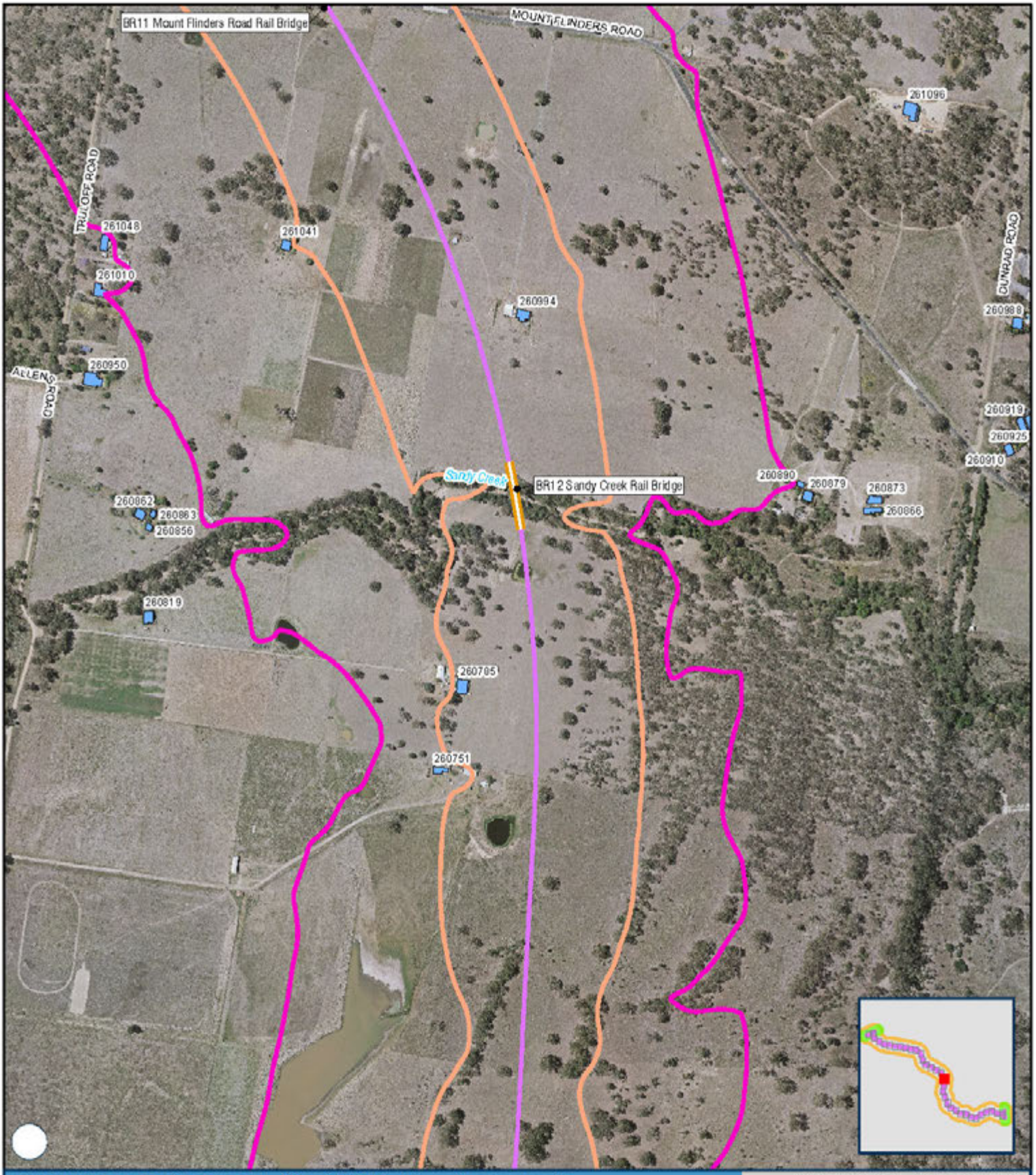
Service Layer Credits: Imagery ARTC 2015 and 2017



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Year 2040 Daytime rail noise levels

APPENDIX E - Map 18 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 17-Mar-2020
Author: JG

- Level Crossings
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- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
- Teviot Range Tunnel
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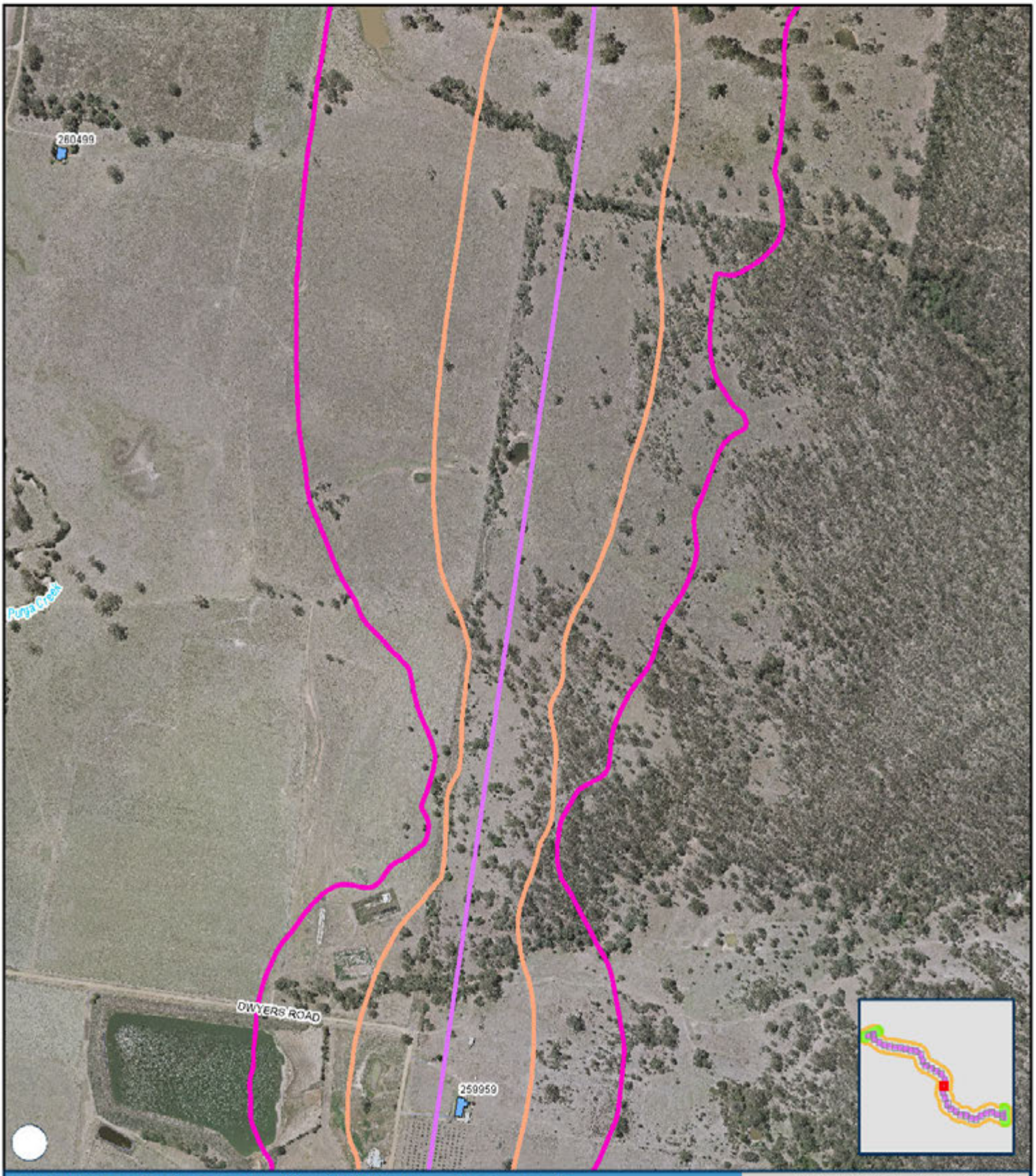
Service Layer Credits: Imagery ARTC 2015 and 2017



CALVERT TO KAGARU

Year 2040 Daytime rail noise levels

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 17-Mar-2020
Author: JG

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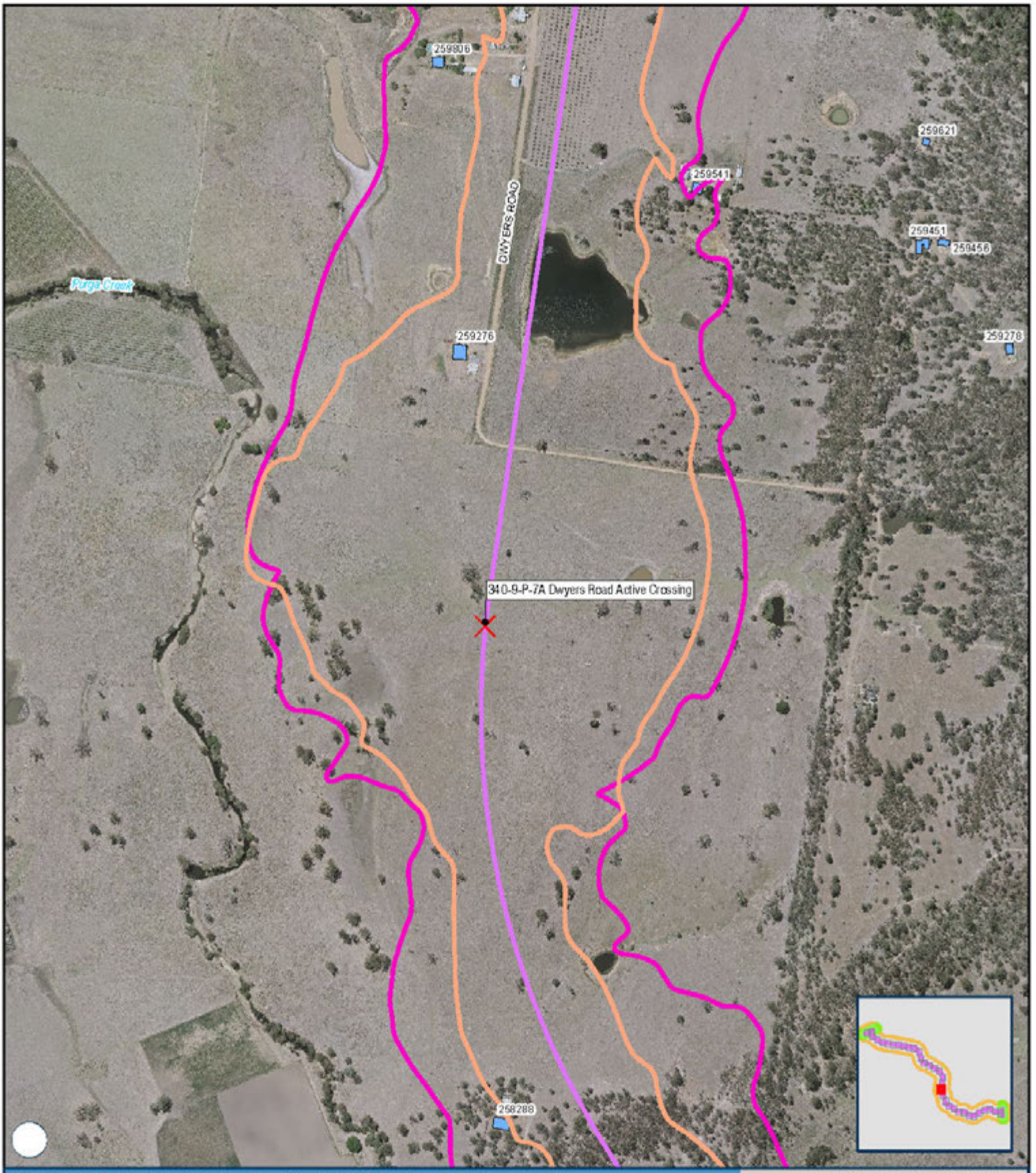
Service Layer Credits: Imagery ARTC 2015 and 2017



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Year 2040 Daytime rail noise levels

APPENDIX E - Map 20 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 17-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
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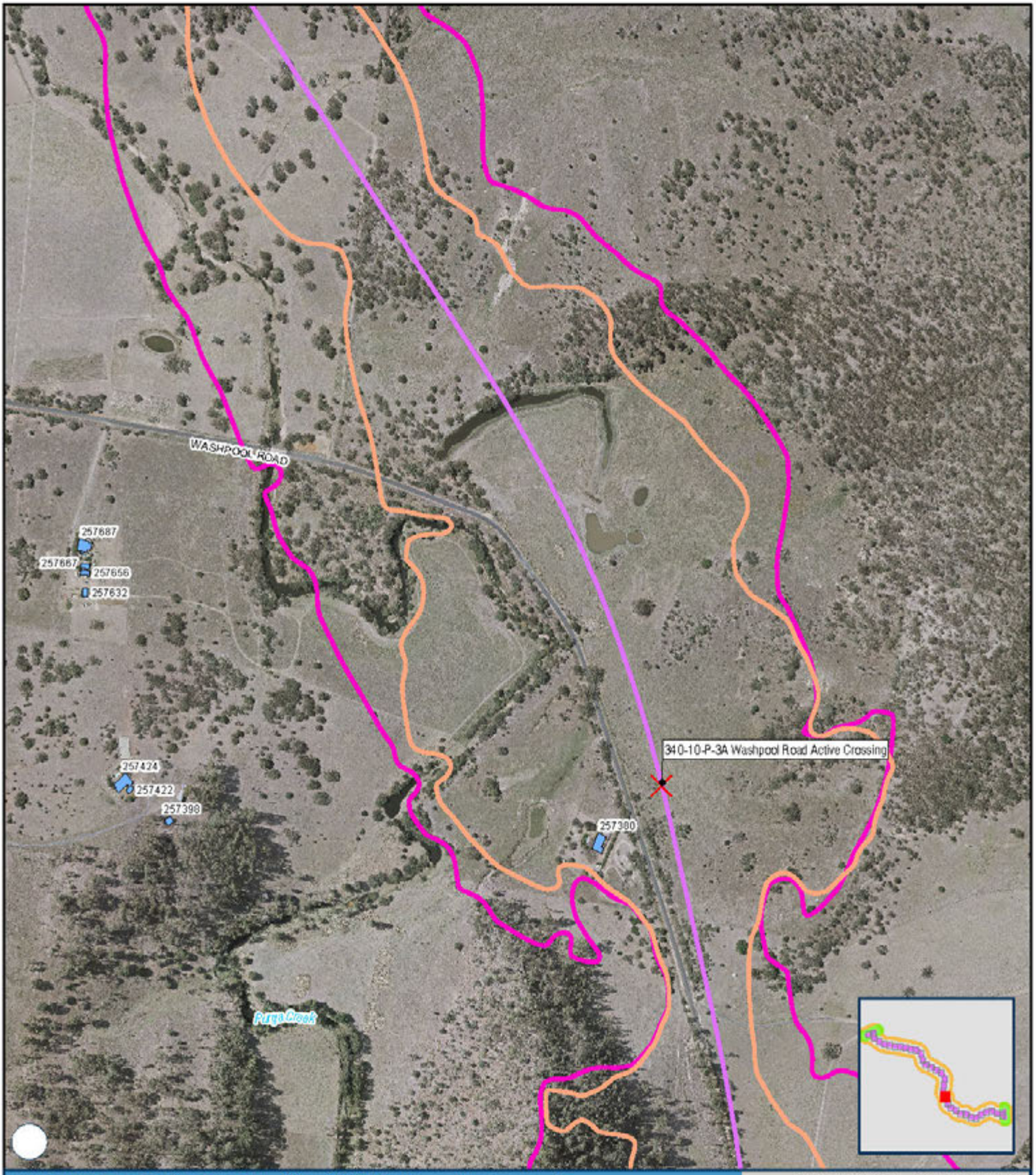

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Year 2040 Daytime rail noise levels

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 17-Mar-2020
Author: JG

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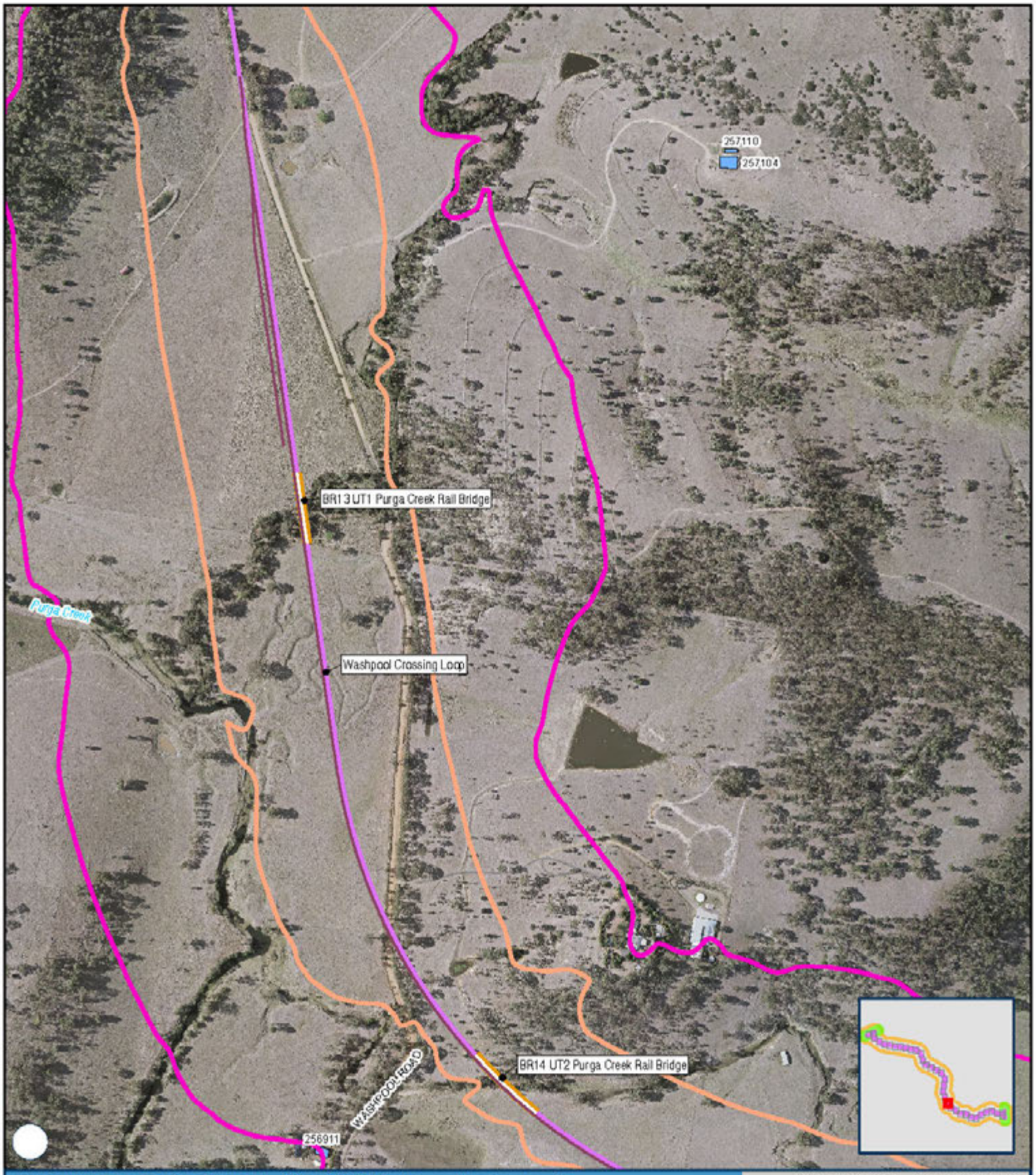
Service Layer Credits: Imagery ARTC 2015 and 2017



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Year 2040 Daytime rail noise levels

APPENDIX E - Map 22 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 17-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
- Teviot Range Tunnel
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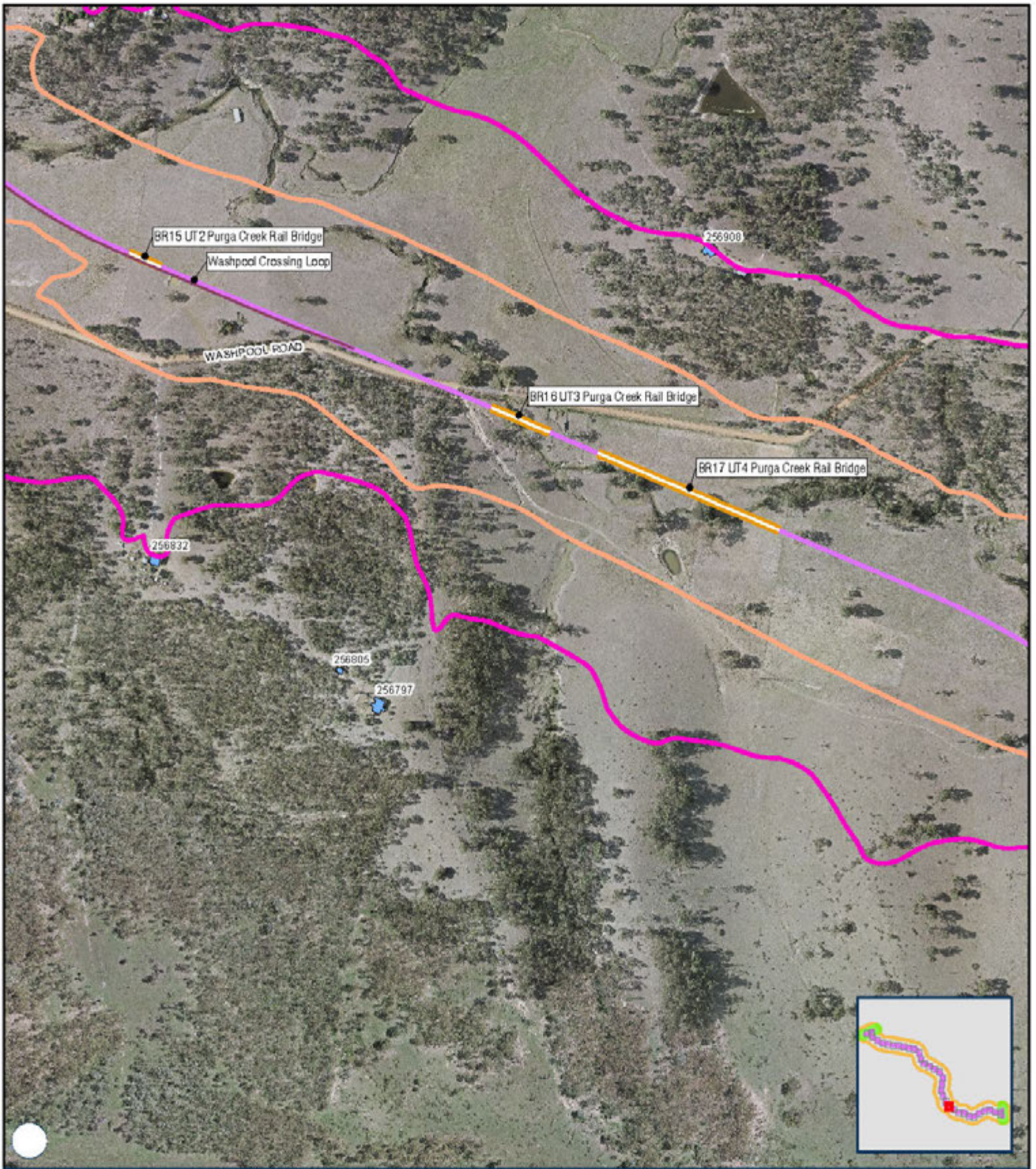

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Year 2040 Daytime rail noise levels

APPENDIX E - Map 23 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 17-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
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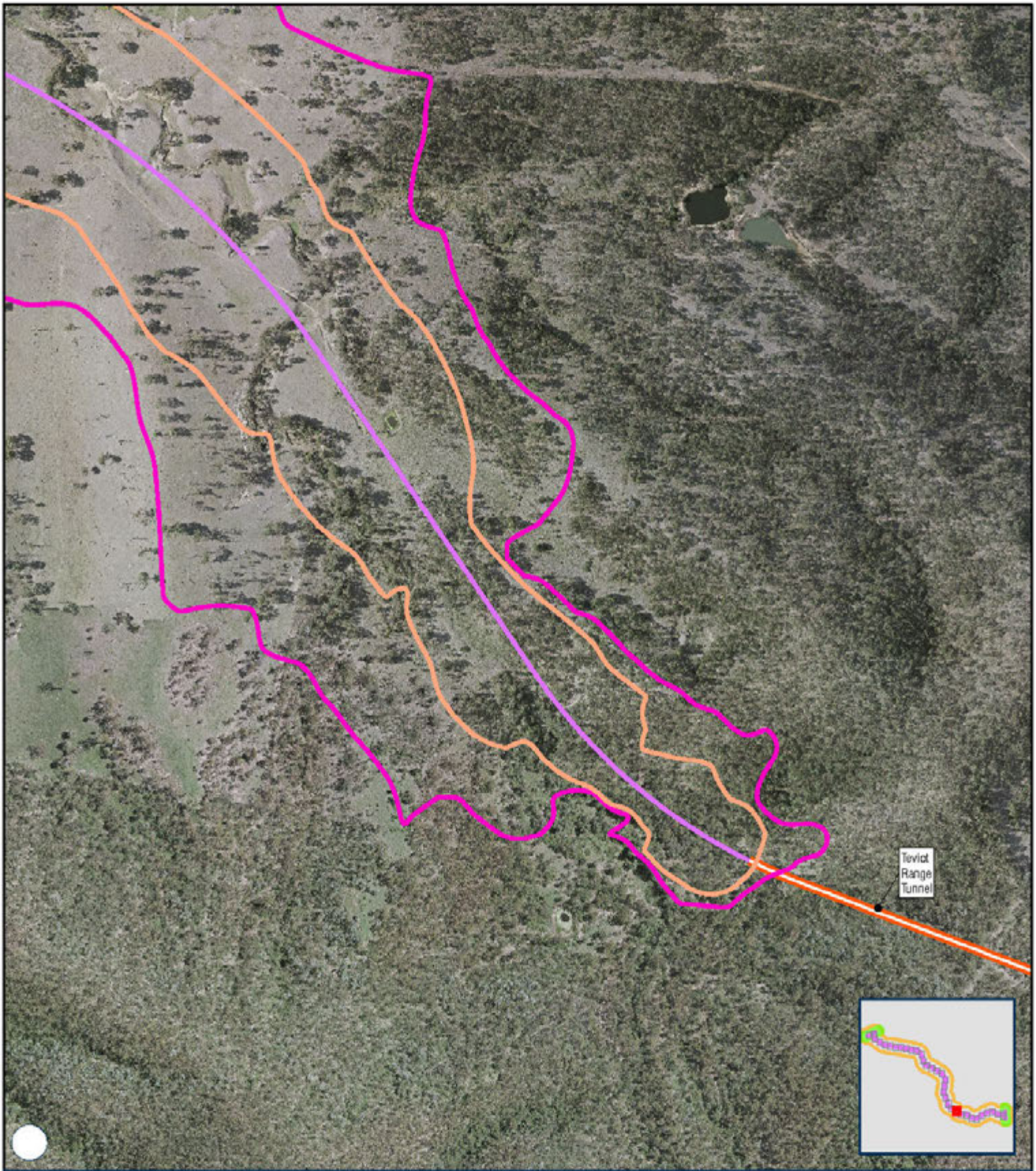
Service Layer Credits: Imagery ARTC 2015 and 2017



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Year 2040 Daytime rail noise levels

APPENDIX E - Map 24 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 17-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
- Teviot Range Tunnel
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- Receptors

ARTC InlandRail

The Australian Government is delivering Inland Rail through the Australian Rail Track Corporation, in partnership with the private sector.

