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05 References

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Date: 16.02.2012 Revision_A

NOTES:

- _Review completed via a desktop analysis from air photo overlaid on AutoCAD road alignment drawing
- _Noted distances are from upgrade centreline
- _Buildings inside construction boundary are excluded from count
- _Building function has been determined from desktop visual assessment only.
- _Where building function was unable to be determined. The building is numbered in the ancillary building list, and highlighted within the notes

Legend_ Viewpoint	Legend_ Buildings located within Visual Catchment
Not captured by current viewpoints	No Viewpoint Buildings located in visual catchment
Not located at actual viewpoint, but appears reflective of viewpoint	No Viewpoint Buildings not located in visual catchment
Is located at actual viewpoint	Buildings located within Visual Catchment

Building within construction zone - removed from count following second review

Number	Chainage	Proximity	Notes	Viewpoint	Buildings located within Visual Catchment
1	500-1000	100m: Residential Dwellings / 0 100-200m: Residential Dwellings / 2 mobile homes 200-300m: Ancillary buildings / 0 200-300m: Residential Dwellings / 12 mobile homes	Buildings located east of highway alignment. They form the Arawarra township and Tourist Park. Roads generally on fill.	No Viewpoint	Yes - partial. Buildings along western boundary of town
2	1200-1600	0	Buildings located east of highway alignment. They form the Arawarra township. Roads generally on fill.	No Viewpoint	Yes - partial. Buildings along western boundary of town
3	2300-2500	0	Adjacent Kangaroo Trail Road. Except for 1 ancillary building in the 200-300m zone, all buildings are located east of highway. Road in cut in an open landscape. Kangaroo Trail road overbridge crosses highway.	Viewpoint #1	Yes
4	3200	0	Nearby house to be demolished for new highway. Only ancillary building is outside of construction zone. Road in cut and fill in open / agricultural landscape.	No viewpoint	Yes
5	5000-5300	0	Buildings located east of highway alignment. Road in cut within forest.	Viewpoint #4	Yes
6	7500-7800	0	Presume 1 house is removed for construction. Others to remain. Road in cut and fill in forest.	Viewpoint #4	Yes - partial.
7	8600	0	Buildings north of highway alignment. Road on fill in forest.	No viewpoint	Yes
8	9100-9200	0	Residential dwelling deleted from count due to its location inside the construction boundary.	N/A	N/A
9	9400-9500	0	Buildings west of highway alignment. Road in cut in forest.	Viewpoint #4	Yes
10	10500-10600	0	Buildings west of highway alignment. Road in cut in forest. Includes class M road upgrade.	No viewpoint	No
11	11300-11400	0	Buildings east of highway alignment. Road in small cut, generally on fill. Road in forest.	No viewpoint	Yes
12	11400-11500	0	Buildings west of highway alignment. Road in cut in forest. Includes class M road property access.	No Viewpoint	No
13	12200-12400	0	Buildings east of highway alignment. Road on fill in forest. Includes class M road upgrade.	No Viewpoint	Yes
14	13200-14700	0	Buildings east of highway alignment. Road in cut and fill in forest and agriculture / cleared land.	Viewpoint #3	Yes
15	15100-15200	0	Buildings north east of highway alignment. Class M road upgrade only in forest.	No viewpoint	Yes
16	15400-15900	0	2 dwellings presumed to be demolished for highway works and M class road upgrade. Properties both side of highway. Class M road upgrade only. Includes overpass. In forest.	Viewpoint #3	Yes
17	16850	0	Buildings south west of highway alignment. Located very close to alignment. Class M road upgrade only. On minor fill. Dwelling in a clearing surrounded by forest.	Viewpoint #3	Yes
18	17200-17700	0	Building use associated with service station are unable to be classified from air photo. Road on fill in forest and open / agriculture.	No viewpoint	Yes
19	17900-18800	0	New service road on fill east of existing highway. Road on fill in forest and open / agriculture.	Viewpoint #3	Yes

