

Milton Ulladulla bypass

Environmental impact statement

Chapter 24 Project justification and conclusion

September 2026



Table of contents

24. Project justification and conclusion 24-1

24.1 Strategic context and statutory considerations..... 24-1

24.2 Social, environmental and economic considerations..... 24-6

24.3 Uncertainties and resolution 24-21

24.4 Conclusion..... 24-22

List of tables

Table 24-1: Project consistency with strategic planning and policy framework 24-1

Table 24-2: How the project has addressed the strategic need and project objectives 24-3

Table 24-3: Summary of key feedback and how it is addressed in the project 24-6

Table 24-4: Summary of adverse impacts..... 24-10

Table 24-5: Desired performance outcomes and project outcomes..... 24-12

Table 24-6: Relevance of the objects of the EP&A Act to the project..... 24-18

Table 24-7: Project uncertainties..... 24-21

24. Project justification and conclusion

24.1 Strategic context and statutory considerations

24.1.1 Consistency with strategic planning and policy framework

The project is supported by a range of NSW and Australian Government strategies, policies and plans. The project directly addresses key priorities across state, regional and national frameworks including transport safety, freight efficiency, regional connectivity and liveability, as described in Table 24-1.

Table 24-1: Project consistency with strategic planning and policy framework

Policy	Project consistency
State plans	
<i>Connecting NSW Strategy</i> (Transport, 2025)	The project aligns with the priorities of the <i>Connecting NSW Strategy</i> by providing a safe, reliable and efficient transport system in regional and rural NSW. The bypass design incorporates latest safety standards including central medians and widened road shoulders, reducing risks of pedestrian-vehicle crashes in Milton and Ulladulla town centres. By shortening travel times and reducing congestion on the Princes Highway, the project directly supports improved freight efficiency and regional community resilience.
<i>Delivering Freight Policy Reform in New South Wales</i> (Transport, 2025)	The bypass strengthens the Princes Highway as a key freight corridor by providing a higher-speed route that reduces travel times and congestion. Improved road design with median barriers and wider shoulders enhances safety for all road users, directly supporting the objectives of <i>Delivering Freight Policy Reform in New South Wales</i> .
<i>Staying Ahead: State Infrastructure Strategy 2022-2042</i> (Infrastructure NSW, 2022)	The project delivers on the <i>Staying Ahead: State Infrastructure Strategy 2022-2042</i> recommendations to improve efficiency, reliability, and safety of regional transport networks. By enhancing travel time reliability and freight efficiency along the Princes Highway, while supporting liveability through reduced traffic in town centres, the project supports the Princes Highway as a priority transport corridor requiring safety and reliability upgrades.
<i>2026 Road Safety Action Plan</i> (Transport, 2022)	The project supports the priorities of the <i>2026 Road Safety Action Plan</i> by creating safe country roads and enhancing road safety in local communities. The bypass design includes flexible medians, wider road shoulders, and barriers to protect all road users. Removing through traffic and freight from pedestrian-heavy town centres reduces the potential for vehicle-pedestrian incidents, improving safety outcomes in Milton and Ulladulla.
Regional plans	
<i>Illawarra Shoalhaven Regional Plan 2041</i> (NSW Department of Planning, Industry and Environment, 2021)	The project directly supports the vision of the <i>Illawarra Shoalhaven Regional Plan 2041</i> by supporting a connected region that values people and places. The bypass improves freight efficiency along the Princes Highway while enhancing the liveability and local character of Milton and Ulladulla as the region's second-largest centre by reducing traffic congestion and improving amenity.
<i>Illawarra Shoalhaven Strategic Regional Integrated Transport Plan (Draft Plan)</i> (Transport, 2026)	The Milton Ulladulla bypass is identified as a short-term initiative (0–5 year timeframe) within the <i>Illawarra Shoalhaven Strategic Regional Integrated Transport Plan</i> , which recognises that heavy traffic conflicts with place-based activities, particularly during peak holiday periods when traffic volumes increase by 10–15 per cent above monthly averages. The bypass supports a safe, connected, and resilient transport network that efficiently moves people and freight while enhancing community amenity by removing heavy vehicle traffic from town centres.
Council plans	
<i>Shoalhaven Local Environmental Plan 2014</i> (Shoalhaven City Council, 2014)	A bypass corridor was established in the Shoalhaven LEP following a Route Selection Study conducted between 1996 and 1998, zoned SP2 Infrastructure. The preferred alignment broadly aligns with the LEP corridor, with refinements made during the design phase to optimise outcomes.

Policy	Project consistency
<i>Shoalhaven 2040 Strategic Land-use Planning Statement</i> (Shoalhaven City Council, 2020) and <i>Shoalhaven 2035 Community Strategic Plan</i> (Shoalhaven City Council, 2025)	Both the <i>Shoalhaven 2040 Strategic Land-use Planning Statement</i> and the <i>Shoalhaven 2035 Community Strategic Plan</i> prioritise upgrading regional transport networks and recognise the bypass as essential for managing economic growth and enhancing livelihoods. The project supports these priorities by seeking to remove traffic from town centres to enhance amenity, improve travel times, reduce congestion, and support the visitor economy and local economic growth.
<i>Shoalhaven Active Transport Strategy</i> (Shoalhaven City Council, 2025)	The project aligns with the objectives of the <i>Shoalhaven Active Transport Strategy</i> by providing new and upgraded pedestrian and cyclist infrastructure around bypass connections, including shared user paths and design provisions for future active transport infrastructure.
National plans	
<i>National Road Safety Strategy 2021-30</i> (Australian Government Department of Infrastructure, Transport, Regional Development and Communications, 2021)	The project supports the priorities of the <i>National Road Safety Strategy 2021-30</i> by increasing regional road and heavy vehicle safety. By constructing a divided carriageway with central medians and widened road shoulders, the bypass improves safety for all road users. Reduced through-traffic in town centres decreases the potential risks of pedestrian-vehicle incidents, directly supporting national road safety objectives.
<i>National Freight and Supply Chain Strategy 2025</i> (Australian Government Department of Infrastructure, Transport, Regional Development, Communications, Sport and the Arts, 2025)	The project strengthens a key freight corridor by providing a higher-speed bypass that reduces travel times and congestion. Improved road design with median strips and wider shoulders enhances safety for heavy vehicles, supporting the priorities of the <i>National Freight and Supply Chain Strategy 2025</i> for an efficient and safe national freight network.
Corridor-focused plans	
<i>Princes Highway Upgrade – Roadmap to 2040</i> (Transport, 2021)	The Milton Ulladulla bypass was identified as a short-term priority in the <i>Princes Highway Upgrade – Roadmap to 2040</i> . The project delivers on this priority by decreasing travel times, reducing congestion, and enhancing road safety while improving the performance of a key freight corridor to support local communities and economies.
<i>Princes Highway Corridor Strategy</i> (Transport for NSW, 2016) and <i>Princes Highway Corridor Strategy</i> (Commonwealth Department of Infrastructure, Transport, Cities and Regional Development, 2019)	Both the NSW Transport (2016) and Commonwealth Department of Infrastructure (2019) corridor strategies identify the Milton Ulladulla bypass as a long-term priority. The project addresses the need to improve road safety and balance local and through-traffic demands with urban amenity in high pedestrian-vehicle conflict areas. By redirecting through-traffic and heavy vehicles away from town centres, the project enhances amenity while improving efficiency, safety, and travel times for all road users.

24.1.2 Addressing the project's strategic need and objectives

A summary of how the project addresses the project objectives is provided in Table 24-2. The strategic need for the project, as described in Section 3.2 of Chapter 3 (Strategic context and project need), is reflected in the project objectives.

