EIS Volume 1 Chapter 14

Air Quality

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14. Air Quality

This chapter provides a summary of the existing air quality conditions and assesses the potential impact the Project may have on air quality, including greenhouse gas emissions. It is based on the outcomes of the specialist air quality assessment attached at Appendix K.

14.1. Key Findings

- Potential air quality impacts from construction will primarily be related to dust associated with soil disturbance due to vegetation clearance requirements for the Bundey substation, access track establishment or use, mobile concrete batching plants, tower installation and general construction activities.
- Construction vehicle and helicopter movements will not result in significant dust impacts at sensitive receptors.
- Although dust will be generated by the Project, the region is sparsely populated with only four receptors present within the transmission line corridor and only two receptors that may be impacted by dust. Construction impacts associated with dust are anticipated to be short-term and minor.
- Dust management measures will be implemented where required during construction to minimise potential impacts, particularly in the vicinity of sensitive receptors.
- Operational activities are not expected to cause any adverse public nuisance or public health impacts from dust generation.
- The greenhouse gas emissions modelling has shown that the Project will contribute negligible emissions to State and national greenhouse gas inventories. It should be noted that the Project will assist the National Electricity Market transition away from traditional fossil fuel-based electricity generation to a greater mix of renewable energy sources. This in turn will have a net positive impact to greenhouse gas emissions and assist government in meeting emissions targets.

14.2. Setting the Context

This section provides information needed to explain the context within which impact assessment is undertaken. It describes:

- the relevant EIS Guidelines
- relevant requirements in legislation and other standards
- views of stakeholders and the environmental and social outcomes they would like the Project to meet
- the assessment methodology used to identify baseline environmental values and to undertake the impact assessment.

14.2.1. EIS Guidelines

The EIS Guidelines require an assessment of the effects on receptors of dust and emissions from Project construction and operation activities and measures for controlling these impacts as set out in Table 14-1.

Table 14-1: EIS Guidelines addressed in the Air Quality chapter

EIS Guidelines and Assessment Requirements	Assessment level
Land Use and Economic Effects	

EIS Guidelines and Assessment Requirements	Assessment level
Assessment Requirement 2: The proposal will have an impact on the State's economy during construction and operation and may result in immediate and long term effects on land owners and surrounding uses	
• *2.6*: Outline any mitigation measures to alleviate or avoid impacts on landowners and land uses and refer to any compensation programmes.	Critical
Effect on the physical environment *Assessment requirement 12:* The proposed development has the potential to disturb landforms and soil and to affect stormwater run-off	
• *12.1:* Describe the nature and condition of the physical environment in the proposal's environs, including reference to geology, geomorphology, soils, hydrology and atmosphere.	Medium
• *12.2:* Identify any risks and implications of causing or exacerbating land degradation, especially soil erosion and the impacts of dust emissions during construction and ongoing maintenance	Medium
• *12.5:* Address greenhouse gas emissions from construction, operation and maintenance of the transmission line	Medium
Traffic Effects *Assessment Requirement 14:* The proposal requires access for the transportation of infrastructure and construction material to site and ongoing access for maintenance purposes.	
• *14.4:* Identify any potential effects of construction traffic on communities including noise and dust	Standard
Construction, Operation and Maintenance Effects *Assessment Requirement 15:* The construction and operation of the proposal would require a range of impacts to be minimised, mitigated and monitored through an environmental management plan framework.	
• *15.3:* Describe the likely impact and measures for the control of dust, vibration, noise, emissions, drag out (i.e. onto public roads) and litter during both construction and maintenance.	Standard
• *15.11: Describe the locations(s) where mobile concrete batching plants would be used and the management of wastewater, dust emissions and noise from such plant.*	Standard

Aspects of assessment requirements identified in Table 14-1 which are not addressed in this chapter are listed in Table 14-2 together with the applicable chapter.