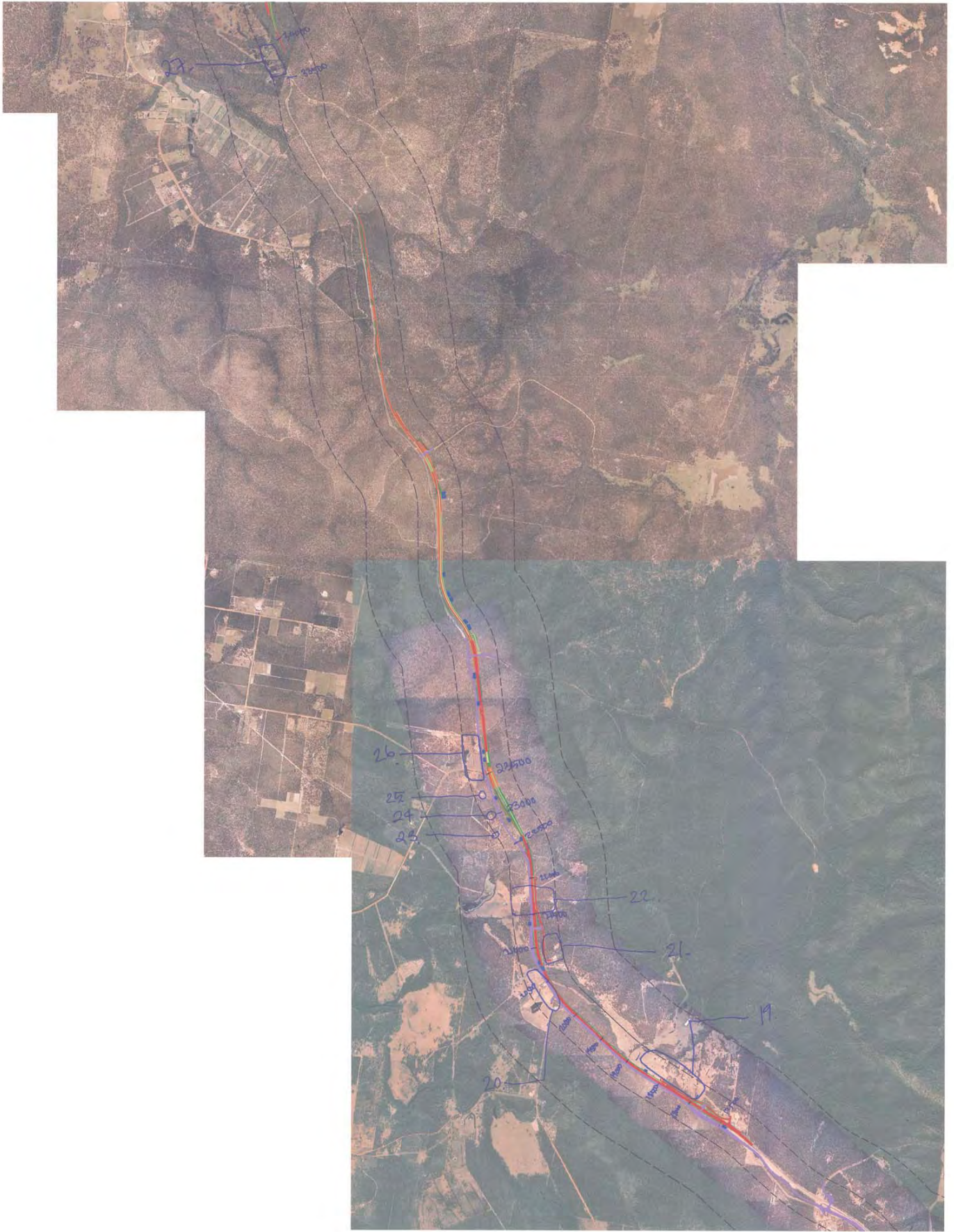
20	20200-20600	0	0	1 Residential dwelling	1 Ancillary building	0	0	0	Presume 1 building is removed for construction. Others to remain. Buildings located south west of new highway. Highway on fill adjacent forest and open / agriculture.	Viewpoint #3	Yes
21	20600-21100	0	0	1 Residential dwelling	1 Ancillary building	2 Residential dwellings	1 Ancillary building	0	Buildings located east of highway alignment. Road on fill in forest.	Road on fill in No viewpoint forest.	Yes
22	21500-21800	0	0	1 Residential dwelling	8 Ancillary buildings	1 Residential dwellings	0	0	Buildings located East and West of highway alignment. Road is on fill and passes through both forest and agriculture.	Viewpoint #3	Yes
23	22700-22800	0	0	0	0	1 Residential dwellings	0	0	Part only in <300m catchment zone. Road on fill in forest.	No viewpoint	Yes
24	23000	0	0	0	0	1 Residential dwellings	0	0	Buildings located west side of highway. Road on fill in forest.	No viewpoint	Yes
25	23200-23300	0	0	1 Residential dwelling	0	0	0	0	Buildings located west side of highway. Road mostly on fill. No viewpoint and located in open / agriculture. Forest to the east.	No viewpoint	Yes
26	23400-24100	0	0	N/A	2 buildings	2 Residential dwellings	2 Ancillary buildings	0	2 buildings in the 200-300m zone unable to obtain function. Road in forest on fill.	No viewpoint	Yes
27	33500-34000	0	0	1 Residential dwelling	0	1 Residential dwelling	3 Ancillary buildings	0	Buildings located on west side of highway.	No upgrade proposed	No
28	34500-34700	0	0	0	0	2 Residential dwellings	2 Ancillary buildings	0	Buildings located on west side of highway. Road mostly on No viewpoint fill, although one cut in limited areas. Section of road includes overpass to Grafton and connection to existing highway alignment.	No viewpoint	No
29	41000	0	0	0	0	1 Residential dwelling	1 Ancillary building	0	Building located on south side of highway. Road mostly in cut and within an open / agricultural landscape.	Viewpoint #9	Yes
30	45600-45700	0	0	1 Residential dwelling	0	1 Residential dwelling	6 Ancillary buildings	0	Buildings located north and south of highway. Road in cut in an open woodland setting.	Viewpoint #11	Yes
31	52200-52400	0	0	1 Residential dwelling	4 Ancillary buildings	0	0	0	Buildings located east side of highway. Road mostly in cut. Road located in open woodland. Service road located on fill. Overpass and bridge located nearby.	Viewpoint #14	Yes
32	57300	1 Residential dwelling	0	0	0	0	0	0	Building located east side of highway. Road located in forest on fill.	N/A	N/A
33	58500-58600	0	0	1 Residential dwelling	1 Ancillary building	0	0	0	East side of highway. Road located in forest on fill.	Viewpoint #16	Yes
34	60500-60600	0	0	0	0	1 Residential dwelling	1 Ancillary building	0	East side of highway. Road located in forest in cut.	No viewpoint	No
35	61200-61400	0	0	1 Residential dwelling	0	1 Residential dwelling	0	0	Buildings located, one east / one west of highway. Both located in open woodland. Highway on fill. Service roads in cut. Service road to underpass highway.	Viewpoint #16	Yes
36	66600-66700	0	0	0	0	1 Residential dwelling	2 Ancillary buildings	0	Buildings located on east side of highway. Highway in major cut within open woodland.	Viewpoint #18	Yes
37	67100	0	0	0	0	1 Residential dwelling	2 Ancillary buildings	0	Buildings located on east side of highway. Highway in major cut within open woodland.	Viewpoint #18	Yes
38	67500-68200	1 Residential dwelling	0	5 Residential dwellings	8 Ancillary buildings	1 Residential dwelling	0	0	Buildings located on west side of highway. Existing highway located further west. New road on fill located in woodland. Existing properties on edge of open / agricultural landscape.	Viewpoint #19	Yes
39	68600-69200	0	0	3 Residential dwellings	3 Ancillary buildings	2 Residential dwellings	0	0	Buildings located on west side of highway. Existing highway located further west. New road on fill located in woodland. Existing properties on edge of open / agricultural landscape.	Viewpoint #19	Yes
40	69800-69900	0	0	1 Residential dwelling	1 Ancillary building	0	0	0	South side of highway. Highway is located on fill in an agricultural landscape.	No viewpoint	Yes
41	70800-71000	0	0	N/A	2 buildings	N/A	1 building	0	Buildings located on south side of highway. Unable to determine building function. Road is on fill in the agricultural food plain.	No viewpoint	Yes
42	71100	0	0	0	0	N/A	1 building	0	North side of highway. Unable to determine building function. Road is on fill in the agricultural food plain.	Viewpoint #21	Yes
43	77000-77100	1 Residential dwelling	0	1 Residential dwelling	1 Ancillary building	0	0	0	Buildings located on west side of highway. Road in cut within agricultural landscape.	Viewpoint #22	Yes
44	77600-77800	0	0	0	0	1 Residential dwelling	2 Ancillary buildings	0	Buildings located on the east side of highway. Road is in some cut through predominantly is located on fill in an open / agricultural landscape.	Viewpoint #23	Yes

