

5. Corridor Refinement Workshop

The corridor refinement workshop was held on 28 November 2006.

5.1 Widened Corridor Route Selection Process

The route selection process involved assessment of the nominated alignments in Section B against the project team route selection workshop assessment criteria, stakeholder submissions and key project risks and issues, to recommend the preferred route alignment.

The process was based upon the process, criteria and criteria weightings developed at the route selection workshop (see Section 8 of the *Preferred Route Report* and Appendix A). The process occurred as a project team workshop generally following the key steps outlined below.

1. Review all submissions and records of contacts, other relevant information, issues and risks.
2. Review nominated alignments against the route selection workshop assessment criteria (Appendix A) and confirm / adjust findings.
3. Review nominated alignments against the route selection workshop “value for money” consideration and confirm / adjust findings.
4. Provide recommendation on the preferred route alignment.

In Section B, the assessment assessed the three alignments for the entire length of Section B.

Participants in the workshop included members from the RTA Pacific Highway office, RTA Major Infrastructure, RTA Environment Branch, GHD Environment team, Engineering team, Community team and Project Management team.

5.2 Assessment Criteria

The agreed assessment criteria under the functional, community and environment categories and their relevant descriptive measures are listed in Tables 5.1, 5.2 and 5.3 below.

Table 5.1 Project Team Assessment Criteria - Functional

| No. | Summary Title | Descriptive Measure | Weight |
|-------|---------------------------------------|--|--------|
| A | Transport Efficiency – Light vehicles | Travel time for passenger vehicles measured in seconds. | 26% |
| B | Engineering Risks | Length of route through floodplain and / or soft soils; Extent of cut and fill in steep areas; and Extent of widening of existing cuttings. | 4% |
| C | Transport Efficiency – Heavy vehicles | Travel time for heavy vehicles measured in seconds. | 35% |
| D | Re-use of existing assets | Length of existing road pavement re-used as part of the new highway carriageway. | 0% |
| E | Staging opportunities | Group discussion and consensus on whether or not the route option would enable staging of the works to be undertaken in order to achieve early benefits in safety, transport efficiency and / or other Pacific Highway Upgrade program objectives. | 26% |
| F | Safety during Construction | Extent of areas where speed zones would be required during the works; and Extent of traffic interfaces with the works area. | 9% |
| Total | | | 100% |

Table 5.2 Project Team Assessment Criteria – Community

| No. | Summary Title | Descriptive Measure | Weight |
|-----|-------------------------------------|---|--------|
| A | Noise for private properties | Weighted noise impact score based on property distances from the route option centreline to address existing and new noise receivers. | 19% |
| B | Community severance / consolidation | Changes in access provisions for the townships of Telegraph Point and Kundabung. | 15% |
| C | Private Properties acquired | Area of private land (excluding commercial farms) to be acquired and the number of affected owners. | 6% |
| D | Structures acquired | Number of houses and other structures directly affected by the route option. | 10% |

| No. | Summary Title | Descriptive Measure | Weight |
|-------|-----------------------------|---|--------|
| E | Visual amenity | Length of the proposed route through high visual constraint areas. This measure was agreed to be highly subjective. | 0% |
| F | Commercial Business Impacts | Potential negative impacts on commercial businesses through acquisition of land and loss of access and visibility. | 13% |
| G | Aboriginal heritage | Number of significant sites and key cultural areas within the 250m wide route corridor study area. | 22% |
| H | Non-Aboriginal heritage | Number of significant and / or registered sites within the 250m wide route corridor study area. | 4% |
| I | Loss of productive land | Extent of impact upon land currently zoned for rural, horticultural or forest management. | 10% |
| J | Loss of public estate | Loss of access to areas of public recreation lands. | 1% |
| Total | | | 100% |

Table 5.3 Project Team Assessment Criteria – Environment

| No. | Summary Title | Descriptive Measure | Weight |
|-------|---|---|--------|
| A | SEPP 14 – impact area | Wetlands affected by the route option. | 13% |
| B | SEPP 14 – severance | Where residual SEPP 14 land is remaining on either side of the route corridor. | 5% |
| C | Water Quality | Number of watercourses the route option would cross as an indication of potential risk to water quality through the project route. | 0% |
| D | Native Flora – Threatened species | Number of potentially threatened flora species within the 250m wide route corridor study area. | 22% |
| E | Native Flora – vegetation | Area of native vegetation to be cleared. | 16% |
| F | Native Flora – communities | Area of Endangered Ecological Communities affected. | 22% |
| G | Native Fauna – known threatened species | Area of habitat to be cleared which would have the potential for threatened species to be present. Areas were defined as having high, medium and low potential. | 22% |
| Total | | | 100% |

