regional roads victoria

18 Conclusion

Authorised by the Victorian Government,
1 Treasury Place, Melbourne

VICTORIA'S BIG BUILD

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18.1 Overview

The scope of this EES process was to assess alternative road alignments to identify the preferred alignment option. Following the selection of the preferred alignment, detailed impact assessment was undertaken, and mitigation measures were developed to minimise residual impacts to identified sensitive receptors. In additional to the development of the EES the project has also been referred under the EPBC Act and was determined to be a controlled action. The project assesses EPBC Act matters under the accredited assessment process.

The key impacts identified in the EES include loss of land through public acquisition, displacement of residents, removal of existing vegetation and habitat, and impacts to businesses dependent on highway trade. Other impacts identified are generally typical of large infrastructure projects of this nature and relate primarily to social and amenity impacts experienced through the construction phase. These impacts relate to construction noise and vibration, dust emissions, surface water quality (potential spills or siltation from works) and changes to normal traffic conditions. Construction is not expected to have significant effects on the local road network due to most of the works occurring within a greenfield, undeveloped area outside the existing road network, therefore minimising traffic disruption.

Construction impacts would be managed in accordance with Environment Protection Authority Victoria publications for civil construction and demolition, noise control and waste management (including spoil). The Environmental Management Framework outlines the required management practices to meet existing legislation, standards and policies that would be incorporated in management plans for construction, traffic, community and stakeholder engagement, and spoil management.

Ultimately, detailed design and construction of the project would be required to meet the Environmental Management Framework and environmental management measures recommended in this EES, which have been developed to ensure the required environmental outcomes are achieved and there are minimal adverse residual impacts.

Potential operational impacts from the project have also been assessed in this EES. The key operational phase impacts identified relate to public amenity (i.e. air quality, noise and visual effects) and economic impacts, with improvements to local traffic and transport conditions anticipated.

18.2 Summary of Assessment Against Evaluation Objectives

The key reasons for an EES being required for the project, as outlined in the Minister for Planning's decision, were:

- *"The project has the potential to result in significant adverse effects on biodiversity, land use and community; and cultural heritage values.*
- *The opportunity to avoid or minimise significant adverse effects through alignment selection and mitigation requires further investigation via an integrated assessment of environmental effects, prior to decision-making on a final alignment".*

The EES scoping requirements contained ten draft evaluation objectives for the project. A summary of RRV's response to these objectives, with evidence from the impact assessments, is provided in the following sections.

Thirteen specialist investigations (listed in EES Chapter 1: *Introduction*) identified and assessed potential impacts associated with the construction and operation of the alignment options and the preferred C2 alignment. Four of these related to the key technical areas outlined in the Minister's decision above: biodiversity, land use and community, and Aboriginal cultural heritage.

The remaining assessments related to other potential impacts including traffic and transport, surface and groundwater, landscape and historic heritage. All 13 investigations assessed the potential impacts from the project and options as described in EES Chapter 3: *Project alternatives* and Chapter 4: *Project description*.

The following sections summarise the performance of RRV's preferred alignment, C2, against the evaluation objectives of the EES scoping requirements. This presents the outcomes of the EES, identifying where potential significant impacts have been identified and mitigated, and what residual impacts would remain.

ROAD EFFICIENCY, CAPACITY AND SAFETY

To provide for an effective Western Highway bypass of Beaufort, to improve travel efficiency, road safety, and capacity, as well as improve amenity and local transport network in Beaufort.

During project construction over an estimated two-year timeframe, there will be an increase in traffic volumes on Beaufort's local road network as construction vehicles access the site. Access to and from some properties will be impacted to some degree, although alternative access arrangements will be provided where needed.

The project occurs predominantly on 'greenfield' areas (i.e. undeveloped areas without existing roads). The construction works will have the most impact in areas where the project deviates from the existing Western Highway. Analysis has shown that traffic numbers will be around 94 construction vehicles per day, or about nine per hour. A Traffic Management Strategy and Access Management Strategy will be developed and implemented to minimise disruptions to the local road network and community.

Once completed, the project will provide a number of benefits, including:

- reducing both eastbound and westbound traffic volumes through the Beaufort town centre on the existing Western Highway, including a large number of heavy vehicles
- reducing travel times for eastbound and westbound traffic, and on other roads in the area
- enhancing safety and connectivity of the local road network for all road users, including for pedestrians and cyclists.