45	78200-78500	0	1 Residential dwelling	1 Ancillary building	0	3 Ancillary buildings	Buildings located on the west side of highway. Road is located on some fill, though predominately cut in a generally open / agricultural landscape.	Viewpoint #23	Yes
46	79000-79200	0	0	0	N/A	5 buildings	Buildings located on west side of highway. Unable to determine building function. Road located on fill in open / agricultural landscape.	Viewpoint #24	Yes
47	79600-79800	0	1 Residential dwelling	1 Ancillary building / 6 buildings	0	0	Unable to determine the function of the 6 buildings. Road is on fill in an agricultural setting.	Viewpoint #24	Yes
48	80300-80500	0	0	1 cafe / restaurant / function facility	0	0	Includes heritage barge parked in front of building. Building surrounded by car parking facilities. Road is located on fill in an open landscape. Includes part of the MacLean interchange.	Viewpoint #24	Yes
49	80600-83000	1 Residential dwelling	17 Residential dwellings	5 Ancillary buildings	22 Residential dwellings	1 multi-unit single story, short stay residential accommodation/ 9 out buildings	Township of Maclean. Road on cut and fill.	No viewpoint	Yes - Partial
50	81000-82700	4 Residential dwellings	17 Residential dwellings	12 Ancillary buildings	12 Residential dwellings	11 Ancillary buildings	Township of Townsend. Road on cut and fill.	No viewpoint	Yes
51	83200-83400	0	N/A	3 buildings	N/A	1 building	Unable to determine the function of the 4 buildings. 2 are likely to be detached residential dwellings. Road on high fill. Forest opening up to agricultural landscape.	No viewpoint	Yes
52	83900-84100	0	N/A	5 buildings	0	0	Unable to determine the function of the 5 buildings. Road on high fill, in open / agricultural landscape.	No viewpoint	Yes
53	86100-86300	0	0	1 Ancillary building	6 Residential dwellings	2 Ancillary buildings	Buildings located west of highway on Yamba Road. Road on high fill becoming elevated structure for bridge crossing.	Viewpoint #26	Yes
54	86800-87500	2 Residential dwellings	17 Residential dwellings	3 Ancillary buildings	12 Residential dwellings	1 general store, 1 hotel, 3 farm businesses, 7 Ancillary buildings	Buildings are located west of highway alignment. Township of Hawwood. Road is on elevated structure arriving on fill within north Hawwood.	Viewpoint #28	Yes
55	86800-87300	3 Residential dwellings	15 Residential dwellings	1 Community hall / 2 Ancillary buildings	9 Residential dwellings	10 Ancillary buildings including 2 cricket sheds	Buildings are located east of highway alignment. Township of Hawwood. Road is on elevated structure arriving on fill within north Hawwood.	Viewpoint #28	Yes
56	87600-88200	0	3 Residential dwellings	3 buildings	N/A	4 buildings	Buildings located west of highway alignment. Unable to determine 7 building functions. Road on fill. Includes Hawwood interchange. Road located in an open landscape.	No Viewpoint	Yes
57	93600-93800	0	N/A	2 buildings	0	0	Buildings located east of highway alignment. Highway and service roads on fill. Drainage elements in cut. Roads pass through open / agricultural landscape.	Viewpoint 34	Yes
58	93900-94000	1 Residential dwelling	0	0	0	0	Building located west of highway alignment. Road on fill in open / agriculture. Building adjacent bridge takeoff.	No Viewpoint	Yes
59	94200-94400	0	1 Residential dwelling	1 Ancillary building	0	0	Buildings located west of highway alignment. Road on fill in open / agriculture. Drainage in cut.	Viewpoint 35	Yes
60	94700-95500	1 Residential dwelling	2 Residential dwellings	2 Ancillary buildings	1 Residential dwelling	0	Buildings located east of highway alignment. Highway in both cut and fill. Road in a mixed agriculture and forested landscape. Extensive areas of existing vegetation to be removed.	Viewpoint 36	Yes
61	98100-98300	0	0	0	N/A	2 buildings	Buildings located west of highway alignment. Unable to determine 2 building functions. Road is in cut through an open / agricultural landscape.	No viewpoint	Yes
62	102600-102800	0	0	2 Ancillary buildings	1 Residential dwelling	0	Buildings located west of highway alignment. Road on fill through forest and agriculture.	Yes	Yes
63	103600-103800	1 Residential dwelling	0	0	0	0	Buildings located east of highway alignment. Road on fill in forest and agriculture.	No viewpoint	Yes
64	119400-119600	2 Residential dwellings	5 Ancillary buildings	0	0	0	Buildings east of highway alignment. Road at grade in forest. Class M road upgrade is in cut.	Viewpoint 37	Yes
65	119800-120200	0	2 Residential dwelling	3 Ancillary building	1 Residential dwelling	1 Ancillary building	Buildings both East and West of highway alignment. Road at grade in forest. M class road upgrade is in cut.	Viewpoint 37	Yes
66	121000-121200	N/A	2 Ancillary buildings	5 buildings	0	0	Newly Buildings east and west of highway alignment. Unable to determine building function. Highway and service roads in cut. Located near buildings in forest. M class road upgrade on fill.	Viewpoint 38	Yes
67	121500-121800	0	2 Residential dwellings	2 Ancillary buildings	0	0	Buildings located East and West of highway alignment. Road located in both forest and agriculture. M class road upgrade located in forest. All roads are in fill.	No viewpoint	Yes

