

Air Quality Management Plan

Eurobodalla Southern Water Supply Storage Project



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Glossary/ Abbreviations

Term / Abbreviation	Definition / Expanded text
Application Number	SSD 7089
AQMP	Air Quality Management Plan
BOM	Australian Government Bureau of Meteorology
CEMP	Construction Environmental Management Plan
Consent Conditions	The Minister for Planning's Minister's Development Consent Conditions contained in approval SSD 7089 dated 17 October 2019
Council	Eurobodalla Shire Council
Development	The development described in the Eurobodalla Southern Water Supply Storage Environmental Impact Statement
Development Consent	The Minister for Planning's approval SSD 7089 dated 17 October 2019
Development Consent Conditions	The Minister for Planning's Minister's Development Consent Conditions contained in approval SSD 7089 dated 17 October 2019
DPE	NSW Department of Planning and Environment
DPI	NSW Department of Primary Industries
EIS	Environmental Impact Statement
ESCP	Erosion and Sediment Control Plan
EEC	Endangered Ecological Community
EPA	NSW Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EWMS	Environmental Work Method Statements
GREP	Government Resource Efficiency Policy
OEH	Office of Environment and Heritage
PESCP	Progressive Erosion and Sediment Control Plan
POEO Act	<i>Protection of the Environment Operations Act 1997</i>

Term / Abbreviation	Definition / Expanded text
REMM	Revised Environmental Management Measures identified in Appendix 2 of the Development Consent

Document Control and Records

Documentation and document control for this Plan, including issue of any amendments will be done generally in accordance with the contract. This Plan is maintained by Haslin Constructions (Haslin) and maintained throughout construction through regular reviews carried out on an initial 3 month of the project starting then on a biannually basis, or as changes require.

At all times an up-to-date copy of this plan shall be kept on site and made available to all employees and contractors involved in the project. Amendments that are made to this document are recorded on the register of amendments below and shall be approved by management staff. Superseded versions of this document shall be maintained for a period of 7 years to demonstrate record of environmental management and compliance.

This document shall be created and approved by the client. A controlled copy shall be supplied to all relevant parties, and distribution of controlled copies shall be recorded on the distribution register below (controlled hardcopy only). When changes are made to this document, parties listed below shall be provided with updates.

Register of Amendments				
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Company Management Plan Authorisation			
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1 Introduction

1.1 Context

This Air Quality Management Plan (AQMP or Plan) forms part of the Construction Environmental Management Plan (CEMP) for Eurobodalla Southern Water Supply Storage (the Project).

This AQMP has been prepared to address the requirements of the Minister's Development Consent, the environmental management measures listed in the Eurobodalla Southern Water Supply Storage Environmental Impact Statement (EIS) and all applicable legislation.

1.2 Background and project description

The Eurobodalla Southern Water Supply Storage was granted Development Consent from the Department of Planning and Environment (DPE) on 17 October 2019. Development Consent is provided in Appendix A of the CEMP.

The Project consists of an off-stream water storage facility and associated ancillary facilities. Water would be extracted from the Tuross River, using a new river intake pump station, and transferred to the storage via the Storage Inlet Pipeline. As necessary, the storage volume would be supplemented by water extracted from an existing borefield adjacent the storage.

Key features of the Project include:

- a 3,000 megalitre storage capacity,
- a 370 metre long embankment, 39 metres in height and a crest width of 20 metres located on an unnamed tributary of the Tuross River,
- a spillway,
- permanent erosion control structures located downstream of the spillway,
- inlet works to convey and dissipate raw water transferred from the river intake pump station through a pipeline constructed along the left abutment to the proposed water storage facility,
- outlet works to allow transfer of water from the storage to the existing southern water treatment plant (WTP),
- instrumentation to monitor seepage, reservoir levels and water quality,
- a consequence category of "High C" for both flood and sunny day scenarios in accordance with the Australian National Committee on Large Dams (ANCOLD) Guidelines on the consequence categories of dams (2012),
- a thermal stratification control system,
- a boat ramp at the storage for maintenance and water quality monitoring, and
- safety and perimeter fencing at the storage.

Key features of the ancillary facilities include:

- new river intake pump station with a total river extraction capacity made up of a combination of flows from the river intake (up to 26 megalitres) and the borefield (up to six megalitres),
- installation of the following new pipelines including:
 - a pipeline with a capacity of 26 megalitres per day to transfer raw water from the new river intake pump station to the storage inlet chute,
 - a cross connection to the proposed water storage inlet pipeline with a capacity of six megalitres per day providing connection to supply water from the storage to the balance tank at the existing WTP,
 - a pipeline connection from the existing borefield pipeline to the river intake pump station.

