Submission on Woolgoolga to Ballina Pacific highway upgrade

Project number	**Woolgoolga to Ballina Pacific Highway upgrade SSI-4963**
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The project is generally supported within the context that I generally believe it should be further to the east on higher ground rather than through the low soft soils of the flood plain and agricultural lands. Issues for further consideration are identified below.

Of particular interest to me is Section 4 (68.8south to 82north) and the area immediately to the south of the new Shark Creek Bridge. Most of the following comments focus on that area.

The following key pieces of information are noted

- Completion is identified as 2016 for the purposes of the EIS but the actual timing depends on state and commonwealth funding arrangements.
- The general objectives are improved road safety, reduced vehicle travel times, enhanced freight carrying capacity, improved accessibility to regional and local centres, and supporting regional economic development.
- Section 4 will be M class.
- Substantial soft soil works to a depth of 16 metres will be needed south of the new Shark Creek Bridge 75 to 72.9, area SS01. Work in this area is scheduled to start early in the project (8.3.2, Table 8-11, Table 6.5 p6-53, and Figure 6-20 p6-27).
- The new Shark Creek Bridge will be Twin bridges Super T style with 14 x 32m spans creating a 450m bridge, with a minimum clearance 4.6m over Gallaghers Road. (Table 5.7 and p5-150, 5.3.5)
- There will be a substantial embankment leading to the southern end of the new Shark Creek Bridge (Table 5.13, p5-197), blocking all current drains and Norleys Lane (5.3.7, Table 5.8, p 168), but creating a new drain to the west of the embankment joining to Tyndale No 2 Drain (Lees Drain) (Figure 8-1 WP Hydrology).
- The design seeks to create flood immunity for flood events greater than 1 in 20 across the flood plain area (Figure 8.1). At 73.4 - Tyndale No 2 Drain – there will be 15 metre crossing (Table 5.5, p5-144) over 6 metre viaduct (Table 6-15, Figure 6-15, and Figure 8.1 WP Hydrology).
- There will be an access road to the east of the embankment leading to the southern end of the new Shark Creek Bridge, and joining Gallaghers Road (5.3.7).
- There will be a wildlife corridor adjacent to Shark Creek and Gallaghers Road at the northern end of the southern approaches to the new Shark Creek Bridge (Figure 5-39 p5-54).

The following approaches are noted.

- Consultation to date has been extensive, and is identified as continuing under various headings.

Issues

Flooding and drainage

The complexity of these floodplain systems is acknowledgement in Ch 8, where it is also noted that considerable work has been done on proposed embankments, bridges, culverts, and drainage structures and the resultant impacts of the project and ongoing management of them.

The stated intention to oversize some bridges and culverts to meet other than hydrological need is strongly supported. Particular attention should be given to the restriction into and out of Tyndale Drain No 2 (Lees Drain) in the context of the major embankment approaches to the Shark Creek Bridge and the changes in flooding flows and velocities as a result of it.

The flood focus groups have been useful and should continue into the design stages for these important structures of not only the bridge but the embankments.

The area on the current highway south of the old Shark Creek Bridge is cut off during a three to four year ARI flood event (WP Hydrology). Note that this is one of the smallest intervals to flood in the report and that flows are directly towards the new embankment area. Early construction of the embankment for soft soil

treatment should necessitate early construction of the new drain to the west of the embankment so that the area, and the project construction site, can be flood-ready.

The consultative approach with landowners and on site design identified at 8.2.3 and p411 WP Hydrology is encouraged. Early engagement is also encouraged with Clarence Valley Council and the Catchment Management Authority in the design of the drain west of the embankment connected to the existing flood mitigation drain (Tyndale No 2). Effectively it will be an extension of the Lees Drain Tyndale No 2 flood mitigation system and should come under Clarence Valley Council and the Catchment Management Authority management.

The notion of improving drainage systems for farmers where this is possible within the project is supported (p411). The closure of two minor drains and creation of a major new drain to the west of the embankment is supported provided the new drain is maintained as a flood mitigation drain (Table 8.4 p402)

Access Road

Page 159 of the WP on Traffic and Transport indicates that Gallaghers Road and Norleys Lane will be retained in operation throughout the construction of the new Shark Creek Bridge and approach embankments. As Norleys Lane is crossed by the embankment it seems likely that it will be closed to traffic well before the end of construction. In which case the early construction of the new access road to the east would be desirable.

Table 5-3 lists the design criteria for access roads, 50 or 60km per hour two lanes at 3m and shoulders at 0.5m with 1 on 10 year flood immunity.

At Figure 5.39, p5-54 it is indicated that to the east, Norleys Lane would be realigned as an access road along the project length, before connecting to Gallaghers Road in the north, and hence the old highway. While the quantity of traffic will be low, Gallaghers Road is currently a gravel track in relatively poor condition. It deteriorates rapidly due to flood erosion and intensive periods of use for cane operations and is usually graded and re-gravelled by Clarence Valley Council on an annual basis, although more often would be useful.

The connection of the old highway and the new access road will create a situation where Gallaghers Road has increased traffic from cane haulage and farm access. The eastern Norleys Lane cane pad will become the third full size cane pad for which cane is hauled out of Gallaghers Road. The increase would be in the nature of 70 vehicle movements per day for a total period of about 3 weeks each year mostly of 40tonne trucks. Although there is only one house on Gallaghers Road, 6 farmers use it for access for machinery and vehicles to their properties and this will increase with the closure of Norleys Lane as an alternative access.

