

Lynwood Quarry Environmental Air Quality Management Plan

September 2020 FINAL

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1. Introduction

1.1 Background

Holcim (Australia) Pty Ltd (Holcim) was granted development consent in December 2005 (DA 128-5-2005) (Development Consent) by the then NSW Minister for Planning for the construction and operation of a hard rock quarry known as Lynwood Quarry west of Marulan in the Southern Tablelands region of NSW (refer to **Figure 1**). There have been 5 modifications approved to the Development Consent since 2005.

1.2 Project Description

The location of Lynwood Quarry and extent of the approved 30 year quarry pit is shown in **Figure 1**. The quarry has existing Development Consent (DA 128-5-2005) approval to produce up to five million tonnes per annum (Mtpa) of saleable quarry product until 2038. The target resource has an expected life in excess of 90 years. Some of the material extracted as part of the quarrying process is not suitable for processing and sale, consequently emplacement areas are required (see **Figure 1**).

1.3 Purpose and Scope

This AQMP outlines the air quality monitoring and management to be undertaken at Lynwood Quarry. The program addresses the requirements contained in Lynwood Quarry's modified Development Consent (DA-128-5-2005) and the Lynwood Quarry Environment Protection Licence (EPL) no. 12939.

This management plan has been reviewed in October 2019, with details of the review outlined in **Section 15**. The plan was then updated in January 2020 based on comments from the Department of Planning Industry and Environment (DPIE) (see **Appendix 1**) and again in September 2020 based on comments from the NSW Environment Protection Authority (EPA) (see **Appendix 2**).

1.4 Objectives

The objectives of this plan in relation to air quality management are to:

- Detail the controls to be implemented to minimise dust generation from Lynwood Quarry;
- Establish an air quality monitoring system to assess the air quality performance against the specific air quality impact assessment criteria;
- Provide a mechanism to assess monitoring results against air quality impact assessment criteria;
- Provide a protocol for determining exceedances of the relevant criteria;
- To detail the requirements for reporting air quality criteria exceedance to the relevant stakeholders; and
- Manage air quality related community complaints in a timely and effective manner.