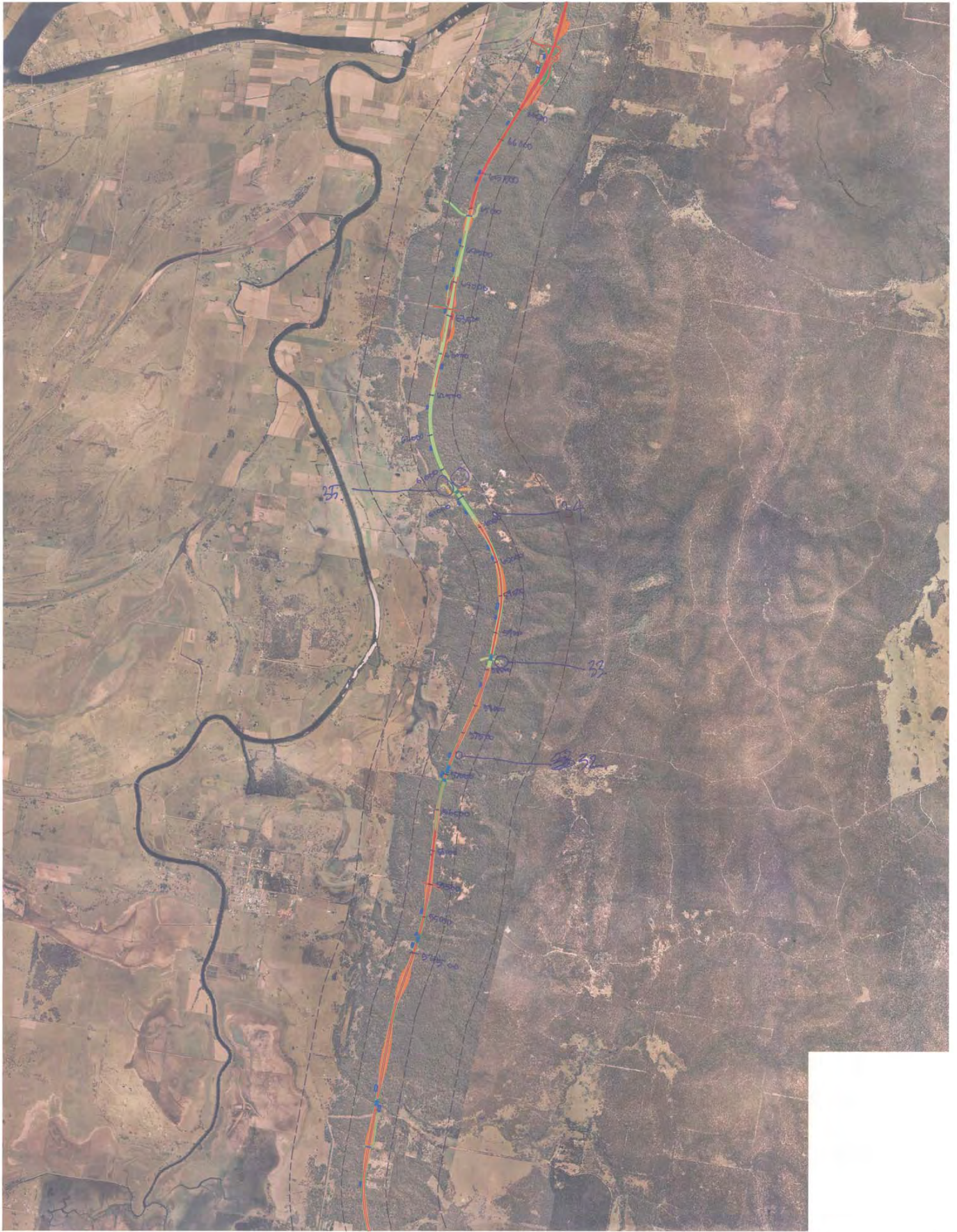
68	122700-123000	1 Residential dwelling	1 Ancillary building	1 Residential dwelling	3 Ancillary buildings	1 Residential dwelling	1 Ancillary building	Buildings located both east and west of highway alignment. No viewpoint Highway surrounded by forest, but passes through a primarily agricultural landscape adjacent to the properties.	Yes
69	124600-126000	4 Residential dwellings	5 Ancillary buildings	4 Residential dwellings	8 Ancillary buildings	0	3 Ancillary buildings	Buildings located east and west of highway alignment. Highway surrounded by forest, but passes through a primarily agricultural landscape adjacent to the properties.	Yes
70	128600-127700	5 Residential dwellings	10 Ancillary buildings	8 Residential dwellings	6 Ancillary buildings	1 Residential dwelling	1 Ancillary building	Buildings located both East and West of highway alignment. Highway generally surrounded by forest, but passes through an agricultural landscape.	Yes
71	128000	0	0	0	0	1 Residential dwelling	3 Ancillary buildings	Buildings located east of highway alignment. Highway in both cut and fill. Road in a forested landscape.	No
72	128700-129100	1 Residential dwelling	0	0	0	0	1 electrical substation	Buildings located east of highway alignment. Interchange located in forest. Majority of interchange in cut, though some parts on fill.	Yes
73	129000-129600	0	0	2 Residential dwellings	6 Ancillary buildings	1 Residential dwelling	6 Ancillary buildings	Buildings located west of highway alignment. Road set in predominately agricultural landscape. Road is on fill.	Yes
74	131900-132200	2 Residential dwellings	1 Ancillary building	0	4 Ancillary buildings	2 Residential dwelling	3 Ancillary buildings	Buildings located both east and West of highway alignment. Road is on fill in an open / agricultural landscape.	Yes
75	136800-137000	0	0	0	0	1 Residential dwelling	2 Ancillary buildings	Buildings located west of highway alignment. Road located on fill in an open agricultural setting.	Yes
76	137600-137800	0	0	0	0	1 Residential dwelling	0	Building located east of highway alignment. Road located on fill in an open agricultural landscape.	Yes
77	138100-138300	0	0	1 Residential dwelling	4 Ancillary buildings	0	0	Buildings located west of highway alignment. Road located on fill in an open / agriculture setting, adjacent wallum scrub (forest).	Yes
78	142100-142300	0	0	1 Residential dwelling	0	1 Residential dwelling	3 Ancillary buildings	Buildings located east of highway alignment. Road located on fill in an open agricultural setting.	Yes
79	143400-143600	0	0	0	0	1 Residential dwelling	4 Ancillary buildings	Buildings located west of highway alignment. Road located on fill in an open agricultural setting.	Yes
80	145900-146100	0	0	1 Residential dwelling	0	0	1 Ancillary building	Buildings located east of highway alignment. Road crosses the Richmond River via elevated structure. The road is in cut directly behind hill and nearby buildings, and fill on the flood plain. Generally the road passes through agriculture.	Yes
81	148400-148600	0	2 Ancillary buildings	1 Residential dwelling	0	0	0	Buildings are located west of highway alignment. Road is on both cut and fill, and passes through sections of both forest and agriculture.	Yes
82	151400-151600	0	2 Ancillary buildings	2 Residential dwelling	3 Ancillary buildings	0	0	Buildings located east of highway alignment. Road is located on fill in an agricultural floodplain.	Yes
83	152600-153500	0	1 Ancillary building	5 Residential dwellings	7 Ancillary buildings	3 Residential dwelling	2 Ancillary buildings	Buildings located both east and west of the highway alignment. Major cut at the nearby hill. Fill on the floodplain. Both are located in an agricultural setting.	Yes
84	153900	0	0	0	0	0	2 Ancillary buildings	Buildings located north of highway alignment. The road is on fill in an agricultural setting.	Yes
85	154900-155100	0	0	N/A	2 buildings	0	0	Presume 1 pool, 1 detached residential dwelling, 1 ancillary building resumed. (Not included in calculations) Unable to determine building function. Road is located in an agricultural floodplain on fill.	Yes
86	155300-155600	1 Residential dwelling.	1 Ancillary building	1 Residential dwelling	0	0	0	Presume 1 detached residential dwelling, 1 ancillary building resumed. (Not included in calculations) Road is located on fill in an agricultural flood plain.	Yes
87	156200-156600	0	0	1 Residential dwelling	1 Ancillary building	1 Residential dwelling	1 Ancillary building	Buildings are located on both sides of highway alignment. The road is located on fill in agriculture.	Yes
88	157200-157800	0	0	0	0	4 Residential dwelling	2 Ancillary buildings	Buildings are located on elevated ground north-west of highway alignment. The road is located on fill. The road includes the Cooalgardie Road Interchange.	Yes
89	157400-158300	0	0	2 Residential dwellings	4 out buildings	5 Residential dwelling	9 Ancillary buildings	Buildings are located on both sides of highway alignment. All roads are on fill. This section of road includes the Cooalgardie Road Interchange. The road passes through both forest and cleared open areas of grassland.	Yes