5.3 Widened Corridor Route Selection Results

5.3.1 Scoring and Ranking Process

The criteria in each category were ranked in terms of importance using the weighting developed during the route selection workshop. The weighting was then used in determining a score for each criterion, which was then summed to provide the ranking of each option within the three categories. The weightings are presented in Tables 5.1, 5.2, and 5.3.

The ranking categories represent the “value” of the option. This was then considered alongside the estimated construction cost (“money”) to determine the “value for money” of each option. The assessed rankings for each project section are presented in Table 5.4.

The data used during the corridor refinement route selection workshop to compare options against the assessment criteria is presented in Appendix A. It should be noted that the data presented in Appendix A was updated following the preferred route public display as a result of additional investigations being undertaken. As a result some of the data / statistics may differ from that contained in Appendix A of the *Preferred Route Report*.

Table 5.4 Workshop Rankings

| | Functional | | Community | | Environmental | | Cost (\$)M |
|--------------------|----------------|----------|----------------|----------|----------------|----------|---------------|
| | Weighted Score | Raw Rank | Weighted Score | Raw Rank | Weighted Score | Raw Rank | |
| Sensitivity Factor | 0.35 | | 0.22 | | 0.27 | | |
| Refined Orange | 4.74 | 1 | 4.48 | 3 | 4.84 | 1 | 230 |
| Adjusted Orange | 4.4 | 3 | 4.85 | 1 | 3.52 | 3 | 220 |
| Modified Orange | 4.74 | 1 | 4.87 | 1 | 4.56 | 2 | 225 |

The workshop group recommended that the modified refined Orange option be recommended as the preferred alignment in Section B of the Oxley Highway to Kempsey.

In addition to the workshop findings, the following key points were noted against the categories:

Community

- ▶ All options address original preference of majority of Telegraph Point residents for bypass Telegraph Point;
- ▶ The selection of the modified refined Orange option addresses the majority of concerns from the residents of Moorside Drive to move the alignment east (however the modified refined Orange option is not as far east as the original orange option), so as to minimise the impact of road traffic noise on new noise receivers. This alignment subsequently addresses Department of Environment and Conservation’s concerns regarding noise (see below); and
- ▶ The modified refined Orange option has limited the severance of properties by following property boundaries north of Cairncross State Forest.