Table 24-2: How the project has addressed the strategic need and project objectives

Project objective	How addressed
Improve transport network safety for all transport modes and customers	Large traffic volumes and congestion on the existing Princes Highway pose increased risk of crashes. Between 2020 and 2024, 144 crashes were recorded between the existing Princes Highway / Golden Flats Lane intersection and south of Wheelbarrow Road and Burrill Lake. The majority of crashes were intersection-related, with cross-traffic and rear-end crashes occurring most frequently. These crash types are typically associated with turning movements, priority control and traffic flow interruptions along the existing Princes Highway and connecting local roads. Several moderate (no fatality but moderate injury) and serious (no fatality but serious injury) crashes were recorded at intersections within the Milton and Ulladulla town centres, particularly along the existing Princes Highway corridor, highlighting the risks associated with intersections that accommodate higher traffic volumes, mixed vehicle types and frequent turning movements. Road safety would be improved by the project, primarily due to a reduction in traffic volumes resulting in less potential for conflict. Heavy vehicle volumes on the existing Princes Highway would reduce by 780 vehicles in 2031, 940 in 2041, and 1,050 in 2051 between the northern and central connections. These reductions lower stop-start conditions, cross-traffic conflicts and road departure risks. Refer to Section 8.3.2 of Chapter 8 (Transport and traffic) for further detail. Revised pedestrian and cyclist crossing arrangements including signalised facilities and improved shared user path connections, particularly near Canberra Crescent, would enhance safety by providing controlled crossing opportunities and reducing conflicts with vehicular traffic. The relocation of bus stops to indented areas off the Princes Highway at Bishop Drive would further reduce the likelihood of rear-end crashes involving buses and improve safety for public transport users.
Improve transport network efficiency and connectivity to support regional economic development, tourism and freight	The existing Princes Highway through Milton and Ulladulla is congested during morning and afternoon peak times, weekends and holiday periods. Daily average traffic volumes along the Princes Highway between Milton and Ulladulla are between about 7,000 and 9,500 vehicles, with around 5 to 8 per cent of traffic being heavy vehicles (refer to Section 4.3.2 of Technical Report 2: Traffic and Transport Impact Assessment). Holiday peak daily traffic is about 40 per cent higher than typical weekday traffic and about 60 per cent higher than typical Saturday traffic. These volumes include both local and through traffic, and with increasing population growth and tourism, traffic volumes are expected to increase. Travel times along the Princes Highway are currently much lower than desirable for a key arterial corridor, reaching about 23 minutes northbound and 17 minutes southbound along the Princes Highway between Matron Porter Drive and Wheelbarrow Road, during holiday peak times. Due to increasing travel demand and population growth, travel times are also predicted to increase along the Princes Highway between Milton and Ulladulla, should the project not proceed. Additionally, the existing Princes Highway provides an important freight connection. When heavy vehicles pass through Milton and Ulladulla, they travel through multiple roundabouts and signalised intersections leading to frequent stopping and starting. This results in slow freight transit, as well as increases in operating costs and higher fuel consumption due to congestion in the town centre. The project would deliver substantial improvements to transport network efficiency, directly supporting the region's economic development, freight movement and growing population.

Project objective	How addressed
	The project would result in around a 65 per cent reduction in daily traffic volumes on the existing Princes Highway north of Milton in 2031. On the existing Princes Highway approaching Ulladulla from the south, there would be a reduction of 15 per cent in traffic volumes in 2031. The bypass would carry an average of 9,900 vehicles daily in the northern section and 11,800 in the southern section in 2031, increasing to 13,200 vehicles in each direction by 2051. Local roads would also benefit, with Croobyar Road experiencing a 56 per cent traffic reduction between Corks Lane and Woodstock Road by 2031, and volumes on Wheelbarrow Road and Woodstock Road decreasing substantially. Intersection performance on the existing Princes Highway through Milton and Ulladulla would be broadly improved, particularly during holiday peak periods. Without the project, the majority of intersections on the existing Princes Highway would function at a poor level of service (LOS) by 2041, indicating the network approaching capacity. With the bypass in place, most intersections would operate at LOS C or better through to 2051. Travel time savings for through traffic are substantial and would increase over time, with AM peak savings of about 13 minutes and PM peak savings of about 25 minutes in 2051. During holiday peak periods, the project would reduce northbound travel times from 1 hour 2 minutes to 24 minutes and southbound times from 53 minutes to 19 minutes in 2031. The bypass would also be designated as a B-Double approved route, providing a dedicated high-speed freight corridor around the town centres, so that heavy vehicles that do not have a destination in the region can bypass the towns. The bypass would provide a fast, uninterrupted freight corridor that would reduce heavy vehicle traffic through town centres, improving travel times and reliability for all vehicle classes while lowering vehicle operating costs. Heavy vehicle volumes on the existing Princes Highway would reduce by up to 780 vehicles in 2031, 940 in 2041, and 1,050 in 2051 between the northern and central connections. Between Canberra Crescent and Bishop Drive, the bypass would reduce heavy vehicle traffic by up to 640 heavy vehicles in 2031, 700 in 2041 and 720 in 2051. These network improvements are directly responsive to the significant population growth forecast for the Shoalhaven Local Government Area (LGA) and Ulladulla SA2, both projected to grow by more than 40 per cent by 2041. The project addresses this growing demand by providing additional road network capacity and separating regional through-traffic from local movements within the Milton and Ulladulla town centres. By diverting traffic away from the existing Princes Highway corridor, the bypass improves travel reliability and reduces congestion that would otherwise worsen as population and tourism levels increase.
Improve transport network resilience	The project would improve the resilience of the transport network by providing an alternative north-south route that reduces reliance on the existing Princes Highway as the sole arterial connection through Milton and Ulladulla. Under current conditions, any disruption to the Princes Highway has a direct impact on the entire road network, with limited alternative routes available for through traffic. The bypass would address this vulnerability by separating regional through traffic from local town centre movements, reducing potential impacts from disruption. The project would also improve emergency access and egress for communities in the vicinity of the project. By redistributing through-traffic, including heavy vehicles, away from town centres, the project would reduce congestion and improve travel time reliability on local roads during peak periods and critical incidents. This would allow emergency vehicles, including ambulances, firefighting appliances and police vehicles, to move more efficiently when required. Localities west of the project would benefit from direct connectivity to the bypass via entry and exit ramps at the central connection, while an underpass at Kings Point Drive would maintain existing access between Kings Point and the Princes Highway.

Project objective	How addressed
	The bypass would also reduce the pressure placed on local roads that currently function as informal diversions during periods of congestion on the existing Princes Highway. Roads such as Wheelbarrow Road, Woodstock Road and Croobyar Road currently attract increasing volumes of traffic during peak and holiday periods as drivers seek to avoid delays through Burrill Lake and Ulladulla. Without the project, traffic volumes on these roads are forecast to worsen over time. The bypass would relieve local roads of this additional demand and improve the overall performance of the network across all forecast years to 2051.
Enhance the amenity and liveability of Milton and Ulladulla and connected communities	Large traffic volumes currently passing through Milton and Ulladulla, including freight traffic using the Princes Highway to access regional NSW and Victoria, decrease the amenity of the towns. Heavy vehicle movements impact town amenity by increasing noise and air pollution and decreasing visual amenity. These effects are worse during holiday periods when traffic volumes and congestion increases. The project would reduce traffic noise experienced by residents along the existing Princes Highway corridor, improving amenity and liveability. By diverting through-traffic, including heavy vehicles, away from the Milton and Ulladulla town centres, the project would reduce the volume of noise-generating traffic passing through residential areas. The bypass would reduce existing noise levels for many noise-affected properties, improving the day-to-day impacts for residents who are exposed to traffic noise from the highway. However, the bypass would result in newly traffic noise affected areas and has sought to mitigate this through the construction of two noise walls, one along the Bishop Drive Extension and another between the central connection to north of Green Street. Operational traffic noise modelling indicates that 142 sensitive receivers would qualify for consideration of at-property treatment in addition to the noise walls (refer to Section 12.5 of Chapter 12 (Noise and vibration)). In addition, the bypass alignment is designed to a maximum grade of six per cent, reducing the need for engine compression braking and heavy vehicle acceleration that could cause sleep disturbance. The use of cuttings along the alignment would also keep the road surface elevation as low as practicable, helping shield surrounding receivers from noise propagation, particularly during night-time hours. Beyond noise impacts, the diversion of heavy vehicle traffic away from the existing Princes Highway and Milton and Ulladulla town centres would also improve overall amenity. Reduced truck movements would lower community exposure to visual and air quality impacts as well as general disruption associated with heavy vehicle operations. The reduction in through-traffic volumes would also support improved pedestrian amenity within the town centres, with less congestion and conflict at key intersections creating a safer and more pleasant environment for residents, visitors and active transport users. The project would also improve connectivity. The new Bishop Drive Extension provides a vehicle and cyclist connection between the existing Princes Highway, the bypass and surrounding local roads, linking the existing Princes Highway in the east to Pirrarea Road in the west. Additionally, the central connection would include a new shared user path connecting the existing Princes Highway / Bishop Drive intersection to local roads west of the bypass. The southern connection would also include a shared user underpass, maintaining connectivity between Ulladulla and Burrill Lake. Shared user paths would also be included at Green Street and Kings Point Drive to maintain connectivity.

24.1.3 Compliance with statutory requirements

This Environmental Impact Statement (EIS) has addressed the Supplementary Secretary’s environmental assessment requirements (SEARs) issued under Part 5, Division 5.2 of the *Environmental Planning and Assessment Act 1979* (NSW) (EP&A Act) and the relevant provisions of Part 8, Division 5 of the *Environmental Planning and Assessment Regulation 2021* (EP&A Regulation). The EIS also addresses the requirements issued by the Commonwealth Department of Climate Change, Energy, the Environment and Water (Commonwealth DCCEEW) for a controlled action (issued on 12 February 2025) as included in Attachment A to the SEARs.

A checklist showing where the SEARs are addressed in this EIS is provided in Appendix A Secretary’s environmental assessment requirements checklist (including Australian Government Project Assessment Notes). A checklist showing where the relevant requirements of Part 8, Division 5 of the EP&A Regulation are addressed is provided in Appendix B Environmental Planning and Assessment Regulation 2021 checklist. A statutory compliance table, which identifies all the relevant statutory requirements for the project and indicates where they have been addressed in the EIS is provided in Appendix C Statutory compliance table.