90	159000-159600	0	4 Ancillary buildings	0	13 Ancillary buildings	1 Residential dwelling	6 Ancillary buildings	There are a collection of ancillary buildings that appear to be shade houses. These are mostly located east of the highway alignment. The road is on fill passing through both agriculture and forest.	No Viewpoint	Yes
91	16400-164800	0	0	0	0	1 Residential dwelling	0	The residential dwelling is located away from the main highway upgrade and adjacent a new local bridge crossing. Roads in this area are located on fill. Generally the road passes through an agricultural landscape. Forest communities exist within the riparian corridors of both Duck and Emigrant Creeks.	Viewpoints 63	Yes
SUMMARY										
38 residential dwellings		59 Ancillary buildings		_140 Residential dwellings _2 mobile homes		_182 ancillary buildings / 1 church _1 cafe / restaurant / function facility		_135 Residential dwellings _46 Mobile homes _1 multi-unit single story, short stay residential accommodation _1 Hotel _3 Farm businesses		313 Residential dwellings within 300m of road alignment
										Yes - 83 No - 6 N/A - 2

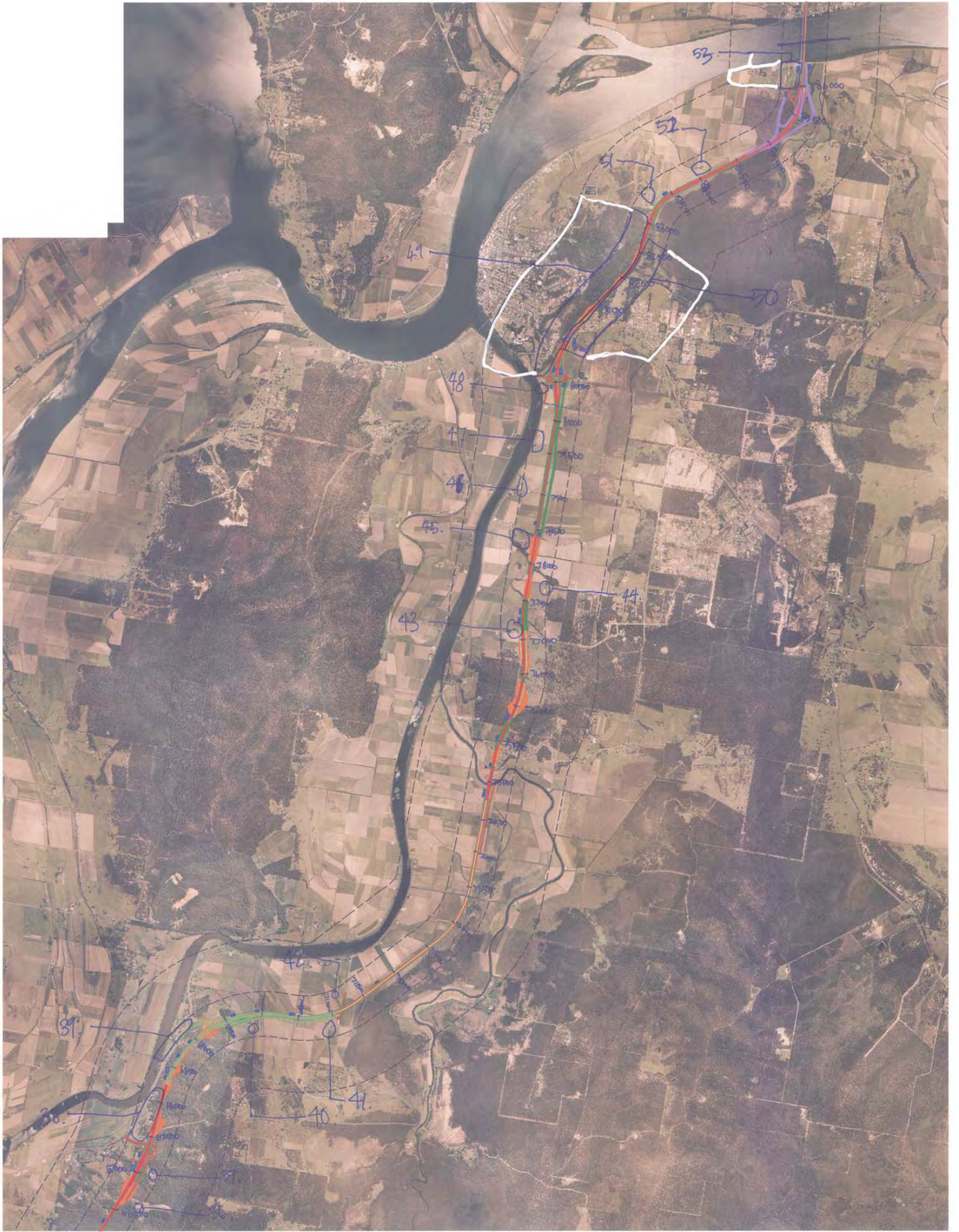


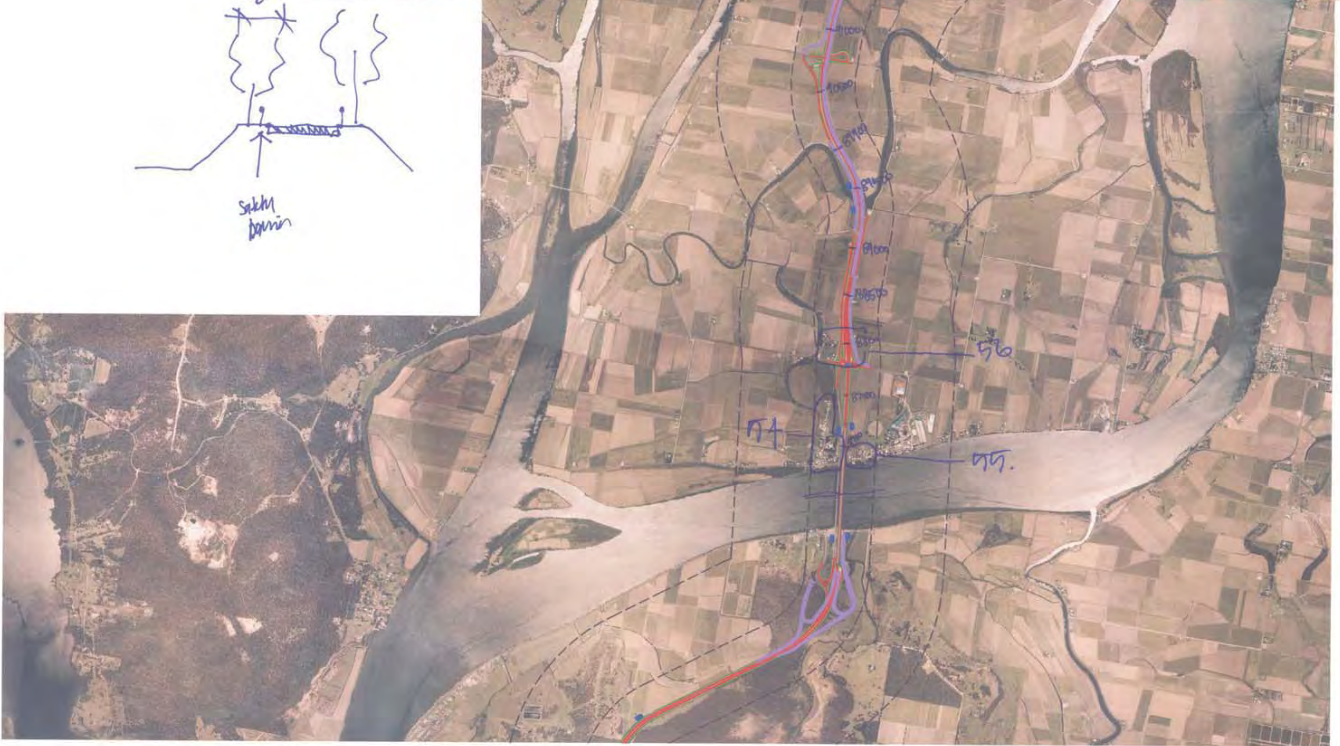
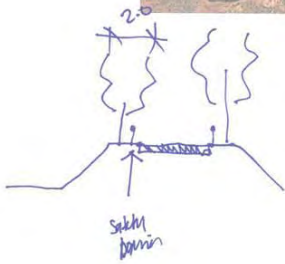
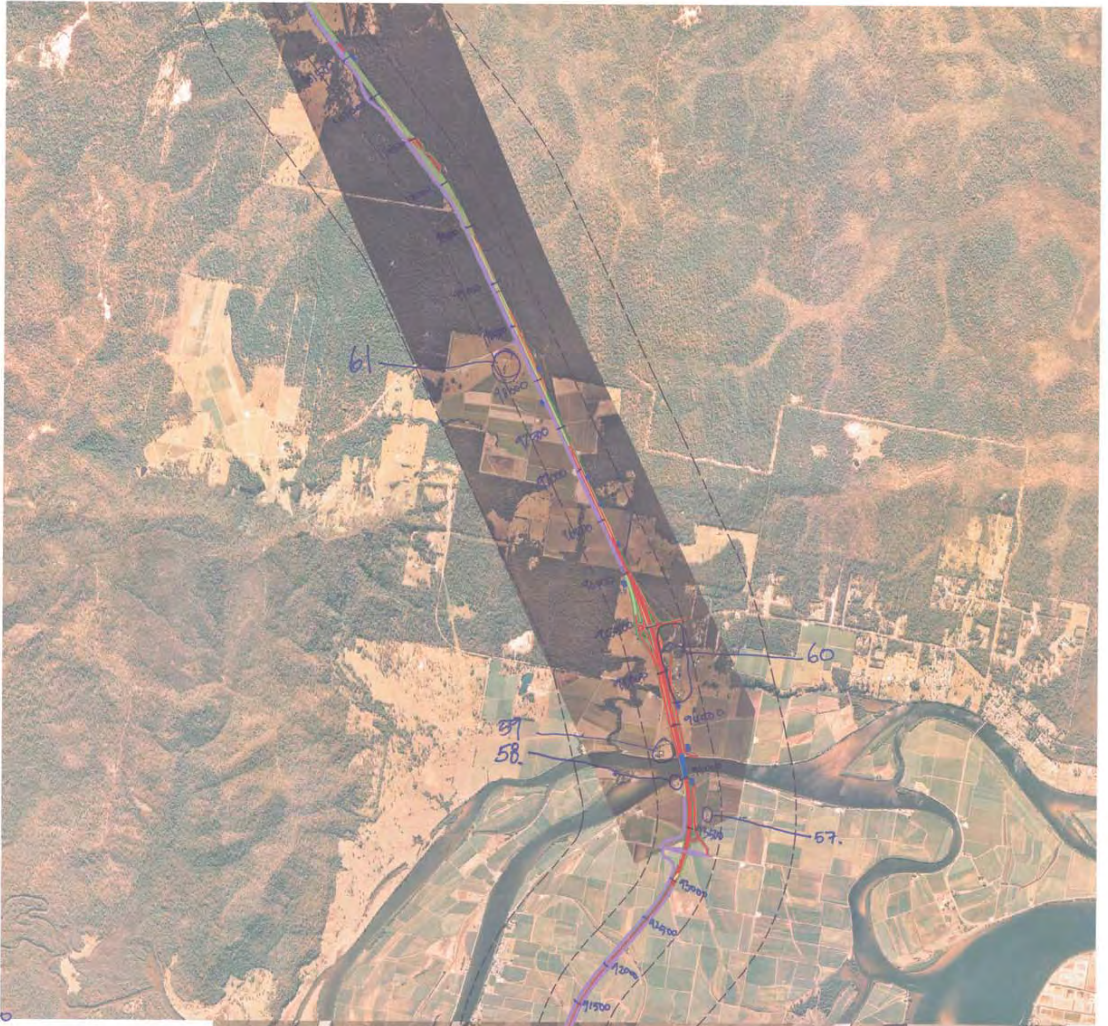