Traffic modelling has shown that the number of vehicles travelling on the section of the Western Highway that currently passes through Beaufort will reduce by about 7,000 per day. Travel times for vehicles travelling along the project are estimated to be about two minutes faster than current travel times on the Western Highway through the Beaufort township.

Crash risk in and around Beaufort will reduce with the addition of the project. This is due to the decrease in exposure of local traffic, cyclists and pedestrians to through traffic along the Western Highway. In particular, the reductions in long-haul heavy vehicles will likely result in less crashes and near misses.

There are a number of other potential benefits stemming from a reduction in traffic volumes through Beaufort. For example, this could assist the Pyrenees Shire Council to implement the Beaufort Walkability Plan. This could be facilitated by potential changes to the layout of roads, signals at the Lawrence Street intersection and various enhancements to the town environment.

BIODIVERSITY

To avoid and minimise adverse effects on native vegetation, as well as habitat for threatened flora and fauna species and ecological communities, including those listed under the FFG Act, and address offset requirements for predicted losses consistent with relevant policy.

A thorough options assessment process has been undertaken in selecting the preferred C2 alignment that demonstrates avoidance and minimisation principles. The C2 alignment was determined to have the:

- lowest amount of total native vegetation clearance
- least impact on threatened vegetation communities listed under the EPBC Act
- least impact on wildlife corridors, particularly core habitat areas
- lowest amount of vegetation with high condition score removed.

The development of the preferred alignment has intentionally sought to avoid a number of threatened species, including:

- EPBC Act- and FFG Act-listed Ben Major Grevillia and Ornate Pink Fingers
- EPBC Act-listed White Box – Yellow Box – Blakeley's Red Gum Grassy Woodland
- Victorian Advisory listed Pale-flower Cranesbill, Rosemary Grevillea and Rough Wattle.

The preferred C2 alignment will have the least impact on biodiversity. The project would require clearing of approximately 47.95 ha of vegetation and habitat, based on the functional design. A small amount of Commonwealth (EPBC Act) listed Seasonal Herbaceous Wetlands (Freshwater) of the Lowland Plains (0.312 ha) and larger area of Victorian Woodland Bird Community (32.8 ha), listed under the Victorian FFG Act, would be cleared. Up to 348 large canopy trees and seven small scattered trees have the potential to be impacted, including a number of trees outside the construction footprint that would have a greater than 10% impact on the tree protection zone. Two high quality wetlands have the potential to be impacted by changes to surface water flows resulting from the project.

Specific protected flora species that are likely to be impacted include the EPBC Act-listed Matted Flax-lily and River Swamp Wallaby-grass, both with two records within the construction footprint. The Yarra Gum, listed on the Victorian advisory list as 'rare', also has two records within the C2 alignment. It may be possible to avoid some of these specimens through the detailed design process or by using no-go zones.

The only significant impact to fauna will be to the EPBC Act-listed Golden Sun Moth, with the project impacting 1.672 ha of confirmed habitat. There is also 9.431 ha of high and 2.822 ha low potential habitat would require removal. Habitat will be fragmented, and the project will present a barrier to dispersal of this species.

Noise, vibration and lighting during construction are only expected to have a minor impact on wildlife. Mortality may occur during clearing or when wildlife strays into the construction zone. When the road opens, mortality of kangaroos, wallabies, phascogales and possums are expected to be highest near the wetlands and cleared farmlands. Connectivity will be maintained by revegetation of natural areas and using wildlife crossings at strategic locations.

The implementation of the mitigation measures, detailed in the Environmental Management Framework, will embody avoidance and minimisation principles through the design, construction and operational phases of the project.

CATCHMENT VALUES AND HYDROLOGY

To protect catchment values, surface water and ground water quality, stream flows and floodway capacity, and avoid impacts on protected beneficial uses.

Surface water

The project has the potential to affect water movement and flooding impacts, as well as water quality during construction and operation. The project will cross 16 individual waterways (minor tributaries and creeks), including three designated waterways by Glenelg Hopkins Catchment Management Authority. Works and activities on or near a designated waterway require a licence from Glenelg Hopkins Catchment Management Authority. There are nine wetlands within the study area that meet the listing criteria for the EPBC Act-listed Seasonal Herbaceous Wetlands (Freshwater) of the Lowland Plains.