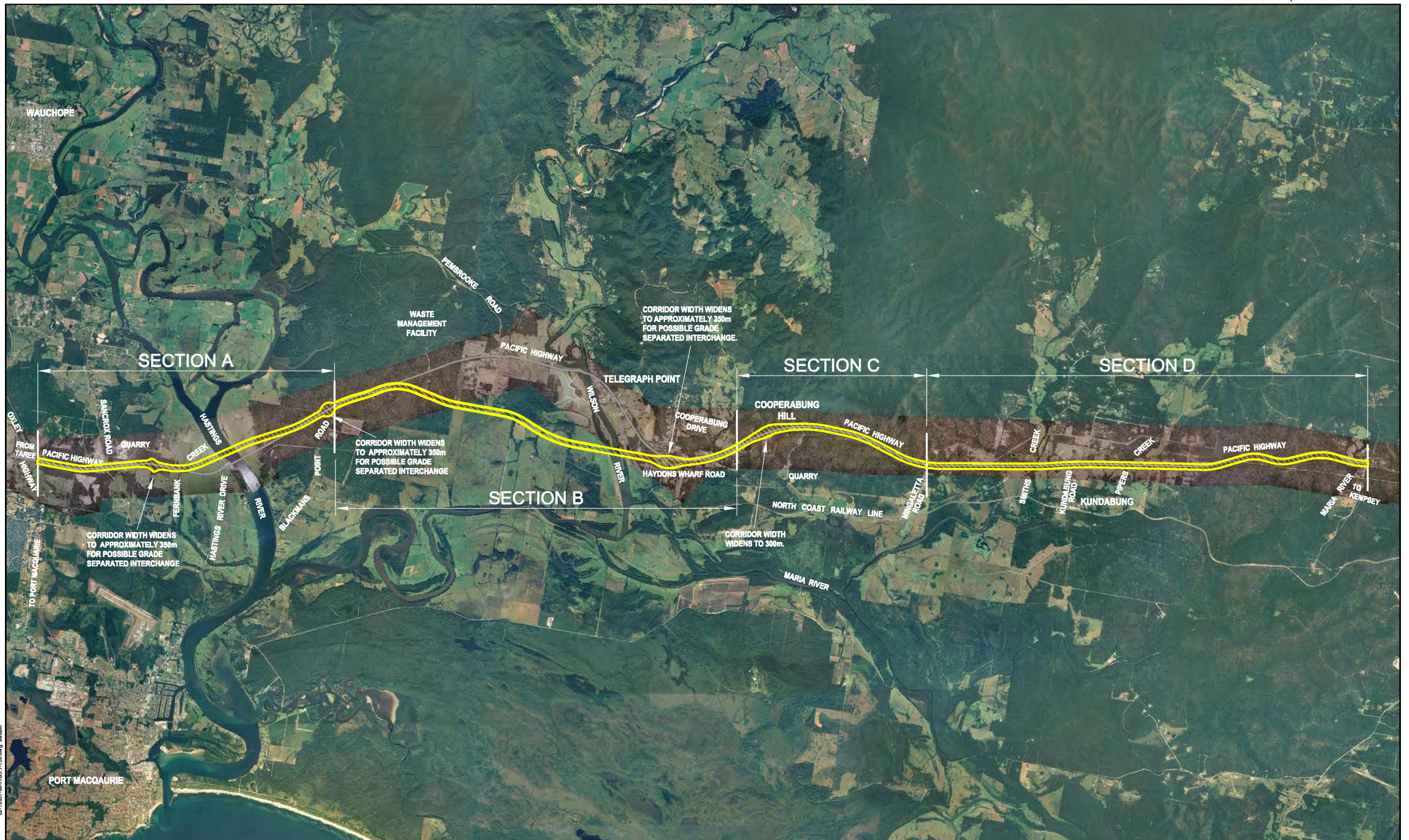
Functional

- ▶ All options have good functional performance;
- ▶ The modified refined Orange option will avoid the two major fibre optic cables that were impacted by the Orange option;
- ▶ The difference in the strategic estimates is minimal in relation to the entire route and was not considered a differentiating factor due to the high contingency factors on the estimates;
- ▶ The alternate Orange option travels over a longer length of soft soils than the modified refined Orange option; and
- ▶ All options perform equally with respect to safety.

Environment

- ▶ The adjusted Orange option impacts the greatest area of high habitat and vegetation ranking in Cairncross State Forest;
- ▶ The modified refined option impacts less area of high habitat and vegetation ranking than the adjusted Orange option; and
- ▶ The refined Orange option appears to avoid most of the area with high habitat and vegetation ranking in Cairncross State Forest.