Table 14-2: Aspects of assessment requirements addressed in other chapters

Assessment requirement	Chapter
2.6 Summary of mitigation measures to alleviate or avoid impacts to landowners	Chapter 9 Land Use and Tenure
2.6 Mitigation measures for noise impacts to landowners	Chapter 14 Noise and Vibration
2.6 Mitigation measures for traffic impacts to landowners	Chapter 16 Traffic and Transport
12.1 Description of the nature and condition of the physical environment including geology, geomorphology, soils and hydrology	Chapter 10 Physical Environment
12.2 Risks and implications of land degradation, especially soil erosion	Chapter 10 Physical Environment
12.2 Risks and implications of dust emissions on flora and fauna	Chapter 11 Flora and Fauna
14.4 Potential noise effects of construction traffic on communities	Chapter 15 Noise and Vibration
14.4 Potential effects of construction traffic on communities	Chapter 16 Traffic and Transport
15.3 Impact and measures for control of vibration and noise emissions	Chapter 15 Noise and Vibration
15.3 Impact and measures for control of drag-out	Chapter 16 Traffic and Transport
15.3 Impact and measures for control of litter	Chapter 19 Waste Management
15.11 Location of concrete batching plants	Chapter 2 Project Description
15.11 Management of wastewater from concrete batching	Chapter 10 Physical Environment
15.11 Management of noise from concrete batching	Chapter 15 Noise and Vibration

14.2.2. Requirements in legislation and other standards

The *National Environment Protection (Ambient Air Quality) Measure* (Ambient Air Quality NEPM) was introduced in 1998 and contains ambient air quality standards for six dominant pollutants across Australia: carbon monoxide, lead, nitrogen dioxide, particles, ozone and sulphur dioxide. The NEPM also provides a framework method for monitoring and reporting on air quality.

South Australian *Environment Protection (Air Quality) Policy 2016* (Air Quality EPP) prepared under Section 28 of the *Environment Protection Act 1993* sets out the air quality standards adopted by EPA SA. The ground level concentration standards adopted in the air quality study are from Schedule 2 of the Air EPP. The aim of the policy is to reduce the impact of smoke and other air pollutants on communities across the state.

Guidance on meeting requirements under the Air Quality EPP is provided in *Evaluation distances of effective air quality and noise management* (EPA SA 2019) prepared by EPA SA. The document provides recommended evaluation distances from polluting activities, within which potential adverse impacts on sensitive receivers need to be assessed. Although no distances are specified for construction activities, concrete batching has an evaluation distance of 200 m.

The *Air and Water Quality Guideline – Concrete Batching* (EPA SA 2017) also provides guidance on compliance with the *Environment Protection Act 1993* for management and operation of concrete batching plants.

Greenhouse Emissions

The National Greenhouse and Energy Reporting (NGER) Scheme is an instrument under the *National Greenhouse and Energy Reporting Act 2007* (NGER Act). The scheme provides a national framework for understanding greenhouse gas information and provides methods for reporting on greenhouse gas emissions.

Climate Change and Greenhouse Emissions Reduction Act 2007 sets out a number of reporting obligations for the South Australian Government and mandates a biannual assessment by the Commonwealth Scientific and Industrial Research Organisation (CSIRO) on the extent to which the targets under the Act are being achieved. The aim of the Act is to retain accountability for climate action and promote action to meet the specified targets.

14.2.3. Views of stakeholders

Affected landowners have not expressed any concerns to date about air quality impacts from the Project as it is recognised that dust impacts are manageable. Stakeholders within the broader region have expressed an interest in the impacts of the Project on greenhouse gas emissions during consultation sessions.

14.2.4. Assessment method

The method of assessment has followed that set out in Chapter 8 Impact Assessment Methodology.

Air quality assessment

The assessment focusses on the 1 km wide transmission line corridor, with reference to the broader region where necessary. The assessment is based on an air quality and greenhouse gas impact assessment undertaken for the Project (Northstar Air Quality 2021), contained in Appendix K.