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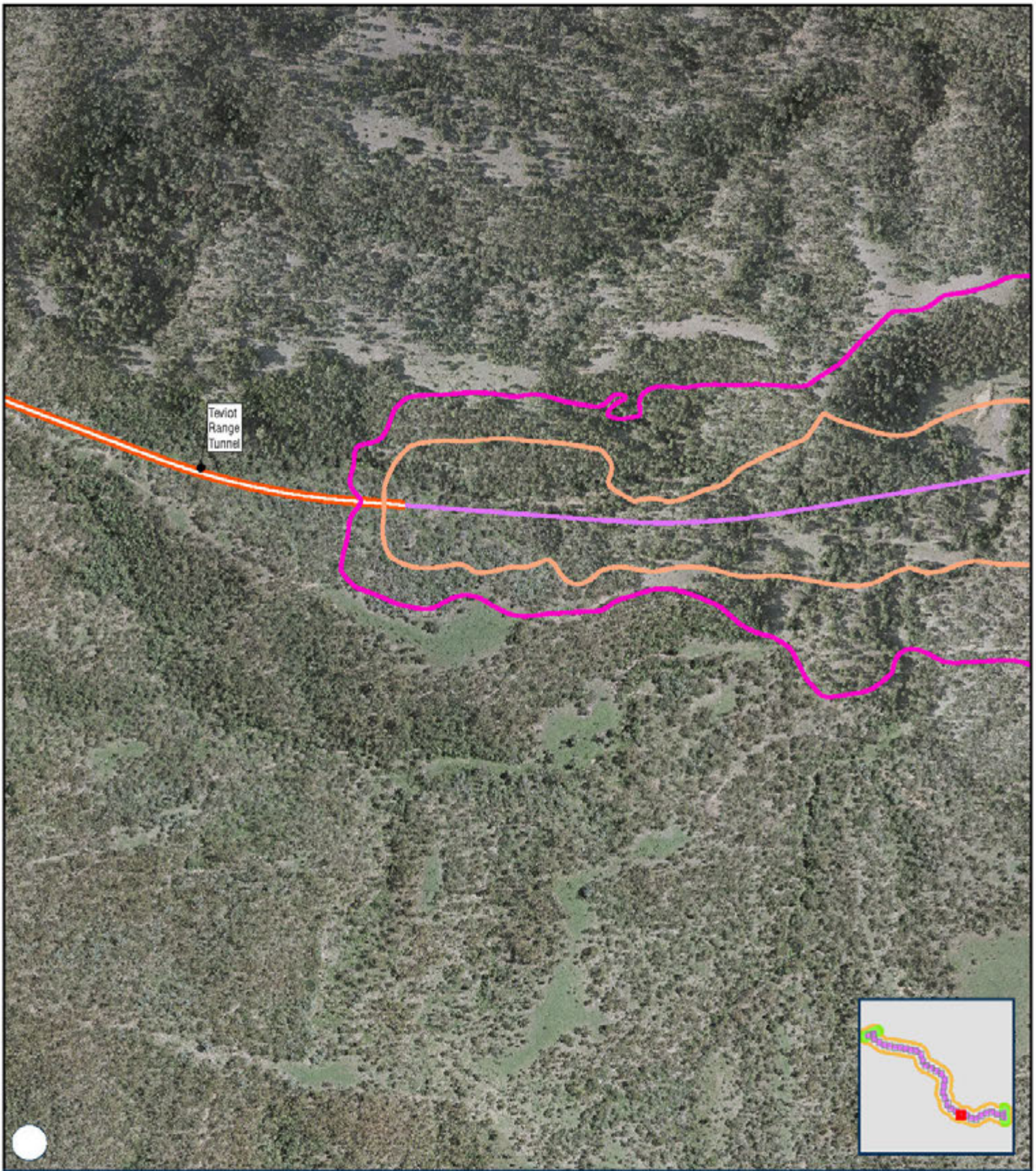
Service Layer Credits: Imagery ARTC 2015 and 2017



CALVERT TO KAGARU

Year 2040 Daytime rail noise levels

APPENDIX E - Map 25 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 17-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
- Teviot Range Tunnel
- Noise Assessment Area – Upgrading Existing Railway

Noise contours are based on a set distance above the local terrain level of 2.4m.

- Daytime noise criteria LAeq15hr 60dBA New rail corridor
- Daytime noise criteria LAeq15hr 65dBA upgrading existing rail corridor
- Daytime noise criteria LA max 80dBA New rail corridor
- Daytime noise criteria LA max 85dBA upgrading existing rail corridor
- Receptors

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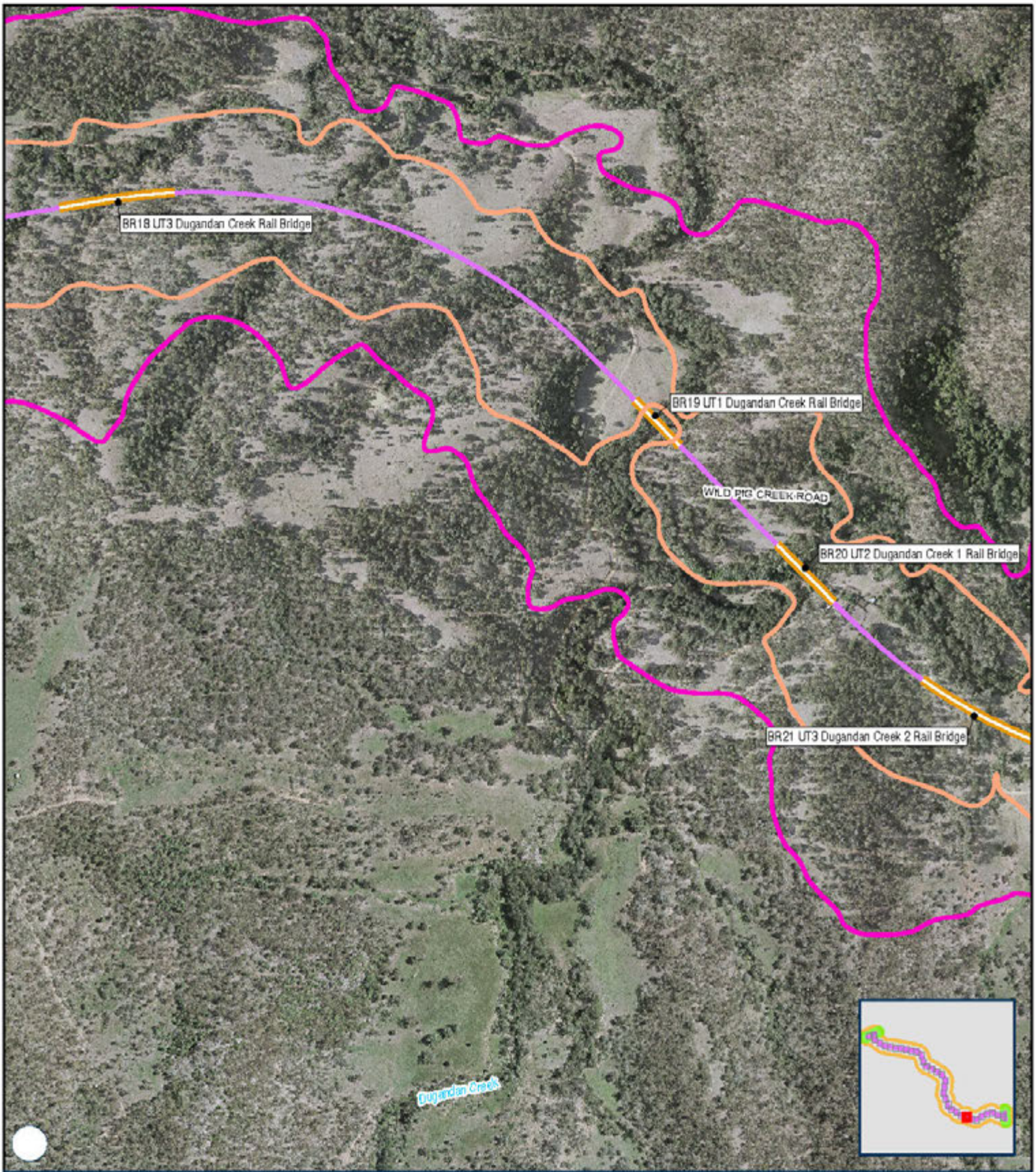
Service Layer Credits: Imagery ARTC 2015 and 2017



CALVERT TO KAGARU

Year 2040 Daytime rail noise levels

APPENDIX E - Map 26 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 17-Mar-2020
Author: JG

- Level Crossings
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- Crossing Loops
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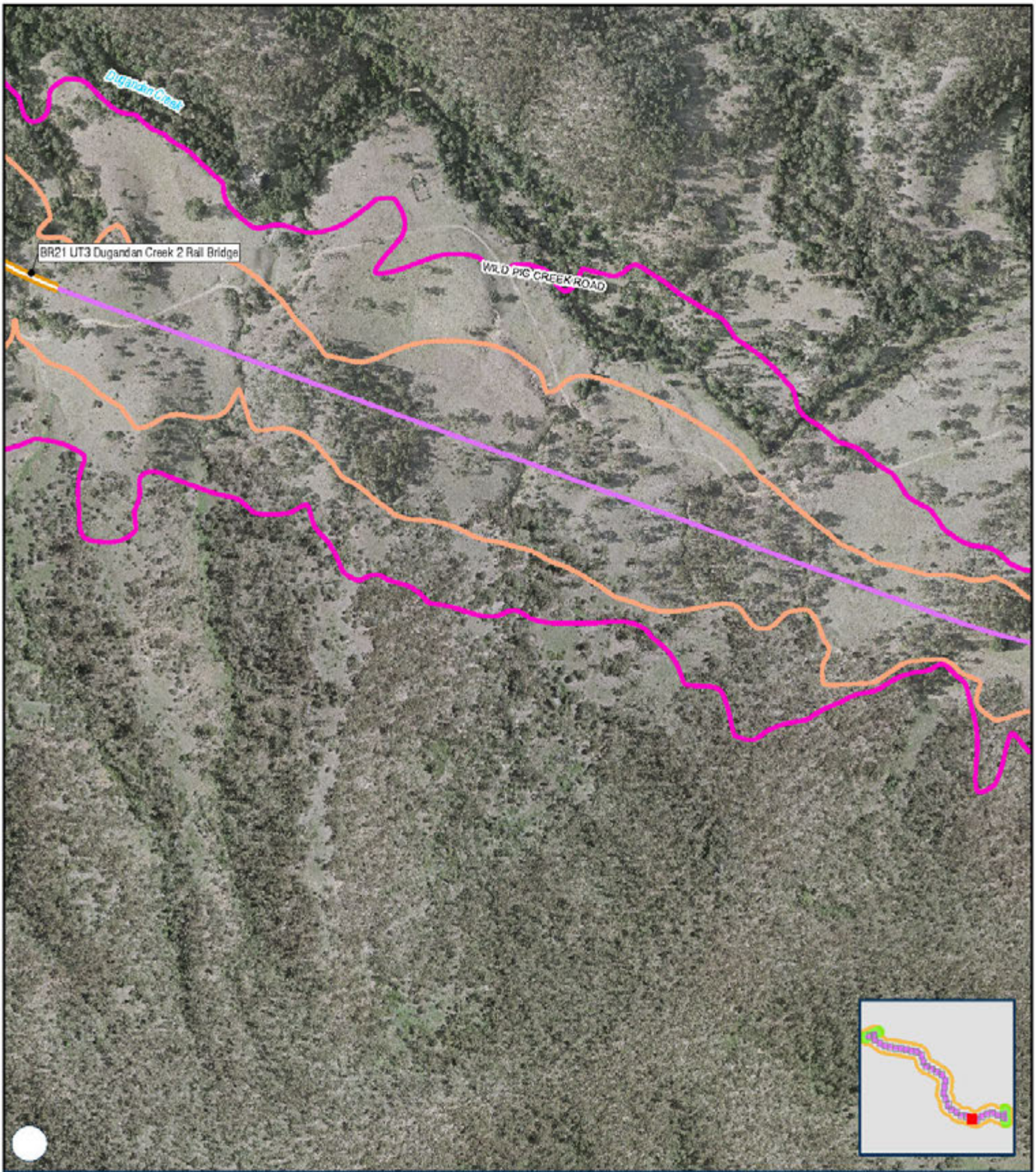
Service Layer Credits: Imagery ARTC 2015 and 2017



CALVERT TO KAGARU

Year 2040 Daytime rail noise levels

APPENDIX E - Map 27 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 17-Mar-2020
Author: JG

- Level Crossings
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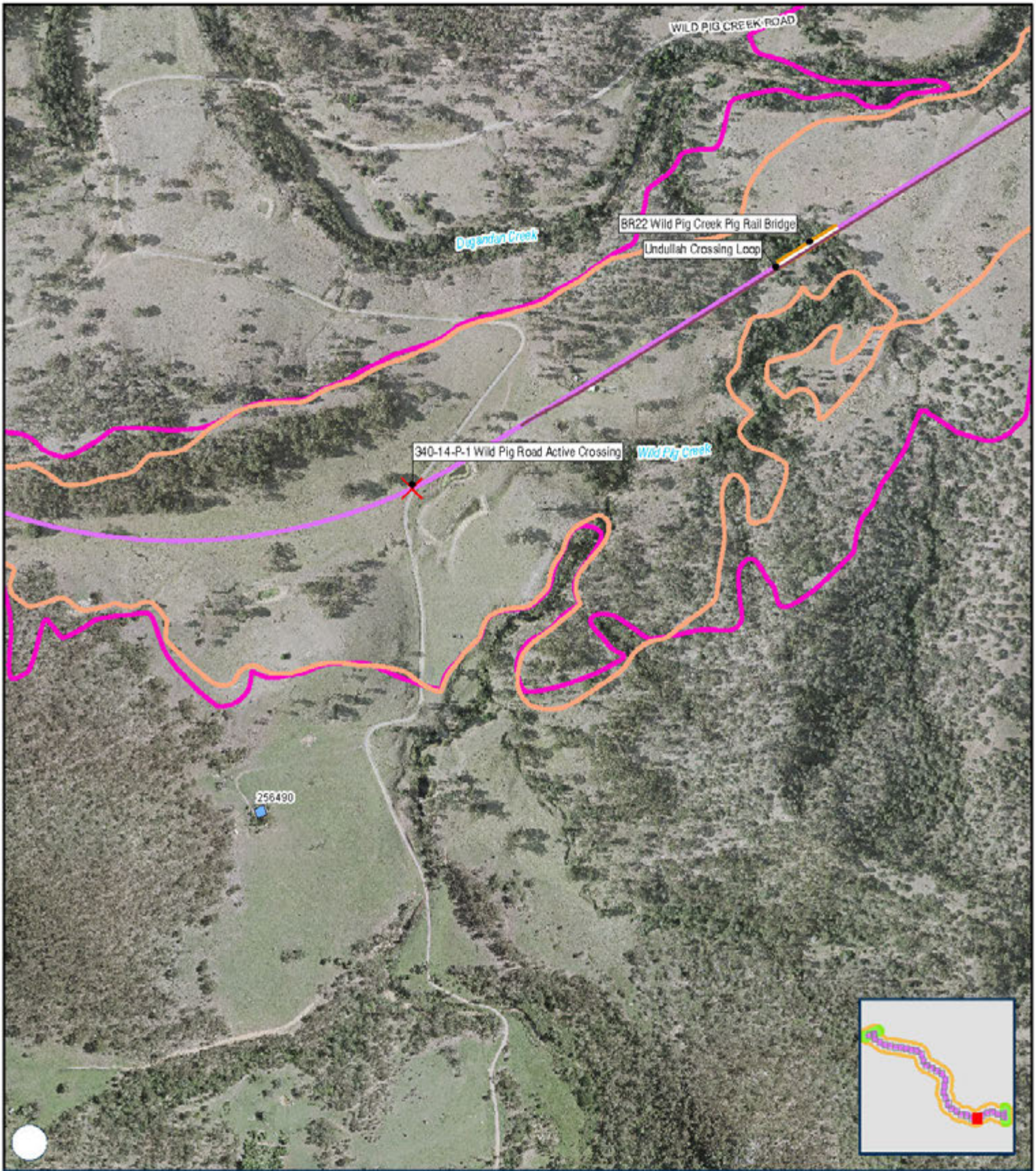
Service Layer Credits: Imagery ARTC 2015 and 2017



CALVERT TO KAGARU

Year 2040 Daytime rail noise levels

200 m

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Paper: A4 Scale: 1:7,500
Date: 17-Mar-2020
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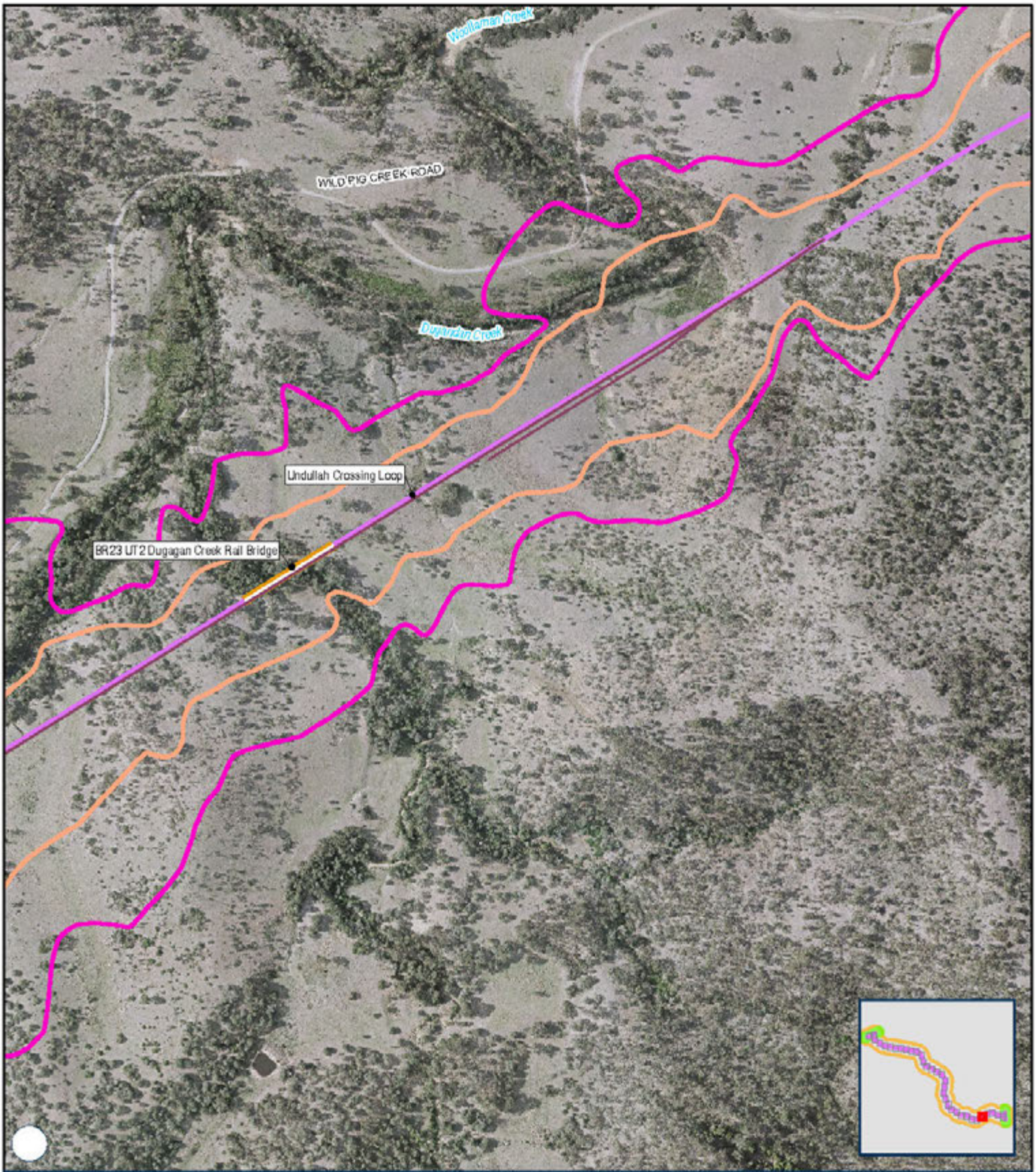
Service Layer Credits: Imagery ARTC 2015 and 2017



CALVERT TO KAGARU

Year 2040 Daytime rail noise levels

APPENDIX E - Map 29 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 17-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
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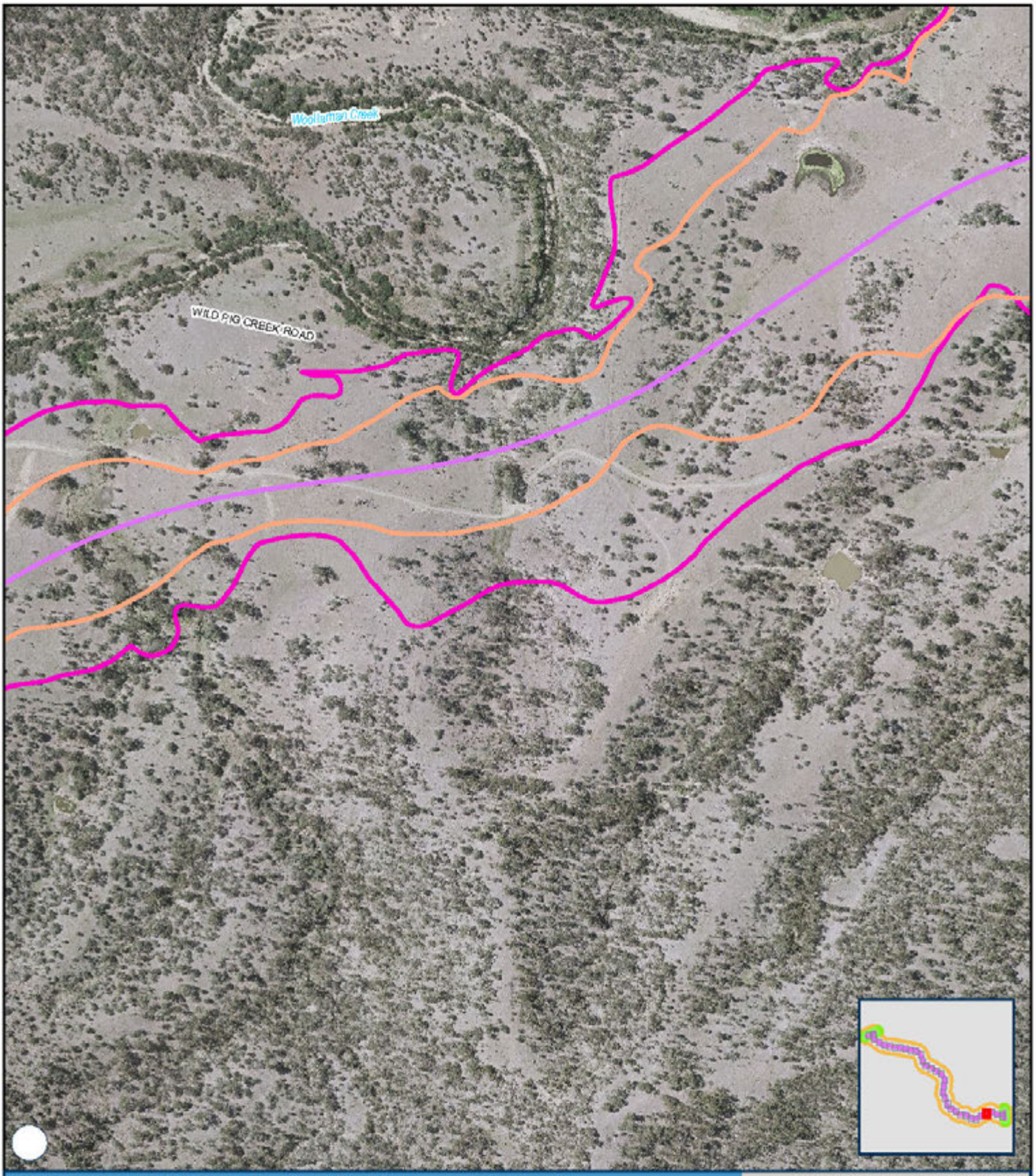
Service Layer Credits: Imagery ARTC 2015 and 2017