This EIS has been reviewed by a Registered Environmental Assessment Practitioner (REAP) (refer to the EIS Declaration at the start of this EIS).

24.2 Social, environmental and economic considerations

24.2.1 Consideration of community and stakeholder views

Community and stakeholder feedback has been considered throughout the project. Table 24-3 provides a summary of key community and stakeholder feedback received during the preparation of the EIS and how it has been addressed in the project. A community and stakeholder engagement table, which identifies detailed findings / community views and issues raised throughout the entire project and how they have been considered in the EIS, is provided in Appendix D. Further information on engagement activities for the project is provided in Section 6.2 of Chapter 6 (Community and stakeholder engagement), and a summary of the project’s selection process, including where stakeholder engagement has been considered in project design, is provided throughout Chapter 4 (Selection of the preferred project).

Table 24-3: Summary of key feedback and how it is addressed in the project

Feedback raised	Addressed in project
Property and community impacts, including: - concerns about property acquisition and uncertainty regarding compulsory acquisitions, including undervaluation of properties and early acquisitions - impact on agricultural businesses including dairy and cattle grazing - uncertainty affecting property values and residents' planning.	All acquisitions would be undertaken in accordance with the <i>Land Acquisition (Just Terms Compensation) Act 1991</i> . As for impacts on agricultural land users, it is proposed that Agricultural Business Management Plans would address operations continuity, access, fencing, water supply, and stock movement for medium or above impacted commercial enterprises. A Construction Noise and Vibration Management Plan and Blast Management Strategy would be prepared to minimise impacts on livestock and farm operations during construction of the project. Biosecurity risks would be managed through wash-down protocols, weed hygiene procedures, and priority weed monitoring. Engagement has been undertaken with impacted property owners and are expected to continue to be undertaken as the project progresses. Additionally, project updates have been published to provide information to the broader community and stakeholders and would continue to be published as the project progresses.
Access impacts, including: - enquiries about property-specific access - access impacts on Canberra Crescent, Little Forest Road, Slaughterhouse Road and Pirralea Road.	Local connectivity is to be maintained wherever possible throughout construction and operation of the project. Construction of the project may temporarily disrupt access to private properties. Where a property's primary access must be temporarily blocked or modified, direct consultation with the affected landowners would occur in advance to establish safe, temporary access arrangements. Local access arrangements were selected to reduce environmental impacts and optimise traffic performance. Engagement was carried out with the community through meetings with residents and landowners whose access to property may be impacted by the project. This feedback received was used to inform local access arrangements for the project.

Feedback raised	Addressed in project
Traffic and road safety, including: • concern over bottlenecks at Burrill Lake and Canberra Crescent • concern over potential increased traffic on Slaughterhouse Road and residential areas • concerns about pedestrian safety, specifically for school children • vehicle safety concerns at Canberra Crescent and cyclist safety along Kings Point Drive • concerns about roundabouts slowing traffic and emergency vehicle access.	The project addresses bottleneck concerns at Burrill Lake and Canberra Crescent by providing an alternative route that diverts regional through-traffic away from these constrained sections of the existing highway. By removing this through-traffic, the bypass improves intersection performance and reduces stop-start conditions that currently characterise these locations during peak periods. This would also improve traffic on local roads and in residential areas in Milton and Ulladulla. The project would also improve safety for cyclists and pedestrians through revised crossing arrangements at Bishop Drive and the Princes Highway, including new signalised facilities and improved shared user path connections that provide controlled crossing opportunities and reduce conflicts with through-traffic. Moreover, removing through-traffic and heavy vehicle traffic from Milton and Ulladulla town centres would create a more pedestrian-friendly road network. The project would also improve emergency vehicle access through the provision of an alternate high-speed bypass of Milton and Ulladulla.
Project timeline and construction, including: • inquiries about EIS display and environmental investigation timelines • concerns over long project duration.	Environmental investigations have been undertaken as part of EIS preparation. The EIS is expected to be made available for public exhibition in late 2026. Construction of the project is expected to start in 2028 and take about three to four years, subject to planning approval and weather.
Bypass route options, including: • continued suggestions for alternative routes including a western alternative.	A western alternative to the project was considered during the planning stage of the project, however was discounted due to impacts to biodiversity (including areas of Meroo National Park), construction difficulty, poor traffic performance (in that it would not divert as much traffic off the existing Princes Highway as the project), poor truck speed and freight efficiency, detours for residents and sight line non-conformances. Refer to Section 4.3 of Chapter 4 (Selection of the preferred project) for further detail.
Environmental and biodiversity impacts, including: • concerns about impacts on endangered flora and fauna including Greater Gliders • concerns about noise, visual, light, pollution, and dust impacts • concerns about bushfire risk and climate change adaptation.	Biodiversity impacts were assessed for the project and are proposed to be avoided and minimised where possible. This has included shifting the bypass alignment to reduce direct impacts to critically endangered flora as well as narrowing of the bypass corridor south of Green Street to minimise impacts on fauna habitat, including for the Southern Greater Glider. Refer to Section 7.2 of Chapter 7 (Biodiversity) for further detail. While impacts to biodiversity have been avoided or minimised as far as practicable, the project would still impact biodiversity values including clearing native vegetation, loss of wildlife connectivity and modification of habitat. A range of management and mitigation measures are proposed to address potential environmental impacts including biodiversity offsets. The project would include connectivity structures, including two land bridges, eight gantries and ten or eleven fauna underpasses. Refer to Section 7.5 of Chapter 7 (Biodiversity) for further detail. Noise, air quality and visual impacts on local amenity have been avoided and minimised where possible. This has included designing the bypass alignment to a maximum grade of six per cent to reduce engine compression braking and heavy vehicle acceleration noise. Cuttings along the alignment keep the road surface elevation as low as practicable, helping shield surrounding receivers from noise. Where feasible, the bypass follows existing topography to minimise large areas of cuts and fill, reducing visual impacts on the landscape. Some haulage through the Milton and Ulladulla town centres would be required during early construction, prior to the construction of a haulage route along the project alignment.

Feedback raised	Addressed in project
	An urban design and landscape strategy has been prepared for the project which aims to sympathetically integrate the design with the surrounding topography, landscape and urban setting. Climate change adaption has been considered during the design of the project, including future flood modelling. The project would improve transport network resilience during natural disaster events such as bushfires by providing an alternate route between Milton and Ulladulla.
Consultation process, including: - requests for more inclusive and accessible engagement methods (preference for face-to-face engagement) - some positive feedback on communication efforts and online options - dissatisfaction with decision-making and community influence.	Consultation has been ongoing throughout the project since the planning stage. Issues raised by the community have been investigated and considered as part of the project, with design elements incorporated to address concerns raised and reduce potential environmental impacts where possible. A detailed description of the consultation process, methods used and feedback received is provided in Section 6.2 of Chapter 6 (Community and stakeholder engagement).
Project design, including: opposition to certain on/off ramps and requests for roundabout redesigns.	Design of local access and bypass connections have been carefully considered during project planning, with the preferred options chosen through an assessment process that sought to minimise adverse impacts. Refer to Section 4.8 of Chapter 4 (Selection of the preferred project) for further detail.

24.2.2 Actions to avoid or minimise the impacts of the project

A number of actions have been undertaken to avoid or minimise impacts of the project, including during the selection of the bypass as the preferred project.

Four strategic alternatives were initially evaluated to identify the approach that would best balance transport efficiency with avoidance and minimisation of impacts. The 'do nothing' approach was rejected because it would allow existing traffic congestion, safety issues, and amenity problems to worsen progressively over time without intervention. An upgrade to the existing Princes Highway along its current alignment was discounted due to extensive property impacts, requirement for shopfront demolition in town centres, and minimal travel time improvements that would not justify these substantial community disruptions. An upgrade to Wheelbarrow Road through the Woodstock Road and Woodburn Road corridors was similarly rejected because it would require substantial vegetation clearing through Meroo National Park, produce poor road safety outcomes with multiple intersections and attract minimal traffic diversion away from town centres. A bypass of Milton and Ulladulla was ultimately selected as the preferred strategic alternative because it would remove the highest volume of through-traffic from established town centres, while meeting safety and efficiency standards. While the project would result in rural and agricultural land impacts and vegetation clearing, it is proposed to manage these impacts where possible through the implementation of mitigation measures.

Further information on this process is provided in Section 4.3 of Chapter 4 (Selection of the preferred project).

