

## 4. Description of the proposal

### 4.1 Alignment and main features of the route

A description of the preferred route in each section of the project is provided below. A plan of the preferred route showing the route's main features including the benefits of the selected route, possible interchange locations and locality features is shown in Figure 1.1.

#### 4.1.1 Southern project limit to Blackmans Point Road

Duplication of the existing alignment would occur on the west side of the existing alignment until approximately 900 metres north of Sancrox Road/Fernbank Creek Road intersection, with the existing carriageway used for southbound traffic. North of Sancrox Road the duplication would switch to the east side to take advantage of the available road reserve.

The new crossing of the Hastings River and Glen Ewan Road would require new bridges for both carriageways and would maintain existing navigational clearances. Two new bridges are also required at Fernbank Creek. A number of major box culverts would require duplication through this section. The Hastings River floodplain on both sides of the Dennis Bridge would require special construction techniques to address the existing deep soft soil conditions.

The alignment would impact on Cairncross State Forest north of the Hastings River in the vicinity of Blackmans Point Road. The location of a proposed grade separated interchange and connectivity to the existing road network will be determined as part of the concept design phase.

#### 4.1.2 Blackmans Point Road to Cooperabung Drive

At Blackmans Point Road, the preferred route follows the existing highway alignment for approximately two kilometres, then deviates to the east, through Cairncross State Forest, across the Wilson River and its floodplain east of Telegraph Point, over the North Coast Railway and Haydons Wharf Road, and rejoins the existing highway alignment south of Cooperabung Drive. The corridor passes along the eastern edge of Moorside Drive and the western edge of the Cairncross Farms Organic Tea Tree Oil. The corridor passes to the east of the ski park facility.

South of the Wilson River the alignment crosses the Wilson River floodplain for more than three kilometres. Consideration of the soft soil conditions with varying depths and flooding in this area would be necessary, with several major culvert structures required across the floodplain.

The alignment crosses the Wilson River at the eastern end of Dalhenty Island approximately 2.4 kilometres downstream from the existing bridge at Telegraph Point. The new bridges over the Wilson River would maintain clearance for vessels passing beneath. New bridges are also required over the North Coast Railway, Haydons Wharf Road and Cooperabung Creek. Two areas of SEPP 14 wetland (located on Dalhenty Island and the adjacent northern bank of the Wilson River) would be affected by the preferred route.

Class A conditions (four-lane, 100 km/h posted speed limit access condition roadway with at-grade intersections) would exist along the majority of this section at project opening. Possible provision of a grade-separated interchange in the vicinity of Haydons Wharf Road and access road arrangements would be investigated as part of the concept design phase.

#### **4.1.3 Cooperabung Drive to Mingaletta Road**

The preferred route through this section is a duplication of the existing alignment, proposed on the western side from Cooperabung Drive to south of Yarrabee Road where the duplication switches to the eastern side and continues this arrangement through to Mingaletta Road.

A major consideration for this section is Cooperabung Hill, which rises from a level of approximately 30 metres (AHD) to a level of 100 metres (AHD). The extent of widening of the existing rock cuttings through this area would be determined in the concept design phase.

The alignment has a minor intrusion through the eastern edge of Cooperabung Creek Nature Reserve and continues the existing alignment through Ballengarra State Forest. A concentration of koala road kills through the Ballengarra State Forest area indicates an important movement corridor for koalas in this area and would require special design considerations to mitigate impacts. The location of possible underpass/overpasses and additional local access roads will be determined as part of the concept design phase.

#### **4.1.4 Mingaletta Road to northern project limit**

Between the end of the Kundabung straight and the Maria River, realignment on the east side of the existing highway is required to achieve a 110 km/h design speed. At Maria River the realignment connects to the southern end of the existing section of dual carriageway.

New bridges would be required for the southbound carriageway at Smiths Creek and Pipers Creek. At Maria River, a new bridge is required for the northbound carriageway adjacent to the existing low-level timber bridge, and is being constructed separately as part of the RTA's bridge replacement project.

North of Kundabung straight, the existing alignment passes between Kumbatine National Park and Maria River State Forest where particular attention will be required to alleviate impacts on wildlife (eg. fauna underpasses). Consideration of noise attenuation would be required in the vicinity of the Kundabung where a number of rural residences are exposed to road traffic noise.

The final arrangement of at grade intersections and local access roads to rationalise the number of accesses and improve safety, will be investigated in the concept design phase.