Flood modelling of the project found that changes to flood duration and depth would largely be contained within the existing floodplain. No flood impacts to property would result from the project, however, increases in duration, extent and depth would result in localised areas in the peak flood events. These increases are considered a low to medium impact prior to the detailed design flood model.

Water quality modelling for the project found that the drainage design would be able to achieve the water quality criteria of the CSIRO (1999) *Urban Stormwater: Best Practice Environmental Management Guidelines* through the incorporation of water sensitive road design features and bioretention basins, resulting in low impacts on water quality to down-stream sensitive receptors.

Flood and water quality impacts also have the potential to occur during the construction phase, however, implementation of standard sediment and erosion control measures, in combination with specific flood related management measure detailed in the Environmental Management Framework, will ensure construction related impacts are minimised.

It is expected that the Glenelg Hopkins Catchment Management Authority will assess the detailed design, and that any flood and surface water impacts will be managed in consultation with the Glenelg Hopkins Catchment Management Authority and relevant land holders.

Groundwater

Within the study area, groundwater was only encountered in the shallow alluvium, not in the deeper bedrock formations. The impact of groundwater flows being disrupted by the project is low. With the implementation of mitigations described in the Environmental Management Framework the impact of groundwater being contaminated by accidental spills and leaks through infiltration during the construction and operation of the road is also considered to be low.

CULTURAL HERITAGE

To avoid and minimise adverse effects on Aboriginal and historic cultural heritage values, and to identify best practice mitigation measures.

Aboriginal cultural heritage

The study area at the time of European contact was occupied by the Wadawurrung Aboriginal people, part of the Kulin nation. The Beaufort area is at the western-most part of the Wadawurrung Aboriginal people of the Kulin nation.

Several cultural heritage investigations have occurred in the region in the past, with seven Low Density Artefact Distributions and a Stone Scatter having been registered within the study area. One new site (a scarred tree) was located during the ground survey conducted for the project.

Although the majority of the project is within a low-lying alluvial plain that is unlikely to contain Aboriginal cultural heritage, some less disturbed areas have higher potential to contain Aboriginal cultural heritage due to their suitability for campsites. The preparation of a draft Cultural Heritage Management Plan has been commenced and will be completed during the detailed design phase to protect and manage any known Aboriginal values (tangible and intangible), as well as manage any unexpected Aboriginal cultural heritage finds identified during the construction of the project.

Historic heritage

The study area was first used by Europeans for grazing sheep and cattle in the 1830s. The discovery of gold in the 1850s led to a sudden swelling of the population and the establishment of several mining operations. The remnants of this rather short-lived prospecting and mining fervour can still be seen in the area, albeit in subtle ways. The Nil Desperandum Mine is an example of the mining history, comprising a deep lead gold mine with two large mullock heaps (for waste), scattered bricks and a sludge pond. The Camp Hill Shallow Workings South is another example that comprised a water race, partially infilled gold prospecting pits, and scattered glass and china. These examples represent the historic heritage features with the potential to be impacted by the project.

The Nil Desperandum Mine Feature has been assessed by Heritage Victoria as having local historic significance and low archaeological potential. The Camp Hill Shallow Workings South site is unlikely to contain archaeological deposits and has very low archaeological potential. The project will endeavour to avoid impacts, but if impacts are unavoidable, consents will be obtained from Heritage Victoria to excavate and/or damage.

SOCIAL AND COMMUNITY

To minimise and manage adverse effects on the well-being of the local community, including potential impacts on cohesion and severance of community access to services, facilities and infrastructure.

Beaufort is a growing community, with over 4,000 people in the town and surrounding rural areas. Like many regional areas across Victoria, the area has a higher proportion of middle aged and elderly residents.

Beaufort is a highway town, servicing passing traffic on their way to major centres like Adelaide to the west, and Ballarat and Melbourne to the east. Once opened, the project will result in Beaufort no longer being a highway town, and will experience a reduction in travellers stopping for supplies or amenities while on route to other places. This will represent the most significant change to the town in many years, and has been raised as a concern for many within the community.

The social impact assessment, supported by research on other bypassed towns in Australia, showed that the project is likely to result in several positive impacts on Beaufort's social fabric. These positive impacts stem from the reduction of traffic within the town, including:

- reduced travel times within and around the town
- reduced air and noise pollution
- safer roads, including for pedestrians
- creation of opportunities for development of social spaces, with safer and more attractive streets.