At 14.3.1 it is suggested that traffic increases would be within the capacity of local roads. However, the small quantity of increased traffic will have a proportionately greater impact on Gallaghers Road, and, as the joining road between the new access road and the old highway it will need some work in order to make the new access road effective and useable.

In terms of construction access, Tables 14.6 and 16.6 do not mention Gallaghers Road as potential construction access, but it is identified in red on the maps as potential access (Figure 6.20). This may need clarification. The intention to avoid use of local roads where possible is noted (6.6.1) but the impacts on Gallaghers Road of both construction and the end result do require further consideration.

The report indicates that the new access road will also be called Norleys Lane. To avoid confusion of two roads with the same name which do not connect, it would be better for the new road to have a new name. I would suggest that the small eastern portion of Norleys Lane and the remainder of the new access road be called Moloneys Lane.

Cane pads

Chapter 16 page 44 refers to relocation of Norleys Lane Shark Creek cane pad, although elsewhere it is assumed the access road east of the embankment will provide access to it in its present location. Page 73 indicates a commitment to review of such matters in the detailed design stage “in consultation with affected property owners and the cane industry”. This will need clarification with the cane industry.

Water basins

The creation of water ponds to capture water before it enters watercourses (5.3.11) is supported but its dispersal into the surrounding flood plain will need to be carefully coordinated with cane drainage in agricultural land and have no adverse impact on adjacent farming operations (Ch 9, 9.4, p9-75).

Ancillary facilities

Ancillary site 2 (sequential site number 30 at 73.4 to 74) is identified as for stockpile purposes only. It should be noted that this is adjacent to the watercourse Tyndale Drain No 2 (Lees Drain).

Landscape

The development of Tyndale rest areas and interchange, and the Maclean interchange, provide opportunities for tourism and business. Landscape design is intended to highlight numerous minor and major creek and river crossings across the Pacific Highway journey over the coastal floodplains. There is much potential for on-farm and eco-tourist development in areas such as Shark Creek and Tyndale. The visual impact of the new Shark Creek Bridge works should be landscaped where possible.

The combined fauna and drainage structure at 74.8 is supported. It will be important that any fencing be well maintained when complete, especially in times of flood, and so as not to be a hazard to cane harvesting operations. Ch10 p219 notes that fauna exclusion fencing required in low-lying floodplains will be designed to exclude emus from the road corridor, and will be placed higher on fill embankments to reduce impacts of flooding on the fauna fence.

For Chapter 11 on Landscape, it should be considered whether the assessment of impact between views 21 and 22 is adequate given the location of the new Shark Creek Bridge, and the distant view to Clarence Peak in the context of local homes and the potential to develop a farmstay oriented to the eastern view. Given the height of cane (maybe 2 metres) and the height of the bridge (up to 10 metres at the crossing), the notion that “the seasonal nature of the sugarcane would create a changeable amount of screening for the road” seems unlikely (Ch 11 p27).

The plan outlined at Landscape WP p243 to provide intermittent tall roadside planting within the agricultural floodplains including Shark Creek and retain views across the floodplains towards Green Hill, Woodford Island Ridge and Shark Creek Range is supported. The creation of visual buffers to nearby residents is supported although “nearby” should include those affected along the corridor of the old highway as many of these homes are oriented to the eastern views. The reinstatement of riparian vegetation to bridge approaches and disturbed area near Shark Creek is also supported.

Offset strategies

Offset strategies are supported, especially where property proximate to the project can be more productively used than at present, but providing the intention is to also work with adjacent landholders and farmers for better outcomes for both the project and agricultural land.

The following issues require further consideration

Long term economic benefits focus on state and national levels. Local benefits should be actively sought where these are achievable and compatible with the project.

Consultation to date has been acceptable but needs to continue through the design and construction phase where imput from local farmers can provide opportunities for better outcomes for the project and farmers.

Corrections and clarifications

5.114 refers to Tyndale but the image is Richmond, and 5.115 refers to Richmond but the image is Tyndale

Figure 5.39 of Section 4 – page 5-54 - The label “Norleys Lane” is attached to Tyndale No 2 Drain (Lee’s Drain), despite it being correctly identified as a blue water course. The white text box “Norleys Lane is terminated …” is in the correct position. “Tyndale Cane Drain 2 twin bridges is in the correct place and refers to Lee’s Drain.

Ch13 Heritage p13 identifies the cane cutters barracks at 18 Gallaghers Road. It should be noted that the barracks was moved approximately 200 metres southwards at the end of 2011. It is still on the same property, albeit on the other side of Gallaghers Road and integrated with the house precinct.

Ch 17 p71 says initially to A rather than M. Throughout it is assumed Section 4 will initially go to M class, so p71 needs clarification.

Conclusion

I note in Chapter 21 Justification that the EIS identifies the engineering challenges that remain in traversing the floodplain areas, as well as the management challenges in avoiding impacts on regionally significant agricultural land and areas of environmental sensitivity. All of these will be key to crossing the Shark Creek basin.

Ongoing consultation and active engagement with local landholders, especially in the flood plains and farm lands, is essential.

James Moloney