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Viewpoint	Magnitude	Sensitivity	Impact
1 Foreground view	Moderate Major cutting and infrastructure work in existing pasture land. Much of the proposed highway is located below the main field of vision. Removal of vegetation to accommodate fill batters on the approaches would be visible in the landscape	Moderate This changed view would be visible from a low number of local residences.	Moderate
2A Middle ground view	Moderate–low The project located on an embankment traverses the floodplain from a middle ground vantage point. Views of the proposed bridge structure are generally screened by riparian vegetation.	Moderate–low This changed view would be visible from a low number of local residences, and a high number of motorists would have fleeting glimpses of the project.	Moderate–low
2B Foreground view	High New infrastructure in the existing woodland involving major earthworks and disturbance to existing trees.	Moderate Considerable sensitivity for the residents of the adjacent homes who will experience repeated and long duration views.	Moderate–high
3 Interim upgrade	Moderate Major disturbance to the existing native woodland, however the new infrastructure is typical of infrastructure already in place at this location.	Moderate–low Considerable sensitivity for residents in a low number of homes with a changed foreground view at this location, however, the project is generally well screened by existing woodland landscape and mostly visible only to motorists using the highway	Moderate
3 Ultimate upgrade	High–moderate Major disturbance to the existing native woodland, however the new infrastructure is typical of infrastructure already in place at this location.	Moderate–low Considerable sensitivity for residents in a low number of homes with a changed foreground view at this location, however, the project is generally well screened by existing woodland landscape and mostly visible only to motorists using the highway.	Moderate
4 Interim option. Foreground view	Moderate Considerable disturbance to the existing native woodland, in a new location located to the east of the existing highway alignment.	High–moderate The development is generally well screened by existing woodland landscape and mostly visible only to motorists using the highway.	Moderate–high
4 Ultimate option. Foreground view.	Moderate Considerable disturbance to the existing native woodland, in a new location located to the east of the existing highway alignment.	High–moderate The project is generally well screened by existing woodland landscape and mostly visible only to motorists using the highway.	Moderate–high
5 Middle ground view	High New bridge and road infrastructure represents a major change in an existing woodland setting. Major disturbance to the existing native woodland is anticipated.	Low The project is generally well screened by existing woodland landscape and mostly visible only to motorists using the highway. There are few current local users.	Moderate
6 Foreground view	High–moderate New infrastructure in a natural setting. Major tree removal and earthworks is proposed. Location of the proposed highway in a cutting reduces its visibility from this vantage point.	Low This changed view would be visible for a low number of people from the local road network.	Moderate

Viewpoint	Magnitude	Sensitivity	Impact
7 Foreground view	High–moderate New infrastructure in a natural setting. Considerable tree removal and earthworks is proposed. Location of the proposed highway in a cutting reduces its visibility from this vantage point.	Low This changed view would be repeatedly visible for a low number of drivers from the local road network.	Moderate
8 Foreground view	High–moderate New infrastructure in a natural setting. Major tree removal and earthworks is proposed. Location of the proposed highway in a cutting reduces its visibility from this vantage point.	Low This changed view would be repeatedly visible for a low number of drivers from the local road network.	Moderate
9 Foreground view	High New road infrastructure across this landscape on a fill embankment represents a major change in an existing agricultural setting. Disturbance to the existing woodland vegetation is anticipated.	Moderate–low Considerable sensitivity for a low number of residences with direct views to the project and local residents who would have repeated access to a changed foreground view.	Moderate– high
10 Middle ground view	High–moderate New road infrastructure across this landscape on a fill embankment represents a major change in an existing agricultural setting. Disturbance to the existing woodland vegetation is anticipated.	Moderate Considerable sensitivity for a low number of residences and local people who would have long duration and/or repeated views to a changed foreground view.	Moderate– high
11 Foreground view	High–moderate New infrastructure in a natural setting. Considerable tree removal and earthworks is proposed. Location of the proposed highway in a cutting reduces its visibility from this vantage point.	Low This changed view would be visible for a low number of drivers from the local road network.	Moderate
12 Middle ground view	Moderate New road infrastructure across this scenic landscape on a low fill embankment represents a major change in an existing natural setting. Disturbance to the existing forest vegetation is anticipated.	Moderate This is a highly scenic landscape with distant views to the Mitchell Hill. This changed view would be visible for a low number of drivers from the local road network	Moderate
13 Foreground view	High–moderate New infrastructure in a natural setting. Major tree removal and earthworks is proposed. Location of the proposed highway in a cutting reduces its visibility generally from vantage points in the landscape.	Moderate Considerable sensitivity for a low number of residences and local people who would have long duration and/or repeated views to a changed foreground view.	Moderate
14 Foreground view	High–moderate New infrastructure in a natural setting. Major tree removal and earthworks is proposed. Location of the proposed highway in a cutting reduces its visibility generally from vantage points in the landscape.	Low A low number of local people would have repeated views to this changed view from the local road network.	Moderate

Viewpoint	Magnitude	Sensitivity	Impact
15 Foreground view	High–moderate New road infrastructure in a natural setting. Major tree removal and earthworks is proposed. Location of the proposed highway in a cutting reduces its visibility generally from vantage points in the landscape.	Low A low number of local people would have repeated views to this changed view from the local road network.	Moderate
16 Foreground view	High New road infrastructure in a natural setting. Disturbance to the existing woodland vegetation is anticipated.	Low A low number of local people would have repeated views to this changed view from the local road network.	Moderate
17 Foreground view	High–moderate New road infrastructure in a natural setting. Major tree removal and earthworks is proposed. Location of the proposed highway in a cutting reduces its visibility generally from vantage points in the landscape.	High This is a highly sensitive area of High Conservation Value Old Growth Forest listed on the State Heritage Register. Private property access is provided over the highway to a property located in the hills to the east, however, there are very few people likely to access this area and be affected by the proposed change.	High
18 Foreground view	High New road infrastructure in a natural setting. Major tree removal and earthworks is proposed. Extensive cutting into the side of Bondi Hill highlights the visibility of the upgrade.	High Considerable sensitivity for a high number of residences and local people who would have long duration and/or repeated access to a changed foreground view. A high number of motorists on the existing highway would also be affected by the changed view.	High
19 Foreground view	High Major new road infrastructure in a natural setting. Major tree removal and earthworks is proposed. Retention of existing highway road side vegetation would reduce the visibility of the project and magnitude of change.	Low There is a high number of local people and local homes that would have repeated views. It is anticipated that motorists on the existing highway would not have access to this changed view because of major existing road side vegetation which would be retained.	Moderate
20A Middle ground view	Moderate–low New road infrastructure in an agricultural setting.	Moderate–low This changed view would be visible from a low number of local residences, and a high number of motorists would have fleeting glimpses of this new road corridor.	Moderate–low
20B Foreground view	High Significant new road infrastructure in an agricultural setting. Minor filling and disturbance to pockets of existing vegetation is proposed. The new work would dominate the view from this vantage point.	Moderate Considerable sensitivity for the residents of the adjacent home who will experience repeated and long duration views.	Moderate–high

