6.16Cumulative impacts

6.16.1 Methodology

Cumulative impacts could be experienced if construction or operation of the proposal coincides with construction or operation of other local development, such as other road upgrades, public work or private development.

A desktop review of the major project register on the Department of Planning, Industry and Environment website completed on 10 August 2019 identified major projects within the Singleton LGA which have the potential to contribute to cumulative impacts with the proposal. These projects are listed in Table 6-71.

Table 6-71: Major projects within the potential to contribute to cumulative impacts with the proposal (major projects register)

Project	Description	Status and timing	Distance from the proposal
New England Highway Upgrade between Belford and the Golden Highway	 This project proposes to upgrade the last section of road between Newcastle and Belford to a four-lane divided road. The project involves: Provision of dual carriage way in both directions. Replacement of the existing right turn movement from the Golden Highway to the New England Highway with a right turn flyover. The establishment of a road corridor for future development of the New England Highway towards Singleton. 	Detailed design stage Timing not confirmed	8km to the south-east
Muswellbrook Bypass – New England Highway	This project proposes to construct a bypass off the New England Highway around the township of Muswellbrook. A preferred corridor has been preserved within the Muswellbrook LGA. A preferred route the corridor has not yet been identified.	Options assessment stage (not approved). Timing not confirmed.	30km to the north
United Wambo Open Cut Coal Mine	 The project involves merging the existing open cut operations at Wambo and establishing an open cut mine at United Collieries. The project is expected to produce up to 10 million tonnes of run-of-mine coal. Other parts of the project include: Relocating a two kilometre stretch of the Golden Highway Relocating a section of 330 kilovolt and 660 kilovolt transmissions lines to optimise coal recovery from the proposed open cut mine at 	Recommended for approval. Project to commence in 2020.	10 km to the west

Project	Description	Status and timing	Distance from the proposal
	United Collieries.		
Rix's Creek Continuation of Mining	 This project involves approval for the ongoing operation of the existing open cut mine and a small extension to the western boundary of the existing Mine Lease. The main components of this project are: Operation of the mine for 21 years from the date of approval Increasing production limits to a maximum of 4.5 million tonnes of run-of-mine coal Extension of open cut mining of Pit 3. 	Approved Projected to commence in 2020	Adjacent to the north of the proposal area

The Singleton Council website identifies Development Applications (DAs) recently determined within the LGA, including major developments and Council infrastructure maintenance work. Approved projects generally include upgrades to residential properties, residential subdivisions and Council water infrastructure upgrades that would have negligible cumulative impacts within the proposal.

Major projects identified on the Singleton Council website with the potential to contribute to cumulative impacts with the proposal are generally limited to the Singleton Town Centre – Stage 2 Upgrade project. The project includes:

- Enhancement of the gateways to the town centre
- New street lighting
- Undergrounding of power lines
- New landscaping and street furniture
- Assessment of several intersections and potential upgrades
- Improvements in traffic safety
- Traffic and parking management
- Footpath improvement
- Improvements to pedestrian connectivity.

The project is at a concept design stage and there is no available information on when construction will commence.

6.16.2 Potential impacts

The timing for the construction of the proposal has not yet been confirmed. Therefore the extent of potential cumulative impacts can only be assessed in regards to project information and schedules available at time of publication.

Construction

Cumulative impacts could occur during the construction as a result of the proposal and other developments being carried out in parallel. The key cumulative impacts during construction could include:

- Increased construction vehicle traffic on local roads
- Cumulative air and noise impacts associated with multiple construction activities
- Temporary changes to visual amenity.

Potential cumulative impacts would be temporary and environmental safeguards and management measures would be implemented as appropriate.

The severity of potential cumulative impacts would vary between locations and would generally be dependent on the types of work being carried out, the timing and duration of the work relative to each other, the distance between the work and the receivers and sensitivity of the receiver. In relation to the identified mining projects these are ongoing operations or extension to existing mines which would have low potential to result in cumulative impacts. The nominated road projects may have the potential to cause cumulative construction traffic delays at other locations on the New England Highway if they are constructed at the same time as the proposal. Given that each of these road projects is at a different stage of design or development and that the proposal is not currently funded for construction there is a low potential for cumulative impacts to occur.

Operation

The proposal, combined with other approved and proposed road upgrade projects would result in cumulative traffic benefits on the New England Highway and surrounds through the increased capacity of the road network, improved traffic flow and journey times and improved road safety.

The proposal, combined with other approved and proposed road upgrade projects may contribute to a cumulative loss of rural and agricultural land, however impacts are anticipated to be minor.

The proposal would reduce the number of heavy vehicles travelling within the vicinity of the town centre. The proposal would therefore result in cumulative amenity benefits for the Singleton town centre when combined with renewal projects such as Singleton Town Centre – Stage 2 Upgrade project.

6.16.3 Safeguards and management measures

Measures identified in Section 7.2 would be suitable to manage potential cumulative impacts associated with the proposal.