Following selection of the bypass as the preferred strategic alternative, development and evaluation of corridor options for the bypass alignment was undertaken to further minimise impacts. The process involved identification of key constraints, generation of a longlist of options varying in length from approximately 13 to 20.5 kilometres, shortlisting through multi-criteria analysis, and technical assessment of shortlisted options. Traffic modelling confirmed that longer, western alignments would carry lower traffic volumes and be less effective at reducing traffic through town centres, while also requiring substantially higher biodiversity offset costs due to impacts on more undeveloped bushland. More eastern alignments proved more effective at reducing traffic within Milton and Ulladulla while minimising environmental offset requirements.

Further information on the selection of the bypass route is provided in Sections 4.4 and 4.5 of Chapter 4 (Selection of the preferred project).

Investigations were carried out to identify connection points from the bypass to the local road network that would minimise impacts to existing communities and infrastructure. The selection of the preferred connection option locations included consideration of community preferences and feedback. The northern connection was refined to a roundabout south of Little Forest Road because, compared to other options, it minimised impacts to existing landholders, required little to no blasting, and reduced interference with utilities infrastructure. The central connection was designed as a grade separated dumbbell interchange connecting Bishop Drive and Slaughterhouse Road, selected based on better safety and traffic outcomes and reduced earthworks compared to alternative configurations. The southern connection was configured as a roundabout with a northbound bypass lane at Burrill Lake, identified as the preferred design because it minimised disruption to the existing highway during construction and reduced amenity and visual impacts to the surrounding area.

Further information on the selection of bypass connections is provided in Sections 4.6 and 4.7 of Chapter 4 (Selection of the preferred project).

A number of further design refinements were made for the project as part of concept design development to avoid or minimise impacts. These included:

- realignment of the bypass further west at Croobyar Creek to avoid impacts to high density Aboriginal heritage artefacts
- realignment of the bypass east at Croobyar Road to reduce the amount of Milton monzonite excavation required, avoiding the need for large monzonite cutting and blasting near residential areas
- shifting of the central connection southwest to avoid impacts to native vegetation including the critically endangered Scrub Turpentine (*Rhodamnia rubescens*)
- selection of a signalled intersection at the Bishop Drive Extension / existing Princes Highway intersection to avoid adverse traffic performance and pedestrian safety outcomes associated with a roundabout configuration
- narrowing of the bypass south of Green Street to reduce impacts to the Southern Greater Glider and other threatened species
- inclusion of fauna connectivity structures in design to maintain connectivity either side of the bypass, reducing impacts to the Southern Greater Glider and other threatened species
- provision of an active transport underpass at the southern connection to avoid impacts to local access and connectivity for pedestrians and cyclists
- balancing of cut and fill volumes to reduce the demand for imported fill, avoiding traffic and amenity impacts associated with material haulage.

Where avoidance was not possible through design of the project, a range of mitigation measures have been proposed to mitigate impacts where possible, such as landscaping for visual impacts and noise walls for noise impacts, where appropriate.

24.2.3 Summary of project benefits

The main expected benefits of the project include:

- reduced traffic volumes on the existing Princes Highway and key local roads compared to without the project, including:
 - a decrease on the existing Princes Highway north of Milton by about 65 per cent in 2031, 60 per cent in 2041 and 56 per cent in 2051
 - a decrease on the existing Princes Highway south of Bishop Drive by about 15 per cent in 2031 and 2041 and 12 per cent in 2051
 - a decrease on the existing Princes Highway north of Bishop Drive by about 27 per cent in 2031, 26 per cent in 2041 and 19 per cent in 2051
 - a decrease on Croobyar Road between Corks Lane and Woodstock Road by about 56 per cent in 2031, 49 per cent in 2041 and 39 per cent in 2051
 - a decrease on the existing Princes Highway approaching Ulladulla from the south by about 19 per cent in 2031, 17 per cent in 2041 and 14 per cent in 2051.
- improved intersection performance at a majority of existing intersections along the Princes Highway, including during holiday peak periods when substantial improvements are expected
- improved travel times along the Princes Highway through Milton and Ulladulla, including travel time savings of about 48 minutes northbound and 39 minutes southbound during holiday peak times
- improved road safety by removing through-traffic (light and heavy vehicles) from the existing Princes Highway which would reduce conflicts between active transport users and road vehicles, improving safety for all road users

- increased level of protection for active and public transport users through revised pedestrian and cyclist crossing arrangements at the Bishop Drive / Princes Highway intersection and provision of indented bus stop facilities at Bishop Drive
- improved freight efficiency through the provision of an alternate highspeed freight connection route that bypasses Milton and Ulladulla
- improved transport network resilience through the provision of additional road capacity
- improved amenity and liveability in the Milton and Ulladulla town centres through a reduction in traffic volumes (including heavy vehicle traffic) which would locally decrease traffic noise, air quality and visual impacts.

24.2.4 Summary of project impacts

The main adverse outcomes from the project are summarised in Table 24-4.

Table 24-4: Summary of adverse impacts

Impact area	Key adverse impact	Key mitigation
Biodiversity	Construction of the project would require clearing of around 103.89 hectares of native vegetation including four threatened ecological communities (TECs) listed under the <i>Biodiversity Conversation Act 2016</i> (BC Act) and two under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act). There would also be direct impacts on four threatened flora species including the Leafless Tongue Orchid (<i>Cryptostylis hunteriana</i>), Bauer's Midge Orchid (<i>Genoplesium baueri</i>), Scrub Turpentine (<i>Rhodamnia rubescens</i>) and Magenta Lilly Pilly (<i>Syzygium paniculatum</i>). Clearing would also result in the loss and fragmentation of habitat that supports six locally occurring threatened fauna species, including the Southern Myotis, Southern Greater Glider; Powerful, Masked and Sooty Owls and White-footed Dunnart. Additionally, of these impacted species, a number fall under Commonwealth matters of national environmental significance (MNES) including the Southern Greater Glider, all four threatened flora species and two TECs.	Impacts to biodiversity have been avoided and minimised through project design, including: • shifting of the central connection to reduce impacts to Scrub Turpentine (<i>Rhodamnia rubescens</i>) • narrowing of the bypass corridor south of Green Street to avoid vegetation clearing, minimising impacts to threatened species, particularly the Southern Greater Glider and Bauer's Midge Orchid (<i>Genoplesium baueri</i>) • inclusion of connectivity structures in project design to minimise fragmentation impacts. Mitigation measures have also been incorporated into the project including the preparation of a Flora and Fauna Management Plan, Threatened Species Management Plan and Connectivity Strategy. A Biodiversity Offset Strategy has also been prepared for the project.
Aboriginal cultural heritage	The project would impact 19 recorded Aboriginal sites, six Aboriginal cultural sites and would indirectly impact one Aboriginal cultural site.	Impacts to Aboriginal cultural heritage have been avoided and minimised through project design, including: • shifting the bypass west at Croobyar Creek to avoid impacts to high density Aboriginal heritage artefacts • refinement of the project boundary to avoid areas with high potential to contain artefacts. Mitigation measures have been identified including the preparation of an Aboriginal Cultural Heritage Management Plan which would outline a methodology for community collection and archaeological salvage excavations.

Impact area	Key adverse impact	Key mitigation
Urban design, landscape character and visual amenity	There would be a moderate to high impact on landscape character and visual amenity during construction and operation of the project. This is largely due to the clearing of existing mature vegetation, the scale of the road corridor and presence of large structures including cuttings and embankments, bridges and new interchanges.	Mitigation of landscape character and visual amenity impacts have been embedded within the urban design and landscape strategies. Measures to minimise impacts include revegetation using native species where possible to strengthen and respond to the existing landscape character, using vegetation to screen views and designing noise walls and underpasses in line with local landscapes. Where possible, haulage for the project would occur along the bypass alignment to minimise haulage through Milton and Ulladulla town centres, reducing visual impacts.
Noise and vibration	There would be noise impacts for some receivers during project construction, with the highest impacts at residential receivers close to the construction footprint, such as in western Ulladulla. Night works would also be undertaken to allow for safe management of construction on live roads when traffic volumes are low. The operation of the project would result in increased traffic noise for a number of residential and non-residential receivers near the bypass alignment.	A Construction Noise and Vibration Management Plan would be prepared to minimise amenity impacts during project construction. Where possible, haulage for the project would occur along the bypass alignment to minimise haulage through Milton and Ulladulla town centres, reducing construction noise impacts. The project would include noise mitigation measures including the construction of two noise walls near the central connection, as well as consideration of at-property treatments for qualifying homes. Noise mitigations would be further developed during detailed design.
Land use and property	Construction of the project would result in impacts to 248 hectares of land, including the permanent acquisition of 54.35 hectares of private property, 0.6 hectares of local government property, and about 33 hectares of state government property that is currently used for a range of urban and rural land uses. The project would result in direct impact on 72 lots.	Property acquisition would be carried out in accordance with the <i>Land Acquisition (Just Terms Compensation) Act 1991</i> .
Agriculture	The project would result in the permanent removal of 96.12 hectares of land currently used for, or supporting agricultural production including silage. Construction of the project would also result in 14 fragments (parcels of land with reduced or lost agricultural viability). Seven of these are expected to be unviable for current usage following construction of the project. This fragmentation would result in an additional loss of effective agricultural land, including about 5.29 hectares of direct loss. Additionally, the loss of farm infrastructure, including fencing, water supply systems, access tracks and sheds would reduce carrying capacity and disrupt established grazing regimes.	A number of mitigation measures have been developed to avoid and minimise agricultural impacts. This includes the preparation of property-specific Agricultural Business Management Plans for impacted properties (medium impact significance and above). Mitigation measures would be monitored to inform adaptive management and refinement of mitigation measures where required.
Social and economic	Construction of the project would result in a range of temporary social impacts, primarily associated with temporary changes to traffic conditions, access arrangements, construction noise, visual impacts, and potential effects on local businesses and community amenity. During operation, the project is expected to alter travel patterns across the local and regional road network, resulting in changes for residents and businesses. While residents and businesses within	A number of mitigation measures would be included in the project to avoid and minimise social and economic impacts. This would include the preparation of a Community and Stakeholder Engagement Plan to manage ongoing engagement with stakeholders and provide advance notice of works, and a Social Impact Management Plan to support the ongoing monitoring and management of social impacts.