CALVERT TO KAGARU

Year 2040 Daytime rail noise levels

APPENDIX E - Map 30 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 17-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
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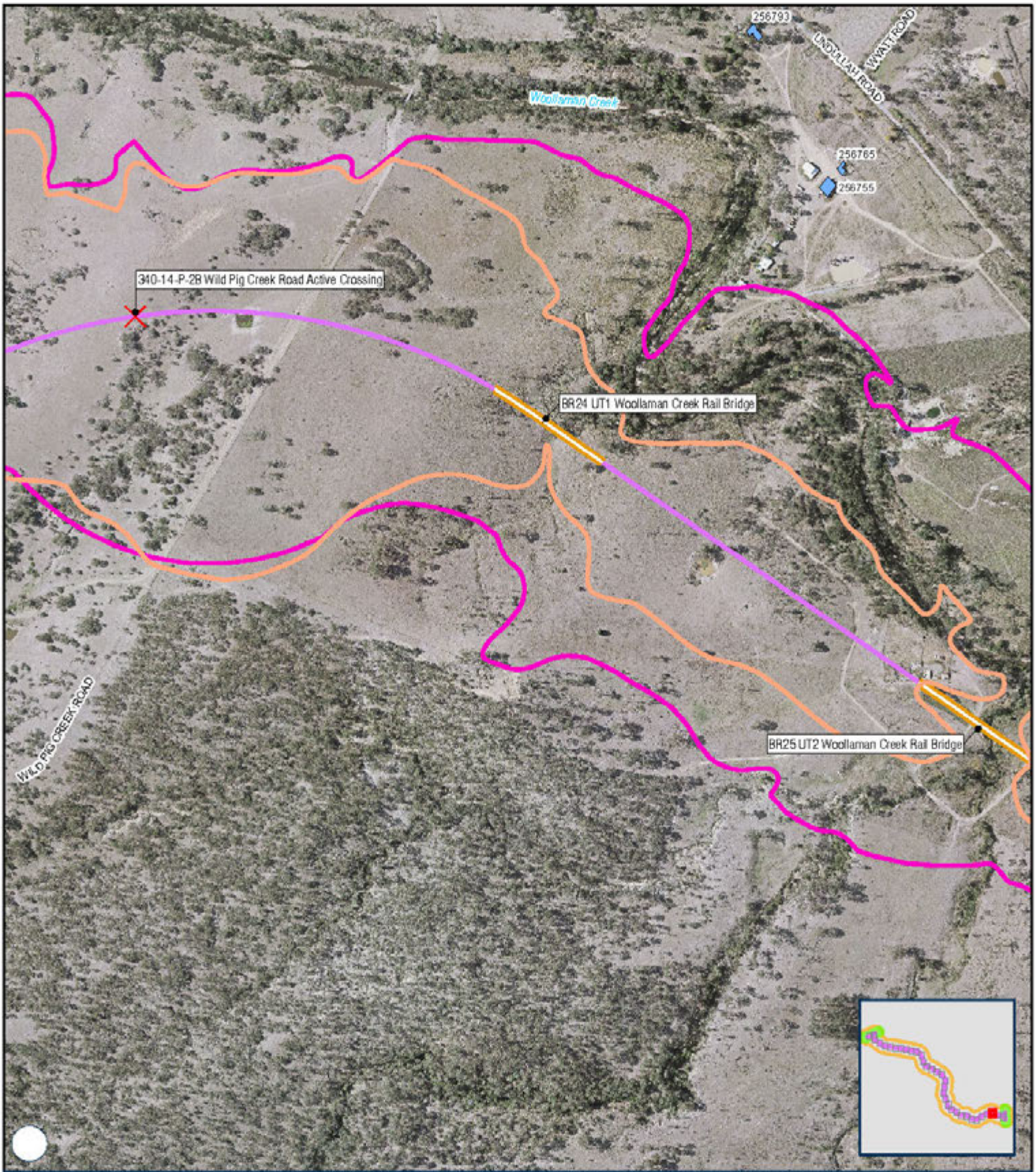

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Year 2040 Daytime rail noise levels

APPENDIX E - Map 31 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 17-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
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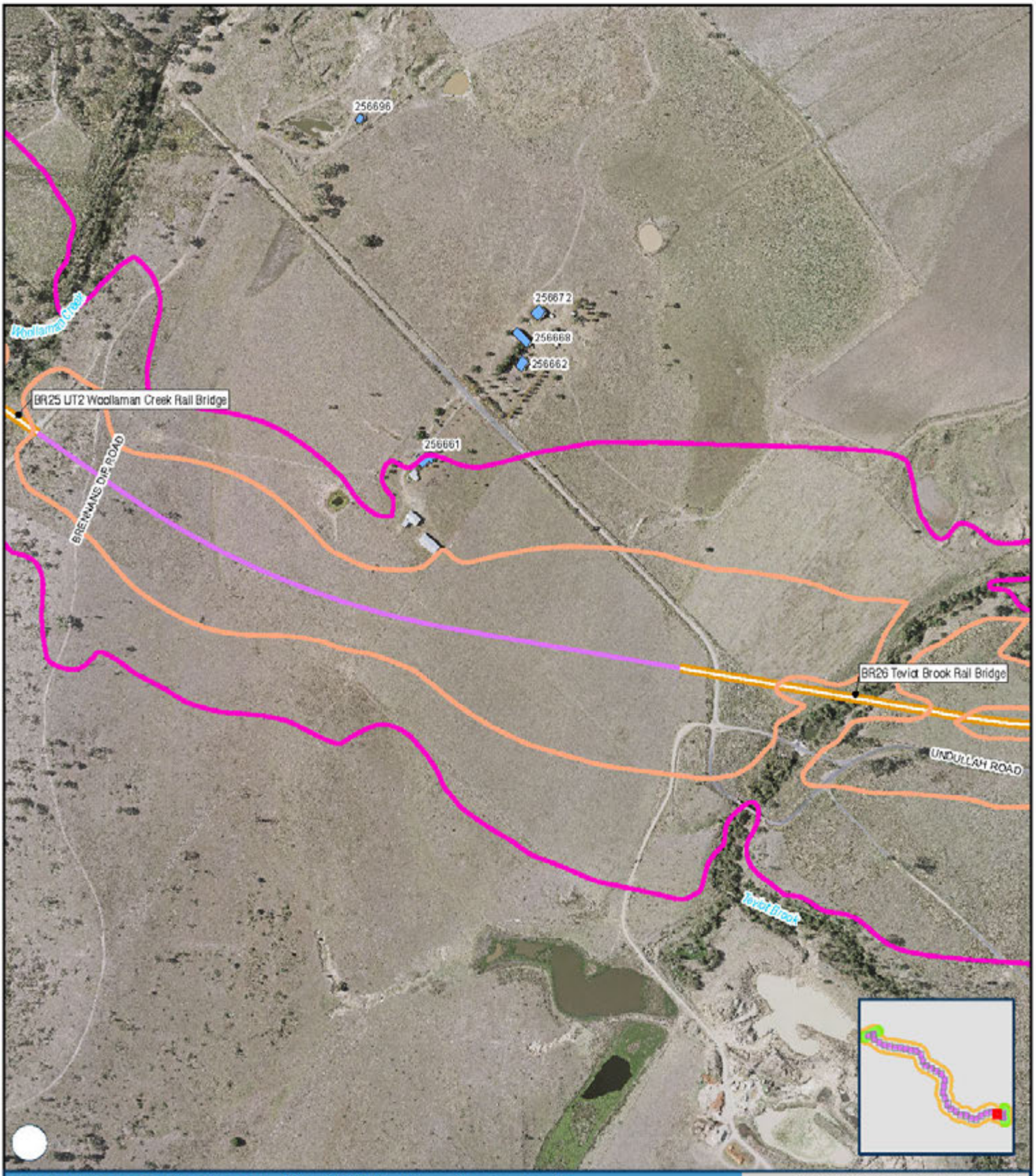
Service Layer Credits: Imagery ARTC 2015 and 2017



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Year 2040 Daytime rail noise levels

APPENDIX E - Map 32 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 17-Mar-2020
Author: JG

- Level Crossings
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- Crossing Loops
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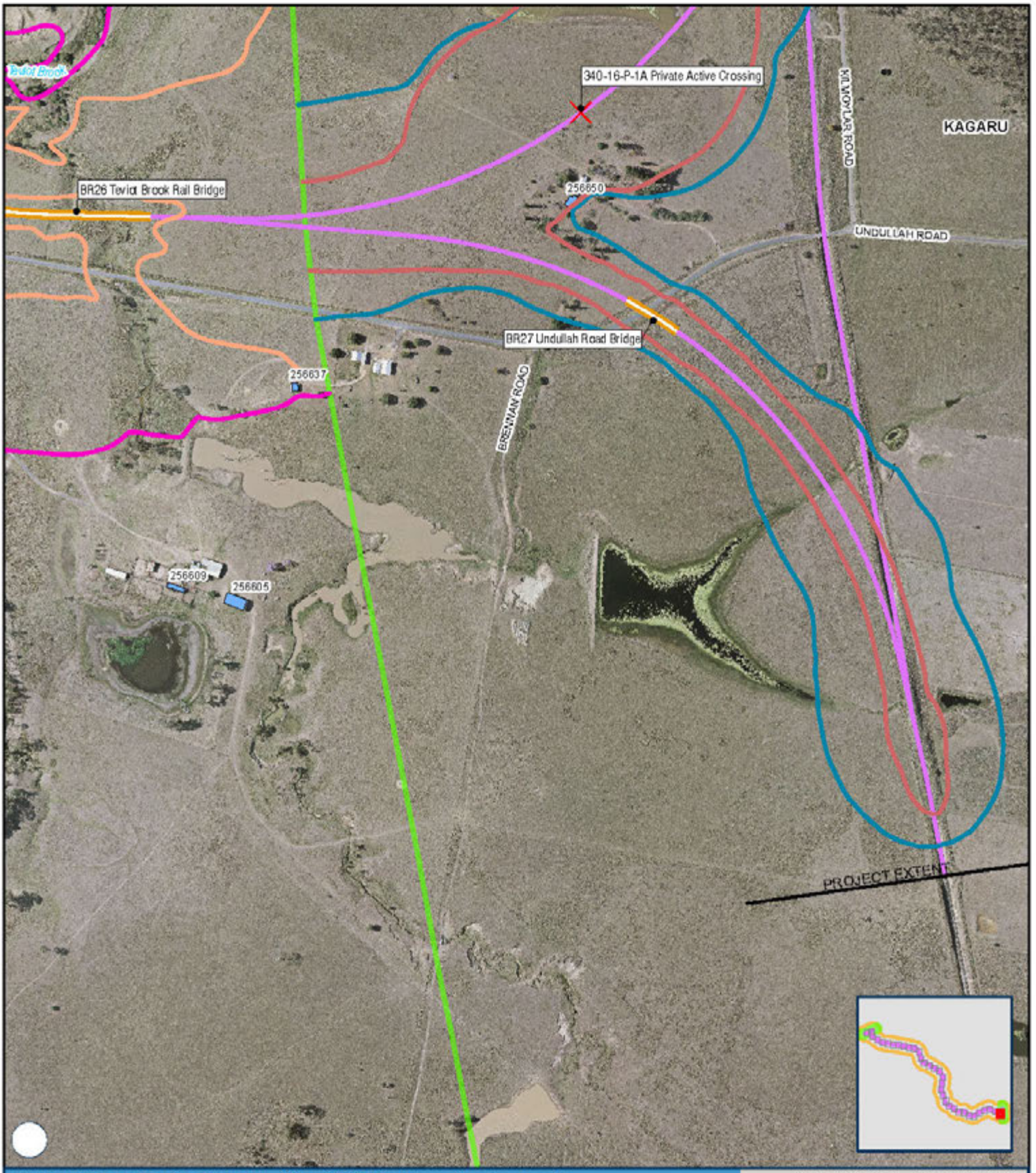
Service Layer Credits: Imagery ARTC 2015 and 2017



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Year 2040 Daytime rail noise levels

APPENDIX E - Map 33 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 17-Mar-2020
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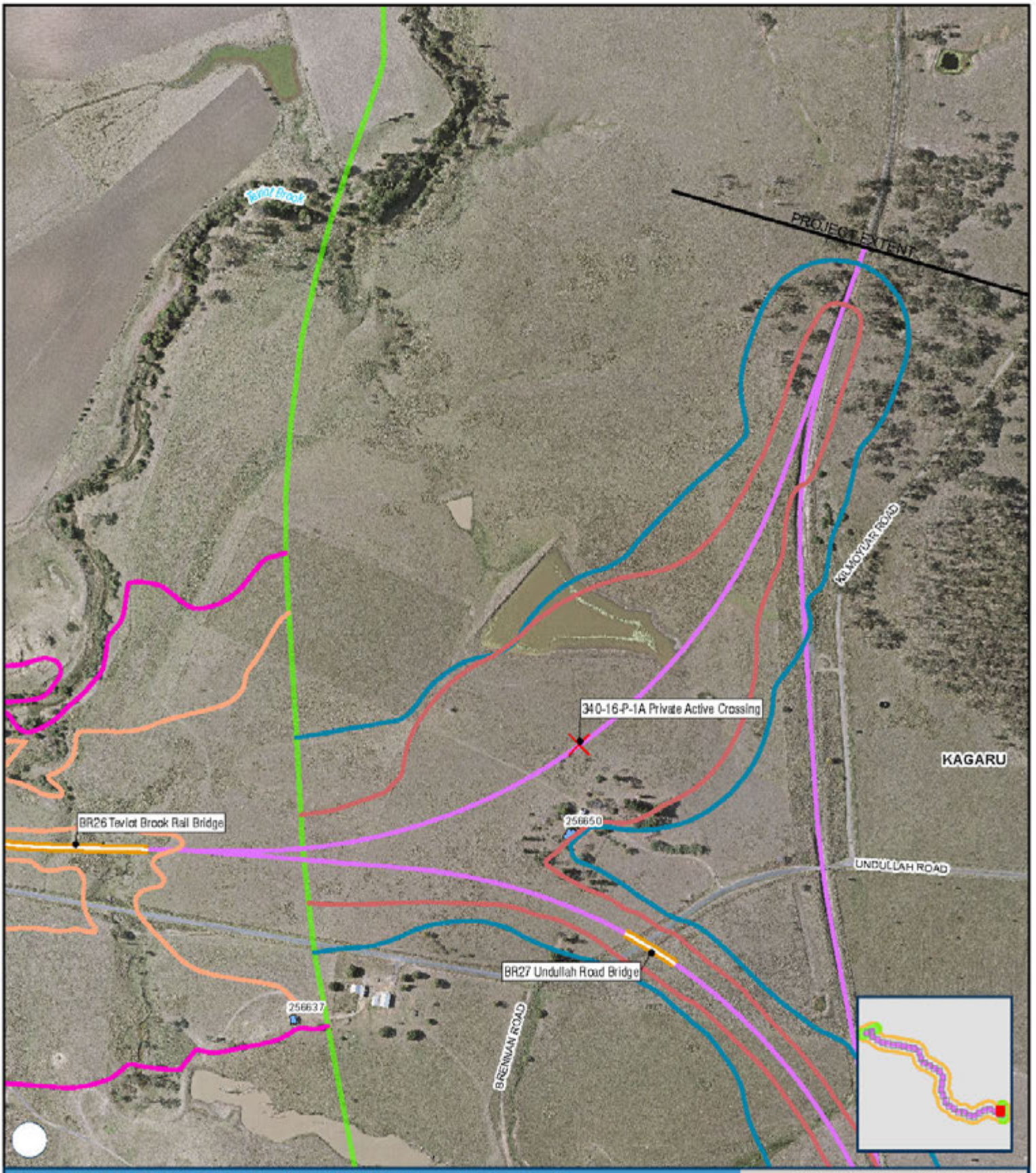
Service Layer Credits: Imagery ARTC 2015 and 2017



CALVERT TO KAGARU

Year 2040 Daytime rail noise levels

APPENDIX E - Map 34 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 17-Mar-2020
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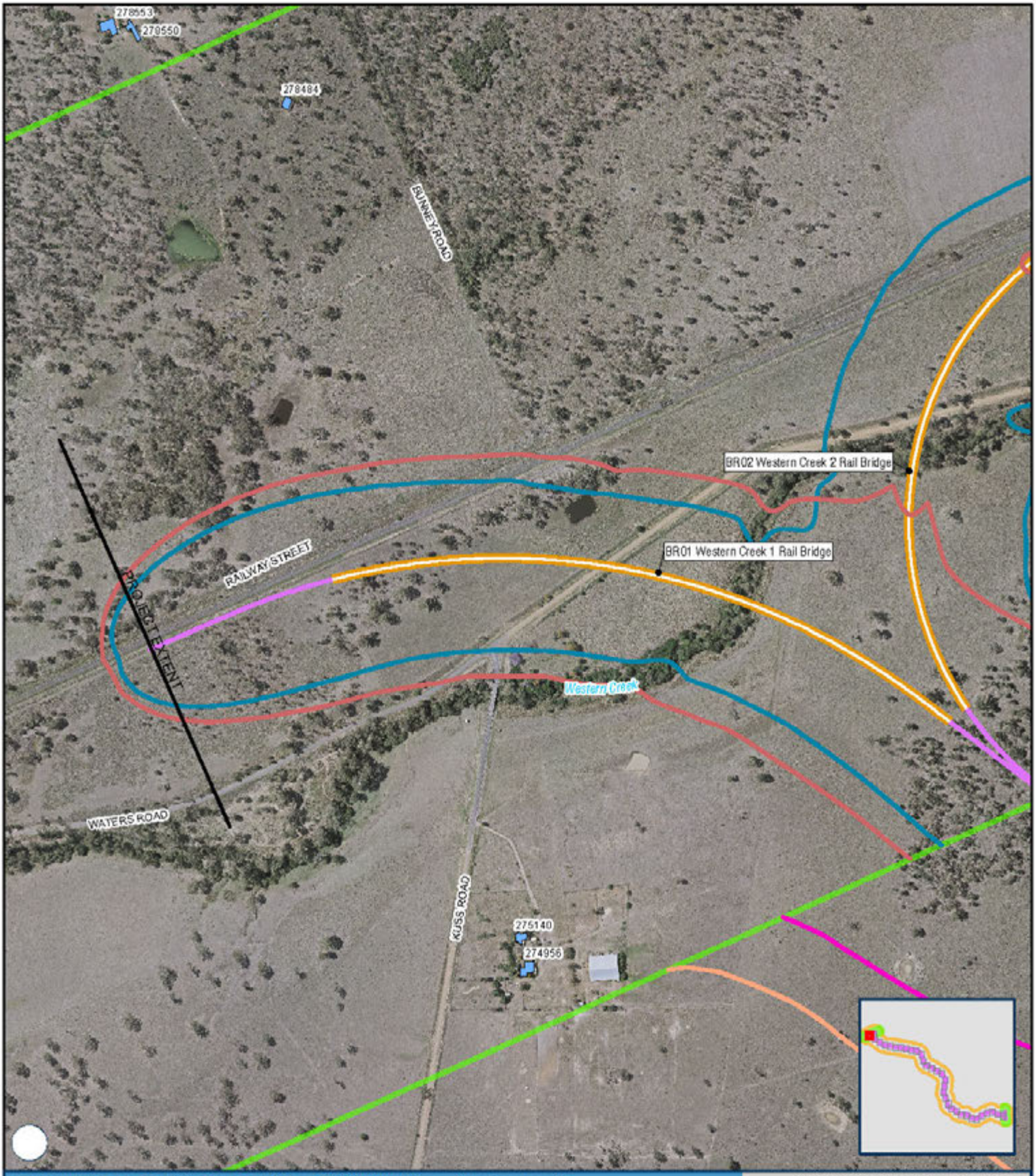
Service Layer Credits: Imagery ARTC 2015 and 2017



CALVERT TO KAGARU Year 2040 Night-time rail noise levels

APPENDIX E - Map 1 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 16-Mar-2020
Author: JG

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- Crossing Loops
- Rail Alignment/Centreline
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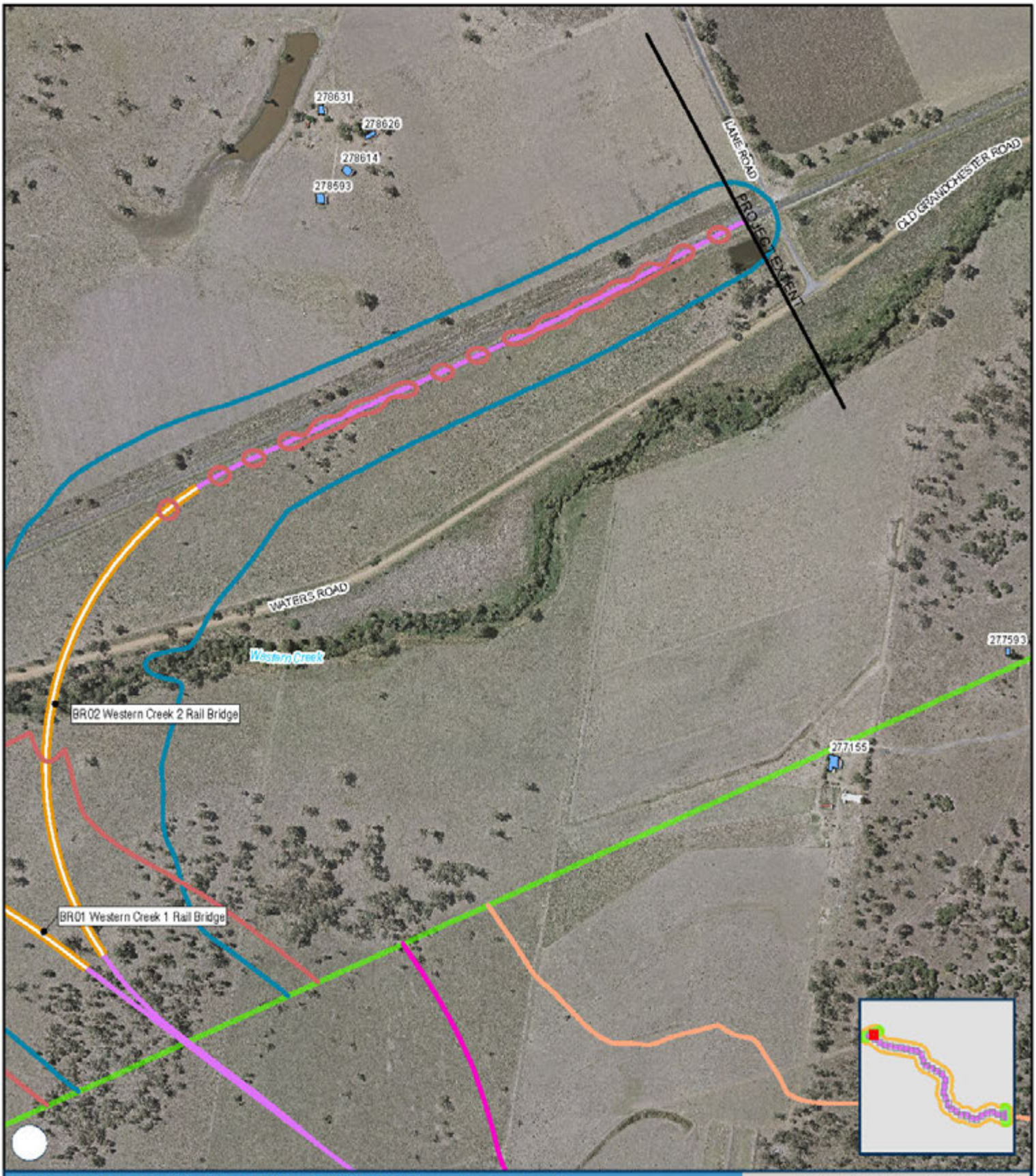
Service Layer Credits: Imagery ARTC 2015 and 2017



CALVERT TO KAGARU Year 2040 Night-time rail noise levels

APPENDIX E - Map 2 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 16-Mar-2020
Author: JG

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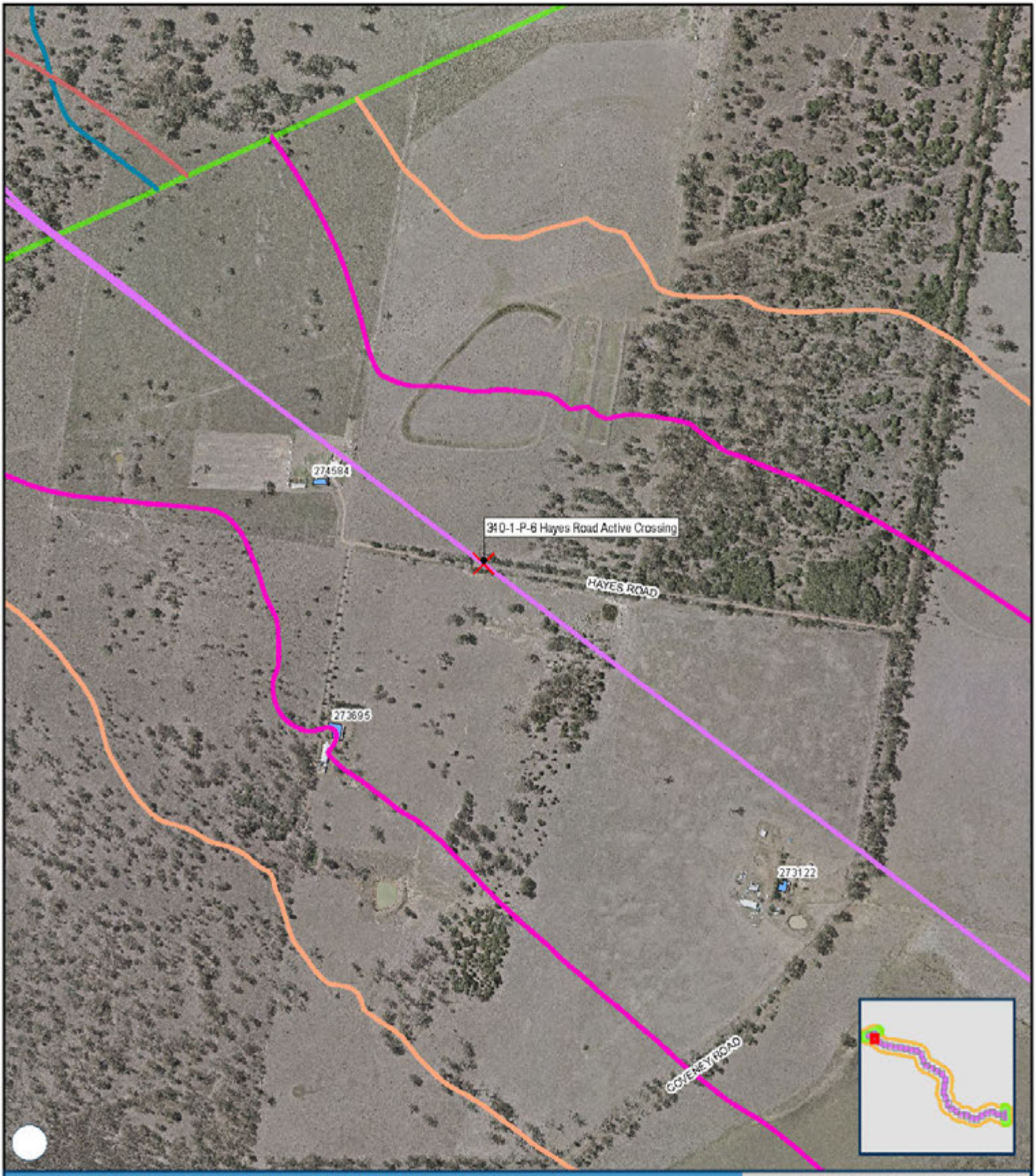