The construction phase impacts were assessed using a risk-based assessment procedure. The assessment used guidance on threshold screening distances for dust from construction (IAQM 2016) to derive a distance (350 m) beyond which there was considered to be a negligible risk of impact on

receptors from construction activities. Impact category definitions for dust emissions were then defined based on the distance from construction activities, with impacts defined as 'Moderate' within 50 m, 'Minor' between 50 and 350 m, and 'Negligible' at distances greater than 350 m. These categories were then used to predict the level of impact at receptors identified along the transmission line corridor. A 500 m buffer around the proposed alignment and Bundey substation site was used to identify potential receptors (see Section 14.3.2) which is larger than the maximum screening distance defined by IAQM (2016).

A modelling approach was not considered appropriate or necessary due to a lack of reliable factors from construction activities on which to base predictive assessments, as well as the very low number of receptors and short-term nature of the activities (and resulting low level of risk). Emission rates would also vary significantly depending on local conditions and the construction management practices employed, which would result in a high level of uncertainty in any modelling.

Greenhouse gas assessment

The greenhouse gas assessment was undertaken using a quantitative approach to estimate the potential greenhouse gas emissions from the Project and then comparing these to the total national and South Australian greenhouse gas emissions for context. Emission outputs were estimated by projecting the direct and indirect emission types based on the project description. The applicable activities which have the potential to result in emission of greenhouse gas were:

- combustion of diesel fuel in equipment
- land clearing
- combustion of fuel during construction for material transportation purposes.

Greenhouse gas emission levels for fuel combustion were estimated using activity data for each emission source obtained from the Transport Authorities Greenhouse Group (2013) and emission factors sourced from the National Greenhouse Accounts Factors (DISER 2020b). Emissions resulting from land clearing were assumed to be negligible based on the rehabilitation of areas of temporary disturbance and the slow rate of natural decomposition of cleared vegetation that would be left on site.

Where there was uncertainty in the assessment of expected impacts, this was evaluated using risk assessment tools, as discussed in Chapter 8 Impact Assessment Methodology. This is discussed under each impact event where relevant. A summary of the evaluation of uncertainty for all impact events is contained in Appendix O.

14.3. Description of Existing Environment

The air quality in the vicinity of the transmission line corridor is generally expected to be good, typical of its setting in rural remote South Australia[1].

The principal land uses along the transmission line corridor are agriculture, pastoral / grazing and conservation (as discussed in Chapter 9 Land Use and Tenure). It is expected that the primary contribution from these land uses to local air quality are:

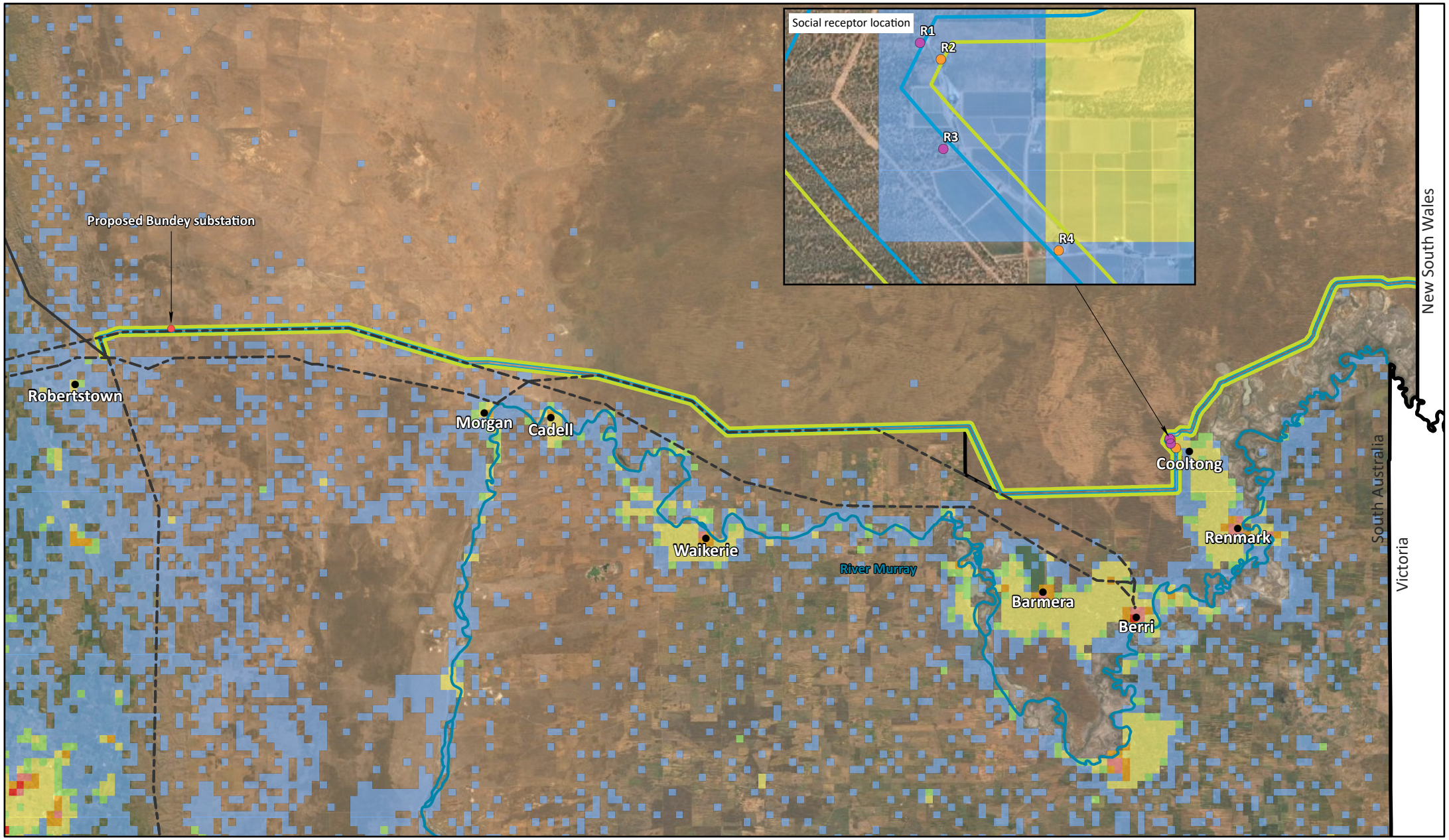
- dust from cultivating and harvesting activities
- dust from movement of livestock
- pesticides and fertilisers from ground and / or aerial crop spraying

[1] There are no air quality monitoring stations at nearby or representative locations. The closest stations are at Elizabeth Downs in metropolitan Adelaide (90 km to the south south-west of Robertstown) and Lake Victoria (20 km to the south-east in NSW, which monitors dust storm events but does not have data available in a format suitable for use in the assessment).

- emissions from agricultural machinery.

There are some populated areas in the broader vicinity of the transmission line corridor, towards the town of Renmark (see Figure 14-1). It would be expected that the higher frequency of vehicle movements and commercial activities within those areas would contribute to local background air quality conditions.

Due to the distance the Project covers, the air quality conditions will vary as it moves through various land uses and closer to populated areas. However, as the transmission line is still a considerable distance from the more densely populated areas, the local background pollutant levels are expected to be low, except during episodic events such as dust storms or bush fires.



Population density (Persons.km^{-2})
- 0 - 5
- 5 - 10
- 10 - 100
- 100 - 500
- 500 - 1,000
- > 1,000

- Air quality threshold screening distance
- Air quality transmission line corridor (1 km)
- Cultural heritage avoidance alignment
- Existing ElectraNet transmission line
- River Murray
- Proposed Bundey substation

Social receptor location
- Within 700 m of transmission line
- Within 1 km of transmission line

Figure 14-1
Population density and sensitive receptors within the study area

0 20
Kilometres

N

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14.3.1. Atmospheric conditions and topography

For the purposes of the air quality impact assessment, the existing atmospheric conditions of the region were obtained from two Bureau of Meteorology Automatic Weather Station (AWS) sites located at the western (Eudunda AWS) and eastern (Renmark Aero AWS) extents of the alignment.