- a new storage access road that is about one kilometre in length and extends from Eurobodalla Road opposite the existing WTP to the embankment crest basic right-turn and basic left-turn treatment at the intersection of the new storage access road and Eurobodalla Road would be provided a new access road that would provide a route for vehicles to access the new river intake pump station, and
- power supply including the construction of new sub-stations located near the storage and the river intake pump station.

1.3 Scope of this plan

With the approval of the Secretary of Planning, construction of the project is being staged as follows:

- Stage 1: Tuross River Intake Pump Station clearing.
- Stage 2: Tuross River Intake Pump Station construction.
- Stage 3: Vegetation clearing and topsoil stripping of the access road, construction of the access road to the forestry boundary and construction of the inlet pipeline to the forestry boundary.
- Stage 4: Partial clearing of the entire storage site.
- Stage 5: All other works.

Works in Stage 1, Stage 2 and Stage 4 are complete. Stage 3 works are partially complete and will continue to be delivered under the applicable CEMP. This Plan only applies to Stage 5 of the approved project, being the construction of all remaining works on site including the removal of the remaining vegetation within clearing boundary, construction of the embankment wall, spillway, permanent erosion control measures and all remaining works on site to enable the project to become operational. The scope of works and the construction site boundary is detailed in Figure 1-1.

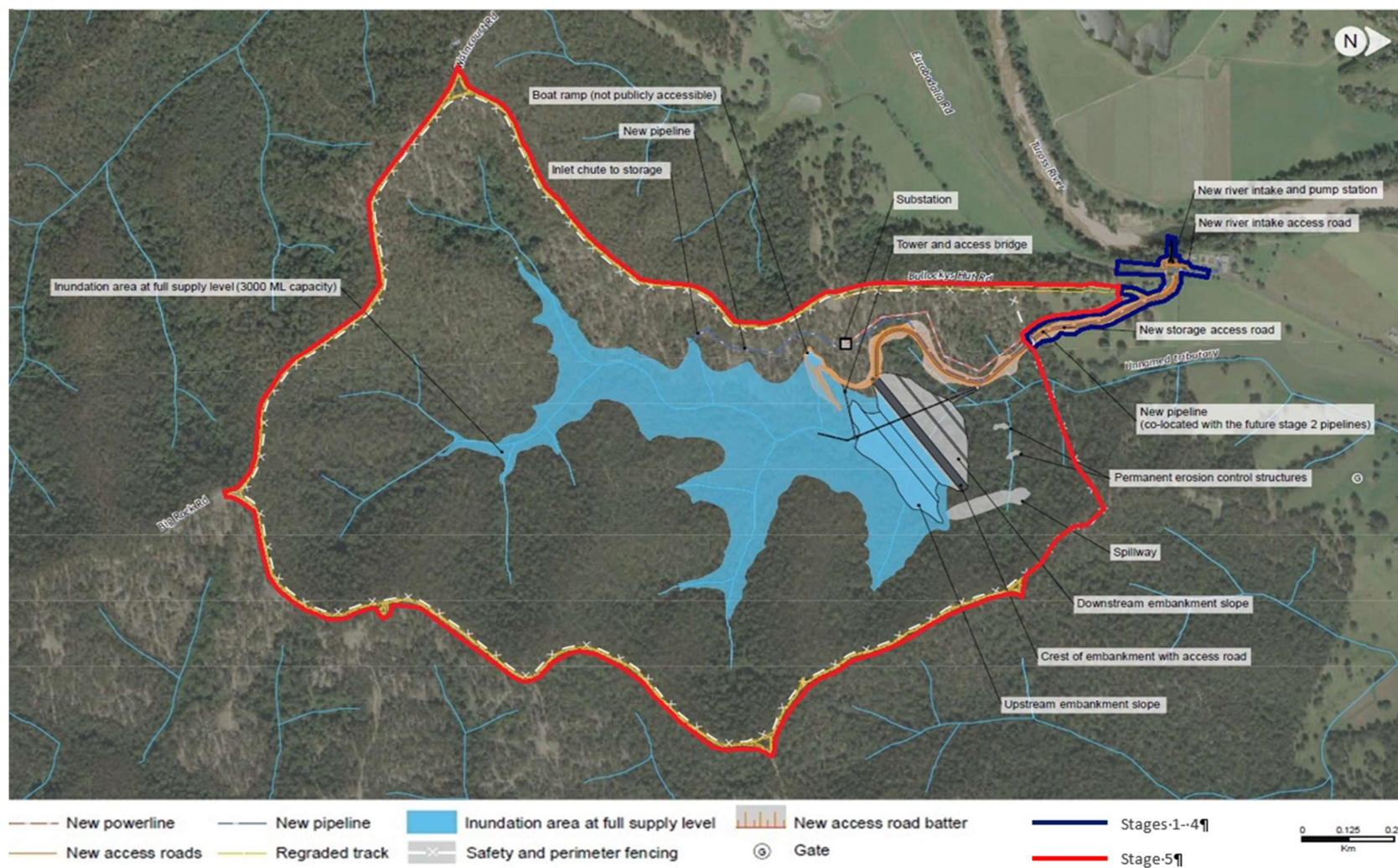


Figure 1-1 Project overview and scope of works covered by the plan (Stage 5)

2 Purpose and objectives

2.1 Purpose

The purpose of this Air Quality Management Plan (AQMP) is to describe how Haslin Constructions will manage dust and protect air quality during construction of the Project.