CALVERT TO KAGARU Year 2040 Night-time rail noise levels

APPENDIX E - Map 3 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 16-Mar-2020
Author: JG

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- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
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- Receptors

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Service Layer Credits: Imagery ARTC 2015 and 2017

CALVERT TO KAGARU Year 2040 Night-time rail noise levels

APPENDIX E - Map 4 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 16-Mar-2020
Author: JG

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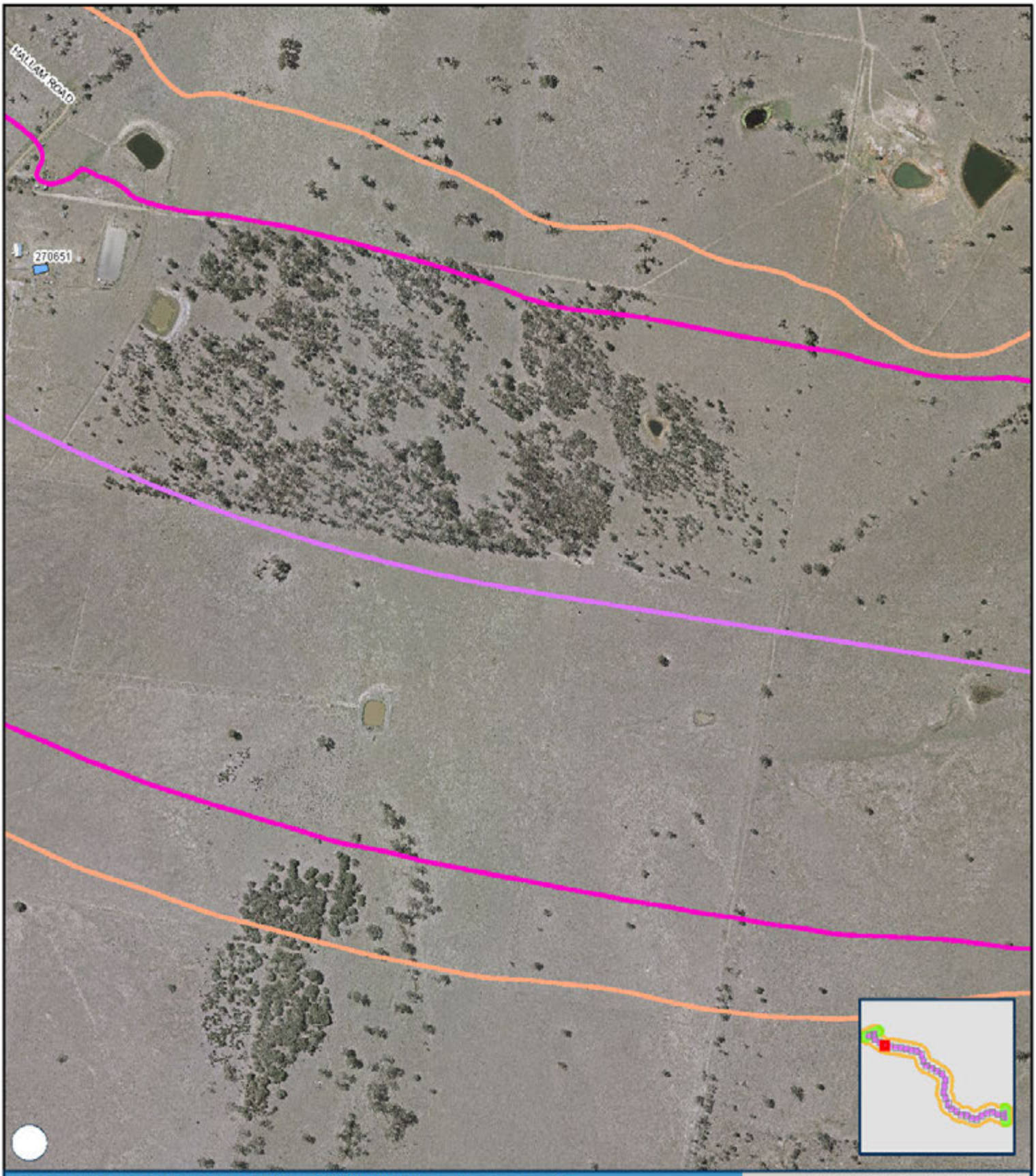
Service Layer Credits: Imagery ARTC 2015 and 2017



CALVERT TO KAGARU Year 2040 Night-time rail noise levels

APPENDIX E - Map 5 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 16-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
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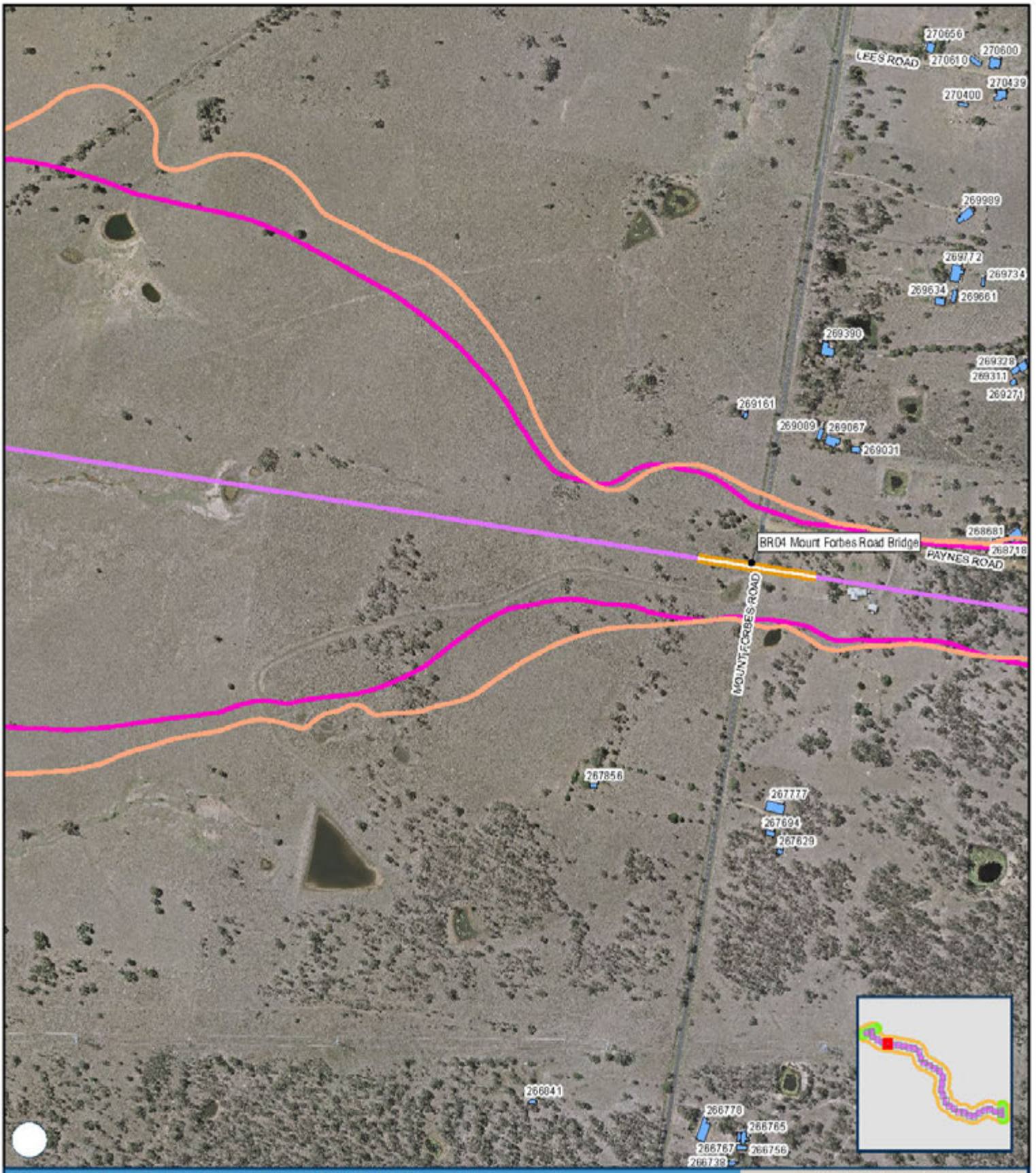
Service Layer Credits: Imagery ARTC 2015 and 2017



CALVERT TO KAGARU Year 2040 Night-time rail noise levels

APPENDIX E - Map 6 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 16-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
- Teviot Range Tunnel
- Noise Assessment Area – Upgrading Existing Railway

Noise contours are based on a set distance above the local terrain level of 2.4m.

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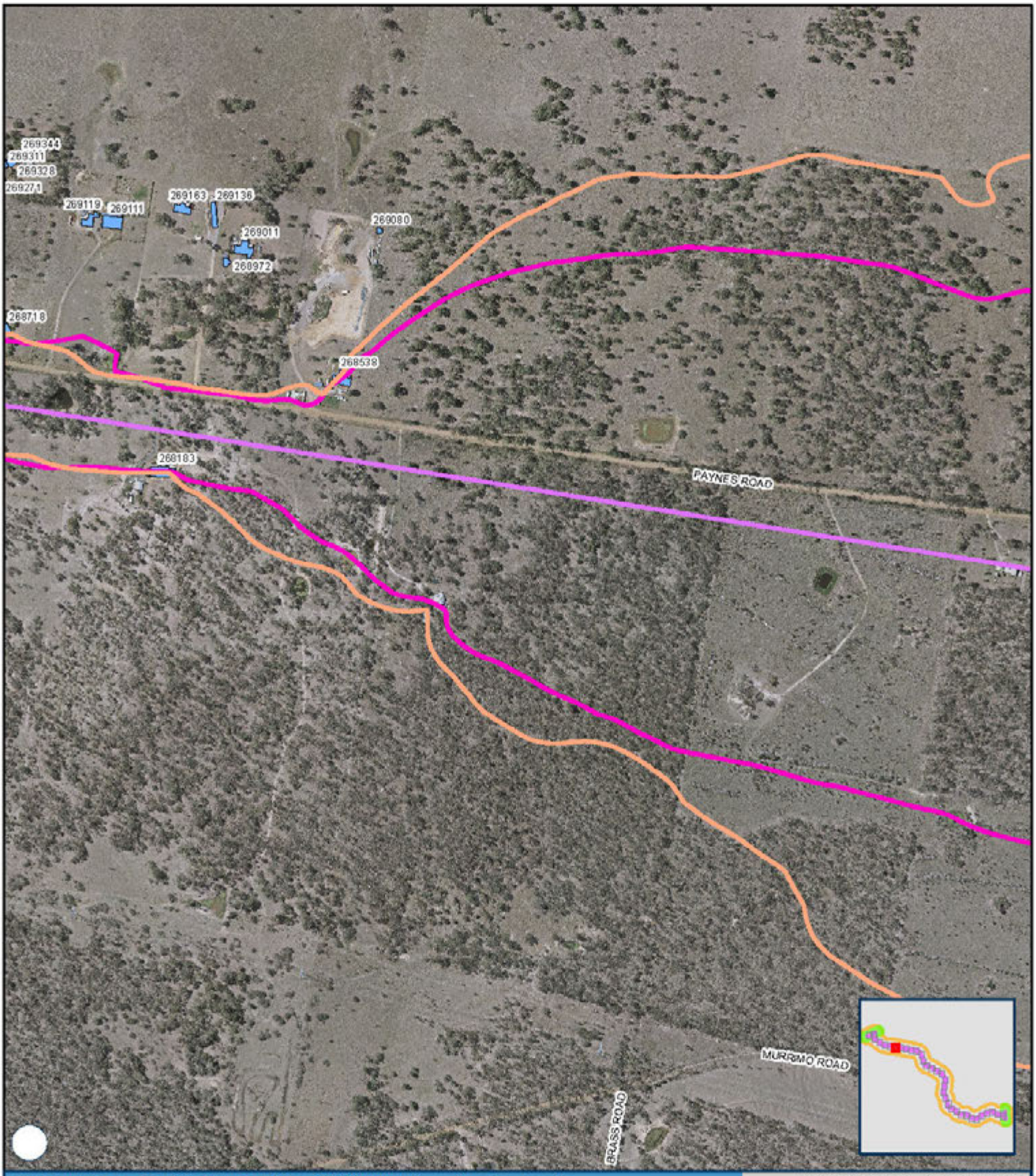
Service Layer Credits: Imagery ARTC 2015 and 2017



CALVERT TO KAGARU Year 2040 Night-time rail noise levels

APPENDIX E - Map 7 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 16-Mar-2020
Author: JG

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- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
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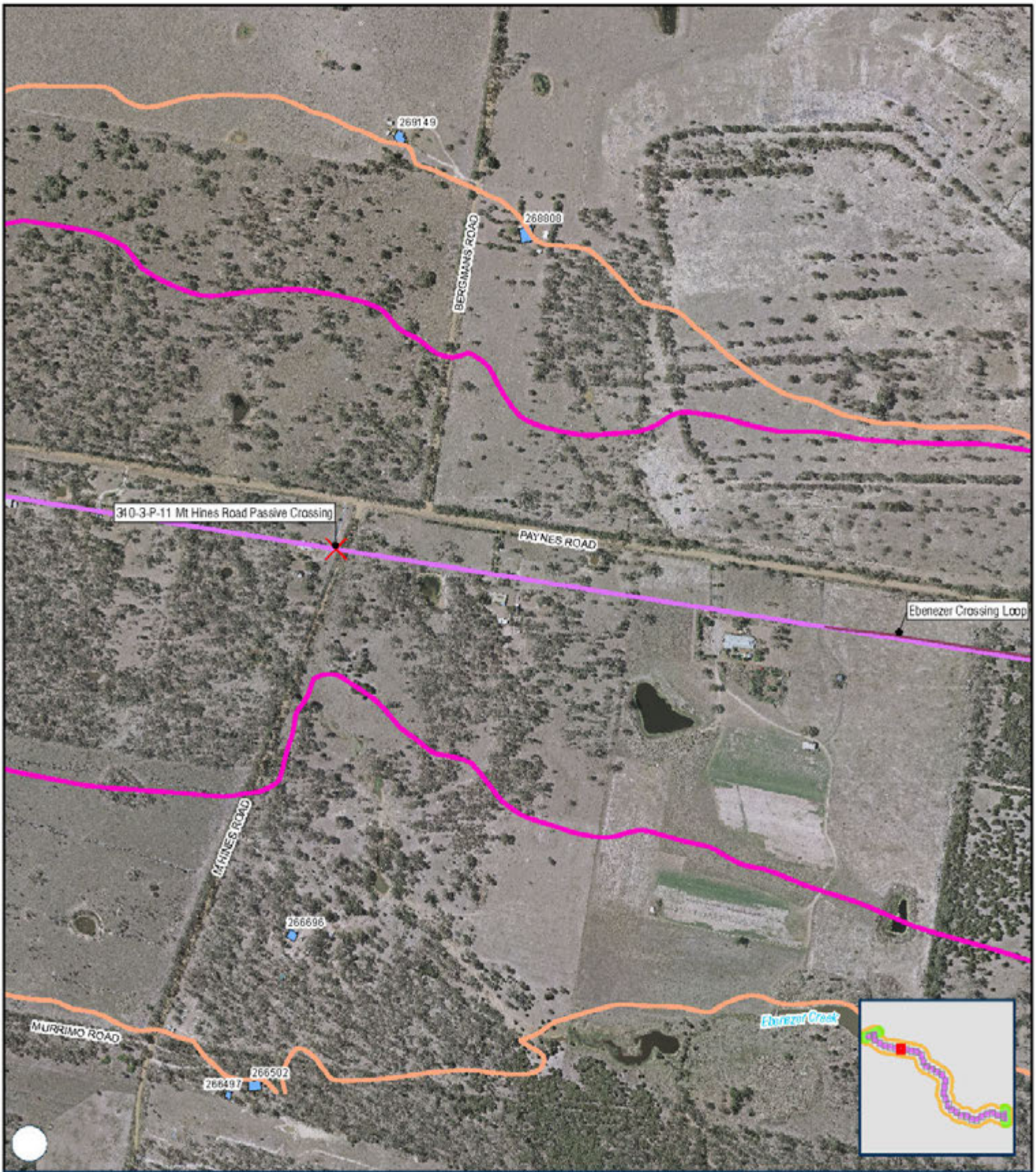
Service Layer Credits: Imagery ARTC 2015 and 2017



CALVERT TO KAGARU Year 2040 Night-time rail noise levels

APPENDIX E - Map 8 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 16-Mar-2020
Author: JG

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- Crossing Loops
- Rail Alignment/Centreline
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- Noise Assessment Area – Upgrading Existing Railway

Noise contours are based on a set distance above the local terrain level of 2.4m.

- Night-time noise criteria LAeq 9hr 55dBA New rail corridor
- Night-time noise criteria LAeq 9hr 60dBA upgrading existing rail corridor
- Night-time noise criteria LA max 80dBA New rail corridor
- Night-time noise criteria LA max 85dBA upgrading existing rail corridor
- Receptors

ARTC InlandRail

The Australian Government is delivering Inland Rail through the Australian Rail Track Corporation, in partnership with the private sector.

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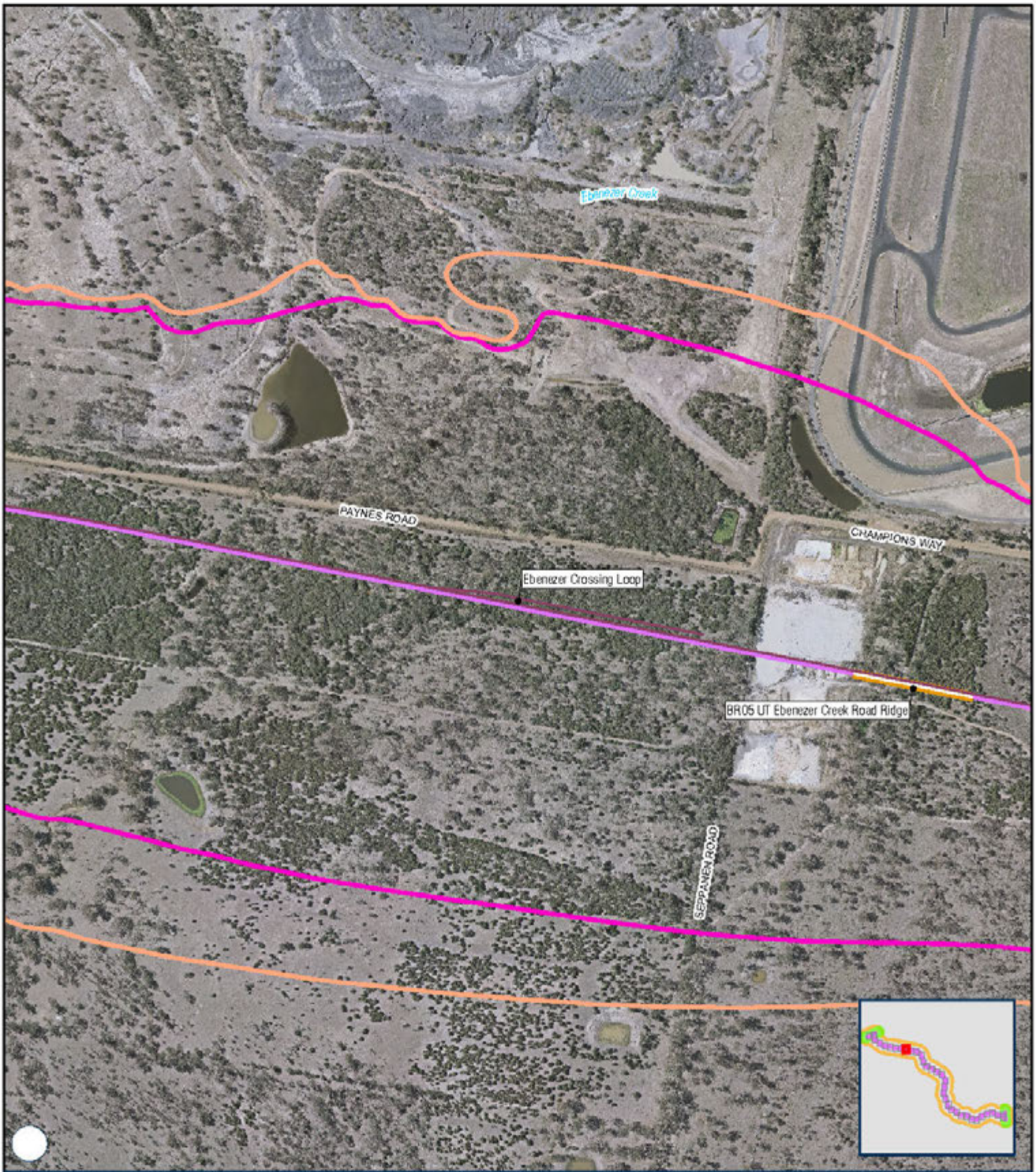
Service Layer Credits: Imagery ARTC 2015 and 2017



CALVERT TO KAGARU Year 2040 Night-time rail noise levels

APPENDIX E - Map 9 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 16-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
- Teviot Range Tunnel
- Noise Assessment Area – Upgrading Existing Railway

Noise contours are based on a set distance above the local terrain level of 2.4m.

- Night-time noise criteria LAeq 9hr 55dBA New rail corridor
- Night-time noise criteria LAeq 9hr 60dBA upgrading existing rail corridor
- Night-time noise criteria LA max 80dBA New rail corridor
- Night-time noise criteria LA max 85dBA upgrading existing rail corridor
- Receptors

ARTC InlandRail

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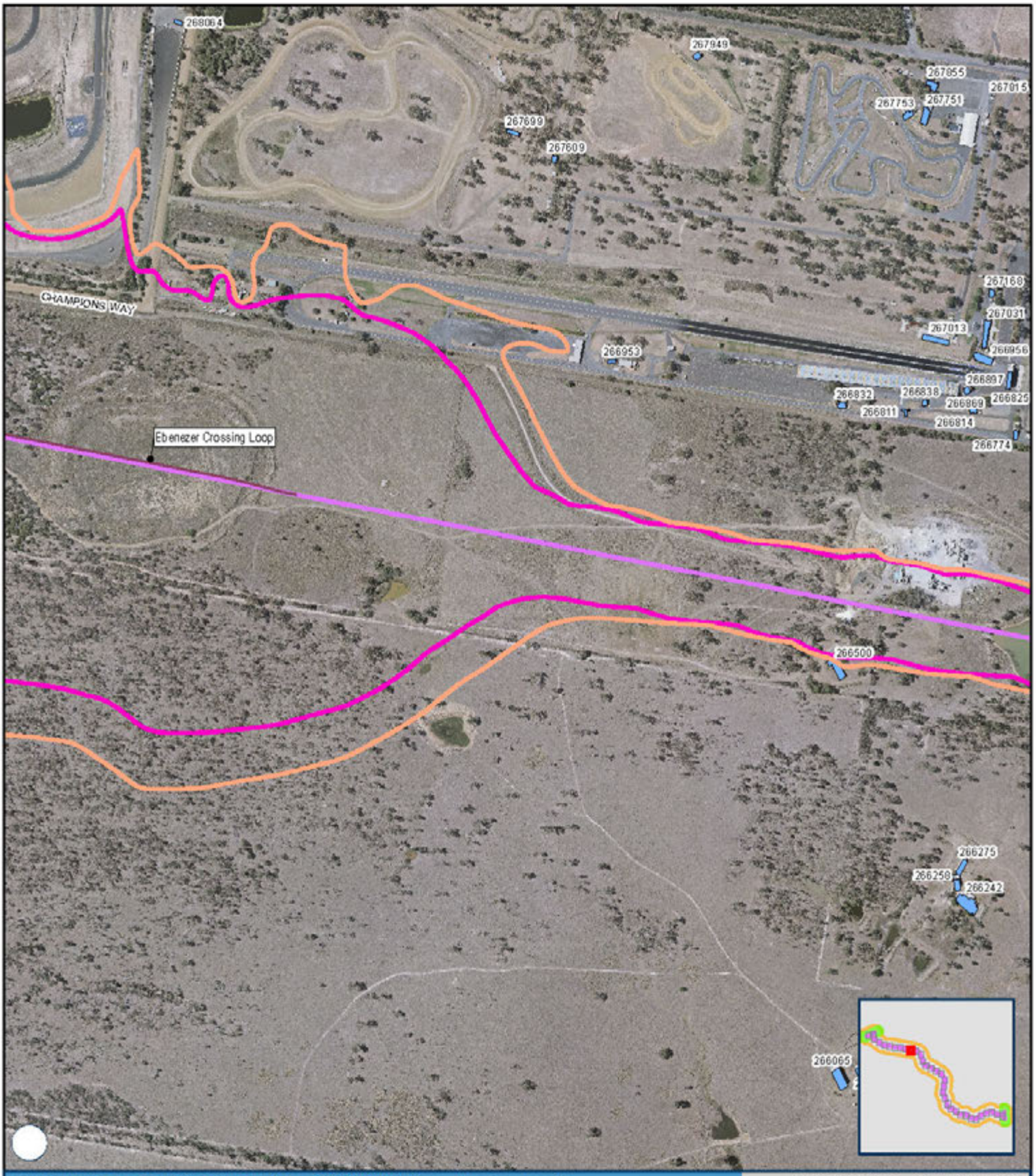
Service Layer Credits: Imagery ARTC 2015 and 2017



CALVERT TO KAGARU Year 2040 Night-time rail noise levels

APPENDIX E - Map 10 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 16-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
- Teviot Range Tunnel
- Noise Assessment Area – Upgrading Existing Railway

Noise contours are based on a set distance above the local terrain level of 2.4m.