Impact area	Key adverse impact	Key mitigation
	Milton and Ulladulla are expected to experience long-term improvements in traffic conditions and amenity, some communities located near bypass connections may experience changes in traffic patterns, access arrangements and local travel routes.	Local employment and procurement would be managed through mitigation measures to identify opportunities for the local community.

24.2.5 Compliance with environmental performance outcomes

The SEARs identified a number of desired performance outcomes for each of the key environmental issues. Table 24-5 identifies the project's performance outcomes and outlines how each outcome would be achieved by the project.

Table 24-5: Desired performance outcomes and project outcomes

Key issue and desired performance outcome	How performance outcomes would be achieved
1. Air Quality The project is designed, constructed and operated in a manner that minimises air quality impacts (including nuisance dust and odour) and minimises risks to human health and the environment to the greatest extent practicable.	The project has been designed to minimise air quality impacts and risk to human health and the environment. Vegetation clearing has been minimised where possible to reduce dust potential and construction ancillary facilities have been sited away from sensitive receivers. The bypass alignment avoids steep grades, reducing vehicle emissions from excessive acceleration during operation. Air quality modelling confirms no exceedances of NSW Environment Protection Authority (EPA) criteria for annual average nitrogen dioxide (NO₂) or particulate matter (PM) across assessment years (2025, 2031 and 2041). The project is also expected to improve air quality in the Milton and Ulladulla town centres by redistributing traffic away from the existing Princes Highway. Additionally, odour impacts are not expected during the project construction. During construction, dust and odour risks would be managed through an Air Quality Management Plan (AQMP). Key measures include dust suppression, a 15 km/h speed limit on unsealed roads, covering of transport vehicles, progressive rehabilitation and avoiding dust-generating activities during high wind periods. Further information is provided in Chapter 19 (Air quality).
2. Agriculture Impacts on agricultural land resources and production are assessed, avoided where possible and mitigated through design and construction measures.	Agricultural impacts would be managed, where they cannot feasibly be avoided, through property-specific Agricultural Business Management Plans (ABMPs), a Construction Biosecurity Management Plan and a Construction Noise and Vibration Management Plan that includes a Blasting Management Strategy. Further information is provided in Chapter 14 (Agriculture).
3. Biodiversity The project design considers all feasible measures to avoid and minimise impacts on terrestrial and aquatic biodiversity. The Offsets and / or supplementary measures are assured which are equivalent to any residual impacts of project construction and operation.	The project design has been refined to avoid and reduce potential impacts to biodiversity, including reducing the number of lanes south of Green Street and making refinements to the project boundary to minimise the extent of clearing. Fauna connectivity measures have been incorporated into the design to maintain habitat connectivity and minimise indirect impacts from habitat fragmentation across the project. A Biodiversity Offset Strategy has also been prepared in accordance with the Biodiversity Conservation Regulation 2017 and the <i>No net loss guidelines</i> (Transport, 2024). Further information is provided in Chapter 7 (Biodiversity).

Key issue and desired performance outcome	How performance outcomes would be achieved
4. Climate Change Risk The project is designed, constructed and operated to be resilient to the future impacts of climate change.	A climate change risk assessment was carried out in accordance with AS 5334-2013 and <i>Transport for NSW Climate Risk Assessment Guidelines</i>, considering climate projections in 2030, 2050 and 2090 timeframes under worst-case emissions scenarios. A total of 21 climate change risks were identified. A number of adaptation measures have been incorporated into the concept design to address these risks. With these measures applied, all risks ratings were reduced to medium or low. Further information is provided in Chapter 20 (Climate change risk).
5. Contamination Human and environmental health is protected by understanding the presence and risks associated with contaminated land, including impacts to soils, groundwater, surface water and sediments. Contamination risks are independently considered consistent with the auditing regime established under the <i>Contaminated Land Management Act 1979</i>.	A Detailed Site Investigation (DSI) was carried out in accordance with the <i>National Environment Protection (Assessment of Site Contamination) Measure 1999</i> (NEPM) and the <i>Contaminated Land Management Act 1997</i>, and reviewed by a NSW EPA accredited Site Auditor. During construction, contamination risks would be managed through a Contaminated Land Management Plan (CLMP), which would include an Acid Sulfate Soils Management Plan (ASSMP) and an Asbestos Management Plan (AMP). Key measures include staged excavations to limit soil exposure, treatment and neutralisation of acid sulfate soils within bunded areas, segregation of soil material types, and spill containment controls. Contamination risks to road users are not anticipated during operation, as limited pathways exists for contact with impacted soils or groundwater. Further information is provided in Chapter 17 (Soils and contamination).
6. Design, Place and Movement The project is well-designed and enhances the environment where it is located, including improved accessibility and connectivity for communities and public spaces. The project helps to support the health and wellbeing of Country by valuing, respecting, and being guided by Aboriginal people. The project contributes to greener places through the enhancement and provision of green infrastructure.	An urban design and landscape strategy has been developed and incorporated into the project with the aim to sensitively integrate the project with the surrounding landscape, where possible. As part of this, consultation with Aboriginal communities and stakeholders, undertaken through the Connecting with Country process, has been considered, leading to the identification of a number of design opportunities that would be further considered for the project. The project's landscape design strategy further helps to integrate the project with the landscape context, seeking to respond to the existing character of the place and the existing vegetation communities present where possible. Landscape and visual impacts have also been considered through the selection and design of local access and connection points to avoid and minimise impacts where possible. Further information is provided in Chapter 11 (Urban design, landscape and visual amenity).
7. Economic The project minimises impacts to property and business and achieves appropriate integration with adjoining land uses, including maintenance of appropriate access to properties and community facilities, and minimisation of displacement of existing land use activities, dwellings and infrastructure.	The project has been designed to minimise impacts to property and business and maintain access to properties and community facilities throughout construction and operation, where possible. Social and economic impacts were considered during the project design, with the bypass alignment selected to avoid construction through the Milton and Ulladulla town centres, thereby reducing disruption to businesses and residents in those areas. Haulage is also proposed to take place along the bypass alignment where possible rather than through town centres, and construction traffic is expected to increase daily volumes by no more than six per cent on the existing Princes Highway, during non-holiday periods. During construction, property and business access would be maintained, with temporary detours implemented where required. A Business Engagement Plan would provide regular project updates, wayfinding signage and a local procurement program to support affected businesses.

