

13. Urban design

This section summarises the urban design framework for the Woolgoolga to Wells Crossing Project. Further details regarding urban design are included in the Final urban and regional design / landscaping plan working paper.

13.1 Study area

The Woolgoolga to Wells Crossing section of the Pacific Highway is set within the coastal plain and hinterland between Coffs Harbour and Grafton. To the south the Coffs Harbour region is typified by steep coastal hills and to the north the Grafton area is the Clarence River floodplain. Overall the land use adjoining the highway upgrade is typically rural in nature, consisting of forests and agricultural or pastoral land uses.

The southern section of the highway upgrade is located west of the Arrawarra Headland and Corindi Beach. The highway passes through the Wedding Bells State Forest and also melaleuca forest and wetlands before rising into a predominantly rural area used for agricultural activities. East of the rural area lies the town of Corindi Beach. There is visual separation between Corindi Beach and the highway, with access to the Corindi Beach via Kangaroo Trail Road.

North of Corindi Beach the highway upgrade passes through Corindi River floodplain where the predominant land use is agriculture activities. The upgraded highway will be elevated relative to the floodplain to provide some level of flood immunity.

North of the Corindi River floodplain the highway rises through the Dirty Creek Range where the vegetation is typically tall eucalypt forest. The Halfway Creek valley houses the upgrade alignment through the steeper parts of the range. Vegetation at this location is generally enclosed forest with isolated cleared areas. These cleared areas allow for views across the landscape.

13.2 Urban and regional design framework

The RTA's *Pacific Highway Urban Design Framework* provides six urban design objectives that should be considered in route selection, project development and procurement process for the highway upgrade. These objectives are:

- Provide a flowing road alignment that is responsive and integrated with the landscape.
- Provide a well vegetated natural road reserve.
- Provide an enjoyable interesting highway.
- Respect the communities and towns along the road.
- Provide consistency-with-variety in road elements.
- Provide a simplified and unobtrusive road design.

The RTA's framework reinforces the essential character of the Pacific Highway corridor. It builds upon lessons learnt from the first stage of upgrade and stresses the need for a consistency of vision so that future projects are designed as part of a unified scenic highway.

13.3 Areas of aesthetic significance

The project area comprises of rural / agricultural land uses and forests. The rural / agricultural land is typically located within broad floodplain areas. The forests are generally located within the elevated areas such as Dirty Creek Range. Table 13-1 below lists the broad geographic features of the project with aesthetic significance.

Table 13-1 Areas of aesthetic significance

Location
Coastal plain west of Arrawarra Headland and Corindi Beach.
Lorikeet Tourist Park.
Wedding Bells State Forest.
Corindi Beach (township).
Corindi River floodplain.
Corindi.
Dirty Creek Range.
Newfoundland State Forest.
Yuraygir State Conservation Area.

13.4 Proposed landscaping treatment

The proposed landscape treatments seek to maintain and reinforce the character of the vegetation communities of the existing environment along the highway corridor. Five landscape treatments are proposed for the upgrade to satisfy the above objectives, comprising of:

- Rounding of cut batters to reduce the visual impact of embankments.
- Revegetation of cut batters and fill embankments within verges.
- Revegetation to medians.
- Revegetation to ecologically sensitive areas such as creek lines and fauna crossings.
- Enhancing vegetation connectivity in key habitat areas.

13.5 Proposed bridge treatments

Bridges are to be treated in accordance with various RTA reference documents including:

- Pacific Highway Urban Design Framework, RTA March 2005.
- Beyond the Pavement, Urban and Regional Design Practice Notes, RTA September 1999.
- Shotcrete Design Guidelines, RTA 1998.

Typically for bridges, the design criteria implemented includes:

- Supports to be simple tapered or pillars.
- Abutments to be spill through to allow a wider viewshed.

- The outer face of bridge deck parapets to be smooth single planes slanted outwards to the bottom.
- Traffic barriers to be precast concrete with steel rails.

Mass planting will occur either side of the bridges to integrate the bridge structures with the surrounding environment.

13.6 Specific urban and regional design treatments

There is only one location along the project upgrade where specific treatments are proposed. This location is where the new alignment merges with the existing highway alignment in the Dirty Creek Range. Significant cut and fill batters are required along with twin bridge structures. The prime treatment to be implemented is significant vegetation planting on fill batters and the upper slopes of the cut batters where a two to one slope is proposed. This will reduce the visual impact to road and highway users, and from the floodplain at a distance.

13.7 Conclusion

The visual impact assessment concluded that with regards to key viewpoints along the upgrade route there is generally negligible visual impact caused by the upgrade. This is due in a large part to the duplication occurring on the western side of the existing carriageway, low population in towns along the route, limited visibility due to landform and existing vegetation cover along the route. There is a potential adverse impact within the Dirty Creek Range, due to the depth of the Dirty Creek Range cutting and this is to be mitigated through extensive use of vegetation treatment and screening.