- Night-time noise criteria LAeq 9hr 55dBA New rail corridor
- Night-time noise criteria LAeq 9hr 60dBA upgrading existing rail corridor
- Night-time noise criteria LA max 80dBA New rail corridor
- Night-time noise criteria LA max 85dBA upgrading existing rail corridor
- Receptors

ARTC InlandRail

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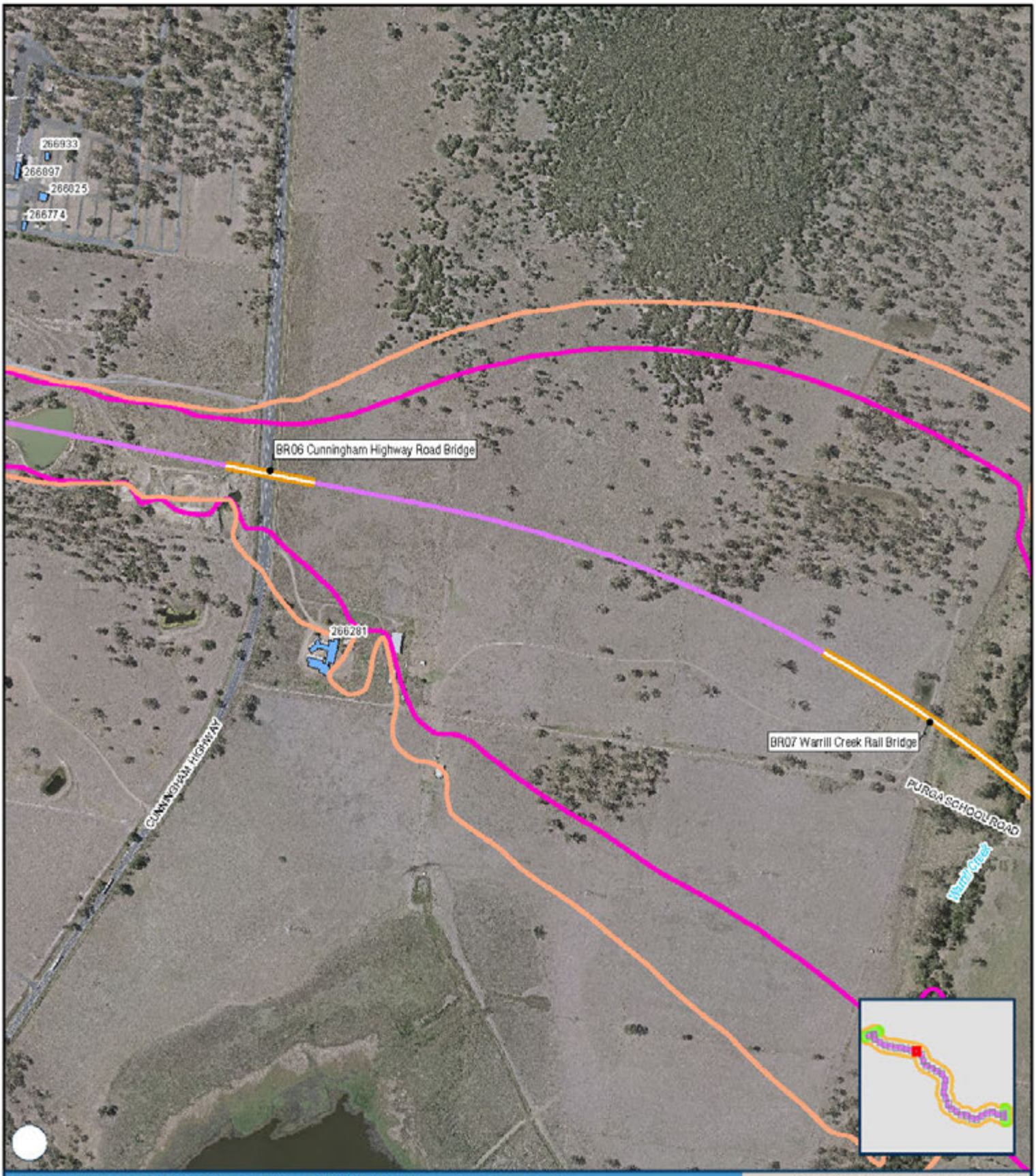
Service Layer Credits: Imagery ARTC 2015 and 2017



CALVERT TO KAGARU Year 2040 Night-time rail noise levels

APPENDIX E - Map 11 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 16-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
- Teviot Range Tunnel
- Noise Assessment Area – Upgrading Existing Railway

Noise contours are based on a set distance above the local terrain level of 2.4m.

- Night-time noise criteria LAeq 9hr 55dBA New rail corridor
- Night-time noise criteria LAeq 9hr 60dBA upgrading existing rail corridor
- Night-time noise criteria LA max 80dBA New rail corridor
- Night-time noise criteria LA max 85dBA upgrading existing rail corridor
- Receptors

ARTC InlandRail

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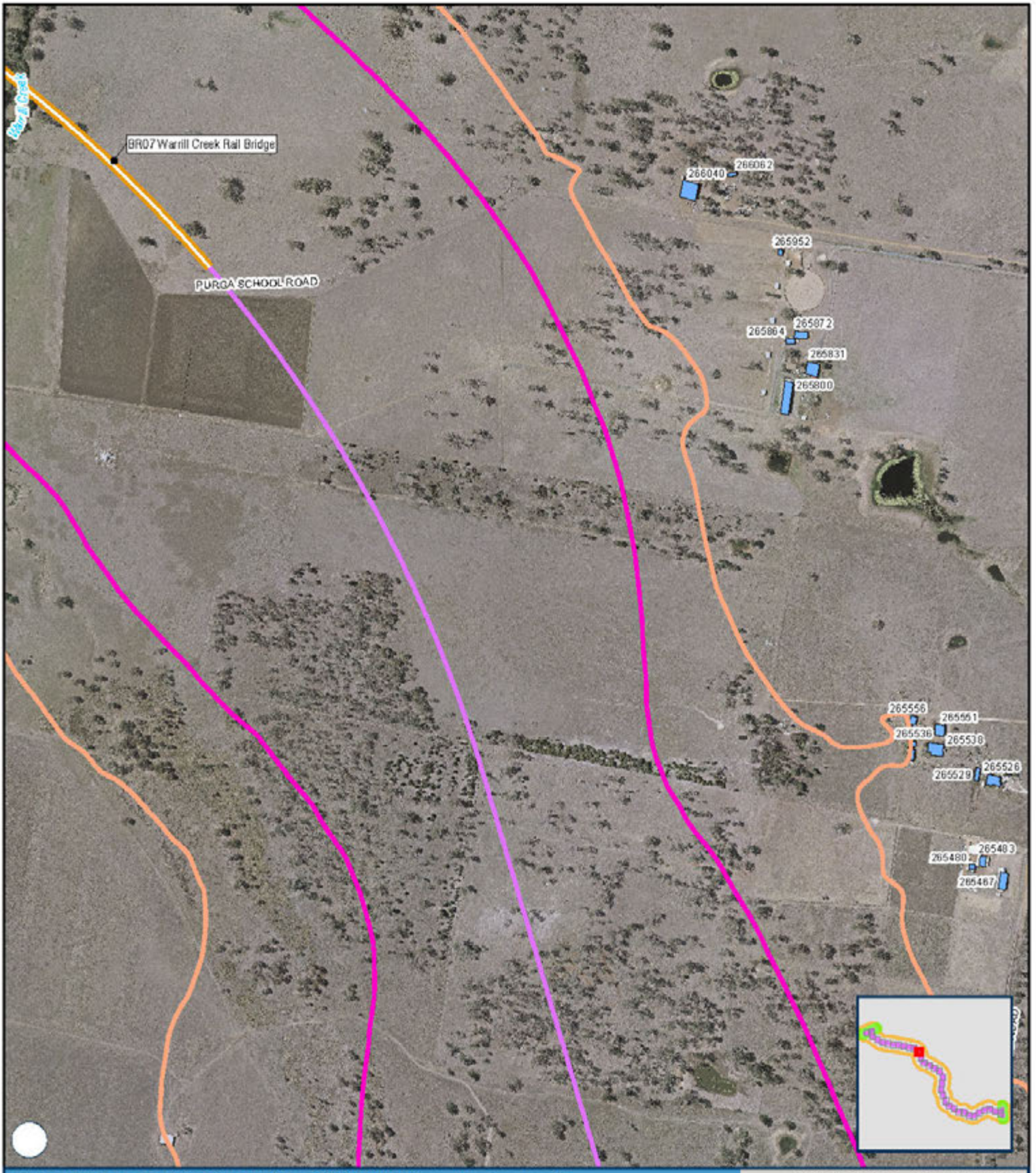
Service Layer Credits: Imagery ARTC 2015 and 2017



CALVERT TO KAGARU Year 2040 Night-time rail noise levels

APPENDIX E - Map 12 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 16-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
- Teviot Range Tunnel
- Noise Assessment Area – Upgrading Existing Railway

Noise contours are based on a set distance above the local terrain level of 2.4m.

- Night-time noise criteria LAeq 9hr 55dBA New rail corridor
- Night-time noise criteria LAeq 9hr 60dBA upgrading existing rail corridor
- Night-time noise criteria LA max 80dBA New rail corridor
- Night-time noise criteria LA max 85dBA upgrading existing rail corridor
- Receptors

ARTC InlandRail

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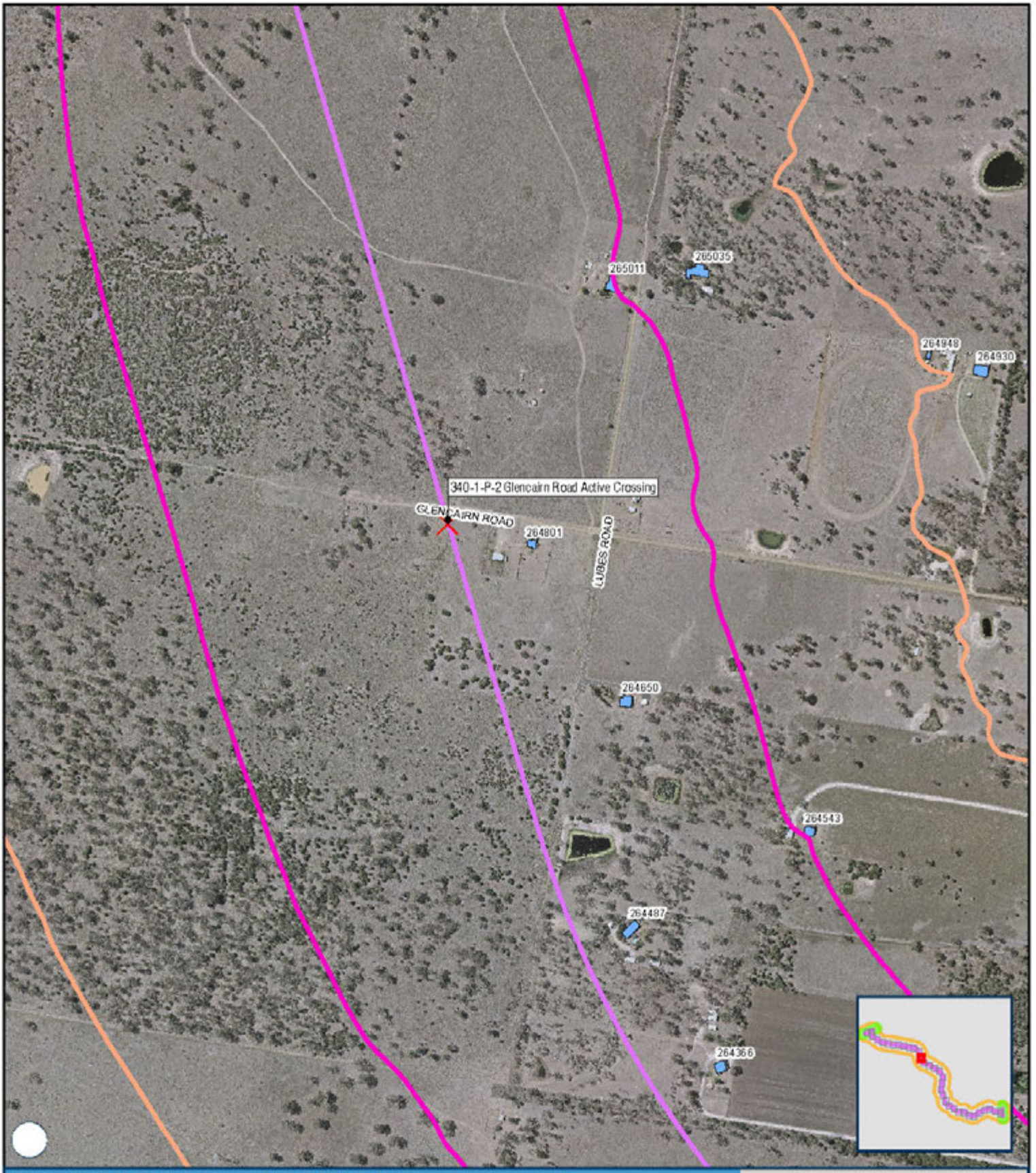
Service Layer Credits: Imagery ARTC 2015 and 2017



CALVERT TO KAGARU Year 2040 Night-time rail noise levels

APPENDIX E - Map 13 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 16-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
- Teviot Range Tunnel
- Noise Assessment Area – Upgrading Existing Railway

Noise contours are based on a set distance above the local terrain level of 2.4m.

- Night-time noise criteria LAeq 9hr 55dBA New rail corridor
- Night-time noise criteria LAeq 9hr 60dBA upgrading existing rail corridor
- Night-time noise criteria LA max 80dBA New rail corridor
- Night-time noise criteria LA max 85dBA upgrading existing rail corridor
- Receptors

ARTC InlandRail

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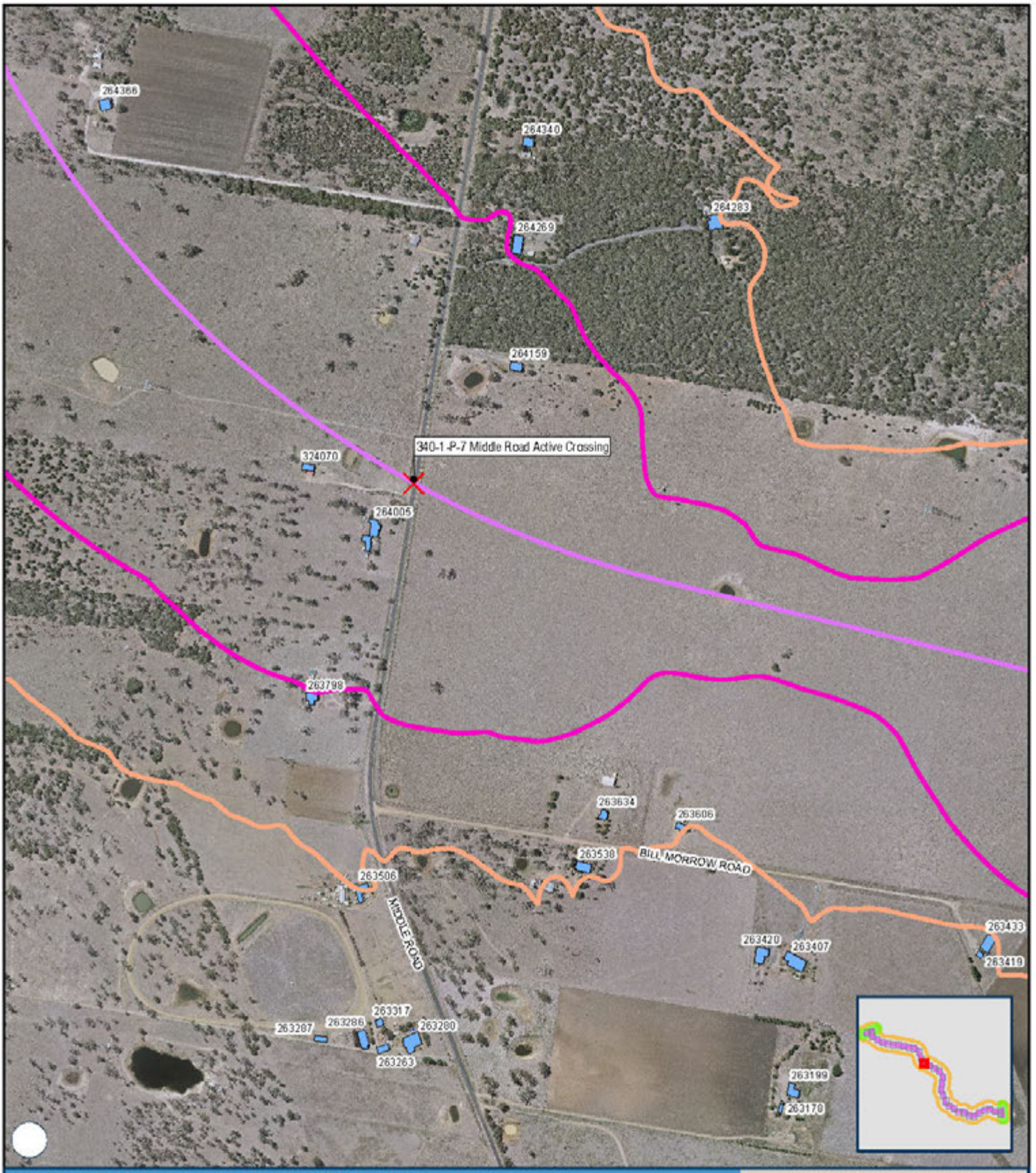
Service Layer Credits: Imagery ARTC 2015 and 2017



CALVERT TO KAGARU Year 2040 Night-time rail noise levels

APPENDIX E - Map 14 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 16-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
- Teviot Range Tunnel
- Noise Assessment Area – Upgrading Existing Railway

Noise contours are based on a set distance above the local terrain level of 2.4m.

- Night-time noise criteria LAeq 9hr 55dBA New rail corridor
- Night-time noise criteria LAeq 9hr 60dBA upgrading existing rail corridor
- Night-time noise criteria LA max 80dBA New rail corridor
- Night-time noise criteria LA max 85dBA upgrading existing rail corridor
- Receptors

ARTC InlandRail

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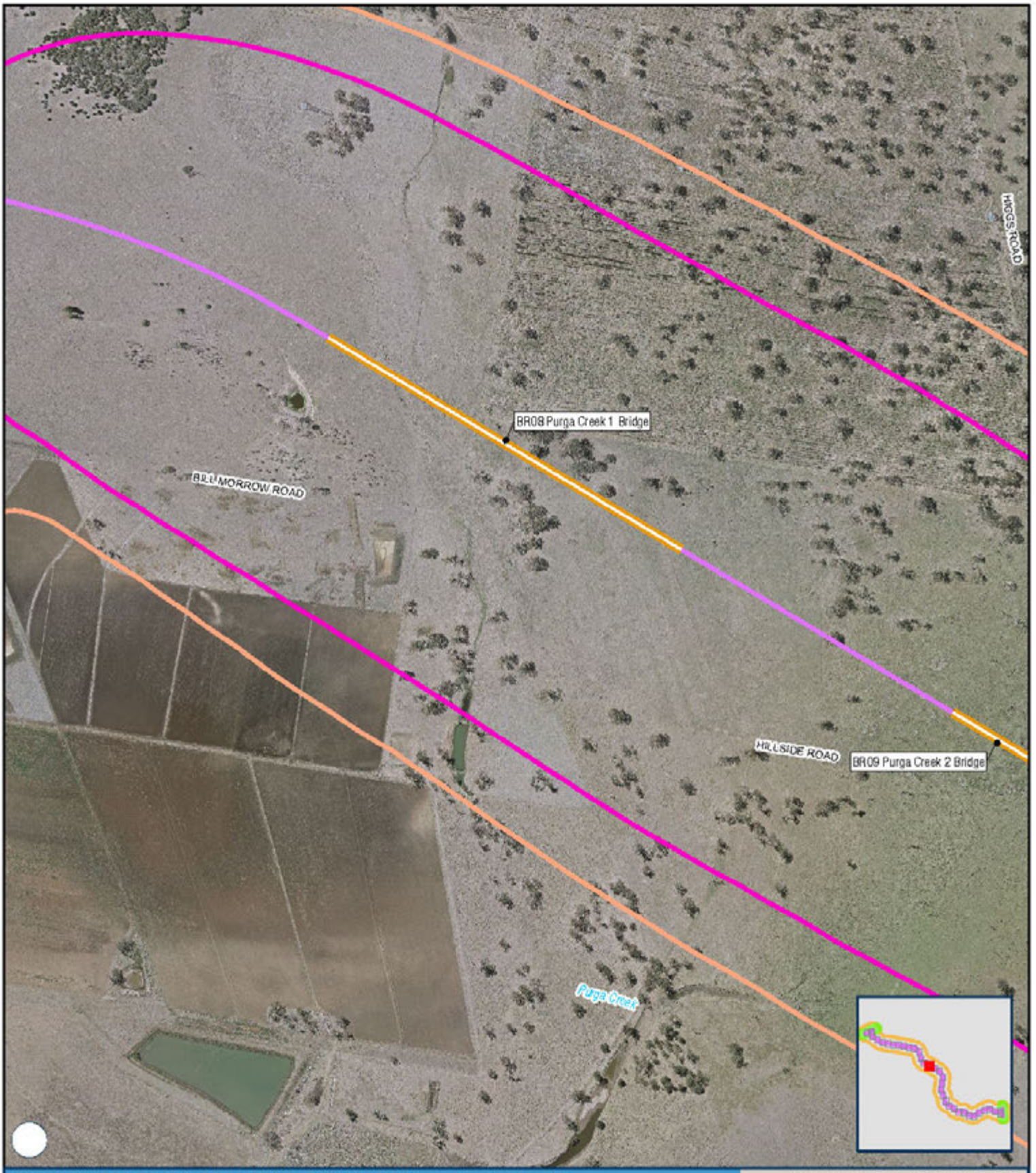
Service Layer Credits: Imagery ARTC 2015 and 2017



CALVERT TO KAGARU Year 2040 Night-time rail noise levels

APPENDIX E - Map 15 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 16-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
- Teviot Range Tunnel
- Noise Assessment Area – Upgrading Existing Railway

Noise contours are based on a set distance above the local terrain level of 2.4m.

- Night-time noise criteria LAeq 9hr 55dBA New rail corridor
- Night-time noise criteria LAeq 9hr 60dBA upgrading existing rail corridor
- Night-time noise criteria LA max 80dBA New rail corridor
- Night-time noise criteria LA max 85dBA upgrading existing rail corridor
- Receptors

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CALVERT TO KAGARU Year 2040 Night-time rail noise levels

APPENDIX E - Map 16 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 16-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
- Teviot Range Tunnel
- Noise Assessment Area – Upgrading Existing Railway

Noise contours are based on a set distance above the local terrain level of 2.4m.

- Night-time noise criteria LAeq 9hr 55dBA New rail corridor
- Night-time noise criteria LAeq 9hr 60dBA upgrading existing rail corridor
- Night-time noise criteria LA max 80dBA New rail corridor
- Night-time noise criteria LA max 85dBA upgrading existing rail corridor
- Receptors

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Service Layer Credits: Imagery ARTC 2015 and 2017

CALVERT TO KAGARU Year 2040 Night-time rail noise levels

APPENDIX E - Map 17 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 16-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
- Teviot Range Tunnel
- Noise Assessment Area – Upgrading Existing Railway

Noise contours are based on a set distance above the local terrain level of 2.4m.