The project has gone through a comprehensive option assessment process that, although causing some uncertainty and distress for directly affected households, has led to an alignment that minimises impacts to dwellings, places of importance to the community and key access routes, as well as minimising impacts to ecological communities linked to recreational spaces.

The project has the potential to impact access and connectivity between rural properties and the Beaufort township. During construction, access will be maintained for nearby residents and businesses, in some cases by creating new temporary or permanent access points. RRV / MRPV will work with affected stakeholders to minimise any potential inconvenience.

Changes to the rural landscape character of the land will occur, which has also been raised as a concern by some in the community. Light, noise and dust during construction and operation have been flagged as issues to be addressed. Concerns extended to the impact of the project on local bushland and the native animals that live and forage there. Impacts to large and culturally significant trees are of particular interest to the local community. Public amenity improvements and landscape treatment mitigations are detailed throughout the EES and Environmental Management Framework to ensure residual impacts are managed through construction and operation of the project.

LAND USE AND ECONOMIC

To minimise and manage adverse effects on local business (including agriculture) and existing or planned land uses.

The economic impact assessment concluded that approximately $10.4 million of sales per annum within Beaufort, can currently be directly attributable to exposure to highway through-traffic. These sales are made by service stations and other businesses selling food and drinks.

During the construction phase of the project, there are anticipated to be increases in revenues for these and other businesses, such as accommodation and construction services industries. Once operational, the project is anticipated to halve the sales revenue from highway through-traffic sources, although potential town improvement strategies have not been factored into this assessment.

The project would result in the partial acquisition of land required for road purposes, affecting up to 47 private parcels (owned by 22 landholders) and resulting in the removal of one dwelling. Four Crown land parcels would also be subject to partial acquisition. There is the potential for severance of lots and the potential need for duplication of facilities, and less efficient movement of stock and vehicles. Once the project is endorsed through the process of this EES, compensation would be provided in accordance with the *Land Acquisition and Compensation Act 1986* and/or *Planning and Environment Act 1987*, where appropriate.

The project is consistent with planning policies that seek to enhance connections through the region and provide for safe and more efficient use of local roads. Land uses surrounding the project, such as farming and rural living can continue, albeit with some changes to local access. Mitigations to address loss of land and changes to access are captured within the Environmental Management Framework to ensure residual impacts are managed through construction and operation of the project.

AMENITY

To minimise adverse air quality, noise or vibration effects on the amenity of residents and local communities, as far as practicable during construction and operation.

Air quality

The air quality within the study area has the potential to be impacted during construction and operation of the project. Sensitive receptors, such as residences, schools and camping grounds, have the potential to be exposed to construction generated dust. During operation, air quality impacts relating to vehicle emissions and particulates would be reduced from existing conditions in the Beaufort township.

There are industry standards for managing dust and vehicle emissions during construction, enforced through the Environment Protection Authority Victoria and regularly implemented by the construction contractor. Mandatory continuous construction dust monitoring will be conducted, and adaptive management measures implemented to control dust are detailed within the Environmental Management Framework.

Noise and vibration

The project will generate noise and vibration during construction. Noise generated by construction activities would be managed in accordance with VicRoads *Technical Guidelines: Noise Guidelines - Construction and Maintenance Works 2007* and vibration will be managed in accordance with criteria based on Australian and international standards.

Due to the project being developed in a ‘greenfield’ site with low background noise levels, modelling has shown that 11 of the sensitive receptors along the project may experience operational noise levels above the Project Objective Noise Levels. In the Beaufort township, noise levels are expected to decrease by 4 to 6 dBA.

The design and implementation of noise mitigation, such as lower noise road surface (surface correction), noise barriers and off-reservation treatments, will allow project noise objectives to be achieved at sensitive receivers, as noted in the Environmental Management Framework.

LANDSCAPE AND VISUAL

To minimise adverse effects on visual and landscape values as far as practicable, during construction and operation.

The Beaufort township sits within a hilly area with a few key views and viewsheds nearby (e.g. Camp Hill). There is a diverse range of landscape characters across the area, from Open Rural Plains to Dense Bushland, and Industrial Zone to Beaufort Township Fringe (residential) areas.

The landscape and visual impact assessment identified some residential dwellings within 500 m of the project may be visually impacted by the project. Other key sensitive sites, such as Beaufort High School and Beaufort Lake and Caravan Park are over 1 km from the project and as such, are expected to experience little to no impact.