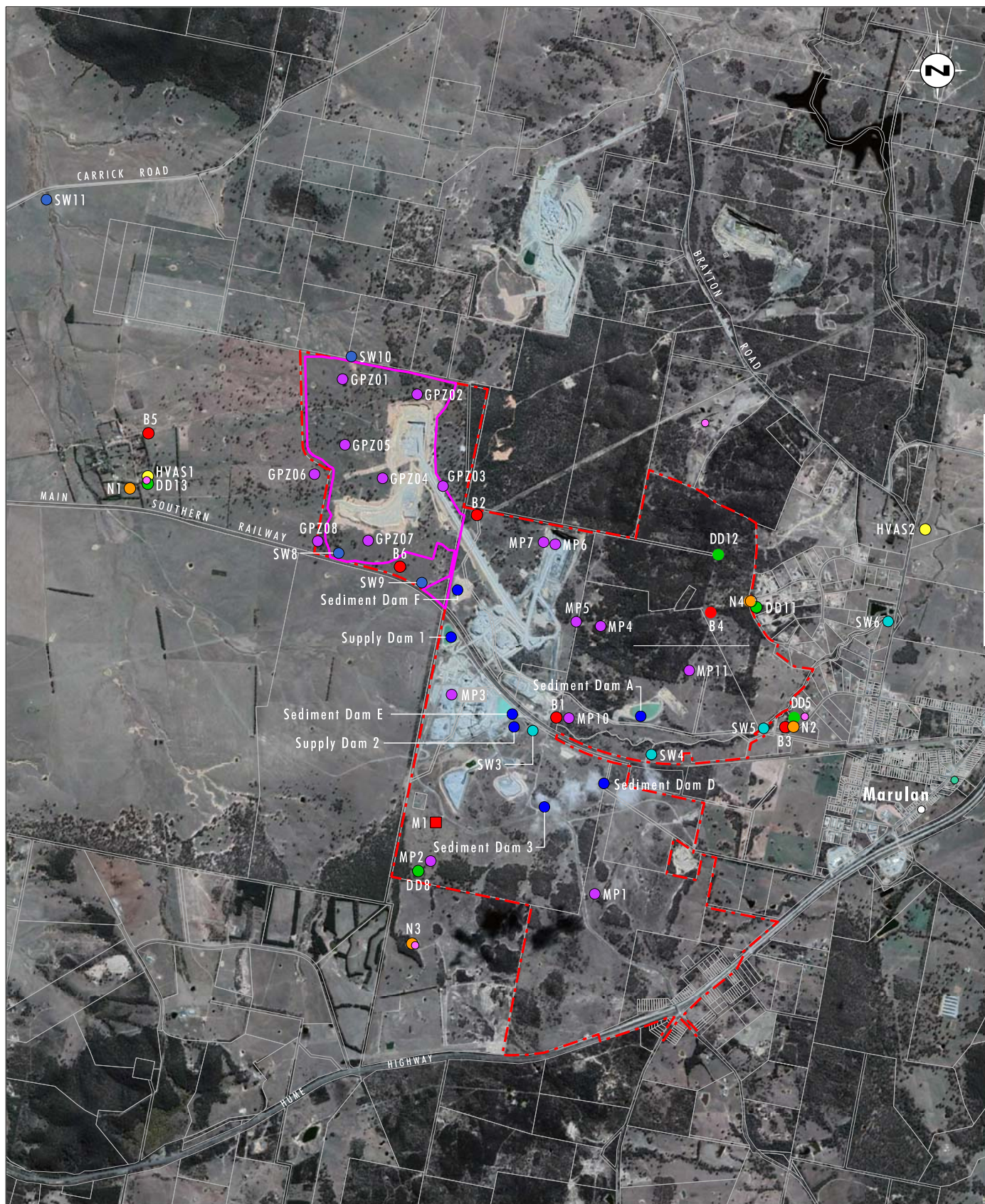


Image Source: Google Earth (2018)

Data Source: LPI (2014), Holcim Australia (2015)

Updated in December 2019 by SLR Consulting (Location of DD12)

Legend

- | | |
|--|---|
| Approved Project Area | ● Groundwater Piezometer |
| Granite Pit Disturbance Footprint | ● Surface Water Monitoring Location |
| ■ Meteorological Station | ● Site Water Management Dams |
| ● Depositional Dust Monitoring Location | ● Granite Pit Surface Water Monitoring Location SW8 to SW11 |
| ● HVAS Location | ● Residence Location |
| ● Blasting Monitoring Location | ● Marulan Public School |
| ● Noise Monitoring Location | ○ Marulan Childrens Centre |

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Figure 1
Environmental Monitoring Network

2. Stakeholder Consultation

2.1 Pre 2019/2020 Consultation

In accordance with **Schedule 3 Condition 15** of the Development Consent, this AQMP was prepared in consultation with EPA. The plan was then submitted to the DPIE for approval.

2.2 2019/2020 Consultation

A copy of the 2019 updated management was sent to DPIE and the EPA for review and approval.

DPIE provided a response on the AQMP to Holcim on 17 December 2019. A summary of the response is provided in **Appendix 1**. The EPA were provided with a copy of the AQMP on 25 January 2020. With no immediate comments received by the EPA, the AQMP was finalized and resubmitted to DPIE on 18 February 2020. On 27 August 2020 the EPA provided comments on the AQMP after Holcim contacted them via email to follow up on any feedback. As such, the AQMP was amended for resubmission.

3. Statutory Requirements

3.1 Legislation

Legislation relevant to air quality management includes:

- *Environmental Planning and Assessment Act 1979 (EP&A Act);*
- *National Greenhouse and Energy Reporting Act 2007;*
- *Protection of the Environment Operations Act 1997 (POEO Act); and*
- *Protection of the Environment Operations (Clean Air) Regulation 2000.*

Relevant provisions of the above legislation are explained in the register of legal and other requirements included in the Environmental Management Strategy (EMS).

3.2 Guidelines and Standards

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

- *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (Department of Environment and Conservation NSW, 2007);*
- *AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method (Standards Australia); and*
- *Holcim Environmental Standards for Aggregate Operations (May, 2014).*

3.3 Development Consent Requirements

A summary of the relevant Development Consent requirements are outlined in the table below.