Viewpoint	Magnitude	Sensitivity	Impact
20C Foreground view	High Significant new road infrastructure in an agricultural setting. Minor filling and disturbance to pockets of existing vegetation is proposed. The new work would dominate the view from this vantage point	Moderate Considerable sensitivity for the residents of the adjacent home who will experience repeated and long duration views.	Moderate-high
21 Middle ground view	Moderate-low New road infrastructure in an agricultural setting.	Moderate-low This changed view would be repeatedly visible from a low number of local residences, and a high number of motorists would have fleeting glimpses of this new road corridor.	Moderate-low
22 Foreground view	High-moderate New road infrastructure in a natural setting. Major tree removal and earthworks is proposed. Location of the proposed highway in a cutting reduces its visibility generally from vantage points in the landscape. At times the view would be obscured by sugar plantation vegetation.	Moderate-low Considerable sensitivity for a low number of residences with direct views to the project and local residents who would have repeated views to a changed foreground view.	Moderate
23 Middle ground view	Moderate-low New road infrastructure in a natural setting. Major tree removal and earthworks is proposed. Location of the proposed highway in a cutting reduces its visibility generally from vantage points in the landscape. At times the view would be obscured by sugar plantation vegetation.	Moderate This changed view would be visible from a low number of local residences and from the local road network.	Moderate-low
24A Foreground view	High Major new infrastructure in an existing agricultural landscape, however the new infrastructure is typical of infrastructure already in place at this location.	Moderate A high number of local people would repeatedly view this changed view from the local road network.	Moderate-high
24B Foreground view	Moderate Duplicated highway infrastructure at the base of the prominent Maclean Pinnacle and above the small township of Townsend. the new infrastructure is typical of infrastructure already in place at this location	Moderate Considerable sensitivity for a low number of residents at locations along Schwonberg and Jubilee Streets who will have long duration and/or repeated access to a changed foreground view because of removal of existing roadside screen vegetation.	Moderate-High
25 Distant View (to the bridge)	Low Major new infrastructure is proposed at the Harwood Bridge but at considerable distance so the change only affects a small portion of the view.	High Many people are invited to enjoy long duration panoramic views from this prominent vantage point.	Moderate
26A Foreground view	Moderate-low Major new elevated bridge infrastructure would be visible but it would only impact a small portion of the overall view.	Moderate-high This changed view would be visible from many local residents.	Moderate

Viewpoint	Magnitude	Sensitivity	Impact
26B Ultimate option Middle ground view	High-moderate Major new bridge infrastructure and fill embankments would dominate this foreground to middle ground view	Moderate-high Considerable sensitivity for residents of a few homes with long duration views and lower sensitivity for local people generally who will have short term repeated visual access to the changed view	Moderate - high
26B Full alternative option Middle ground view	High-moderate An alternate class M option proposes extensive additional slip roads through agricultural and forest landscapes.	Moderate-high Increased sensitivity where new slip roads cause additional removal of forest and disturbance to agricultural area.	Moerate-high
27A Distant View	Low A distant view of the elevated new bridge would be possible but it would only impact a small portion of the overall landscape view.	Moderate Filtered views of the new bridge would be available to a low number of local residents. Sensitive views from a low number of homes may also occur.	Moderate - Low
27B Distant View	Low A distant view of the new elevated bridge would intercept the horizon in this view however it impacts only a small portion of the view.	Moderate Considerable sensitivity for a low number of residents and local people who will have long duration and/or repeated access to a changed foreground view	Moderate - Low
28 Foreground view	High Major new elevated bridge infrastructure at an existing bridge crossing and scenic location (viewed from a public jetty).	High Many local residents would have repeated access to this changed view.	High
29 Middle ground view	High Major new elevated bridge infrastructure at an existing bridge crossing and scenic location.	High This changed view would be repeatedly visible from many residences.	High
30 Distant View	Low A distant view of the new elevated bridge structure would be possible but it would only impact a small portion of the overall landscape view.	Low Filtered views of the new bridge would be available to a low number of local residents. Sensitive views from a low number of homes may also occur	Low
31 Distance View	Low Major new infrastructure is proposed at the Harwood Bridge but at considerable distance so the change only affects a small portion of this panoramic view.	Low This changed view would be visible to many people however the change is at considerable distance and occupies only a small portion of the overall view.	Low
32A Foreground view	High-moderate Considerable disturbance to the existing agricultural landscape, however the new infrastructure is typical of infrastructure already in place at this location.	High-moderate Considerable sensitivity for a low number of residents with a changed foreground view in this location.	Moderate -high

Viewpoint	Magnitude	Sensitivity	Impact
32A Interim option. Foreground View	High–moderate Major new elevated overpass and considerable disturbance to the existing agricultural landscape.	High–moderate Considerable sensitivity for a low number of residents with a changed foreground view in this location	Moderate -high
32A Ultimate option. Foreground view	High–moderate A new slip road is proposed at this interchange to achieve class M standard.	High–moderate Considerable sensitivity for a low number of residents with a changed foreground view in this location.	Moderate -high
32B Foreground view	High Considerable disturbance to the existing agricultural landscape with the addition of a new highway overpass, associated roundabouts and slip roads. The considerable elevation of the overpass (9m) makes it highly prominent in the flat floodplain landscape. New embankments are squeezed around existing homes located at the intersection.	Moderate Considerable sensitivity for residents of a few homes with long duration views. Many motorists on the highway with fleeting views of the change.	Moderate -high
33 Interim option. Middle ground view.	Moderate-high Highway upgrade and interchange is located on a low embankment traversing the floodplain at considerable distance from this viewpoint.	Moderate–low This changed view would be repeatedly visible from a low number of local residences and from local streets.	Moderate
33 Ultimate option. Middle ground view	Moderate A new elevated overpass and associated slip roads are proposed at a considerable distance from this viewpoint.	Moderate–low This changed view would be repeatedly visible from a low number of local residences and from local streets.	Moderate
34 Foreground view	Low _The project located on a low embankment within existing infrastructure corridor from a middle ground vantage point. Views of the proposed bridge structure are generally screened by riparian vegetation.	Low _This changed view would be repeatedly visible from a low number of local residences and from local streets.	Low
35 Middle ground view	Low New bridge infrastructure at an existing bridge crossing comprising a similar character and scale to the existing development in a scenic river location.	Moderate-low _This changed view would be repeatedly visible from a low number of local residences and from local streets.	Moderate-low
36A Foreground view	High-moderate A major upgrade of existing infrastructure and new elevated overpass is proposed.	Moderate-low _This changed view would be available to motorists using the highway.	Moderate
36B	High Loss of roadside vegetation would open up views of the upgrade to local residents in close proximity to development. Major additional road infrastructure and elevated overpass is proposed. Some screening from existing vegetation is possible and will reduce the magnitude rating if retained.	High This changed view would be repeatedly visible to a moderate number of local residents from their homes and from local streets.	High