2.2 Objectives

The key objective of the AQMP is to ensure all conditions of the Development Consent, environmental management measures, contract and licence/permit requirements relevant to air quality are described, scheduled and assigned responsibility as outlined in:

- The Environmental Impact Assessment (EIA) prepared for Eurobodalla Southern Water Supply Storage (the Project).
- Submission Report for the Eurobodalla Southern Water Supply Storage Project.
- Addendum Submissions Report for the Eurobodalla Southern Water Supply Storage Project.
- Revised Secretary's Environmental Assessment Requirements (SEARs).
- Revised Management and Mitigation Measures.
- Development Consent SSD 7089 (the Project) granted on 17 October 2019.
- Contract Technical Specifications No. 10018541 14/01/2022.
- This AQMP also incorporates the requirements for a 'Dust Management Plan' which is required under REMM 12.2 to ensure that air quality impacts, particularly dust generation that may result from Project works area are minimised.

2.3 Targets

The following targets have been established for the management of air quality impacts during the construction of the project:

- Achieve full compliance with relevant legislative requirements and the Conditions of Consent.
- Ensure training on best practice air quality management is provided to all construction personnel through site inductions.
- Undertake appropriate consultation with impacted residents, businesses and stakeholders.
- Minimise impacts on, and complaints from the community and stakeholders.

To achieve the above objectives and targets, the following Key Performance Indicators (KPIs) have been proposed for the management of air quality matters during construction of the project as outlined in Table 2-1 below.

Table 2-1 Proposed Key Performance Indicators (KPIs) associated with the management of air quality

Measure	Target	Timeframe	Responsibility	Documentation
Visible dust emissions	Visible dust is minimised.	At all times	General Superintendent	Environmental inspection checklist Daily checklist
Spillage or track-out onto public roads	Any spillage or track-out on public roads is cleaned immediately.	At all times	General Superintendent	Environmental inspection checklist Daily checklist

3 Environmental requirements

3.1 Relevant legislation and guidelines

3.1.1 Legislation and regulatory requirements

Legislation relevant to air quality management for this Project include:

- *Environmental Planning and Assessment Act 1979* (EP&A Act).
- *Protection of the Environment Operations Act 1997* (POEO Act).
- *Protection of the Environment Operations (Clean Air) Regulation 2010* (POEO Clean Air Regulation).

Relevant provisions of the above legislation are explained in the legal and compliance tracking register included in Appendix A1 of the CEMP.

3.1.2 Guidelines

The main guidelines, specifications and policy documents relevant to this plan include:

- National Environment Protection Councils (NEPC) – National Environment Protection Measure (NEPM) for Ambient Air Quality Guidelines.
- AS 3580.1.1-2007 Methods of Sampling Analysis of Ambient Air. Part 1.1 Guide to Siting Air Monitoring Equipment.
- AS 3580.10.1-2003 Methods of Sampling Analysis of Ambient Air. Determination of Particulate Matter – Deposited Matter - Gravimetric Method.
- Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (NSW EPA, 2017).
- Managing Urban Stormwater: Soils and Construction, Volume 1 (Landcom 2004) and Volume 2 (DECC 2008) (the “Blue Book”).
- Air Quality Monitoring Criteria for Deposited Dust (DEC Guideline).
- NSW EPA Local Government Air Quality Toolkit – Air Quality Guidance Note – Construction sites (NSW EPA, 2017).
- Government Resource Efficiency Policy (OEH 2014).
- Guidance on the assessment of dust from demolition and construction (IAQM, 2014).

3.2 Conditions of Development Consent

The conditions of development consent relevant to this Plan are listed in Table 3-1 below. A cross reference is also included to indicate where the condition is addressed in this Plan or other Project management documents.