The landscape character of some segments of the project may experience significant impacts from the loss of vegetation and changes in topography due to road cuttings and crossing structures. Other sections will be less affected due to the existing highly modified land character and its ability to absorb change.

A wide range of standard environmental protection measures will be developed during the detailed design phase of the project development. These include development of landscape strategies and plans, using local planting themes, carefully designed noise attenuation barriers, and the incorporation of wildlife links to reduce impacts on the existing landscape character.

ENVIRONMENTAL MANAGEMENT FRAMEWORK

To provide a transparent framework with clear accountabilities for managing environmental effects and hazards associated with construction and operation phases of the proposed project, in order to achieve acceptable environmental outcomes.

The EES scoping requirements state that the EES will need to '*provide a transparent environmental management framework with clear accountabilities for managing and monitoring environmental effects and hazards associated with construction and operation phases of the project to achieve acceptable environmental outcomes*'.

Development of the Environmental Management Framework has been guided by the EES scoping requirements, relevant legislation, policy and guidelines, and has been informed by the specialist environmental impact assessment studies completed for the EES.

The Environmental Management Framework for the project is included as EES Chapter 17: *Environmental management framework*, and includes the environmental management measures for the project. The Environmental Management Framework outlines clear accountabilities for the delivery of the measures and compliance with all relevant environmental laws, approvals, approval conditions, and environmental management plans and procedures to ensure that the environmental effects of the project and any impacts associated with its construction and operation are effectively managed.

The Environmental Management Framework specifies the processes to be followed in the preparation, review, approval and implementation of Environmental Management Plans and procedures, including the Construction Environmental Management Plan and more detailed Environmental Management Plans. The Environmental Management Framework also provides for the regular review and updating of Environmental Management Plans and procedures, as well as independent monitoring, auditing and reporting of compliance.

Implementation of the Environmental Management Framework and environmental management measures would be effective in controlling adverse effects associated with construction and operation of the project. Implementation of the Environmental Management Framework and environmental management measures in the manner proposed would also support beneficial environmental outcomes to be achieved by the project. The Environmental Management Framework is clear, transparent, robust and comprehensive, with sound governance and accountability arrangements.

SUSTAINABLE DEVELOPMENT

Overall, to identify an alignment and conceptual design for the Western Highway bypass of Beaufort that would achieve a sustainable balance of environmental, economic and social outcomes and provide a net community benefit.

The EES process has developed a range of sustainable development measures to achieve a balance of environmental, economic and social outcomes for the community. The project's mitigation measures align with RRV's Sustainability and Climate Change Policy and Strategy documents, which provide a set of standard environmental protection measures to meet sustainable development objectives. Sustainability and Climate Change Policy key priorities which would be achieved during construction and operational phases for community benefit include:

- reducing environmental and climate change impacts to and from the road system
- managing the road system to adapt to a changing climate
- protecting and enhancing the natural and cultural environment
- fostering a culture of leadership and best practice on sustainability and climate change.

RRV would action these priorities through the effective implementation of the Environmental Management Framework with the contractor during construction, and internal compliance through RRV maintenance and operational departments during operational phases.

18.3 Next steps

The EES will be on public exhibition for 30 days, during which time the public can view the EES and make written submissions. Following public exhibition of the EES and associated draft Planning Scheme Amendment documentation, it is expected that an independent Inquiry and Advisory Committee will be appointed by the Minister for Planning to report on the environmental effects of the project.

Following receipt of the inquiry report, the Minister for Planning would assess the environmental effects of the project having regard to all relevant considerations, including the independent Inquiry and Advisory Committee report, all associated submissions and evidence, the EES and the supporting technical reports, public submissions and RRV's response to the public submissions.

Following assessment and determination of the EES, it is expected that the Minister for Planning will exercise powers under the *Planning and Environment Act 1987* to amend the Pyrenees Planning Scheme to introduce the Incorporated Document for the project by applying the Specific Controls Overlay and Public Acquisition Overlay to the extent required to facilitate the acquisition of land for the Beaufort Bypass. The Minister for Planning's assessment of the EES will provide advice on the appropriateness of the Environmental Management Framework and associated mitigation measures.

If the Minister's assessment determines the proposed impacts are acceptable, the assessment will be provided to the Commonwealth Minster for the Environment to make a determination on the controlled action.

Upon publishing notice of the Planning Scheme Amendment in the Victorian Government Gazette, RRV would then be able to commence the land acquisition and compensation process.