Key issue and desired performance outcome	How performance outcomes would be achieved
	During operation, the bypass is expected to reduce traffic volumes through Milton and Ulladulla by 20 to 60 per cent, improving town centre amenity and supporting tourism and local trade over the longer term. A public awareness campaign and targeted signage strategy would be implemented to encourage motorists to continue visiting bypassed town centres. Further information is provided in Chapter 15 (Social and economic).
8. Flooding The project minimises adverse impacts on existing flooding characteristics. Construction and operation of the project avoids or minimises the risk of, and adverse impacts from, infrastructure flooding, flooding hazards, or dam failure.	The project has been designed to achieve 1% AEP flood immunity for the main carriageway. Flood modelling was undertaken at each phase of concept design, with drainage structures and culverts refined where flood management objectives were not initially met. Flood modelling confirms that predicted changes to flood levels, velocities, duration and hazard outside the project boundary are within acceptable limits for the majority of locations across all catchments. Where localised exceedances were identified, further design optimisation and scour protection measures are to be investigated during detailed design. No new flooding of residences is predicted as a result of the project, and no adverse impacts to community flood emergency management arrangements are anticipated. During construction, flood risks would be managed through a Flood Management Plan. Further information is provided in Chapter 16 (Flooding).
9. Heritage – Aboriginal cultural heritage The design, construction and operation of the project facilitates, to the greatest extent feasible, the long-term protection, conservation and management of the heritage significance of items of Aboriginal objects and places. The design, construction and operation of the project avoids or minimises impacts, to the greatest extent feasible, on the heritage significance of Aboriginal objects and places and cultural heritage values.	An Aboriginal Cultural Heritage Assessment Report (ACHAR) was prepared in accordance with the Procedure for Aboriginal Cultural Heritage Consultation and Investigation (PACHCI) and the <i>National Parks and Wildlife Act 1974</i>. Consultation with Registered Aboriginal Parties (RAPs) was undertaken throughout the assessment process, informing both the design of the project and the development of mitigation measures. Where feasible, the project boundary has been refined to avoid impacts to sites and places of Aboriginal cultural significance, including shifting of the alignment west at Croobyar Creek to avoid high-density intact subsurface archaeological deposits. Impacts are proposed to be managed through an Aboriginal Cultural Heritage Management Plan (ACHMP), prepared in consultation with RAPs and Heritage NSW prior to construction. Further information is provided in Chapter 9 (Aboriginal cultural heritage).
10. Heritage – Environmental The design, construction and operation of the project facilitates, to the greatest extent possible, the long-term protection, conservation and management of the heritage significance of environmental heritage. The design, construction and operation of the project avoids or minimises impacts, to the greatest extent possible, on the heritage significance of environmental heritage.	The project has been assessed against relevant heritage legislation and guidelines. The bypass alignment has been refined through the options development process to reduce impacts on heritage items, where possible. This included shifting the bypass alignment across Pettys Creek to reduce impacts to the Applegarth Dairy Farm Complex. During operation, no further physical or archaeological impacts are anticipated, though some visual impacts to heritage items would remain. Impacts are proposed to be managed where possible through mitigation measures including a Construction Heritage Management Plan. Further information is provided in Chapter 10 (Non-Aboriginal heritage).

Key issue and desired performance outcome	How performance outcomes would be achieved
11. Noise and Vibration Construction noise and vibration (including airborne noise, ground-borne noise and blasting) are effectively managed to minimise adverse impacts on acoustic amenity, and adverse impacts on the structural integrity of buildings and items including Aboriginal places and environmental heritage. Increases in noise emissions and vibration affecting nearby properties and other sensitive receivers during operation of the project are effectively managed to protect the amenity and well-being of the community. Increases in noise emissions and vibration affecting environmental heritage, as defined in the <i>Heritage Act 1977</i>, during operation of the project are effectively managed.	The project has been designed to minimise noise and vibration impacts on nearby sensitive receivers. The bypass alignment was refined to reduce the extent of Milton monzonite excavation and associated blasting near residential areas, and haulage routes were directed along the alignment rather than through the Milton and Ulladulla town centres. The road has been designed with a maximum grade of 6 per cent to reduce engine compression braking, and cuttings are used to keep the road surface elevation low, limiting the propagation of noise to surrounding properties. The project is also expected to reduce traffic noise along the existing Princes Highway by redistributing through-traffic to the bypass. Two noise barriers are proposed south of the central connection and along the Bishop Drive Extension, and at-property treatments would be considered for eligible receiver buildings where barriers alone are insufficient. Within 12 months of opening, operational noise performance would be verified against predictions, with additional mitigation considered if required. During construction, noise and vibration impacts are proposed to be managed through a Construction Noise and Vibration Management Plan (CNVMP). Key measures include scheduling high-noise activities during standard working hours, use of quieter plant and equipment, community notification prior to out-of-hours works, respite arrangements for affected residents, and attended vibration monitoring near sensitive receivers. A Blast Management Strategy would also be prepared to minimise noise and vibration from blasting. Further information is provided in Chapter 12 (Noise and vibration).
12. Protected and Sensitive Lands The project is designed, constructed and operated to avoid or minimise impacts on protected and sensitive lands. The project is designed, constructed and operated to avoid or minimise future exposure to coastal hazards and processes.	The project crosses several waterways and is located in proximity to sensitive receiving environments, including Narrawallee Inlet and Burrill Lake, both designated as vulnerable estuaries under ICOLLS mapping, and areas mapped as Coastal Wetlands under <i>State Environmental Planning Policy (Resilience and Hazards) 2021</i> (Resilience and Hazards SEPP). The alignment has been designed to minimise direct disturbance to these environments, with no direct works proposed within the estuaries or designated coastal wetlands. Water quality modelling indicates that hydrological and pollutant load impacts to Burrill Lake and Narrawallee Inlet would be negligible during both construction and operation, with modelling showing a reduction in pollutant loads to these estuaries under operational conditions. Stormwater treatment measures, including bioretention swales, vegetated swales and bioretention basins, have been incorporated into the design to seek to manage runoff quality before it reaches sensitive downstream environments. During construction, erosion and sediment controls, clean water diversions and sediment basin management would be implemented to protect waterways and wetlands. A two-year surface water monitoring program has been established to inform baseline conditions and support future water quality management. Coastal hazard exposure has been minimised through the inland alignment of the bypass, which avoids low-lying coastal areas. Further information is provided in Chapter 18 (Hydrology, surface water and groundwater).

Key issue and desired performance outcome	How performance outcomes would be achieved
13. Social The project is designed to provide socially sustainable outcomes. The project will maximise the social and economic welfare of the community. The project will deliver better development outcomes by minimising negative social impacts and enhancing positive social impacts on affected communities.	The project has been designed to maximise social benefits while minimising adverse impacts on affected communities, where possible. A Social Impact Assessment was prepared to identify and manage impacts on residents, businesses and community facilities across the project area. The bypass is expected to deliver broad social benefits by reducing through-traffic on the existing Princes Highway through Milton and Ulladulla, improving road safety, reducing travel times and improving amenity in the town centres. These benefits are anticipated to be felt across the wider community, including residents, visitors and businesses. Where negative social impacts have been identified, mitigation measures have been developed seeking to minimise disruption where possible. During construction, a Community Involvement Plan would guide engagement with affected residents and businesses, providing timely information on construction activities, managing complaints, and supporting local businesses where access or amenity may be temporarily affected. Further information is provided in Chapter 15 (Social and economic).
14. Soils The environmental values of land, including soils, subsoils and landforms, are protected. Risks arising from the disturbance and excavation of land and disposal of soil are minimised, including disturbance to acid sulfate soils.	The project traverses areas with potential acid sulfate soils (ASS), particularly in low-lying areas associated with Croobyar Creek and surrounding alluvial plains. An Acid Sulfate Soils Management Plan (ASSMP) would be prepared and implemented to manage risks associated with the disturbance and excavation of actual and potential acid sulfate soils, including testing, treatment and appropriate disposal of affected material. A Contaminated Land Management Plan would address broader contamination risks from identified Areas of Potential Environmental Concern, including heavy metals, hydrocarbons, asbestos and per- and polyfluoroalkyl substances (PFAS). Soil disturbance risks during construction, including erosion, compaction, contamination and loss of topsoil, are proposed to be managed through a Soil and Water Management Plan (SWMP). Spoil and excavated material would be managed and disposed of in accordance with relevant regulatory requirements to minimise risks to environmental values. Further information is provided in Chapter 17 (Soils and contamination).
15. Sustainability The project minimises the NSW Government's operating costs and ensures the effective and efficient use of resources. Conservation of natural resources is maximised.	To minimise the NSW Government's operating costs and ensure the effective and efficient use of resources, the project has incorporated a range of sustainability initiatives into its design. Cut and fill volumes have been balanced as far as practicable, with research undertaken into the reuse of Milton monzonite as road-grade material to reduce haulage emissions and imported fill requirements. The project targets diversion of over 95 per cent of spoil from landfill, with over 75 per cent to be reused onsite, consistent with circular economy principles. Conservation of natural resources is maximised where possible through the selection of materials that can be reused or recovered at end of life, use of prefabricated components, identification of local and regional suppliers to minimise transportation, and implementation of water efficiency measures to reduce potable water use during construction. Further information is provided in Chapter 21 (Sustainability).