Table 3-1 Minister's Development Consent Conditions

Condition No.	Condition Requirements	Document Reference
DUST MINIMISATION		
B25	The Applicant must take all reasonable steps to minimise dust generated during all works authorised by this consent.	This plan Section 6
B26	During construction, the Applicant must ensure that:	
	unsealed roads used for truck access and exposed surfaces and stockpiles within the construction area are regularly watered to suppress dust;	Table 6-1 AQ9, AQ14
	all trucks entering or leaving the site with loads have their loads covered;	Table 6-1 AQ17
	trucks associated with the development do not track dirt onto the public road network;	Table 6-1 AQ11, AQ12
	public roads used by these trucks are kept clean; and	Table 6-1 AQ12
	measures are implemented to minimise dust from exposed surfaces following vegetation clearing and until transfer of storage water to the WTP	Table 6-1 AQ14, AQ15
AIR QUALITY DISCHARGES		

Condition No.	Condition Requirements	Document Reference
B27	The Applicant must install and operate equipment in line with best practice to ensure that the development complies with all load limits, air quality criteria/air emission limits and air quality monitoring requirements as specified in the EPL applicable to the site.	Table 6-1 AQ7, AQ8

3.3 Environmental Management Measures

Relevant EMM are listed in table 3-2 below. This includes reference to required outcomes, the timing of when the commitment applies, relevant documents or sections of the environmental assessment influencing the outcome and implementation.

Table 3-2: Environmental management measures relevant to this AQMP

Ref #	Commitment	Timing	AQMP Reference
REMM	The CEMP would include a number of sub plans identified in the safeguards and management measures and include: Air quality management plan	Pre-construction	This Plan
REMM 12.1	Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environment site representative/engineer or the site manager	During construction	Table 6-1 AQ1
REMM 12.2	A Dust Management Plan will be prepared and implemented as part of the CEMP. The DMP will include, but not be limited to: • potential sources of air pollution and dust • air quality management objectives consistent with any relevant published EPA and/or OEH guidelines • mitigation and suppression measures to be implemented • methods to manage work during strong winds or other adverse weather conditions • a progressive rehabilitation strategy for exposed surfaces.	Pre-construction	This Plan
REMM 12.3	Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken	During construction	Table 6-1 AQ3 Section 7.5

4 Existing Environment

The following sections summarise what is known about factors influencing air quality impacts and management associated with the project, within and adjacent to the Project area.

The key reference documents being Chapter 17 and Appendix L of the Environmental Impact Statement (EIS).

4.1 Background Air Quality

The air quality experienced at any location will be a result of emissions generated by natural and anthropogenic sources on a variety of scales (local, regional and global). The relative contributions of sources at each of these scales to the air quality at a location will vary based on a wide number of factors including the type, location, proximity and strength of the emission source(s), prevailing meteorology, land uses and other factors affecting the emission, dispersion and fate of those pollutants.

When assessing the impact of any particular source of emissions on the potential air quality at a location, the impact of all other sources of an individual pollutant, should also be assessed. These 'background' (sometimes called 'baseline') air quality conditions will vary depending on the pollutants to be assessed and can often be characterised by using representative air quality monitoring data.

As noted in the Air Quality Impact Assessment (AQIA) performed to support the Project (Pacific Environment, 2018) the Project site is located at a significant distance from any air quality monitoring stations (AQMS). The locations of the nearest AQMS are briefly summarised in **Table 4-1**.

Table 4-1. Locations of nearest AQMS

AQMS location	Source	Approximate distance to Project site (km)	Measurement		
			PM10*	PM2.5*	TSP
Monash (ACT)	ACT Health	114	✓	✓	X
Albion Park South	DPE	188	✓	✓	X
Kembla Grange	DPE	200	✓	✓	X

*PM10 is particulate matter 10 micrometres in size

*PM2.5 is particulate matter 2.5 micrometres in size

The closest representative AQMS is noted to be located at Monash, ACT approximately 114 km northwest of the Project site and is operated by ACT Health. Notwithstanding the large distances between the Project site and the available AQMS, this is considered to be the monitoring location most reflective of the conditions of the Project site. The adoption of air quality monitoring data often collected at significant distances from proposed projects, to represent conditions at those locations is a routinely adopted approach in NSW.

In summary, infrequent exceedances of both PM₁₀ and PM_{2.5} were observed between 2015 and 2019 at Monash AQMS. However, in general particulate measurements were predominantly below the NSW EPA air quality criteria. It should be noted that particulate levels across many AQMS in NSW in late 2019 showed measurements above the EPA criterion due to increased smoke levels from widespread bushfires and the measured exceedances at Monash AQMS were primarily observed during this period.

4.2 Sensitive Receptor Locations

To ensure that the selection of discrete receptors for the AQMP are reflective of the locations in which the population of the area surrounding the Project site reside, population-density data has been examined. Population-density data based on the 2016 census, have been obtained from the Australian Bureau of Statistics (ABS) for a 1 square kilometre (km²) grid, covering mainland Australia (ABS, 2017).

The Project site and receptors are located in an area of 'very low' population density (<500 persons km²), which would be expected given the largely rural activities of the immediate area (refer to Figure 4-1). It was found that 12 identified sensitive receptors are located within a radius of 3km relative to the Project site as illustrated in **Figure 4-1**.