Annual wind roses for both locations were assumed to be representative of the westerly and easterly extremes of the transmission line corridor and indicated that south-westerly winds occur most predominantly through the area, with the highest velocities occurring during the afternoon. Wind roses for selected meteorological stations are provided in Chapter 10 Physical Environment.

There are no significant topographical features identified by the air quality assessment which could significantly influence the dispersion and transport of air pollutants between the transmission line corridor and the identified sensitive receptors discussed in Section 14.3.1.

Further detail of the physical environment of the Project region including topography is discussed in detail in Chapter 10 Physical Environment.

14.3.2. Sensitive receptors

The region is sparsely populated and there are very few receptors in the vicinity of Project. Four residential receptor locations near Cooltong are located within 500 m of the proposed alignment and were identified as being potentially susceptible to changes in air quality, as shown in Figure 14-1**.**

Details of the discrete sensitive receptor locations used in the air quality impact assessment are provided in Table 14-3. These locations were chosen as being indicative of sensitive receptors (residential areas).

Table 14-3: Discrete sensitive receptor locations used in the study

Receptor ID	Receptor type	Generalised land use	Distance to proposed alignment (m)
R1	Residential	Rural horticulture	330
R2	Residential	Rural horticulture	487
R3	Residential	Rural horticulture	298
R4	Residential	Rural horticulture	393

Greenhouse gas emissions contribute to global warming and require consideration at that level. Consequently, sensitive receptors have not been identified for greenhouse gas emissions.

14.4. Impact Assessment

The following aspects of the Project have been identified as potential sources of air quality impacts:

- soil disturbance during construction works for access track establishment, tower footings, excavation and stockpiling of soil
- construction vehicle and helicopter movements along the transmission line corridor that generate dust
- dust from mobile concrete batching plant operations
- combustion emissions from vehicles and equipment involved in construction and inspection and maintenance
- soil disturbance from operational activities.

The potential impact events resulting from these aspects of the Project are discussed below. Predicted impact categories and an evaluation of uncertainty are also discussed for each impact event.

Combustion emissions from vehicles and equipment involved in construction and inspection and maintenance are also a source of greenhouse gas emissions, and vegetation clearing can also result in the release of greenhouse gases. It is noted that the Project may contribute to an overall reduction in greenhouse gas emissions if renewable energy development is facilitated by the Project. The Project will also aid in moving to a low carbon economy as it will assist in the transition away from fossil fuel based generation to renewables.

Given the nature, scale and frequency of operational-phase maintenance activities, combustion emissions from this phase are considered negligible and are not assessed further. Similarly, operational greenhouse gas emissions are not considered further.

The potential impact events resulting from these aspects of the Project are discussed below. Predicted impact categories and an evaluation of uncertainty are also discussed for each impact event.

14.4.1. Air quality

Soil disturbance

Dust generation from soil disturbance will not have a significant impact on sensitive receptors.

Vegetation clearance, excavation and earthworks will be required for the construction of towers, the Bundey substation, new access tracks and temporary facilities (e.g. temporary lay down areas, borrow pits, staging sites and temporary worker construction camps). Dust generation can occur while soil disturbing activities are being undertaken, or during periods of high wind after the initial disturbance, due to the presence of exposed soil.

The areas of disturbance for towers along the proposed alignment have a relatively small and discrete footprint and are sparsely distributed, as discussed in Chapter 10 Physical Environment. The area of disturbance for towers and other infrastructure will be minimised and groundcover will be retained where possible (e.g. for the stringing access corridor). The most continuous soil disturbance will relate to the access track along the transmission line. Existing tracks will be utilised where possible and grading or other earthworks will be limited to what is required to provide safe access for construction.