- Night-time noise criteria LAeq 9hr 55dBA New rail corridor
- Night-time noise criteria LAeq 9hr 60dBA upgrading existing rail corridor
- Night-time noise criteria LA max 80dBA New rail corridor
- Night-time noise criteria LA max 85dBA upgrading existing rail corridor
- Receptors

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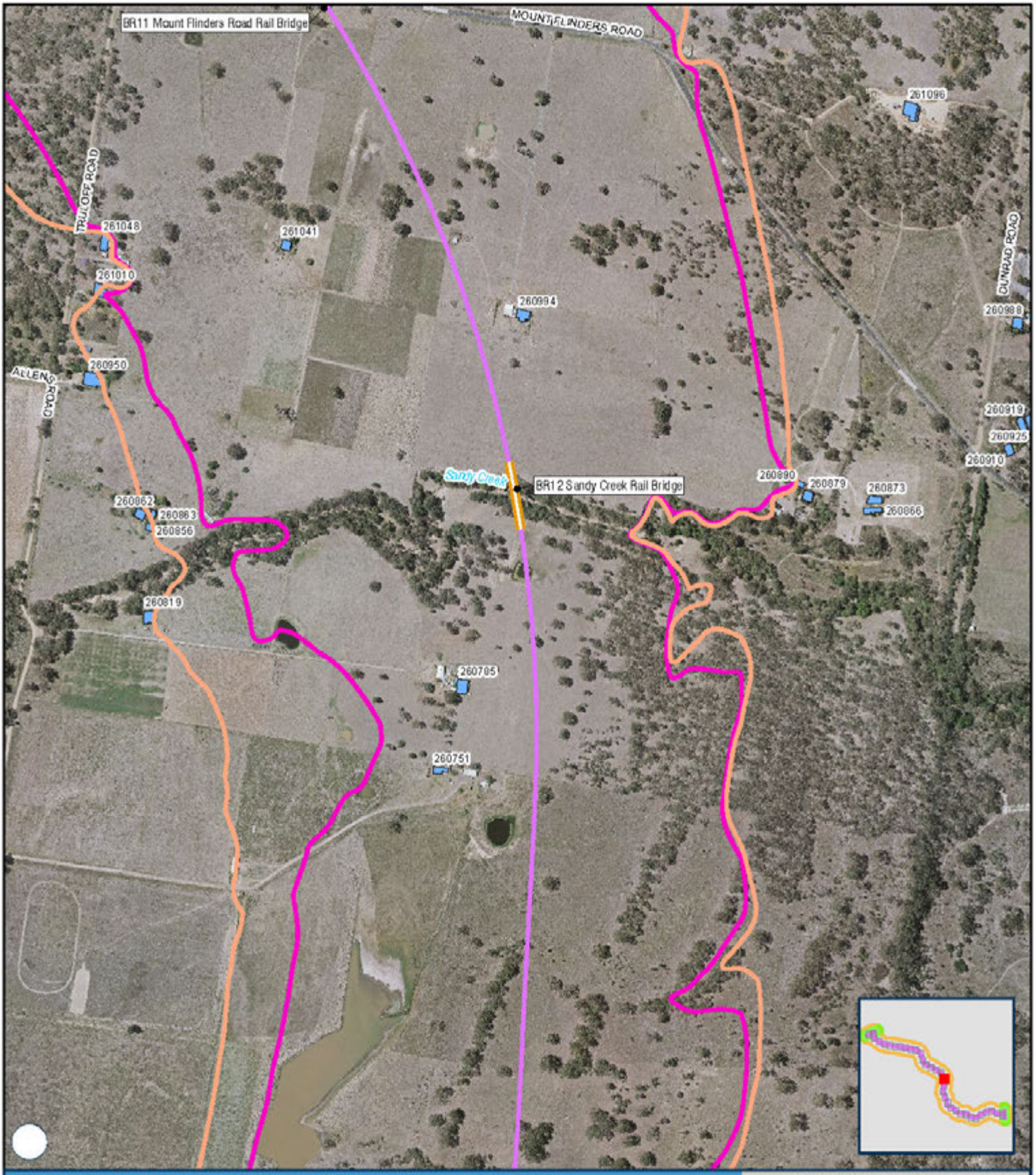
Service Layer Credits: Imagery ARTC 2015 and 2017



CALVERT TO KAGARU Year 2040 Night-time rail noise levels

APPENDIX E - Map 18 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 16-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
- Teviot Range Tunnel
- Noise Assessment Area – Upgrading Existing Railway

Noise contours are based on a set distance above the local terrain level of 2.4m.

- Night-time noise criteria LAeq 9hr 55dBA New rail corridor
- Night-time noise criteria LAeq 9hr 60dBA upgrading existing rail corridor
- Night-time noise criteria LA max 80dBA New rail corridor
- Night-time noise criteria LA max 85dBA upgrading existing rail corridor
- Receptors

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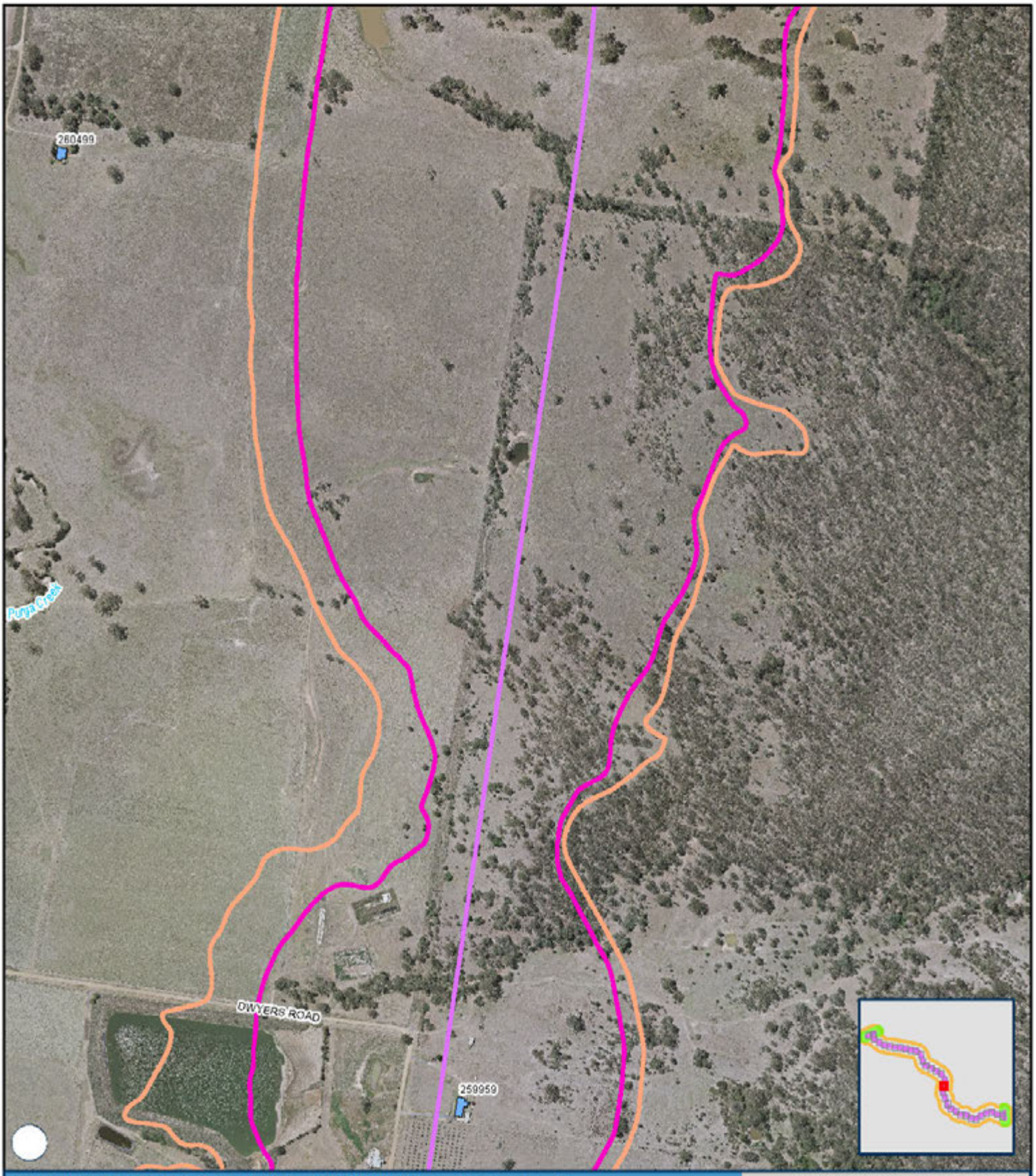
Service Layer Credits: Imagery ARTC 2015 and 2017



CALVERT TO KAGARU Year 2040 Night-time rail noise levels

APPENDIX E - Map 19 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 16-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
- Teviot Range Tunnel
- Noise Assessment Area – Upgrading Existing Railway

Noise contours are based on a set distance above the local terrain level of 2.4m.

- Night-time noise criteria LAeq 9hr 55dBA New rail corridor
- Night-time noise criteria LAeq 9hr 60dBA upgrading existing rail corridor
- Night-time noise criteria LA max 80dBA New rail corridor
- Night-time noise criteria LA max 85dBA upgrading existing rail corridor
- Receptors

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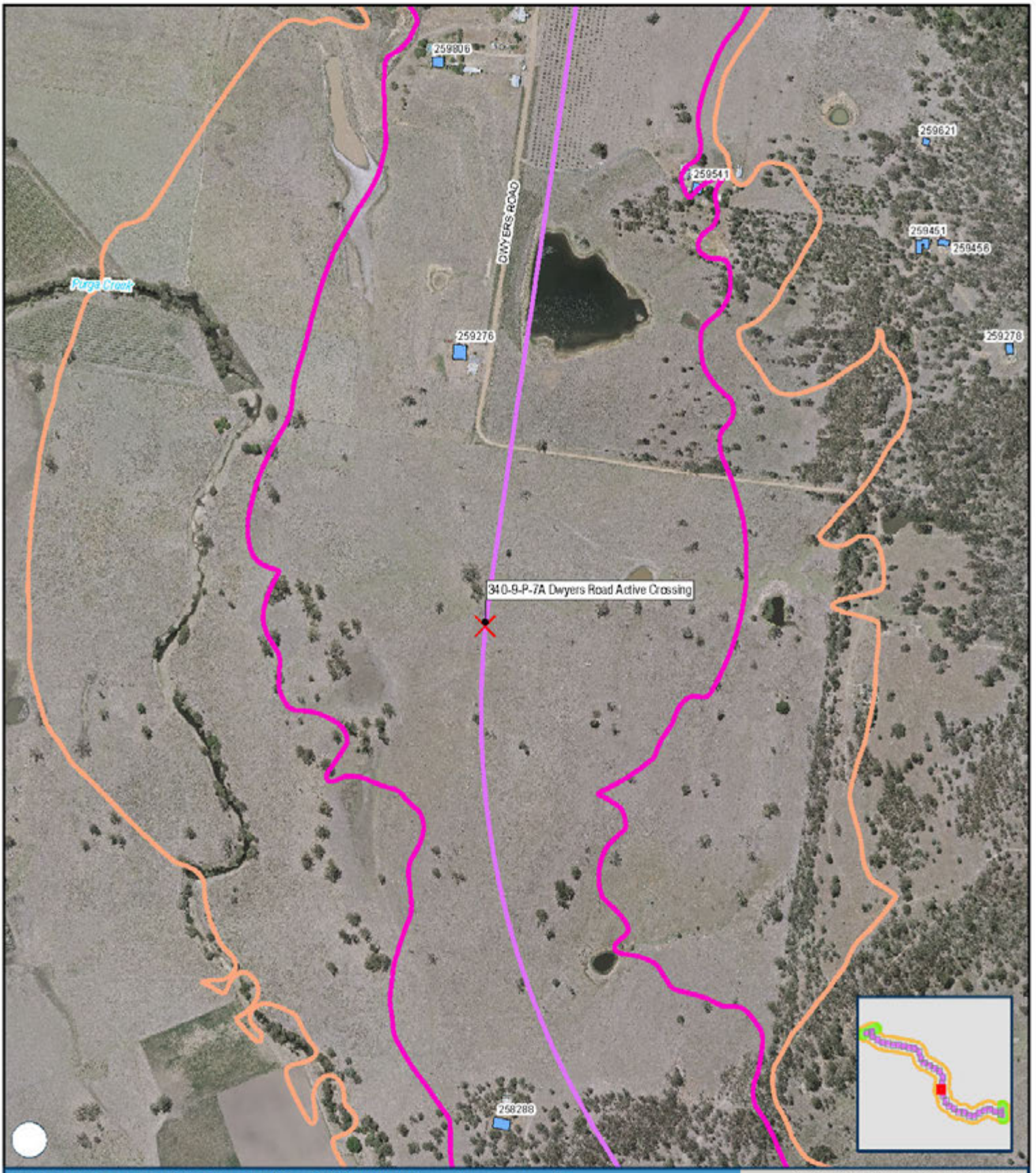
Service Layer Credits: Imagery ARTC 2015 and 2017



CALVERT TO KAGARU Year 2040 Night-time rail noise levels

APPENDIX E - Map 20 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 16-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
- Teviot Range Tunnel
- Noise Assessment Area – Upgrading Existing Railway

Noise contours are based on a set distance above the local terrain level of 2.4m.

- Night-time noise criteria LAeq 9hr 55dBA New rail corridor
- Night-time noise criteria LAeq 9hr 60dBA upgrading existing rail corridor
- Night-time noise criteria LA max 80dBA New rail corridor
- Night-time noise criteria LA max 85dBA upgrading existing rail corridor
- Receptors

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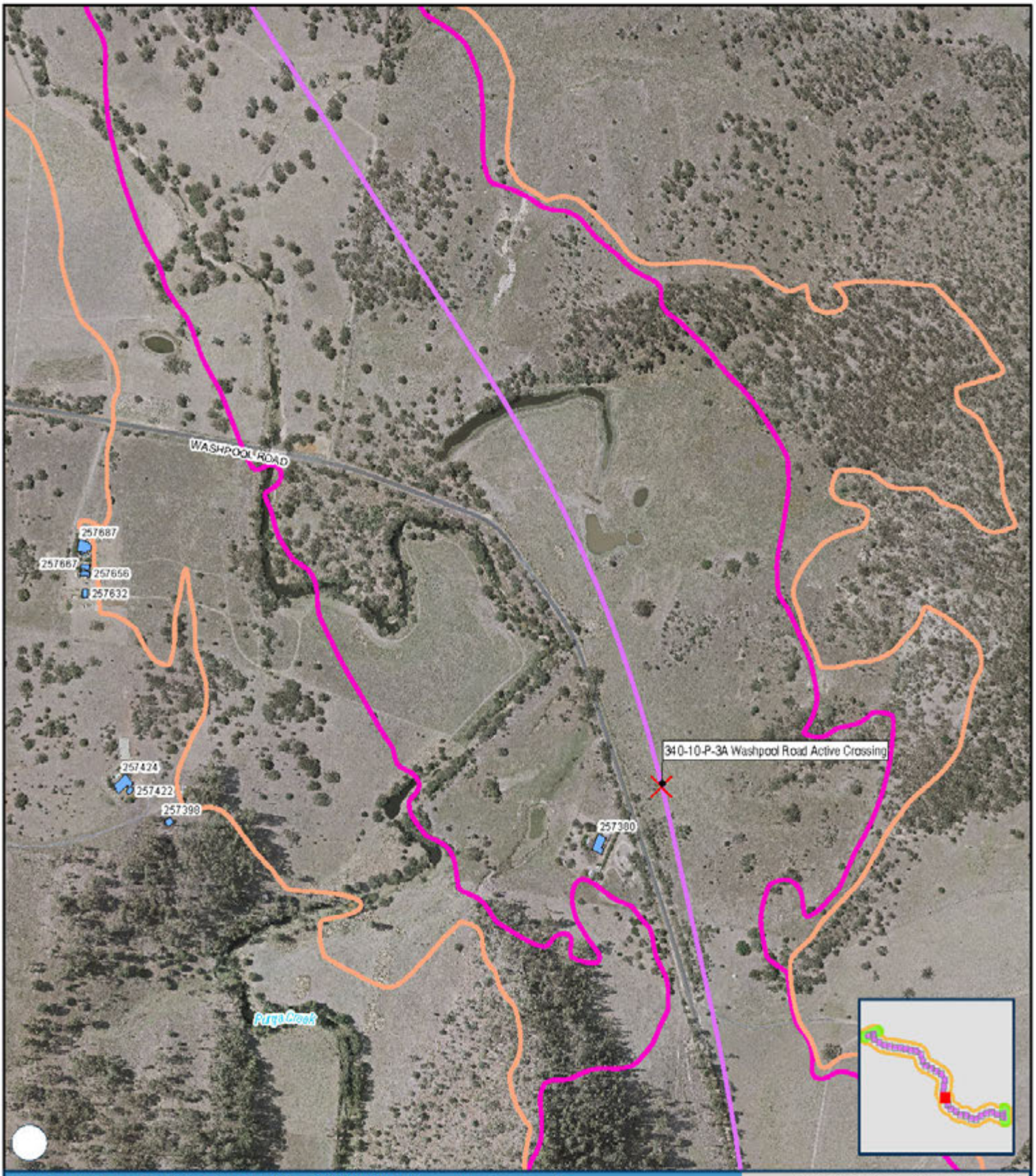
Service Layer Credits: Imagery ARTC 2015 and 2017



CALVERT TO KAGARU Year 2040 Night-time rail noise levels

APPENDIX E - Map 21 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 16-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
- Teviot Range Tunnel
- Noise Assessment Area – Upgrading Existing Railway

Noise contours are based on a set distance above the local terrain level of 2.4m.

- Night-time noise criteria LAeq 9hr 55dBA New rail corridor
- Night-time noise criteria LAeq 9hr 60dBA upgrading existing rail corridor
- Night-time noise criteria LA max 80dBA New rail corridor
- Night-time noise criteria LA max 85dBA upgrading existing rail corridor
- Receptors

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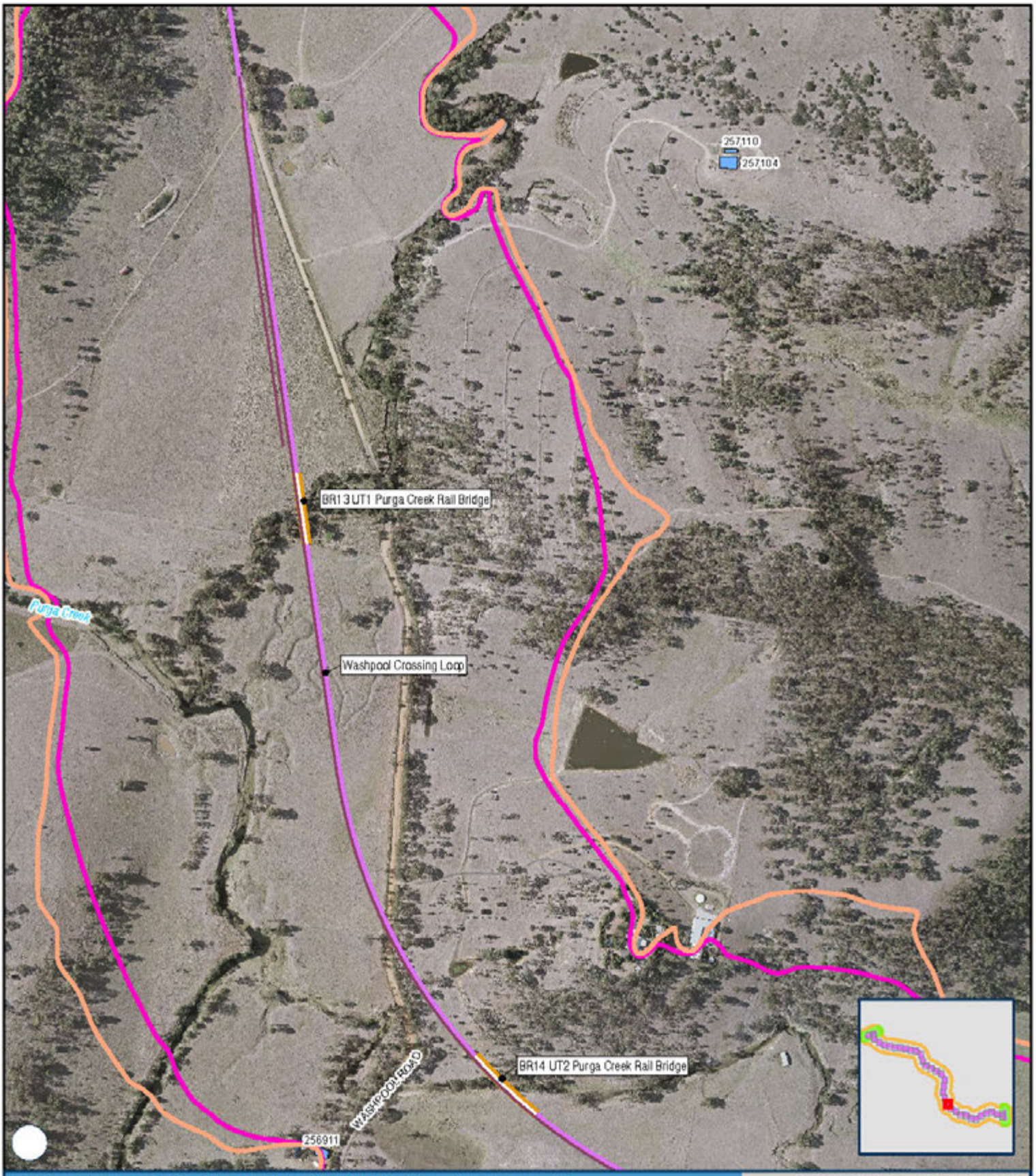
Service Layer Credits: Imagery ARTC 2015 and 2017



CALVERT TO KAGARU Year 2040 Night-time rail noise levels

APPENDIX E - Map 22 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 16-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
- Teviot Range Tunnel
- Noise Assessment Area – Upgrading Existing Railway

Noise contours are based on a set distance above the local terrain level of 2.4m.

- Night-time noise criteria LAeq 9hr 55dBA New rail corridor
- Night-time noise criteria LAeq 9hr 60dBA upgrading existing rail corridor
- Night-time noise criteria LA max 80dBA New rail corridor
- Night-time noise criteria LA max 85dBA upgrading existing rail corridor
- Receptors

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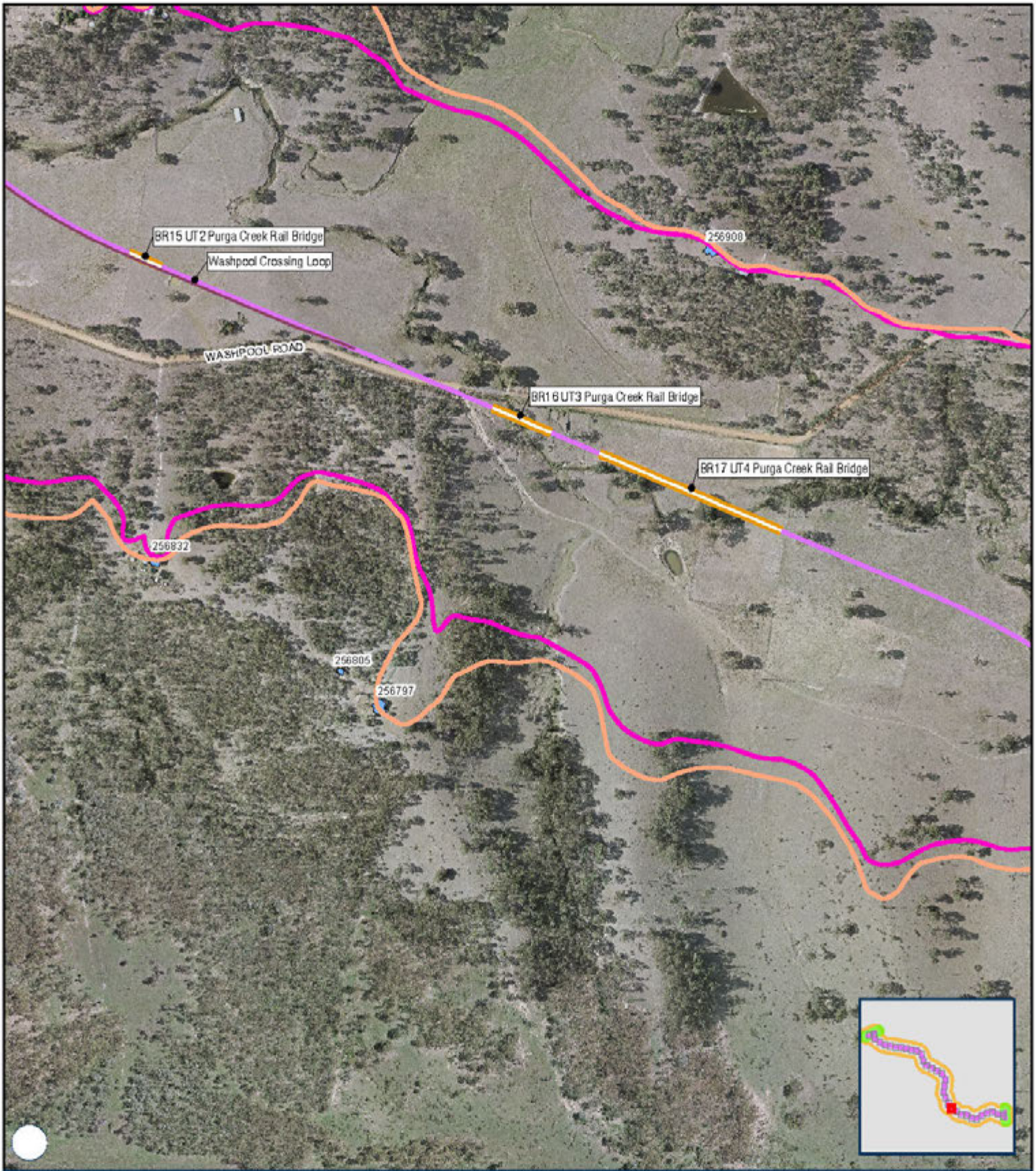
Service Layer Credits: Imagery ARTC 2015 and 2017



CALVERT TO KAGARU Year 2040 Night-time rail noise levels

APPENDIX E - Map 23 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 16-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
- Teviot Range Tunnel
- Noise Assessment Area – Upgrading Existing Railway

Noise contours are based on a set distance above the local terrain level of 2.4m.