Key issue and desired performance outcome	How performance outcomes would be achieved
16. Transport and Traffic Network connectivity, safety and efficiency of the transport system in the vicinity of the project are managed to minimise impacts. The safety of transport system customers is maintained. Impacts on network capacity and the level of service are effectively managed. Works are compatible with existing infrastructure and future transport corridors.	Network connectivity, safety and efficiency of the transport system would be managed to minimise impacts. During construction, a temporary haul road would minimise construction vehicle movements on the surrounding road network, with construction traffic estimated at about six per cent of existing daily volumes on the Princes Highway, during non-holiday periods. A Construction Traffic Management Plan (CTMP) is proposed to manage haulage routes and access arrangements to maintain network connectivity, minimise disruption to local and regional traffic, and prioritise safety throughout the construction period. During operation, the bypass would redistribute through-traffic away from the existing Princes Highway through Milton and Ulladulla, reducing traffic volumes by about 65 per cent north of Milton, about 56 per cent on Croobyar Road and about 27 per cent north of Bishop Drive in 2031. This redistribution is expected to substantially improve network efficiency and reduce conflict points for all road users in the town centre. The bypass alignment has been designed to be compatible with existing road infrastructure and utilities, minimising the need for modifications to the surrounding network. The project is integrated into the long-term regional transport network strategy, ensuring the works support future transport corridor planning and are consistent with the broader transport vision for the South Coast region. Further information is provided in Chapter 8 (Transport and traffic).
17. Waste All wastes generated during the construction and operation of the project are effectively stored, handled, treated, reused, recycled and/or disposed of lawfully and in a manner that protects environmental values.	The project has been designed and is proposed to be constructed and operated in accordance with the waste management hierarchy under the <i>Waste Avoidance and Resource Recovery Act 2001</i> (NSW), prioritising avoidance, resource recovery and reuse ahead of disposal. Operational waste is expected to be minor and ad hoc. A Waste and Materials Management Plan (WMMP) would be prepared, consistent with the <i>Transport for NSW Waste Management Guideline 2023</i>, with all waste records retained for a minimum of seven years. Further information is provided in Chapter 22 (Waste).
18. Water – Hydrology Long-term impacts on surface water and groundwater hydrology (including drawdown, flow rates and volumes) are minimised. The environmental values of nearby, connected and affected water sources, groundwater and dependent ecological systems including estuarine and marine water (if applicable) are maintained (where values are achieved) or improved and maintained (where values are not achieved). Sustainable use of water resources.	The project design has undergone development and refinement to minimise impacts to surface water and groundwater hydrology where possible. This has included consideration of bypass end points south of Burrill Lake and Lake Tabourie, which were discounted partly due to potential impacts on wetlands and aquatic ecology. Further information is provided in Chapter 18 (Hydrology, surface water and groundwater). Construction of the project would use around 230 kilolitres of potable water and 2300 kilolitres of non-potable water daily. A Sustainability Management Plan (SMP) has been prepared to maximise the sustainability outcomes of the project, including sustainable use of water resources. Further information is provided in Chapter 21 (Sustainability).
19. Water – Quality The project is designed, constructed and operated to protect the NSW Water Quality Objectives where they are currently being achieved, and contribute towards achievement of the Water Quality Objectives over time where they are currently not being achieved, including downstream of the project to the extent of the project impact including estuarine and marine waters (if applicable).	Water quality has been considered as part of the project design to minimise water quality impacts on receiving environments in accordance with NSW Water Quality Objectives. This includes the incorporation of bioretention swales, vegetated swales and bioretention basins in project design to manage stormwater quality during operation. Further information is provided in Chapter 18 (Hydrology, surface water and groundwater).

24.2.6 Objects of the EP&A Act

The objects in section 1.3 of the EP&A Act provide a framework for the justification of the project. A summary of this assessment is provided in Table 24-6.

Table 24-6: Relevance of the objects of the EP&A Act to the project

EP&A Act objective	Comment
To promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources.	The project seeks to promote social and economic welfare by addressing existing inefficiencies in the road network, congestion and road safety issues caused by the interaction of through and local traffic along the existing Princes Highway through Milton and Ulladulla. By diverting through-traffic away from town centres, the project is expected to reduce noise and air quality impacts on the towns and associated residential areas. The project's design has incorporated environmental mitigation measures, including minimising clearing of native vegetation and minimising impacts in sensitive areas.
To promote the supply, delivery and maintenance of housing, including affordable housing.	The supply, delivery and maintenance of housing is not applicable to the project.
To promote productivity through the development and management of the State and its resources.	The project would promote productivity through providing a more efficient and reliable transport network through Milton and Ulladulla, benefitting traffic flow in the broader Shoalhaven LGA. This would also benefit freight movements by providing a faster and more direct bypass of Milton and Ulladulla, enhancing connectivity in NSW.
To protect the environment, including the conservation of threatened species of native animals and plants and ecological communities and their habitats.	A range of options for the bypass alignment have been considered. The bypass corridor was selected as the preferred option as, among other benefits, it would have fewer biodiversity impacts compared to other western options. Following the selection of the preferred corridor option, the alignment was refined considering environmental constraints, with a view to avoiding or minimising adverse impacts to the greatest extent possible. This included narrowing of the alignment south of Green Street to reduce impacts to the Southern Greater Glider and threatened flora species in the area. However, the project would still result in impacts on biodiversity values during construction and operation. A range of management and mitigation measures are proposed to address potential environmental impacts including biodiversity offsets.
To promote resilience to climate change and natural disasters through adaption, mitigation, preparedness and prevention.	The project has considered the impacts of climate change under future emissions scenarios and has integrated adaptation measures into the project design to mitigate climate change impacts. The project would increase the resilience of the transport network by providing an additional, alternate route through Milton and Ulladulla.
To promote the sustainable management of built and cultural heritage, including Aboriginal cultural heritage.	A number of Aboriginal and non-Aboriginal heritage impacts have been avoided or minimised throughout the development of the project. This included the realignment of the bypass further west at Croobyar Creek to avoid impacts to high density Aboriginal heritage artefacts.
To promote good design, amenity and the proper construction and maintenance of built environments, including the protection of the health and safety of the occupants of buildings.	Conflict between pedestrian, passenger and freight traffic through Milton and Ulladulla has resulted in a reduction in the amenity of these town centres. The project would provide a high standard of road, removing through-traffic and some local traffic from the existing road network, which would reduce conflicts. This reduction in traffic would also reduce congestion and improve amenity.

EP&A Act objective	Comment
	An urban design and landscape strategy has been prepared for the project which aims to integrate the design with the surrounding topography, landscape and urban setting. The design has focused on the bypass connections, bridges, underpasses, cutting and embankments and other structures to sympathetically integrate these with the surrounding landscape. Further information is provided in Section 11.2 of Chapter 11 (Urban design, landscape character and visual amenity). The construction and maintenance of buildings is not directly applicable to the project as no permanent buildings would be constructed.
To provide opportunities for participation in environmental planning and assessment.	The project has involved extensive consultation with relevant stakeholders and the community since planning began. Selection of the preferred strategic alternative, preferred route options and the development of the concept design have involved a range of consultation activities, as detailed in Chapter 6 (Community and stakeholder engagement). This EIS will go on public display to provide an opportunity for the community to further comment on the project, its design and potential impacts.
To facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment.	Ecologically sustainable development has been considered in Section 24.2.7.
To promote a proportionate and risk-based approach to environmental planning and assessment.	This EIS has been prepared in accordance with the project specific SEARs, which were informed by the project's likely environmental impacts and associated risks. The EIS has been targeted to those environmental aspects with the greatest potential for impact, with the level of assessment and mitigation scaled accordingly. This ensures that the EIS adopts a proportionate and risk-based approach to environmental planning and assessment.
To promote the orderly and economic use and development of land.	The bypass facilitates orderly development by separating regional through-traffic from local movements within Milton and Ulladulla town centres. By removing heavy vehicle traffic from residential streets, the project enables more appropriate land use patterns and supports the viability of local commercial and community facilities. The project's alignment was refined through detailed environmental assessment to avoid unnecessary land disturbance and protect existing land uses.

24.2.7 Principles of ecologically sustainable development

Ecologically sustainable development (ESD) is development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends (*National Strategy for Ecologically Sustainable Development* (1992)). The principles of ESD have been an integral consideration throughout the development of the project.

ESD requires the effective integration of economic and environmental considerations in decision-making processes. The four main principles supporting the achievement of ESD are discussed below.

Precautionary principle

The precautionary principle deals with reconciling scientific uncertainty about environmental impacts with certainty in decision-making. It provides that where there is a threat of serious or irreversible environmental damage, the absence of full scientific certainty should not be used as a reason to postpone measures to prevent environmental degradation.

This principle was considered during the selection of the preferred project (refer to Chapter 4 (Selection of the preferred project)). The initial planning for the project saw several strategic alternatives and options abandoned due to potential risks or environmental impacts which would not support the principles of ecologically sustainable development. This included western corridor options because of potential environmental impacts on ecologically sensitive areas, such as Meroo National Park.

The precautionary principle has guided the assessment of environmental impacts for this EIS and the development of mitigation measures. This EIS details the evaluation of environmental impacts associated with the project. The EIS was prepared using a conservative approach, which included assessing worst-case impacts and scenarios. The EIS has also been carried out in collaboration with stakeholders and relevant statutory and agency requirements.

Inter-generational equity

Social equity is concerned with the distribution of economic, social and environmental costs and benefits. Inter-generational equity introduces a temporal element with a focus on minimising the distribution of costs to future generations.

The project would ensure road benefits including decreased incidents and travel time, and increased connectivity are realised by current and future generations across the region. If the project was not carried out, it is projected that vehicle kilometres travelled would continue to decrease, while vehicle travel time increases through the study area. The motorist, cyclist and pedestrian incident rate would likely continue to increase, as would proportions of heavy vehicles and through-traffic travelling through Milton and Ulladulla town centres. These impacts would likely continue to affect current generations and future generations as it adversely affects road safety and amenity within Milton and Ulladulla. Any long and short term negative impacts associated with the project are sought to be mitigated, where possible, by the management measures outlined in Appendix E.