As described in Chapter 10 Physical Environment, wind erosion potential of the soil is low to moderately low along the transmission line corridor to the west of Morgan. Areas of elevated wind erosion potential occur in the eastern part of the transmission line corridor, typically associated with the dune fields and sand plains present.

Due to the region of the Project being sparsely populated, there are very few receptors near the transmission line corridor that could potentially be impacted by dust from construction and operation activities. The air quality impact assessment (Appendix K) concluded that minor dust impacts may be experienced at up to 350 m from the construction works (which would potentially affect two residences near Cooltong which are approximately 300 m from the proposed alignment), however these impacts would be reduced to negligible with implementation of dust control measures. Moderate impacts (which could potentially occur at less than 50 m from construction works) were not predicted at any receptors as there are no receptors within this proximity.

ElectraNet's construction contractor will develop and implement dust and air emissions measures as part of the construction environmental management plan (CEMP). This will include measures such as:

- provision of water carts to apply water or other dust suppressants as and when required on work areas close to potential sensitive receptors
- watering or stabilisation of exposed surfaces to minimise wind erosion
- planning construction activities to minimise the time that soils are exposed

- implementation of speed limits
- progressive rehabilitation of temporary construction areas
- visual monitoring of dust generation
- community liaison and mechanism for registering and resolving complaints.

These measures are described in more detail in the air quality impact assessment (Appendix K) and in the draft CEMP (refer Volume 3 Appendix P).

There is potential for an increase in dust deposition onto vegetation near construction activities. However, the impact is expected to be small scale, temporary and confined to the immediate vicinity of the disturbance footprint, and is not expected to have any significant impacts on the abundance and / or diversity of native vegetation and fauna or commercial crops. Impacts to native vegetation and fauna are discussed further in Chapter 11 Flora and Fauna.

Any impact of construction dust emissions on surrounding sensitive receptors will be limited due to the transient nature of construction along the corridor, limited scale and duration of planned earthworks at any particular site, the separation distance between construction activity and sensitive receptors.

The predicted impacts are in the **Negligible** category. Uncertainty in the predicted impact (based on uncertainty in the implementation of control measures) has been evaluated in Appendix O and the level of risk is **Low**.

Construction vehicle and helicopter movements

Construction vehicle and helicopter movements will not result in significant dust impacts at sensitive receptors.

Vehicle movements on access tracks and unsealed roads during construction activities and operation of helicopters during tower transport and aerial stringing can result in dust generation, which may impact nearby receptors.

As noted above, there are very few receptors in close proximity to the proposed alignment, with only two receptors located within the distance (350 m) where it is considered that impacts resulting from traffic along the alignment could potentially occur. Dust control measures in the vicinity of these receptors would be implemented to avoid any significant impact.

There will also be an increase in traffic on local roads during the construction phase, as discussed in Chapter 16 Traffic and Transport. There are very few residences adjacent to unsealed roads that are likely to be used for access to the Project during construction. Dust control measures outlined above would be implemented in the vicinity of these residences where required.

If helicopters are utilised for tower transport and aerial stringing, take-off / landing and staging sites will be required. These may be outside of the Project area and may result in the generation of particulate matter through rotor downwash and material handling activities. Care will be taken to locate these sites as far from any sensitive receptor locations as possible, and at a minimum of 350 m from those locations. This is anticipated to provide a suitable buffer for anticipated short-term (<1 hr) particulate matter emissions and to ensure that the short-term (24 hr) particulate matter criteria are achieved.

Dust generation at helicopter take-off and landing sites (particularly sites that are used frequently) would be minimised by implementation of dust control treatments such as those described above. Dust control would also be implemented at tower sites if helicopters are being used for tower assembly and dust generation is significant. Helicopters may not be used for tower assembly at sites where there are residences nearby unless granted consent by those residences for such activity.