Table 1- Summary of Development Consent Requirements

Conditions	Addressed in Section									
Schedule 3 of Development Consent										
Air Quality Impact Assessment Criteria										
Schedule 3 Condition 1.2 The Applicant must ensure that dust generated by the development does not cause additional exceedances of the criteria listed in Tables 6-8 at any residence that exists on the date of this consent, or on more than 25 percent of any privately owned land. <table><tr><th>Pollutant</th><th>Averaging period</th><th>Criterion</th></tr><tr><td>Total suspected particulate (TSP) matter</td><td>Annual</td><td>90µg/m³</td></tr><tr><td>Particulate matter < 10µm (PM₁₀)</td><td>Annual</td><td>30µg/m³</td></tr></table> Table 6: Long term impact assessment criteria for particulate matter	Pollutant	Averaging period	Criterion	Total suspected particulate (TSP) matter	Annual	90µg/m ³	Particulate matter < 10µm (PM ₁₀)	Annual	30µg/m ³	Section 3
Pollutant	Averaging period	Criterion								
Total suspected particulate (TSP) matter	Annual	90µg/m ³								
Particulate matter < 10µm (PM ₁₀)	Annual	30µg/m ³								

Conditions				Addressed in Section
Pollutant	Averaging period	Criterion		
Particulate matter < 10µm (PM ₁₀)	24 hour	50µg/m³		
Table 7: Short term impact assessment criteria for particulate matter				
Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level	
Deposited dust	Annual	2/g/m²/month	4g/m²/month	
Table 8: Long term impact assessment criteria for deposited dust				
Note: Deposited dust is assessed as insoluble solids as defined by Standards Australia, 1991, AS 3580.10.0-1991: Methods for Sampling and Analysis of Ambient Air – Determination of Particulates - Deposited Matter – Gravimetric Method.				
Operating Conditions				
Schedule 3 Condition 13 The Applicant must:				
a) Implement best practice management to minimise the dust emissions of the development				Section 7
b) Carry out periodic air quality monitoring to determine whether the development is complying with the relevant conditions of this consent;				Section 8
c) Regularly assess meteorological and air quality monitoring data and relocate, modify and/or top operations on site to ensure compliance with the air quality criteria for this consent;				Noted. Section 7
d) Minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events; and				Noted. Section 7
e) Minimise the area of surface disturbance and maximize progressive rehabilitation of the site, to the satisfaction of the Secretary.				Section 7 Also see Rehabilitation and Landscape Management Plan
Quarry-owned Land				
Schedule 3 Condition 14 The Applicant must ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the development do not causes exceedance of the criteria in Tables 6-8 at any occupied residence on quarry-owned land unless;				Section 7
a) The tenement has been notified of any health risks associated with such exceedances in accordance with the notification requirements under Schedule 4 of this consent; and				Section 9
b) The tenant of any land owned by the Applicant can terminate their tenancy agreement without penalty at any time, subject to giving reasonable notice, to the Satisfaction of the Secretary.				Section 9
Air Quality Management Plan				
Schedule 3 Condition 15 The Applicant must prepare an Air Quality Management Plan for the development to the satisfaction of the Secretary. In addition				Entire Document

Conditions	Addressed in Section
to the standard requirements for management plan (see Condition 2 of Schedule 5) this plan must:	
a) Be submitted to the Secretary of approval by 30 November 2016, unless otherwise agree by the Secretary.	
b) Be prepared in consultation with the EPA;	Section 2
c) describe the measures that would be implemented to ensure: - compliance with the relevant conditions of this consent; - best practice management is being employed; and - the air quality impacts of the development are minimised during adverse meteorological conditions and extraordinary events;	Section 3 Section 7
d) Describe the proposed air quality management system; and	Section 7
e) Include an air quality monitoring program that: - Is capable of evaluating the performance of the development - Includes a protocol for determining any exceedance of the relevant conditions of consent; - Effectively supports the air quality management system; and - Evaluated and reports on the adequacy of the air quality management system.	Section 8
Meteorological Conditions	
Schedule 3 Condition 15A For the life of the development, the Applicant must ensure that there is a suitable meteorological station operating in the vicinity of the site that complies with the requirements in the Approved Methods for Sampling of Air pollutants in New South Wales.	Section 8
Schedule 5	
Management Plan Requirements	
Schedule 5 Condition 2 The Applicant must ensure that the Management Plan required under this consent are prepared in accordance with any relevant guidelines, and include:	
a) Detailed baseline data;	Section 4
b) A description of: - The relevant statutory requirements (including any relevant approval, licence or lease conditions); - Any relevant limits or performance measures/criteria; and - The specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;	Section 3 and 6
c) A description of the measures that would be implemented to comply with the relevant statutory requirements, limits of performance measures/criteria	Section 7
d) A program to monitor and report on the: - Impacted and environmental performance of the development; and - Effectiveness of any management measures (see (c) above);	Section 8
e) A contingency plan to manage any unpredicted impacts and their consequences	Section 10
f) A program to investigate and implement ways to	Section 10