- Night-time noise criteria LAeq 9hr 55dBA New rail corridor
- Night-time noise criteria LAeq 9hr 60dBA upgrading existing rail corridor
- Night-time noise criteria LA max 80dBA New rail corridor
- Night-time noise criteria LA max 85dBA upgrading existing rail corridor
- Receptors

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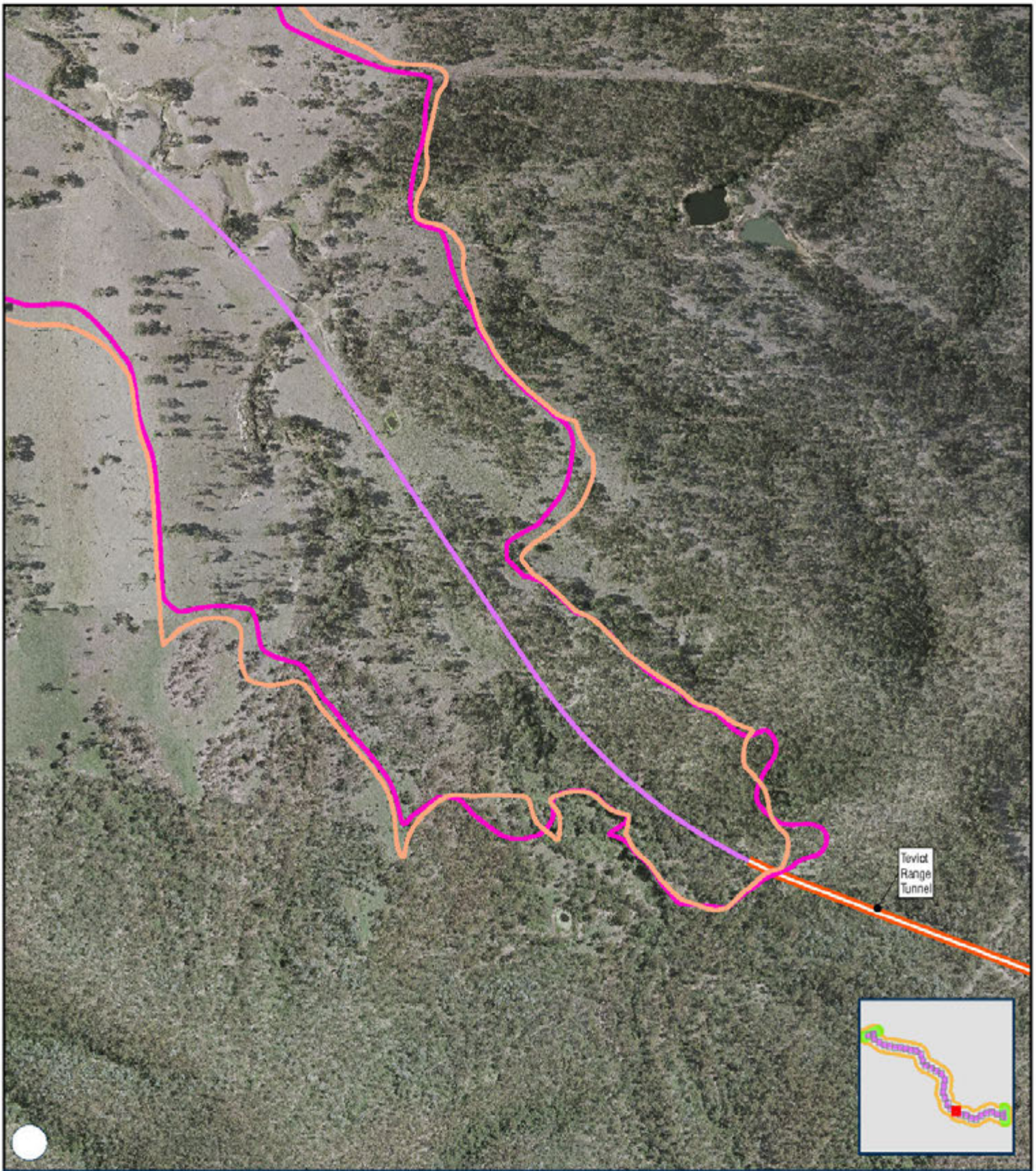
Service Layer Credits: Imagery ARTC 2015 and 2017



CALVERT TO KAGARU Year 2040 Night-time rail noise levels

APPENDIX E - Map 24 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 16-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
- Teviot Range Tunnel
- Noise Assessment Area – Upgrading Existing Railway

Noise contours are based on a set distance above the local terrain level of 2.4m.

- Night-time noise criteria LAeq 9hr 55dBA New rail corridor
- Night-time noise criteria LAeq 9hr 60dBA upgrading existing rail corridor
- Night-time noise criteria LA max 80dBA New rail corridor
- Night-time noise criteria LA max 85dBA upgrading existing rail corridor
- Receptors

ARTC InlandRail

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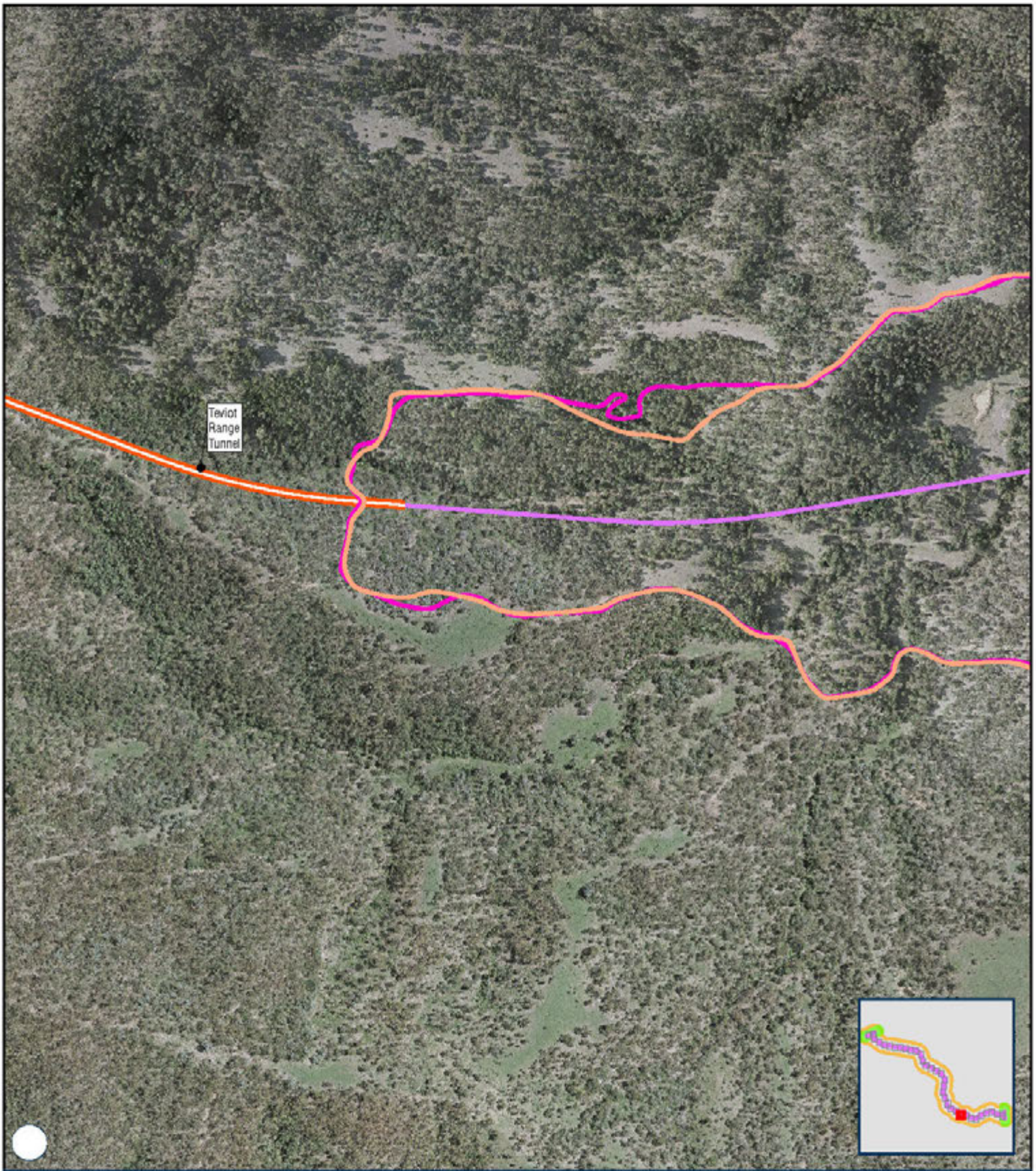
Service Layer Credits: Imagery ARTC 2015 and 2017



CALVERT TO KAGARU Year 2040 Night-time rail noise levels

APPENDIX E - Map 25 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 16-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
- Teviot Range Tunnel
- Noise Assessment Area – Upgrading Existing Railway

Noise contours are based on a set distance above the local terrain level of 2.4m.

- Night-time noise criteria LAeq 9hr 55dBA New rail corridor
- Night-time noise criteria LAeq 9hr 60dBA upgrading existing rail corridor
- Night-time noise criteria LA max 80dBA New rail corridor
- Night-time noise criteria LA max 85dBA upgrading existing rail corridor
- Receptors

ARTC InlandRail

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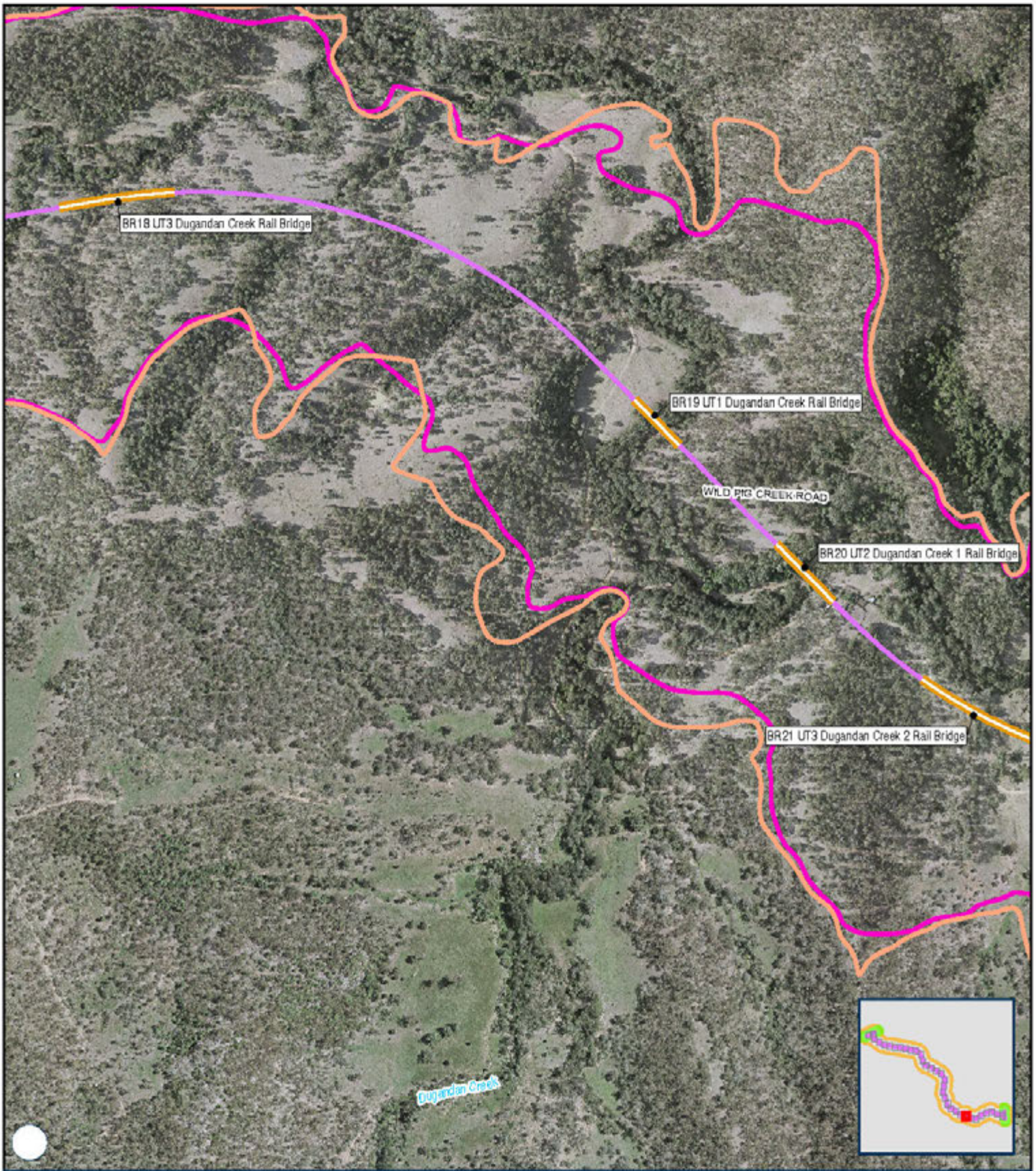
Service Layer Credits: Imagery ARTC 2015 and 2017



CALVERT TO KAGARU Year 2040 Night-time rail noise levels

APPENDIX E - Map 26 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 16-Mar-2020
Author: JG

- Level Crossings
- Project Extent
- Crossing Loops
- Rail Alignment/Centreline
- Bridges and Viaducts
- Teviot Range Tunnel
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ARTC InlandRail

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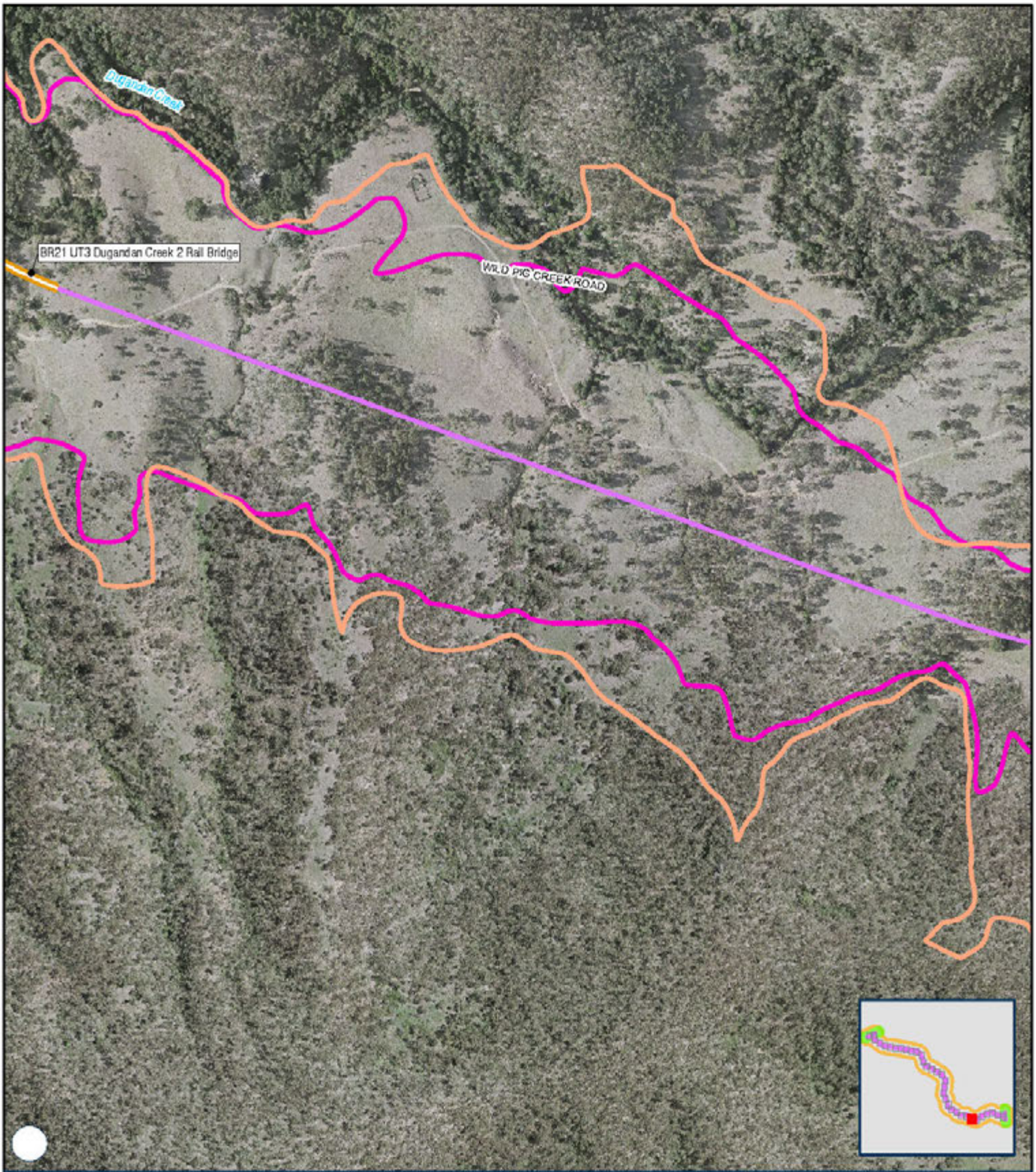
Service Layer Credits: Imagery ARTC 2015 and 2017



CALVERT TO KAGARU Year 2040 Night-time rail noise levels

APPENDIX E - Map 27 of 34

200 m

Coordinate System: GDA 1994 MGA Zone 56

Paper: A4 Scale: 1:7,500
Date: 16-Mar-2020
Author: JG

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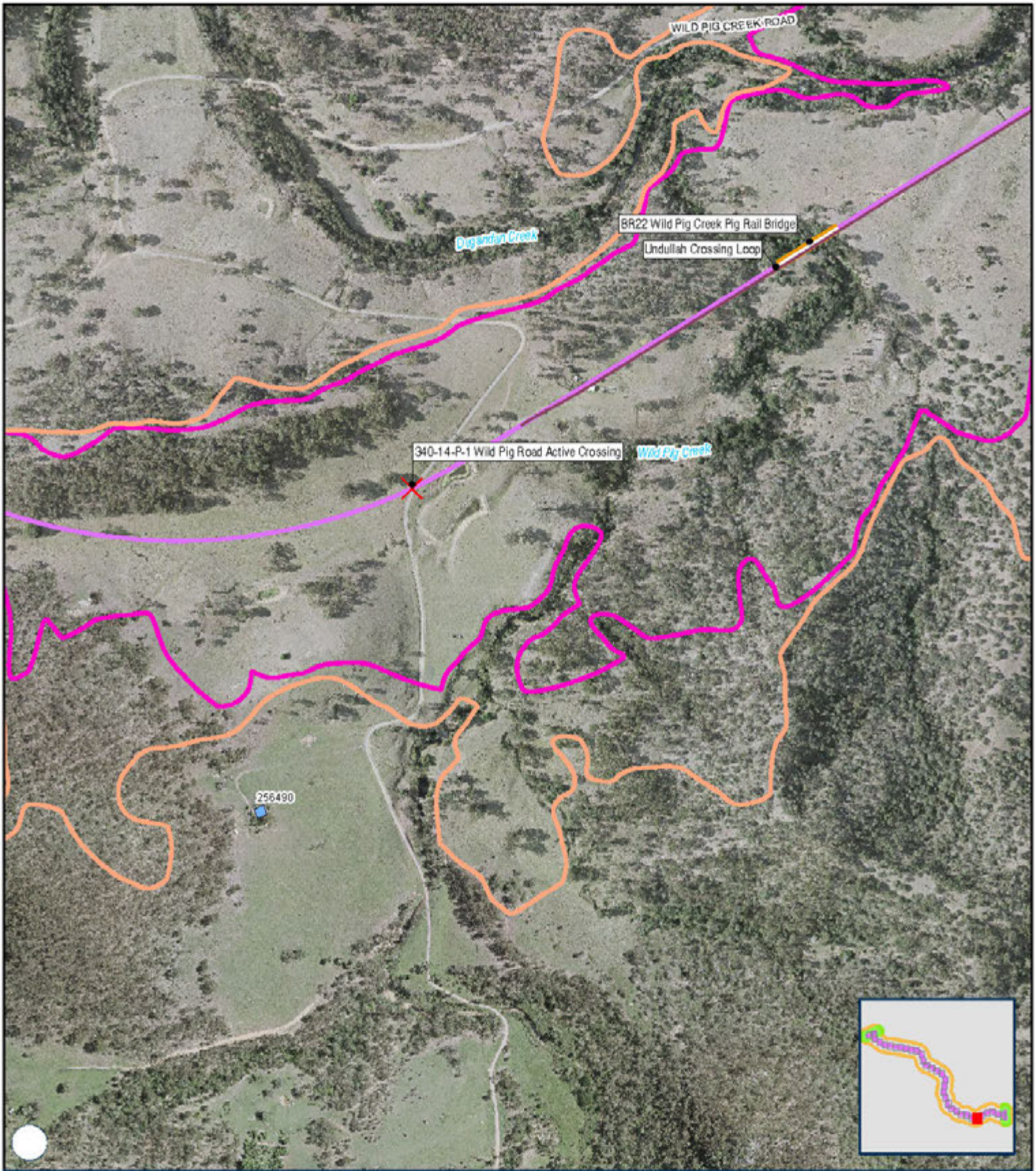

CALVERT TO KAGARU Year 2040 Night-time rail noise levels

APPENDIX E - Map 28 of 34

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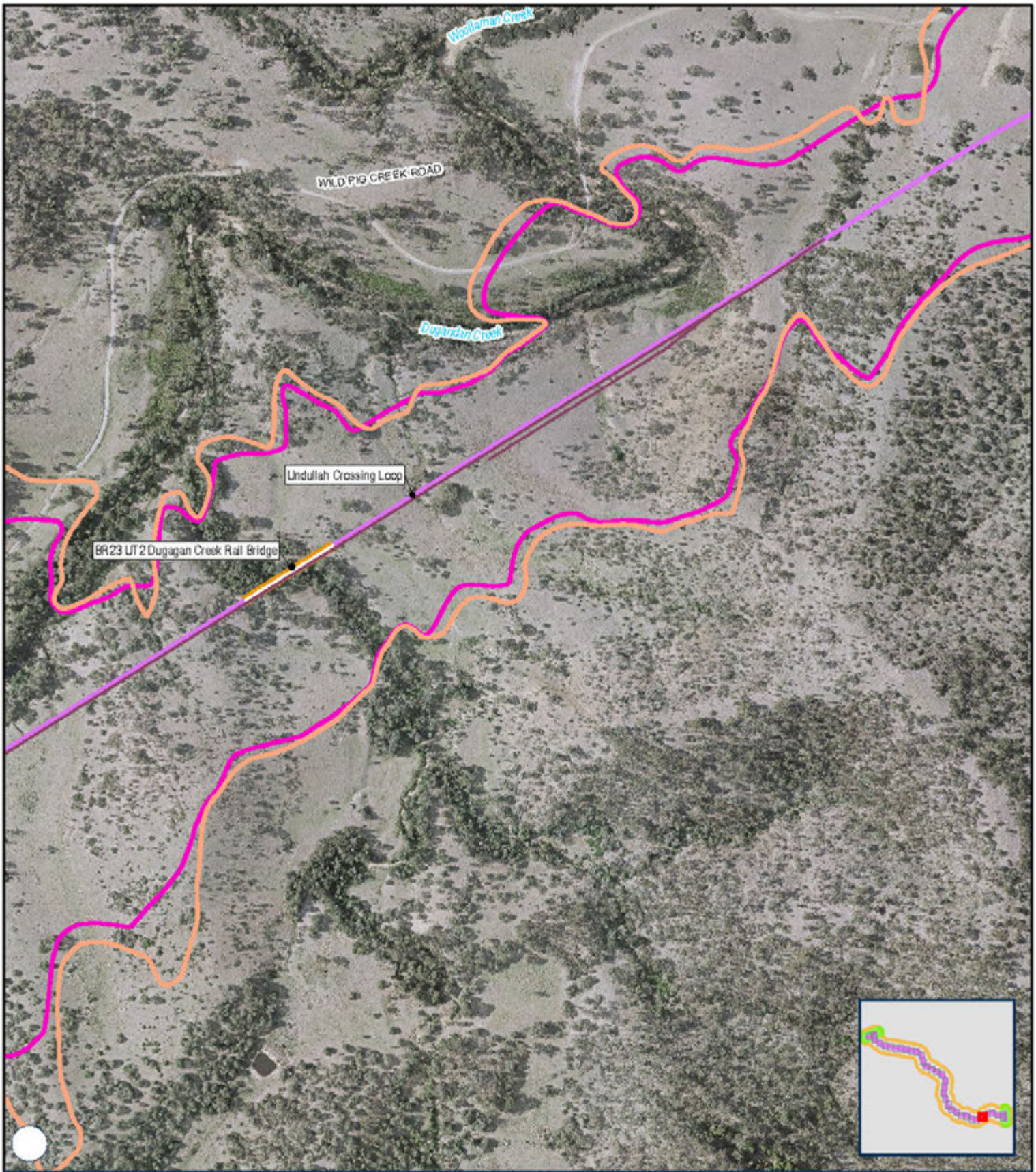