The dust control measures outlined above are well-established for a range of construction activities and are considered standard practice. They have been used successfully by ElectraNet on other transmission line projects. They are known to be effective provided the control measures are regularly applied. As noted above, this will be a requirement in the CEMP.

Other emissions during construction (e.g. combustion emissions from vehicles or equipment) would be localised, transient and short term and would have a negligible impact on local air quality. They are not expected to have any impact air quality at the small number of receptors located in the transmission line corridor.

The predicted impacts are in the **Negligible to Minor** category. Uncertainty in the predicted impact (based on uncertainty in the implementation of control measures) has been evaluated in Appendix O and the level of risk is **Low**.

Mobile concrete batching plants

Mobile concrete batching plants will be located and managed to avoid dust at sensitive receptors.

Concrete for tower foundations is likely to be supplied from local concrete batching plants in Robertstown and Berri, with up to three mobile concrete batching plants proposed for various locations along the transmission line corridor. Cement, sand and aggregate materials used in concrete batching have the potential to produce dust which may adversely affect amenity values for nearby sensitive receptors.

Temporary locations for the mobile concrete batching plants will be selected to be as far from any sensitive receptor locations as possible (i.e. at least 350 m from those locations) to minimise the risk of impacts. Measures to mitigate dust emissions from mobile plants will be implemented and would include consideration of prevailing wind directions in locating the plants, shielded storage of stockpiled materials and dust suppression methods such as water sprays.

Impacts on surrounding sensitive receptors from dust emissions from mobile concrete batching plants will be limited due to the separation distance between the plants and sensitive receptors, the temporary presence of the plants, and implementation of appropriate dust suppression measures which will be set out in the CEMP.

The predicted impacts are in the **Negligible** category. Uncertainty in the predicted impact (based on uncertainty in the final location and implementation of control measures) has been evaluated in Appendix O and the level of risk is **Low**.

Rehabilitation of construction areas

Construction areas will be rehabilitated and will not result in significant dust impacts.

As noted above, the areas of disturbance generally have a relatively small and discrete footprint and are sparsely distributed, and there are very few receptors in close proximity. All areas of temporary disturbance (e.g. non-permanent access tracks or laydown areas) will be rehabilitated by scarifying or ripping compacted soil and replacing any previously stripped stockpiled topsoil and vegetation (or as agreed with relevant landholders). ElectraNet has experience in successfully rehabilitating construction areas for transmission lines in similar environments.

The rehabilitation of disturbed areas will be monitored to ensure success. If necessary, ElectraNet will undertake further stabilisation and / or rehabilitation works until all construction areas have achieved rehabilitation objectives.

The predicted impacts are in the **Negligible** to **Minor** category. Uncertainty in the predicted impact (due to uncertainty in the effectiveness of control measures) has been evaluated in Appendix O and the level of risk is **Low**.

Operational vehicle movements

Operational activities are not expected to cause any adverse public nuisance or public health impacts from dust generation.

During standard operation the transmission line will require very little ongoing maintenance. Access tracks to the transmission line towers would be retained for inspection and maintenance activities, predominantly by light 4WD vehicles or helicopter. The maintenance program would typically involve one detailed ground inspection every three years for signs of unusual wear, structural integrity and corrosion or damage. During operational inspections and maintenance there is not expected to be any significant soil disturbance or other activities that have the potential to generate significant dust that will impact on sensitive receptors during operational activities. Flying height of helicopters during inspections will be at approximately 65 m or higher. There are also very few sensitive receptors in the vicinity of the proposed alignment who may be affected should any dust generation occur.

The predicted impacts are in the **Negligible** category. Uncertainty in the predicted impact (due to uncertainty in the effectiveness of control measures) has been evaluated in Appendix O and the level of risk is **Low**.

14.4.2. Greenhouse gas

Construction activities will not significantly contribute to global greenhouse gas emissions.