Conditions	Addressed in Section
improve the environmental performance of the development over time;	
g) A protocol for managing and reporting any: - Incidents; - Complaints; - Non-compliances with statutory requirement: and - Exceedance of the impact assessment criteria and/or performance criteria	Section 9.2
h) A protocol for periodic review of the plan <i>Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.</i>	Section 11
Schedule 5 Condition 3 Prior to approval of management plans required under Schedule 3, all existing management plans, monitoring programs, strategies, programs, protocols, etc. approved as at the date of approval of Modification 4 shall continue to have full force and effect, and may be revised under the requirements of condition 5 below as if subject to the conditions of this consent that applied prior to approval of Modification 4, or otherwise with the approval of the Secretary.	Noted. Nothing further to complete at this stage

3.4 EIS Statement of Commitments

The table below outlined the Statement of Commitment requirements.

Table 2- EIS Statement of Commitment Requirements

Commitment	Addressed in Section
Air Quality	
Holcim Australia will continue to implement the existing air quality management and monitoring systems in place at Lynwood Quarry which includes both engineering and operations control measures as outlines in Section 6.5.5 of the EA (Mod 4).	
The existing air quality monitoring program will be revised as operations commence in the Granite Pit with monitoring locations revised as indicated in Figure 2.5 of the Response to Submissions report. This monitoring program may be revised over the life of the Project with any changes outlines in the Air Quality Management Plan.	Section 7; and Section 8

4. Baseline Air Quality Data

A summary of the air quality results from the commencement of monitoring have been outlined in **Section 4.1 and 4.2.**

4.1 Depositional Dust

The depositional dust since the commencement of monitoring is outlined in **Table 3.**

Table 3 - Overall Depositional Dust Range

Depositional Dust Gauge	Average (g/m ² /month)	Minimum (g/m ² /month)	Maximum (g/m ² /month)	Data Range
DD1	2.39	0.3	14.7	Jan 11- Dec 15
DD2	3.18	0.2	30.4	Jan 11- Dec 15
DD3	4.29	0.3	50.2	Jan 11- Dec 16
DD4	1.97	0.3	26.6	Jan 11- Dec 16
DD5	2.36	0.4	22	Jan 11 - Aug 20
DD6	5.84	0.2	42	Jan 11 - Feb 19
DD7	1.25	0.2	7.6	Jan 11 - Dec 16
DD8	1.14	0.2	6.1	Jan 11 - Aug 20
DD9	2.32	0.3	8.4	Feb 16 - Nov 16
DD10	1.94	0.3	4	Feb 16 - Nov 16
DD11	1.63	0.2	7.1	Jan 17 - Aug 20
DD12	1.31	0.2	6.2	March 18 - Aug 20
DD13	1.84	0.2	8.1	March 17 - Aug 20

Table 3 indicates all gauges with the exception of DD3 and 6 have been below the annual average criteria (4g/m²/month) over the life of monitoring. It is important to note that many of the results for DD3 and DD6 appear to have been contaminated by insects, leaf litter etc. This led to higher than actual results in 2011 and 2012 at these gauges which has affected long term averages.

Table 4 compares the depositional dust from prior to commencement of construction (pre 2012) and following construction and operations (post January 2013). It is noted that some gauges have been moved (following consultation with the EPA) including DD12 and DD11, with these moved closer to the quarry. Other gauges have been installed and others have ceased to be used over the life of the Air Quality monitoring program.

Table 4- Depositional Dust (Comparison between pre - construction and operations)

Depositional Dust Gauge	Prior to 31 December 2012 Average (g/m²/month)	Post 1 January 2013 Average (g/m²/month)
DDG1	3.38	1.54
DDG2	2.17	3.60
DDG3	7.14	2.65
DDG4	3.23	1.18
DDG5	1.81	2.50
DDG6	14.35	2.43
DDG7	1.49	1.11
DDG8	1.11	1.15
DDG9	No gauge	2.32
DDG10	No gauge	1.94
DDG11	No gauge	1.63
DDG12	No gauge	1.31
DDG13	No gauge	1.84

There are some differences between pre and post construction monitoring results for these sites (**Table 4**). As previously outlined above, the contaminated samples in some gauges from 2011 and 2012 have skewed the annual averages in **Table 4**. There has been less variation in depositional dust results since 2013. Since 2013 all depositional dust gauges have been below the annual average depositional dust criteria of 4g/m²/month.