In accordance with the requirements of the NSW EPA, several receptors have been identified and the receptors adopted for use within this AQMP are presented in **Table 4-2**.

Table 4-2 is not intended to represent a definitive list of sensitive land uses, but a cross section of available locations, that are used to characterise larger areas, or selected as they represent more sensitive locations, which may represent people who are more susceptible to changes in air pollution.

Table 4-2 Receptor locations

Receptor ID	Location	Land Use	Location (UTM)	
			mE	mS
R2	585 Eurobodalla Road, Bodalla	Residential	230 450	5 998 188
R3	530 Eurobodalla Road, Bodalla	Residential	230 981	5 998 216
R4	350 Comerang Forest Road, Bodalla	Residential	229 868	5 998 817
R5	758 Eurobodalla Road, Eurobodalla	Residential	229 626	5 996 854
R6	818-820 Eurobodalla Road, Eurobodalla	Residential	229 164	5 996 402
R7	198 Waincourt Road, Eurobodalla	Residential	229 710	5 995 979

Receptor ID	Location	Land Use	Location (UTM)	
			mE	mS
R8	168 Waincourt Road, Eurobodalla	Residential	229 449	5 996 100
R9	156 Waincourt Road, Eurobodalla	Residential	229 337	5 996 114
R10	97 Waincourt Road, Eurobodalla	Residential	228 720	5 996 037
R11	93 Waincourt Road, Eurobodalla	Residential	228 475	5 996 315
R12	51-53 Nerrigundah Mountain Road, Eurobodalla	Residential	227 813	5 996 564



Figure 4-1 Locations of sensitive receivers (population density is <500 persons km²)

Location R1 was identified as a sensitive receiver in the EIS. The receiver property has been bought and is now part of the project construction site.

Meteorology

The meteorology experienced within an area, can govern the generation (in the case of wind-dependent emission sources), dispersion, transport and eventual fate of pollutants in the atmosphere. Meteorological observations are made by the Australian Government Bureau of Meteorology (BoM) at a number of locations surrounding the Project site. Data is collected on varying timescales (e.g. one minute, hourly, daily and monthly) and to appropriately

characterise the varying wind conditions at the Project site, the closest automatic weather station (AWS) collecting wind speed and direction data on an hourly basis has been identified as Montague Island Lighthouse AWS.

Montague Island Lighthouse AWS station is located on a small island off the mainland where the meteorological conditions may not accurately represent the conditions at the Project site due to significant differences in terrain and surrounding environment. Therefore, measurements from Moruya Airport AWS, the next closest station, have been adopted for the purposes of this AQMP.

Although air quality is affected by other meteorological variables such as rainfall and temperature, the primary parameters which may impact dust generation at the Project site are wind speed direction which determine the direction and distance that particulate emissions may be transported.

The location of the nearest AWS collecting data on appropriate timescales are provided in Table 4-3 below.

Table 4-3. Meteorological monitoring stations surrounding the Project site

Site Name	Source	Approximate location (UTM)		Approximate Distance
		mE	mS	km
Montague Island Lighthouse	BoM	Residential	230 350	5 997 469
Moruya Heads AWS	BoM	Residential	230 450	5 998 188

Details associated with the prevailing meteorological conditions at Moruya Airport AWS between 2015 and 2019 is presented in Appendix A.

In summary, from 2015 to 2019 winds at Moruya Airport AWS show similar patterns across each of the years, with a predominant westerly wind component on each of the assessed years. The majority of wind speeds experienced at Moruya Airport AWS over the 5-year period are generally in the range $<0.5 \text{ ms}^{-1}$ to 5.5 ms^{-1} with the highest wind speeds (i.e. greater than 8 ms^{-1}) occurring from a north-easterly direction. Winds of this speed are not frequent, occurring 2.3 % of the observed hours over the 5-year period. Calm winds (i.e. $<0.5 \text{ ms}^{-1}$) occur during the 8.7% of hours on average across the 5-year period.

5 Environmental aspects and impacts

5.1 Construction activities

In constructing the project, the following activities have the potential to generate emissions to air:

- Earthworks including clearing and grubbing, stripping and stockpiling of topsoil, excavation, crushing, blasting and concrete works.
- Movement of plant and equipment on the Project site and heavy vehicles on unpaved areas.
- Burning of vegetation.

The construction activities identified above have the potential to generate emissions of particulate matter (dust) and also gaseous emissions through the combustion of fuel in vehicles, plant and machinery. The controls outlined in this AQMP consider all potential sources of emissions (refer Section 5).

A risk assessment performed as part of the EIS identified that there would be air quality risks to nearby receptors from the following activities:

- Dust soiling impacts
 - during earthworks and construction activities
 - associated with track-out from the Project site.
- Human health impacts
 - during earthworks and construction activities
 - associated with track-out from the Project site
- Impacts on ecological receptors
 - during earthworks and construction activities and associated with track-out from the Project site.