Viewpoint	Magnitude	Sensitivity	Impact
36C Interim upgrade Foreground view	Low Considerable disturbance to the existing native woodland, however the new infrastructure is typical of infrastructure already in place at this location.	Low The development is generally well screened by existing forest vegetation and mostly visible only to motorists using the highway.	Low
36C Ultimate upgrade Foreground view	Low Considerable additional disturbance to the existing native woodland creates a much wider corridor through the forest, however the new infrastructure is typical of infrastructure already in place at this location.	Low The development is generally well screened by existing forest vegetation and mostly visible only to motorists using the highway.	Low
37 Interim option. Foreground view.	High–moderate New road infrastructure in a natural setting. Disturbance to the existing woodland vegetation is anticipated	Low This changed view would be available to a low number of people using the local road network.	Moderate
37 Ultimate option. Foreground view.	High–moderate Additional new road infrastructure in a natural setting. Additional disturbance to the existing woodland vegetation is anticipated	Low This changed view would be available to a low number of people using the local road network.	Moderate
38 Interim option. Foreground view	Moderate New infrastructure introduced to the existing setting The new work is typical of infrastructure already in place but represents a major change in scale.	High This site has high sensitivity because of its heritage and cultural status. It is a tourist destination which attracts public visitation.	High–moderate
38 Ultimate option. Foreground view	High New infrastructure introduced to the existing setting The new work is typical of infrastructure already in place but represents a major change in scale	High New infrastructure introduced to the existing setting The new work is typical of infrastructure already in place but represents a major change in scale	High
39 Foreground view	High Major removal of forest vegetation to accommodate the new interchange is proposed.	Moderate–low This changed view would be visible from a low number of local residences, and a high number of motorists would have fleeting glimpses of this new road corridor.	Moderate -high
40 Middle ground view	Moderate The project traverses existing pasture land on a substantial embankments across the floodplain.	Moderate This changed view would be visible from a low number of local residences, and a high number of motorists would have fleeting glimpses of this new road corridor.	Moderate
41 Middle ground view	Moderate The project traverses existing pasture land on a substantial embankments across the floodplain.	Moderate This changed view would be visible from a low number of local residences and streets.	Moderate
42 Foreground view	High Large embankments to accommodate a new local overpass across the new dual carriageway highway in close proximity. Some loss of vegetation anticipated.	Moderate This changed view would be visible from a low number of local residences and streets.	Moderate-High

Viewpoint	Magnitude	Sensitivity	Impact
43A & B Middle Ground View	High Major new road infrastructure in a natural and agricultural setting. Disturbance to the existing vegetation and major earthworks is proposed.	Moderate-low This changed view would be visible from the local road network.	Moderate-high
44 Middle ground view	Moderate The project traverses existing agricultural land on a substantial embankment across the floodplain	Low This changed view would be repeatedly visible from a moderate number of homes, and a high number of motorists would have fleeting glimpses of this new road corridor.	Moderate-low
45 Middle ground view	High-moderate Major new bridge infrastructure and fill embankments across an open agricultural landscape in a natural setting.	Low This changed view would be visible from the local road network.	Moderate
46 Foreground View	High-moderate Major new bridge infrastructure over the river and Pacific Highway in a natural and agricultural setting.	Low This changed view would be visible for a low number of local people from the local road network. A small group of homes physically affected by the proposed work would be removed.	Moderate
47 Distant View	Moderate Major new bridge infrastructure over the Richmond River in a natural scenic setting.	Moderate The bridge is visible at a distance of 2km and would only affect a small portion of the overall view however the view is sensitive because of its scenic quality.	Moderate
48A Foreground view	High Major new bridge infrastructure and fill embankments in the foreground across the open agricultural landscape.	Moderate-low Considerable sensitivity for a low number of residents at locations along the existing highway and in the floodplain area. Moderate sensitivity for motorists using the existing Pacific Highway	Moderate-low
48B Foreground view	High Major new bridge infrastructure over the river in a natural setting.	Low This changed view would be visible to low number of local people from the local road network. A small group of homes physically affected by the proposed work would be removed.	Moderate
49 Distant View	Moderate Major new bridge infrastructure and fill embankments across an open agricultural landscape in a natural setting.	Low The bridge is visible at a distance of 2km and would only affect a small portion of the overall view	Moderate-low
50 Foreground View	High-moderate Major new road infrastructure adjacent to an existing disturbed quarry area.	Moderate-low This changed view would be visible for a low number of people from the local road network.	Moderate
51 Foreground view	High Major highway infrastructure in an existing scenic agricultural setting	Moderate Considerable sensitivity for a low number of residences with direct views to the project and local residents who would have repeated views to a changed foreground view.	Moderate-high

Viewpoint	Magnitude	Sensitivity	Impact
52 Foreground view	High Major highway infrastructure in an existing peaceful agricultural setting	Moderate A low number of local people would have repeated views to this changed view from the local road network.	Moderate–high
53 Middle Ground View	High Major highway infrastructure in an existing peaceful agricultural setting	Moderate This changed view would be visible from the local road network.	Moderate–high
54 Foreground view	High Major highway infrastructure in an existing peaceful agricultural setting.	Moderate This changed view would be repeatedly visible from the local road network.	Moderate–high
55 Middle Ground View	Moderate-high Major highway infrastructure in an existing peaceful agricultural setting.	Moderate This changed view would be repeatedly visible from the local road network.	Moderate–high
56 Foreground view	High Major disturbance to the existing native woodland, however the new infrastructure is typical of infrastructure already in place at this location.	Moderate Considerable sensitivity for a low number of residences with a changed foreground view at this location, however, the project is generally well screened by existing woodland landscape and mostly visible only to motorists using the highway.	Moderate–high
57 Middle Ground View	High–moderate Major disturbance to the existing native woodland, however the new infrastructure is typical of infrastructure already in place at this location.	Moderate-low Considerable sensitivity for a low number of residences with a changed foreground view at this location, however, the project is generally well screened by existing woodland landscape and mostly visible only to motorists using the highway.	Moderate
58 Foreground View	Low The proposed highway alignment is beyond the existing highway alignment and largely screened by existing tree vegetation. It is important to retain as much existing vegetation as possible.	Moderate Considerable sensitivity for a low number of residences with a changed foreground view at this location, however, the project is generally well screened by existing trees and mostly visible only to motorists using the highway.	Moderate–low
59 Middle ground view	Moderate New elevated highway infrastructure traversing the floodplain in an agricultural setting however the new work is typical of infrastructure already in place at this location.	Moderate–low Considerable sensitivity for a low number of residences with a changed foreground view at this location.	Moderate
60 Foreground view	High New elevated highway infrastructure traversing the floodplain in an agricultural setting however the new work is typical of infrastructure already in place at this location. Possible removal of existing vegetation would increase visibility of the proposed highway.	Moderate Considerable sensitivity for a low number of residences with a changed foreground view at this location in the foreground view.	Moderate–high

Viewpoint	Magnitude	Sensitivity	Impact
61 Middle ground view	Moderate-low New elevated highway infrastructure in an agricultural setting however the new work is typical of infrastructure already in place at this location.	Moderate-low Considerable sensitivity for a low number of residences with a changed foreground view at this location.	Moderate-low
62A Middle Ground view	Moderate-low New elevated highway infrastructure traversing the floodplain in an agricultural setting however the new work is typical of infrastructure already in place at this location.	Moderate-low Considerable sensitivity for a low number of residences with a changed foreground view at this location.	Moderate-low
62B Middle Ground view	Moderate New elevated highway infrastructure traversing the floodplain in an agricultural setting, however the new infrastructure is typical of infrastructure already in place at this location.	Moderate Considerable sensitivity for a few residents with a changed middle ground view due to loss of existing roadside vegetation screen	Moderate
63 Foreground view	High-moderate Major removal of native riparian vegetation would be required to accommodate the new bridges and highway.	Moderate-low Considerable sensitivity for a low number of residences at locations along this section of the road, however, parts of the project may be screened by existing riparian vegetation and mostly visible only to motorists using the highway.	Moderate

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