Construction activities will result in the release of greenhouse gas emissions primarily from the use of diesel fuel for construction machinery, vehicles and generators. The combustion of fossil fuels will result in the emission of nitrogen oxides (NO_x), sulphur oxides (SO_x) and diesel particulates. The greenhouse gas emissions modelling, from vehicles and during vegetation clearing, have shown that the Project will contribute a negligible amount to the Australian greenhouse gas inventory. Direct emissions (Scope 1) from construction of the Project would contribute approximately 0.0001% of Australian total greenhouse gas emissions in 2018 and 0.0031% of SA total greenhouse gas emissions (refer Appendix K).

Summaries of the GHG emissions estimates for the construction phase are provided in Table 14-4. Note that Scope 2 emissions have not been calculated as no electricity is being purchased and consumed from an organisation on site.

Table 14-4: Greenhouse gas emissions during construction

Energy Demand	Greenhouse gas emissions (t CO_2-e/annum)
Scope 1	
Diesel fuel for mobile plant and equipment	758.5
Scope 3	
Diesel fuel for mobile plant and equipment	38.8
Diesel fuel for material transport	3.9
Unleaded fuel for employee transport	0.003
Diesel fuel for employee transport	0.003
Aviation fuel (Avgas) for helicopter	183.0
Steel used in construction (embodied emissions)	29,190
Concrete used in construction (embodied emissions)	17,770
Construction phase total	**47,944**

Scope 3 emissions related to the embodied emissions of purchased material (concrete and steel) are included in the estimates. The Project will consider opportunities to reduce embodied emissions,

including potential use of materials with lower embodied energy such as fly ash cement and materials with high recycled content (such as recycled aggregate in concrete).

It should be noted that the Project will assist the National Electricity Market to transition away from traditional fossil fuel-based electricity generation to a greater mix of renewable energy sources. The Project will allow more renewable energy projects to connect to the grid as it targets renewable energy zones and allows the sharing of electricity interstate. This in turn will aid the SA and NSW governments in achieving their goal to achieve net zero emissions by 2050.

14.4.3. Summary of key mitigation measures

Potential impacts to air quality will be mitigated through and control measures detailed in the CEMP. Table 14-5 provides a summary of the proposed mitigation measures related to air quality.

Table 14-5: Key mitigation measures – air quality and greenhouse gas

Mitigation measure	Construction	Operation
Provide awareness training and site-specific training (if applicable) for all workers on site on air quality issues and provide information on importance of management	✓	
Incorporate existing tracks into the design where possible to avoid construction of new access tracks, and reduce clearance footprint and associated soil disturbance	✓	
Use emissions control equipment on fixed and mobile plant and equipment	✓	✓
Implement dust suppression controls on unsealed roads, when required	✓	
Implement dust suppression controls on disturbed land (construction) where required	✓	
Implement dust suppression controls at mobile concrete batching plant locations, where required	✓	
Restrict the disturbance footprint to the minimum necessary to safely carry out the activities	✓	
Limit planning construction activities to minimise the time that soils are exposed	✓	
Implement maximum speed limits on access roads and work areas	✓	✓
Implement progressive rehabilitation of temporary construction areas	✓	
Monitor rehabilitation of disturbed areas to ensure success	✓	
Maintain equipment to ensure emissions control devices are functioning correctly	✓	
Sourcing of materials that have minimal embodied energy and environmental impact as far as practicable.	✓	
Reducing emissions through the sourcing of local materials where practicable.	✓	
Turn off vehicles/plant and machinery when not in use	✓	✓
Develop a complaint register and corrective action program	✓	✓
Undertake and ongoing community / landholder engagement process	✓	✓
Register any complaints in ElectraNet's IMS and implement any necessary corrective action program.	✓	✓

14.5. Conclusion

ElectraNet's key finding is that Project construction or operational activities will not lead to significant air quality impacts. Most of the proposed alignment is distant from sensitive receptors and no adverse impacts are anticipated during construction or operation of the Project. Where the few receptors are in closer proximity to the alignment, the impacts will be negligible to minor, predominantly due to the transient nature of construction activities. Dust control measures will be implemented in accordance with the CEMP.