The implementation of these measures would ensure the principle of inter-generational equity is met by reducing or avoiding impacts to the health, diversity and productivity of the environment as much as possible, for the benefit of future generations.

Conservation of biological diversity and ecological integrity

Conservation of biological diversity and ecological integrity has been a fundamental consideration during project design development (refer to Chapter 4 (Selection of the preferred project)). Project development considered biodiversity constraints, strategic options were refined to minimise impacts particularly to biodiversity and environmentally sensitive areas. The preferred corridor was taken forward as it was comparatively less impactful on biodiversity when considered against other options. Concept design refinements were specifically undertaken to reduce direct and indirect impacts on biodiversity values:

- through the acquisition of land north of the central connection. The alignment in this area was able to be shifted south-west to reduce potential impacts on Scrub Turpentine (*Rhodamnia rubescens*) and native vegetation by up to six hectares
- the concept design footprint has been narrowed to 45 metres at four locations south of Green Street to reduce direct impacts on Bauer's Midge Orchid (*Genoplesium baueri*) individuals identified within the study area; reduce direct impacts on hollow-bearing trees, and allow for increased canopy connectivity and the installation of fauna connectivity structures
- the southern construction ancillary facility area was reduced to allow a 20 metre buffer from recorded Thick Lip Spider Orchid (*Caladenia tessellata*) individuals to avoid accidental disturbance.

A biodiversity assessment was carried out to identify potential adverse impacts on biodiversity (refer to Chapter 7 (Biodiversity) and Technical Report 1: Biodiversity Development Assessment Report). This assessment identifies the anticipated impacts on biodiversity and provides a range of mitigation measures to further avoid and minimise potential impacts, where possible.

Where impacts would be unavoidable, a range of management and mitigation measures have been identified with the emphasis on conserving biodiversity values locally where practicable. These measures include provision of fauna connectivity infrastructure, implementation of management plans to address key biodiversity risks and, where possible, positioning of the operational fencing close to the edge of the road formation which maximises bushland connectivity. Residual impacts are proposed to be offset according to the NSW Biodiversity Offsets Scheme.

Improved valuation, pricing and incentive mechanisms of environmental resources

The principle of internalising environmental costs into decision making requires consideration of all environmental resources which may be affected by the project, including air, water, land and living things.

This EIS includes mitigation and management measures aimed at minimising pollution and waste during project development and offsetting environmental impacts. These include biodiversity offsets, as detailed further in Section 7.6 of Chapter 7 (Biodiversity). Chapter 21 (Sustainability) considers the whole of life costs associated with the project including transport of material to site, ongoing maintenance and eventual decommissioning. Chapter 22 (Waste) identifies measures to minimise resource use, pollution, waste generation and waste disposal.

24.3 Uncertainties and resolution

A list of key uncertainties associated with the assessment of the project, and what actions would be taken to address these uncertainties, is provided in Table 24-7.

Table 24-7: Project uncertainties

Key uncertainty	Description of uncertainty	Proposed resolution	Where discussed
Biodiversity – adaptive management	There is some uncertainty regarding the timing or extent of potential biodiversity impacts. Section 8.5 of the BAM suggests that an adaptive management strategy be developed for projects where there is remaining uncertainty.	As mitigation measures have been identified and recommended for all residual impacts associated with the project, a standalone adaptive management strategy is not proposed. Instead, adaptive management principles would be incorporated into the relevant environmental management plans prepared for the project, including monitoring programs to verify the effectiveness of mitigation measures, detect unanticipated impacts and identify whether further management responses are required.	Section 7.4 of Chapter 7 (Biodiversity)
Fauna connectivity	A Connectivity Strategy has been prepared for the project that includes measures to maintain fauna connectivity across the road barrier through installing a range of connectivity structures. However, there is uncertainty as to whether target species, particularly the Southern Greater Glider, would be able to successfully use the connectivity structures.	The Connectivity Strategy includes a monitoring program to confirm effectiveness and use of connectivity structures and provide adaptive management.	Section 7.4 of Chapter 7 (Biodiversity)
Aboriginal cultural heritage – unlocatable sites	There were five previously recorded AHIMS sites within the study area that were unable to be located during archaeological field surveys.	Unexpected finds would be managed in accordance with <i>EMF-HE-PR-0076 Unexpected heritage items procedure</i> (Transport 2024).	Section 9.4 of Chapter 9 (Aboriginal cultural heritage)
Non-Aboriginal heritage – restricted survey access	Two heritage items could not be surveyed due to restricted access. These items were viewed from public land and adjacent roads. As a result, the presence and extent of any heritage items or archaeological relics in these areas remain unverified.	A procedure would be implemented during construction for any unexpected finds.	Section 10.4 of Chapter 10 (Non-Aboriginal heritage)

Key uncertainty	Description of uncertainty	Proposed resolution	Where discussed
Blasting impacts	There is some uncertainty regarding the potential impacts of blasting, primarily due to variability in rock characteristics.	Seismic investigations are currently being undertaken to further characterise ground conditions and an adaptive blasting methodology and management.	Section 12.4 of Chapter 12 (Noise and vibration)
Extent of agricultural impacts	There is some uncertainty around the extent of impact and mitigation actions required for direct impacts to agricultural properties and productivity.	Discussions are ongoing with property owners regarding agricultural impacts.	Section 14.4 of Chapter 14 (Agriculture)
Surface water and groundwater monitoring	Water quality modelling carried out for the assessment is based on five months of available sampling data and a small amount of supplementary historical data from Shoalhaven City Council. This is not considered to be a full calibration of the MUSIC model and therefore has limitations in the precision of results. The groundwater assessment has been based on one round of groundwater levels and quality data.	Ongoing surface water monitoring during the detailed design phase would enable the MUSIC model to be further refined. A two-year groundwater monitoring program commenced in January 2026 which would be used to update groundwater dewatering estimates and inform baseline groundwater conditions prior to project construction.	Section 18.4 of Chapter 18 (Hydrology, surface water and groundwater)

24.4 Conclusion

This EIS has addressed the Supplementary SEARs issued under Part 5, Division 5.2 of the EP&A Act and the relevant provisions of Part 8, Division 5 of the EP&A Regulation. The EIS also addresses the requirements issued by the Commonwealth DCCEEW for a controlled action (issued on 12 February 2025) as included in Attachment A to the SEARs.

A checklist showing where the SEARs are addressed in this EIS is provided in Appendix A Secretary's environmental assessment requirements checklist (including Australian Government Project Assessment Notes). A checklist showing where the relevant requirements of Part 8, Division 5 of the EP&A Regulation are addressed is provided in Appendix B Environmental Planning and Assessment Regulation 2021 checklist.

As discussed in Section 4.3 of Chapter 4 (Selection of the preferred project), the project needs were assessed against a range of other alternatives and options, including a 'do nothing' option. Each option was evaluated based on their ability to meet the project objectives and how well they performed across transport, environmental, engineering, social and economic factors. The preferred option for the project was identified and refined through a series of extensive assessments and reviews to make sure it best meets project objectives while minimising environmental impacts. Without the project, the existing Princes Highway through Milton and Ulladulla would continue to have increasingly high traffic volumes and lengthy travel times for through-traffic and residents alike, particularly during holiday periods. These high traffic volumes would contribute to continued risk of pedestrian and vehicle collisions, decreasing road safety. The Milton and Ulladulla town centres along the existing Princes Highway would not see an improvement in safety, amenity, connectivity and liveability.

A number of potential environmental impacts from the project have been avoided or minimised during the assessment of strategic alternatives to the project (refer to Chapter 4 (Selection of the preferred project)) and during the development of the project's concept design.

The project, as described in Section 5.2 of Chapter 5 (Project description), meets the project objectives but is still expected to result in environmental impacts including:

- noise and vibration impacts
- temporary disruptions to traffic conditions during construction
- the removal of vegetation including threatened species habitat
- impacts on items and places of Aboriginal heritage significance
- impacts to visual amenity and landscape character

- socio-economic impacts including to businesses
- agricultural impacts
- changes to access and property acquisition.

Management measures detailed in this EIS are proposed to mitigate or minimise these anticipated impacts, where possible. A summary of environmental management measures is provided in Appendix E Mitigation measures. Mitigations would continue to be refined, where necessary, during the detailed design phase of the project.

The project is considered appropriate and justified as the negative impacts are outweighed by the longer-term positive impacts of providing improved road safety and travel times for all road users in a region that is expected to experience population growth in the coming years.

Stakeholders and the community would continue to be informed of project updates and would be given opportunities to provide project feedback. During the public exhibition of this EIS, submissions can be made to the Department of Planning, Housing and Infrastructure (DPHI) via the Major Projects (NSW Planning Portal) website. Any feedback received would be considered in the next stage of the project.