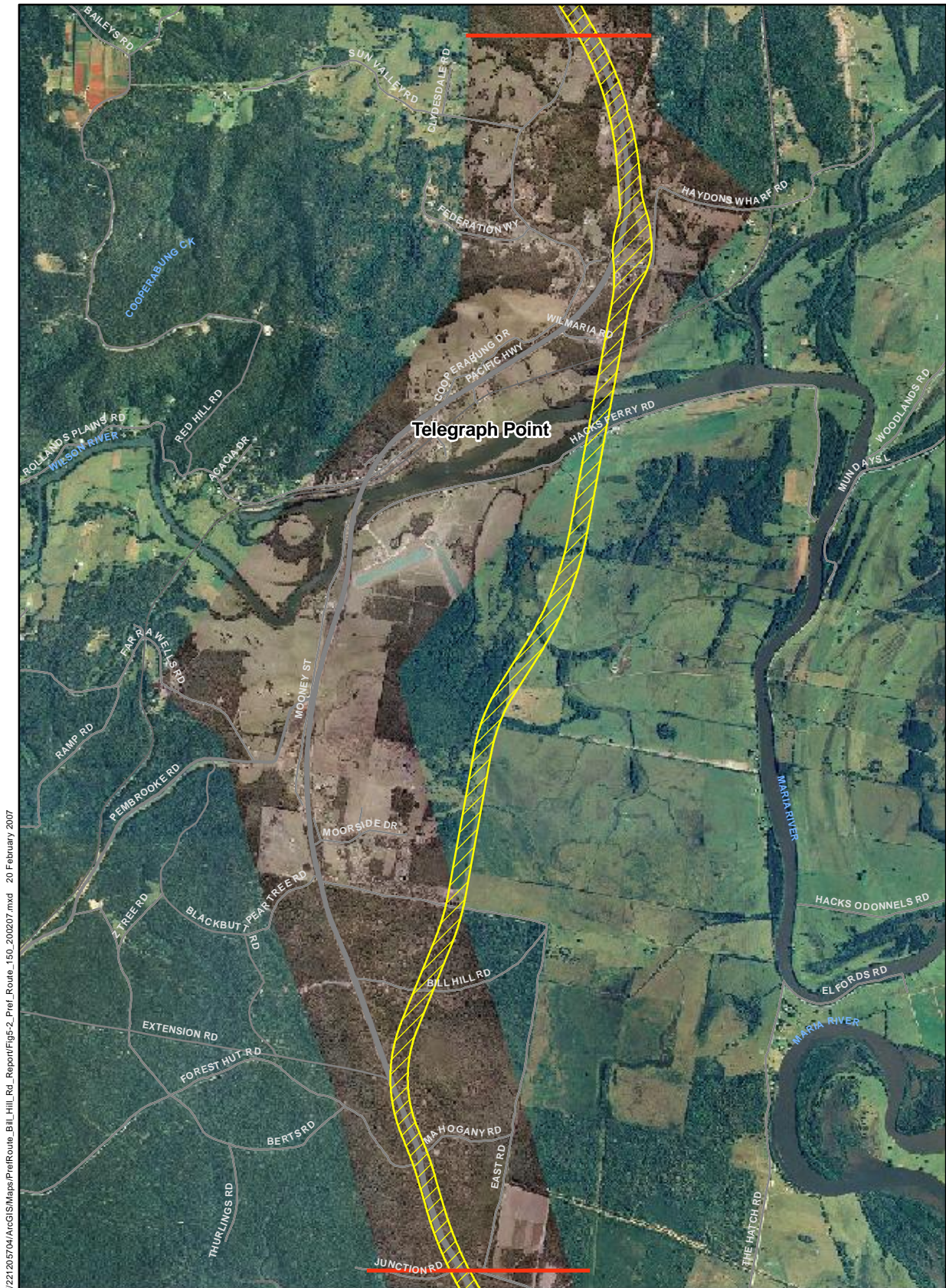
Figure 5.1 shows the refined preferred route in the Bill Hill Road area, whereas Figure 5.2 shows the refined preferred route for the full length of the project .



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|--|-------------|--|
| <p>0 1 2 3 Kilometres</p> | <p>GRID</p> | <p>LEGEND</p> <p> 150m wide and variable Corridor</p> |
| <p>Map Projection: Universal Transverse Mercator Horizontal Datum: Geodetic Datum of Australia 1994 Grid: Map Grid of Australia, Zone 56</p> | | |

Spatial layers courtesy of Port Macquarie - Hastings Shire Council, Kempsey Shire Council, NSW Department of Environment and Conservation, NSW Forests, NSW Department of Lands and NSW Roads and Traffic Authority



/221205704/ArGIS/Maps/PrfRoute_Bill_Hill_Rd_Report/Figs-2_Pref_Route_150_200207.mxd 20 February 2007

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|--|---------------|--|
| <p>1:50 000</p> <p>Map Projection: Universal Transverse Mercator Horizontal Datum: Geodetic Datum of Australia 1994 Grid: Map Grid of Australia, Zone 56</p> | <p>GRID N</p> | <p>Legend</p> <ul style="list-style-type: none"> — Section Breaks Preferred Route 150m Corridor Main Rd Highway |
|--|---------------|--|

Spatial layers courtesy of Port Macquarie - Hastings Shire Council (2006), Kempsey Shire Council (2006), Roads & Traffic Authority, NSW Department of Lands, and Geoscience Australia.

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