The air quality management and mitigation measures identified in the AQIA (Pacific Environment, 2018) of relevance to the construction of the project are presented in Section 6.

The management and mitigation measures outlined in this AQMP include methods previously identified in the AQIA, additional best practice management measures for dust control and staff training induction. Key Performance Indicators have also been determined to measure the success of the mitigation methods provided in this AQMP.

6 Environmental mitigation and management measures

Environmental requirements and management measures relating to air quality impacts were identified in the AQIA and EIS, the Development Consent (SSD 7089) and other relevant documents as specified in this AQMP. Specific measures and requirements to address air quality impacts are provided in Table 6-1.

6.1 Key Management Strategies

The air quality management measures to be adopted during the construction of the project will be adopted for the Project in order to manage potential air emissions from the most significant potential sources.

Measures outlined in Table 6-1 have been identified through review of (Countess Environmental, 2006), (Katestone Environmental, 2011) and (US EPA, 2011) and provide guidance on best practice management methods for dust control which are generally accepted by NSW EPA. Management and mitigation measures as outlined in the AQIA have also been reviewed and included in this AQMP.

Measures outlined in Table 6-1 include categorisation based on whether they are a proactive or reactive measure, and whether the aim of the measure is to prevent, control, or minimise impacts associated with air pollutants.

6.2 Dust Minimisation

As discussed in Section 5, the project may potentially result in dust emissions, which may be associated with earthworks and heavy vehicle movement on unpaved roads. Table 6-1 outlines a number of mitigation methods to reduce dust generation.

6.3 Air Quality Discharges

The air quality risks associated with the project are primarily driven by dust emissions. However, gaseous emissions are also anticipated to be generated through the combustion of fuel in vehicles and equipment to be used onsite.

To minimise air quality impacts arising from vehicle and plant exhaust emissions, all equipment will be operated and maintained in accordance with the requirements of the POEO Act and POEO (Clean Air) Regulation (refer Section 3.1.1)

6.4 Contingency Measures

Targets and Key Performance Indicators (KPIs) have been previously outlined in Section 2.3, and the success of the AQMP will be determined through compliance with the KPIs. Should complaints continue to be received, a campaign of particulate monitoring at the site boundary would be implemented for a period of three (3) months to quantify those potential impacts. After a period of three (3) months the particulate concentrations would be reviewed and the requirement for continuation (or otherwise) of that monitoring program determined.

6.5 Training

All personnel, including employees, contractors and sub-contractors, are required to complete an induction containing relevant environmental information before they are authorised to work on the Project.

Air quality specific information to be covered in the project induction will include:

- Obligations under the Project Development Consent conditions (including the AQMP), including the identification of potential sources of air pollutants of concern and the

mitigation measures to be implemented. This includes specific measures during weather conditions where high levels of dust are probable (e.g. use of water and covering exposed areas to suppress dust propagation).

- Responsibilities relating to the management of air quality under this plan.
- Identification of typical construction activities that may impact air quality, responsibilities and associated environmental safeguards.
- Incident response procedures.

Table 6-1. Air quality management and mitigation measures

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference	Evidence
COMMUNICATIONS						
AQ1	Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary.	Signage	Pre- and during Construction	Environmental Site Representative General Superintendent	REMM 12.1	Weekly Environmental Checklist
AQ2	A Dust Management Plan will be prepared and implemented as part of the CEMP. The DMP will include, but not be limited to: • potential sources of air pollution and dust • air quality management objectives consistent with any relevant published EPA and/or OEH guidelines • mitigation and suppression measures to be implemented • methods to manage work during strong winds or other adverse weather conditions	This plan	Pre- and during Construction	Environmental Site Representative	REMM 12.2	This plan

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference	Evidence
	a progressive rehabilitation strategy for exposed surfaces.					
SITE MANAGEMENT						
AQ3	Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.	Complaints register	During construction	Environmental Site Representative General Superintendent	REMM 12.3	Complaints register
AQ4	Record any exceptional incidents that cause dust and/or air emissions, either on- or offsite, and the action taken to resolve the situation	Daily observations	During Construction	Environmental Site Representative General Superintendent	Consent Condition B25	Daily site diary
AQ5	Develop and implement a depositional dust monitoring program.	Monthly Monitoring Register	During construction	Environmental Site Representative	Consent Condition B25	Monthly monitoring register
AQ6	Good housekeeping practises are to ensure that waste material does not accumulate and lead to generation of dust.	Induction / Toolbox	During construction	Environmental Site Representative General Superintendent	Technical Specification 3.10 (3E)	Weekly environmental checklist
PREPARING AND MAINTAINING THE SITE						