#### **4.1.5 Project extension**

The original northern limit for the Oxley Highway to Kempsey project was located just north of the Maria River where the preferred route would tie in with the existing dual carriageways. This has now been extended approximately 900 metres to the north to tie in with the proposed grade separated interchange at the southern end of the Kempsey to Eungai project. In this extended section, the final arrangement of the carriageways and local access roads would be determined during the concept design phase but could involve the provision of a new carriageway between the two existing carriageways.

## 4.2 Upgrade strategies

Design standards for the Pacific Highway upgrade program require two lanes in each direction, with consideration for the future addition of another lane each way, separated by a median of a desirable width of 12 metres. Traffic volume projections have been prepared for 20 years from 2016.

Two highway upgrade scenarios are being considered as part of the project:

- ▶ Class A or arterial standard – two lanes in each direction, 100 km/h posted speed, limited access condition roadway with at grade intersections; and
- ▶ Class M or motorway standard – two lanes in each direction (median width to accommodate future upgrading to three lanes in each direction), 110 km/h posted speed, controlled access condition roadway generally with grade separated interchange access.

The upgrade of the highway is expected to be completed in stages to meet traffic growth.

Upgrade to Class A may be followed by a subsequent upgrade to Class M. Upgrading may also be completed on a staged basis.

## 4.3 Service and access roads

As part of the route option development phase, service road and access road strategies were developed. Initially the strategies were based upon the rationalisation of private accesses and intersections in order to improve access and safety for the upgraded highway.

A requirement of the Class M upgrade is to develop a strategy to provide a continuous alternate route for the highway. Subsequently, design criteria and a strategy were developed to provide for the continuous alternative route as part of the service and access road strategy.

### Service road description

The proposed service road will consist of two defined lanes, plus shoulders (sealed with line-marking) designed to local council standards (minimum) based on predicted traffic volumes. A service road will provide:

- ▶ Access to adjacent private and public land;
- ▶ Connection to public roads that provide access to nearby private and public land;
- ▶ Rationalisation of intersections to the upgraded highway;
- ▶ Connection between local villages/towns;
- ▶ An all weather carriageway for all classes of vehicles except for oversized vehicles and B-doubles;
- ▶ A continuous alternate route to the upgraded highway for a Class M scenario;
- ▶ Connection to local public road or disused highway; and
- ▶ Connection to the proposed grade-separated interchanges, including the grade-separated interchanges proposed for the Kempsey to Eungai Project or the existing grade-separated interchanges ('donut') at the intersection with the Oxley Highway.

Wherever possible, existing local roads and collector roads, including sections of the “Old Pacific Highway”, and the existing highway adjacent to realigned sections, will be used as service roads.

#### **Access road**

The proposed access road will consist of narrow sealed carriageway designed to local council standards (minimum) that will provide:

- ▶ Access to adjacent private property;
- ▶ Access by service vehicles only (eg. garbage truck, postal service);
- ▶ Possibly a ‘no through road’; and
- ▶ Connection to a local public road or proposed service road.

Wherever possible the service road or access road will be adjacent and parallel to the upgraded highway. However, in some areas a service road or access road may be required to be located away from the upgraded highway alignment and outside the preferred route corridor. This requirement and impact will be established throughout the concept design phase.

#### **4.4 Interchange locations**

At present, there are three locations being investigated for the possible location of grade-separated interchanges. These locations are shown in Figure 1.1 and can be described as:

- ▶ In the vicinity of Sancrox Road/ Fernbank Creek Road intersection;
- ▶ In the vicinity of Blackmans Point Road north of the Hastings River; and
- ▶ In the vicinity of Haydons Wharf Road north of the Wilson River.

The location of the interchanges is to be developed and finalised as part of the detailed design process.

#### **4.5 Rest stop strategy**

There are two existing rest stops situated at the northern end of the project.

The existing Smith Creek Road, Kundabung (southbound) rest area is impacted by the highway duplication. This rest area was built in the widened road reserve that was historically provided for duplication of the highway to the east.

The existing Bloodwood Ridge (northbound) rest area, south of Maria River, will be ‘isolated’ by the proposed realignment of the highway to the east of the existing alignment.

The upgrade and final position of the rest areas is subject to an overall rest area strategy for the Pacific Highway where major rest stops are to be provided every 50 kilometres (approximately) and minor stopping places every 5 kilometres (approximately).