CALVERT TO KAGARU Year 2040 Night-time rail noise levels

APPENDIX E - Map 29 of 34

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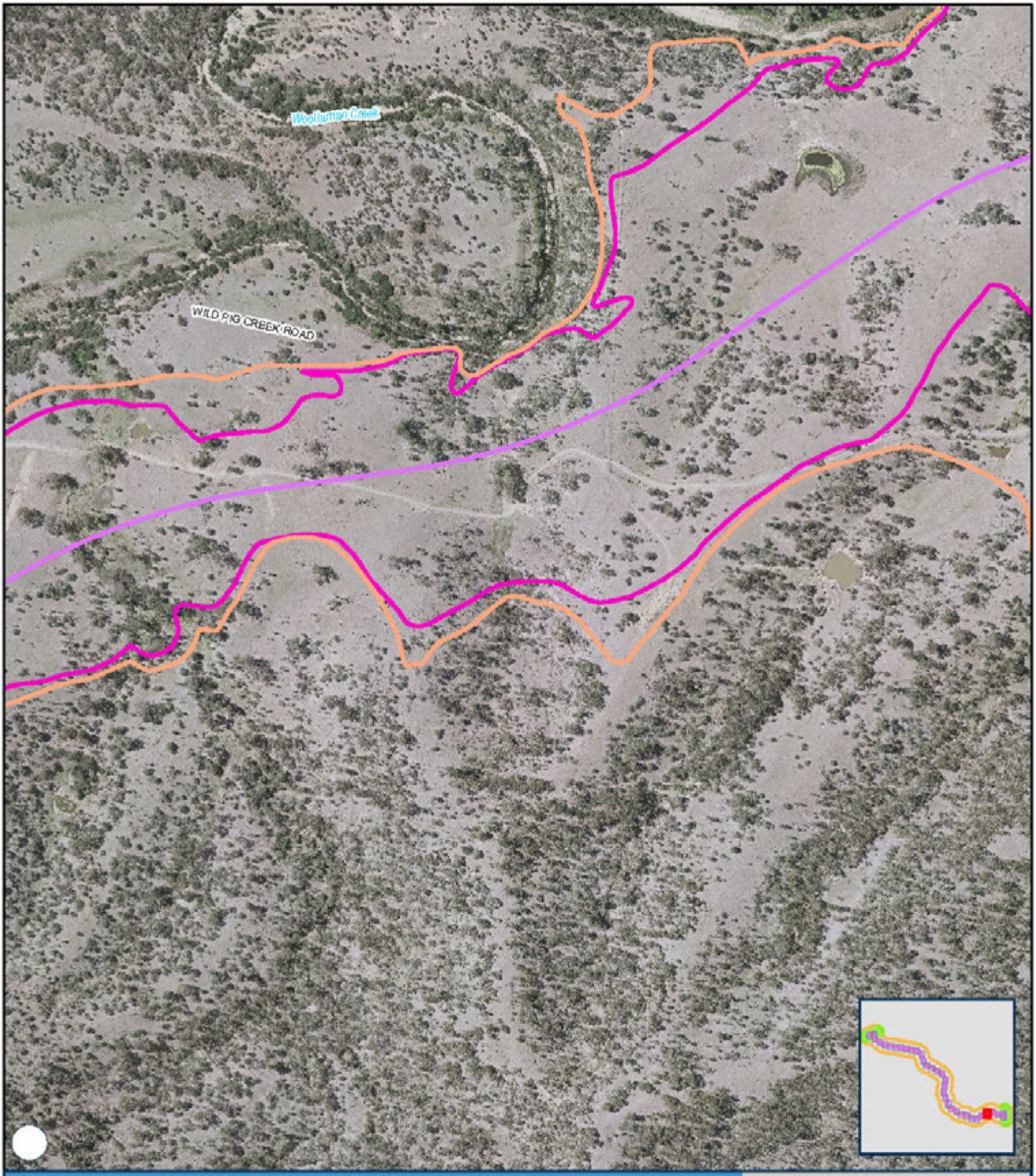

CALVERT TO KAGARU Year 2040 Night-time rail noise levels

APPENDIX E - Map 30 of 34

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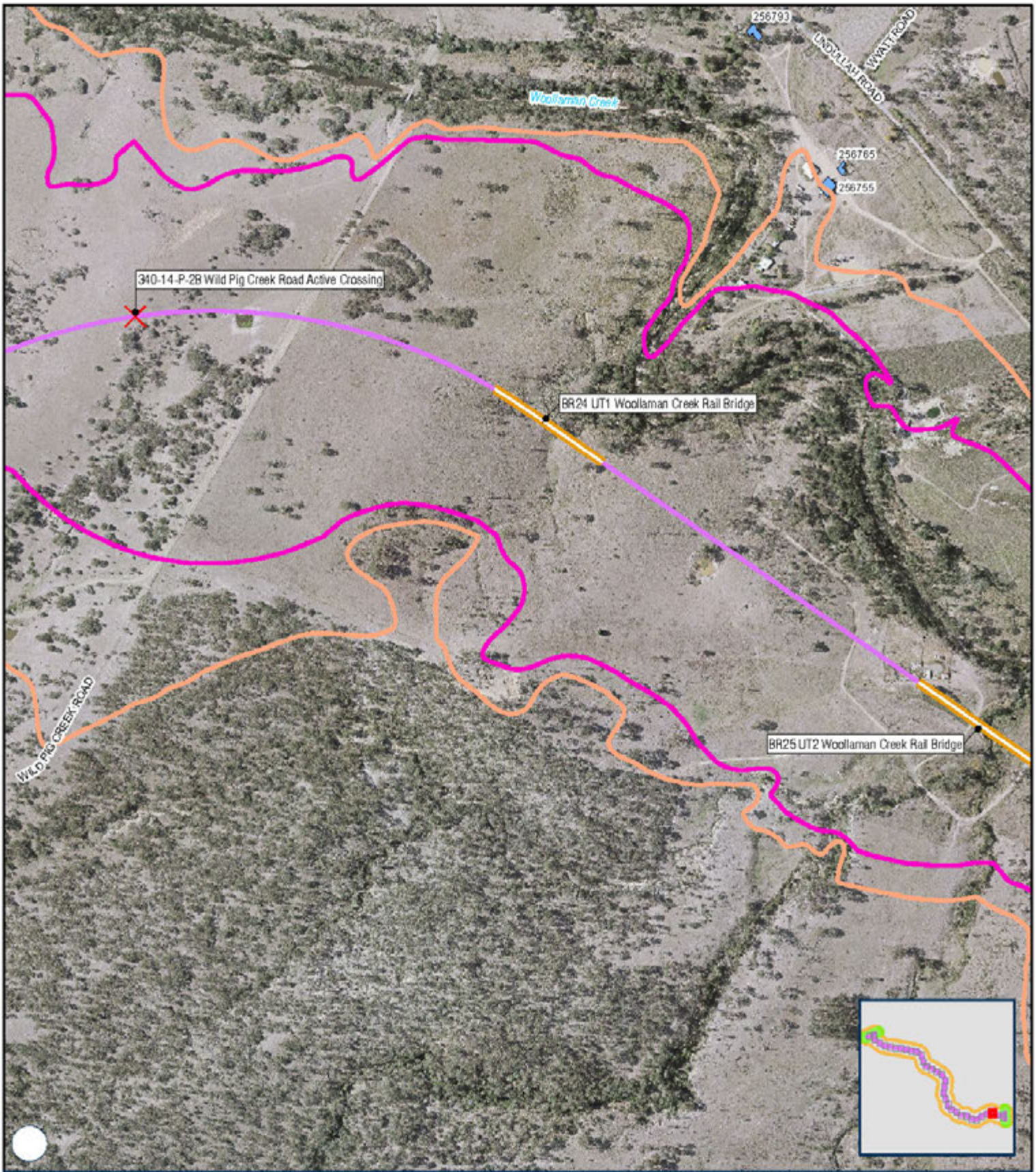

CALVERT TO KAGARU Year 2040 Night-time rail noise levels

APPENDIX E - Map 31 of 34

200 m

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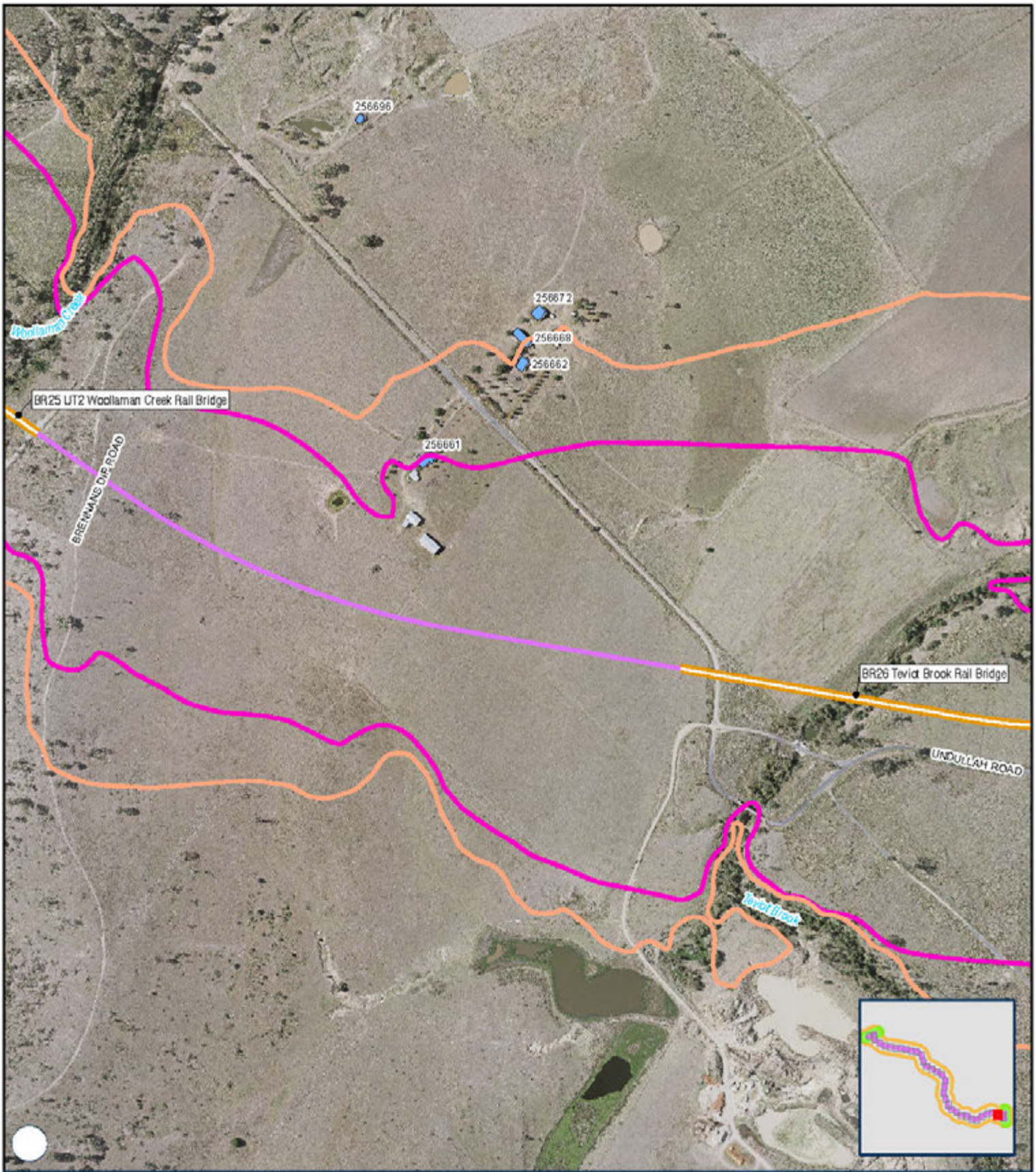

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APPENDIX E - Map 32 of 34

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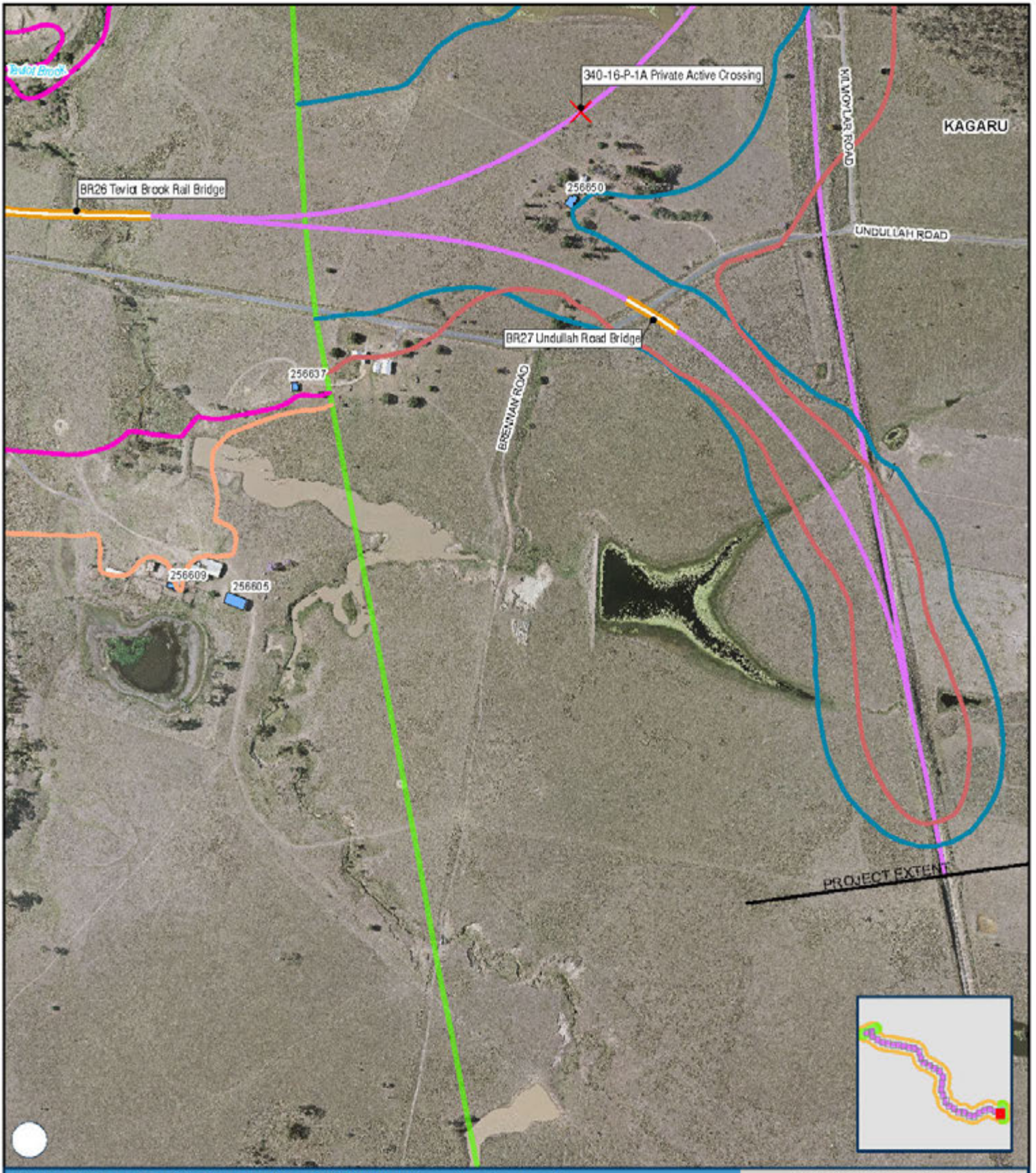

CALVERT TO KAGARU Year 2040 Night-time rail noise levels

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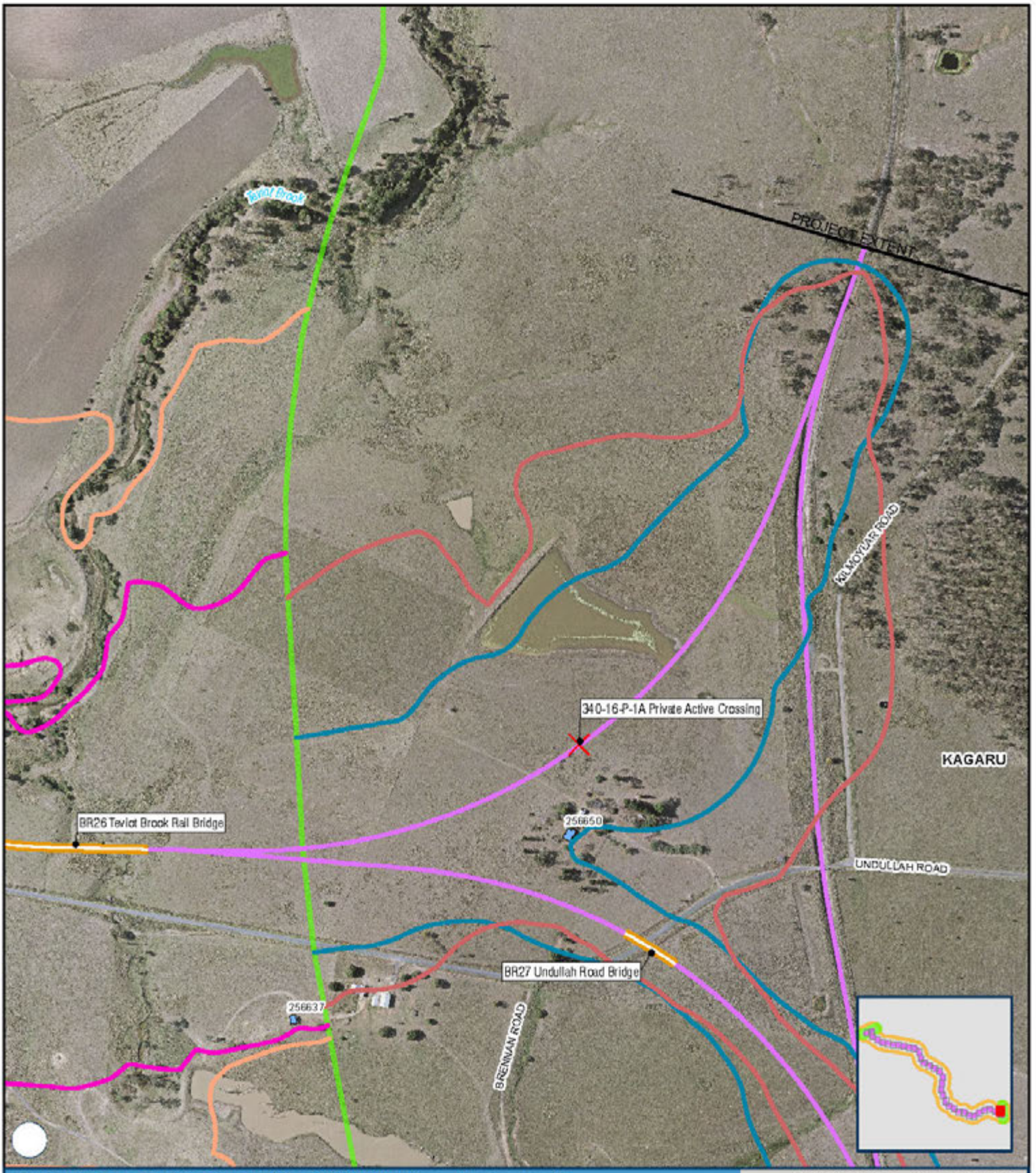

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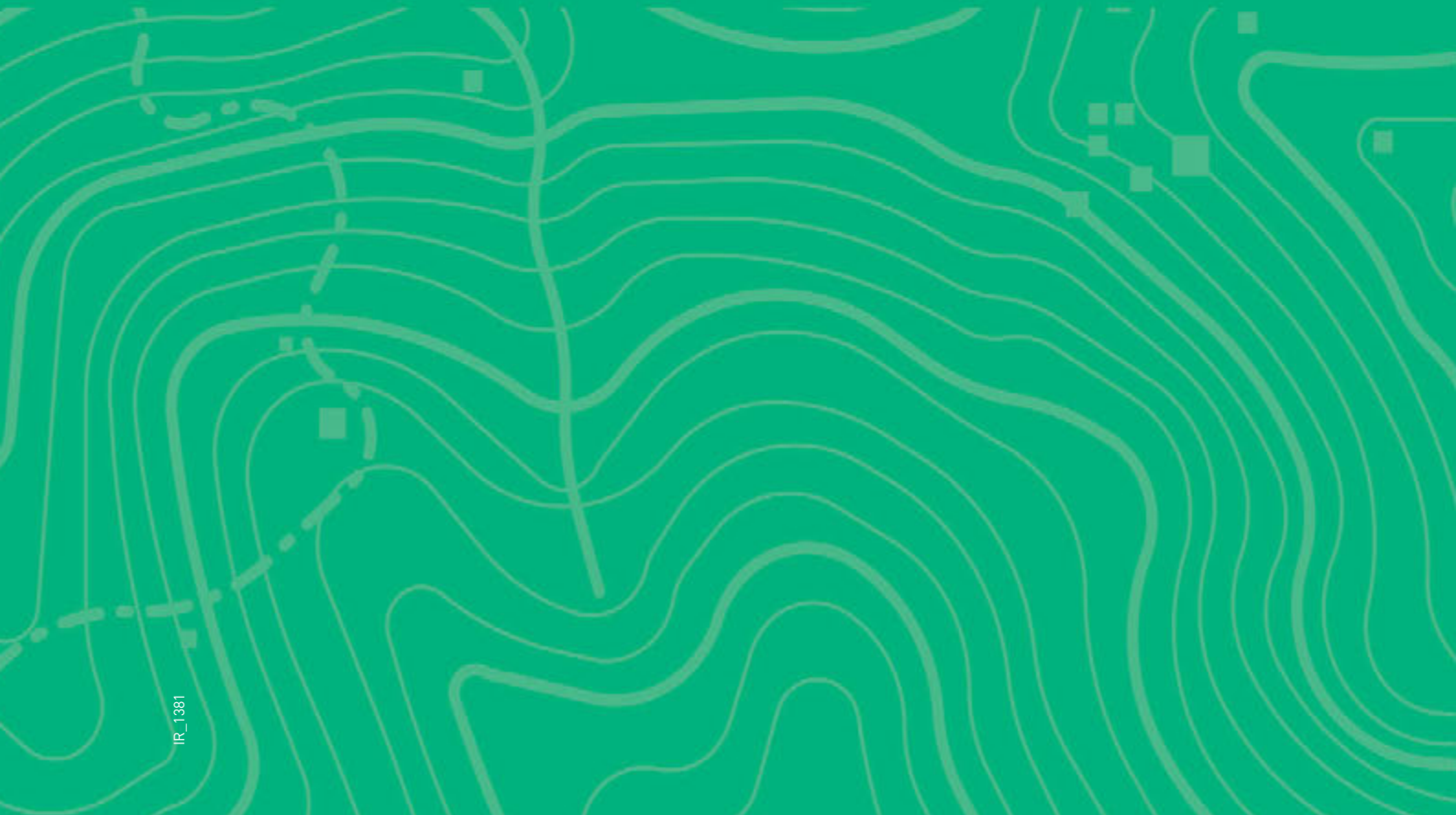
APPENDIX Q

Operational Noise and Vibration Technical Report

Appendix F Basis of assessment—ground-borne noise and vibration in tunnel

CALVERT TO KAGARU ENVIRONMENTAL IMPACT STATEMENT



IR_1381

Aspect	Parameter	Approach	Rationale, validation
General	Criteria	Refer **Table 13** and **Table 15**	Detailed study where triggered.
	Teviot Range Tunnel	61,830 to 62,680 km	Design and constructability reports for the tunnel.
	Track alignment	As provided to date	-
	Locations of turnouts and track features	No turnouts or local track features within tunnels which could modify source levels	-
Operations	Number of train movements and mix	Refer **Table 21** and **Table 22**	No changes from current design.
	Speed profile	Refer **Section 6.2.2**	Not signal or max speed
Construction	Track type vs kilometrage	Tunnel: 100% track slab, Rheda2000 bibloc sleepers @ 650 mm centres. Portal approaches: ballasted, AS60kg on concrete monobloc sleepers @ 600 mm centres, 250-500 mm ballast	Design and constructability reports for the tunnel. No hard / HDPE pads – rail supports modelled as per 'Track dynamics' below
	Tunnel cross section (diameter and thickness of extrados)	As provided to date	Design and constructability reports for the tunnel.
	Tunnel linings	300 mm steel fibre reinforced 40 MPa concrete	No changes from current design
	Tunnel coupling loss to ground soil	0 dB	Conservative
	Options for locating sound absorptive materials	None	-
Vehicle dynamics	General details, length, axle loads etc.	As provided to date	-
	Wheel condition	'K' block equivalent. No influence of wheel flats / defects	Specification not provided
Track dynamics	Rail type	AS60kg	-
	Vertical dynamic stiffness of slab track	20 MN/m	Vossloh 300NG series highly resilient rail fastener (cellentic intermediate plate with 17 MN/m (mega Newton per metre) static stiffness, 1.1 dynamic to static stiffness ratio). Minor allowance for ageing/creep.
	Vertical dynamic stiffness of ballast track	1000 MN/m	800 MN/m static modelled in Design and constructability reports for the tunnel.
	Rail condition	ISO 3095	In lieu of suitable field data
	Variation in stiffness over time	Modelled levels are upper limit actual.	Stiffness values can increase with ageing over time, reducing isolation performance.
Source noise and vibration emissions	Base vibration overall level, ballasted track on grade, 10 mm HPDE rail pad, 5th percentile (L_5)	**Section 11.2**	SLR field measurements

Aspect	Parameter	Approach	Rationale, validation
	Base vibration spectra, track slab in tunnel, represent tunnel invert position, 5th percentile (L_5)	**Section 11.2** (Based on ballasted track on grade less 5 dB)	Federal Transit Administration 2006, Transit Noise and Vibration Impact Assessment, ("FTA Guidelines") Report FTA-VA-90-1003-06.
	Base vibration spectra, slab track in tunnel, for softer rail pads	Adjusted based on single degree of freedom (SDOF) model, using differences in trackform stiffness and sleeper spacings as relevant.	Note some trackforms with secondary resilient elements require a multi-degree of freedom (MDOF) model
Environmental factors	Ground contour lines / elevation data outside the rail corridor	As provided	Ground terrain outside the rail corridor will not change.
	Ground contours / dive structures within rail corridor	As provided	-
	Vibration correction for curved track less than 500 m radius but more than 300 m radius	None / not applicable	-
	Vibration correction for curved track less than 300 m radius	None / not applicable	-
	Vibration Correction for swing frog / nose crossing (SNX), per	+6 dB over 15 m	-
	Vibration Correction for fixed frog crossing (FFX), per	+10 dB over 15 m	-
	Traffic volumes	As provided	-
	Design margin	0-1 dB	Not including uncertainty
	Ground soil types and layering	Sandstone principally Isotropic, homogeneous	-
	Propagation model	'1.5D' using 3D distance between nearest building foundation and 5 metre rail segments	Industry standard approach
	Ground vibration propagation losses	Excess attenuation based on 3D distance	Isotropic, homogenous media. No effects of stratification/ layering/ water table..
	Adjustments for coupling losses into buildings	None	FTA industry guideline advice for acoustics.
	Vibration losses between floors	None	
	Floor amplification values	None	
	Key assumptions	Airborne noise coupling into tunnel insignificant	
	Design margin	U_{90} to be developed	Industry standard approach where knowledge of ground conditions is limited.