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference	Evidence
AQ7	Schedule and undertake site works to minimise generation of dust on site (consideration of soil moisture, wind and rainfall).	Induction / Toolbox	During construction	General Superintendent	Consent Condition B25 Tech Specification 3.10 (3)	Daily diary, Weekly environmental checklist
AQ8	Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible	Site layout plan	Pre-construction	Senior Project Manager General Superintendent Environmental Site Representative	Consent Condition B25	Site layout plan
AQ9	Regularly water unsealed roads, quarry site and stockpiles to suppress dust	Induction / Pre-start / toolbox	During Construction	General Superintendent	Consent Condition B26 (a)	Daily diary, Weekly environmental checklist
AQ10	Impose and signpost a maximum-speed-limit of 40 km/h on surfaced and unsurfaced haul roads and in work areas.	Induction / Pre-start / toolbox / signage	During Construction	General Superintendent	Consent Condition B25	Daily diary, weekly environmental checklist Signs
AQ11	Install and maintain measures on unsurfaced site egress points to minimise offsite tracking	ESCP	During Construction	General Superintendent	Consent Condition B26 (c)	Weekly environmental checklist

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference	Evidence
AQ12	Maintain the entry / exit point and public road network to ensure there is no dirt tracking from the site.	Works Program	During construction	General Superintendent	Consent Condition B26 (c) and (d)	Daily diary, Weekly environmental checklist
AQ13	If required, apply chemical suppressants to the road surface to reduce wheel generated dust emissions.	Induction / Toolbox	During construction	General Superintendent	Consent Condition B26 (a)	Daily diary, Weekly environmental checklist
OPERATIONS						
AQ14	Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, including haul roads and any borrow areas	Water cart/sprinklers Induction / Toolbox	During construction	Senior Project Manager General Superintendent	Consent Condition B25 Technical Specification 3.10 (3D/G)	Daily diary, Weekly environmental checklist
AQ15	Stabilise earthworks and exposed areas/soil stockpiles and reduce wind erosion as soon as practicable.	ESCP Revegetation and Rehabilitation Plan	During and Post Construction	General Superintendent	Consent Condition B26 (e)	Weekly environmental checklist ESCP
AQ16	Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in closed containers with suitable emission	Toolbox	During construction	Senior Project Manager	Consent Condition B25	Weekly environmental checklist

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference	Evidence
	control systems to prevent escape of material and overfilling during delivery			General Superintendent		
AQ17	All trucks entering or leaving the site are to have their loads covered	Induction / Toolbox	During construction	General Superintendent	Consent Condition B26 (b)	Daily Site Diary Weekly environmental checklist
AQ18	Minimise stockpile heights to reduce wind velocity over surfaces and wind erosion.	Induction / Toolbox	During construction	General Superintendent	Consent Condition B25	Daily Site Diary Weekly environmental checklist
AQ19	Weather conditions (such wind speed, wind direction) will be considered prior to commencing any air curtain incineration and monitored throughout incineration.	Induction / Toolbox	During construction	General Superintendent	Technical Specification 3.10	Daily Site Diary
AQ20	The operation of air curtain incinerator will be optimised to minimise smoke generation	Induction / Toolbox	During construction	General Superintendent	Technical Specification 3.10	Daily Site Diary

7 Compliance management

7.1 Roles and responsibilities

The Haslin Project Team's organisational structure and overall roles and responsibilities are outlined in section 3.3 of the CEMP. Specific responsibilities for the implementation of environmental controls are detailed in section 6 of this Plan.

7.2 Training

All employees, contractors and utility staff working on site will undergo site induction training relating to air quality management issues. The induction training will address elements related to air quality management including:

- Haul road and stockpile management
- High wind days
- Use of water as a dust suppressant
- Covering vehicle loads

Targeted training in the form of toolbox talks or specific training will also be provided to personnel with a key role in air quality management.

Further details regarding staff induction and training are outlined in section 3.5 of the CEMP

7.3 Monitoring and inspections

Daily inspections of activities occurring on the worksite will be undertaken by the General Superintendent and the Environmental Site Representative. Observations will be captured in a daily site diary.

Monitoring will focus on the following:

- whether visible dust is being generated on site,
- whether measures are in place to effectively reduce visible dust from being generated,
- whether sufficient controls are in place to prevent tracking of material from the site boundary.

7.4 Auditing

Audits (both internal and external) will be undertaken to assess the effectiveness of environmental controls, compliance with this plan, CoA and other relevant approvals, licenses and guidelines.

Audit requirements are detailed in Section 3.8.4 of the CEMP.

7.5 Complaint Register

The Project team will keep a record of any complaint made to the development site or any employee or any agent of the development in relation to air quality from the development site. A complaint register will be maintained and will be produced to any authorised officer of the EPA if requested.

Records of individual complaints will include:

- date and time of complaint

- method by which the complaint was made
- personal details of the complainant (if provided)
- nature of the complaint
- the details of an initial response to the complaint
- action taken and any follow up actions
- if no action was taken, the reason why no action was taken
- weather conditions corresponding to the time of the complaint will also be noted in the logbook for assessment purposes

7.6 Reporting

Reporting will be performed in accordance with section 3.8.3 of the CEMP.

Monthly reporting to Eurobodalla Shire Council of dust monitoring activities identified in sections 7.3, 7.4 and 7.5 will occur for the duration of the project unless otherwise agreed by Council.

8 Review and improvement

8.1 Continuous improvement

Continuous improvement of this plan will be achieved by the ongoing evaluation of environmental management performance against environmental policies, objectives and targets for the purpose of identifying opportunities for improvement.

The continuous improvement process will be designed to:

- Identify areas of opportunity for improvement of environmental management and performance
- Determine the cause or causes of non-conformances and deficiencies
- Develop and implement a plan of corrective and preventative action to address any non-conformances and deficiencies
- Verify the effectiveness of the corrective and preventative actions
- Document any changes in procedures resulting from process improvement
- Make comparisons with objectives and targets.

8.2 AQMP update and amendment

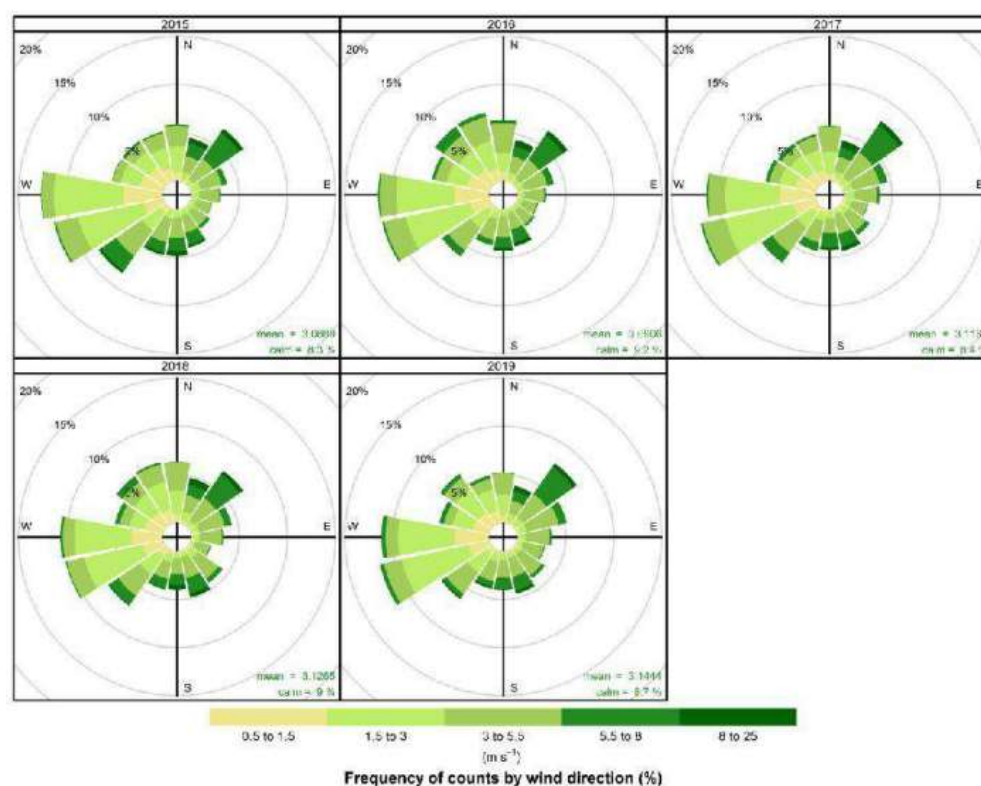
The processes described in Section 3.9 to Section 3.13 of the CEMP may result in the need to update or revise this Plan. This will occur as needed.

Only the Environmental Site Representative, or delegate, has the authority to change any of the environmental management documentation.

A copy of the updated plan and changes will be distributed to all relevant stakeholders in accordance with the approved document control procedure – refer to Section 3.11.2 of the CEMP.

Appendix A – Meteorology

As discussed in Section 0, the meteorology of the area surrounding the Project site was characterised through the use of observations collected at the BoM Automatic Weather Station (AWS) located at Moruya Airport, approximately 28 km from the Project site. Wind roses showing the frequency of wind speed and direction from 2015 to 2019 are shown in Figure A-1



The wind roses indicate that from 2015 to 2019, winds at Moruya Airport AWS show similar patterns across the years, with a predominant westerly wind direction. The majority of wind speeds experienced at Moruya Airport AWS over the 5-year period, 2015 to 2019 are generally in the range