4.2 PM₁₀

The PM₁₀ results since the commencement of monitoring are outlined in **Table 5 Table 6 and 7** compare PM₁₀ results pre construction vs post construction/operation. There has been six occasions since 2011 when the site was above the short term PM₁₀ data (5 May 2015, 26 January 2019, 4 December 2019, 10 December 2019, 16 December 2019 and 22 December 2019) for PM₁₀ Monitor 1 and four occasions since 2011 when the site was above the short term PM₁₀ data (4 December 2019, 10 December 2019, 16 December 2019 and 22 December 2019) for PM₁₀ Monitor 2. It is likely that there were other contributions during these short term exceedances including strong westerly winds and smoke present as a result of state wide bushfires, particularly in December 2019.

Table 5 - Overall PM₁₀ Results

PM₁₀ Monitor	Average (µg/m³)	Maximum (µg/m³)	Dust Data Range
PM10 - 1	10.4	84.4	Jan 11 – Aug 20
PM10 - 2	9.1	88.6	Feb 11 – -Aug 20

The annual average PM₁₀ results were well below the annual average criteria of 30µg/m³ at both PM₁₀ monitors.

Table 6 - Prior to 31 Dec 2012 (Pre Construction and Operations)

PM ₁₀ Monitor	Average (µg/m ³)	Maximum (µg/m ³)
PM ₁₀ - 1	8.6	38.1
PM ₁₀ - 2	3.6	11.8

Table 7 - Post 1 January 2013 (Construction and Ongoing Operations)

PM ₁₀ Monitor	Average (µg/m ³)	Maximum (µg/m ³)
PM ₁₀ - 1	11.4	84.4
PM ₁₀ - 2	11.2	88.6

Table 7 and 8 indicates that there has been increases in the annual average for PM₁₀ Monitor 1 and 2 since construction and operations commenced, however the data indicates the site has been well below the annual average criteria. It should be noted that there has been a prolonged drier period during this time which would likely contribute to elevated dust levels.

5. Potential Air Quality Impacts

Activities undertaken at Lynwood Quarry utilising various heavy machinery, plant and equipment, likely to generate dust are identified below:

- Clearing;
- Earthworks;
- Drilling and blasting;
- Crushing and screening;
- Stockpiling; and
- Material handling and dispatch.

Air emissions other than dust, which may be generated include:

- Vehicle and plant emissions; and
- Emissions from asphalt plant operation.

6. Air Quality Assessment Criteria

Schedule 3 Condition 12, of the Development Consent provides the air quality impact assessment criteria for operation of Lynwood Quarry.

6.1 PM¹⁰ and TSP

Goals for dust concentration are referred to as long term (annual average) and short term (24 hour maximum) goals. The TSP and PM₁₀ annual average goals relate to the total dust in the air and not just the dust from quarry operations. **Schedule 3 Condition 12** of the Development Consent specifies the air quality criteria for Lynwood Quarry. The Development Consent criterion for particulate matter is outlined in **Tables 8-9**.

Table 8- Long Term Impact Assessment Criteria for Particulate Matter

Pollutant	Averaging Period	Criterion
Total Suspended particulate (TSP) matter	Annual	90 µg/m ³
Particulate matter < 10µm (PM ₁₀)	Annual	30 µg/m ³

Table 9 - Long Term Impact Assessment Criteria for Particulate Matter

Pollutant	Averaging Period	Criterion
Particulate matter < 10µm (PM ₁₀)	24 hour	50 µg/m ³

The monitoring of particulate matter against the criterion stipulated in **Table 4** and **Table 5** is to exclude samples where the impact of extraordinary events listed below are likely to have influenced the monitoring results:

- Bushfires;
- Prescribed burning;
- Dust storms;
- Sea fog;
- Fire incidents;
- Illegal activities; or
- Any other activity agreed to by the Secretary of DPIE, in consultation with the EPA.

6.2 Dust Deposition

Dust deposition levels refer to the quantity of dust particles which settle out of the air as measured in grams per square metre per month (g/m²/month) at a particular location. **Schedule 3 Condition 12** of the Development Consent outlines maximum allowable limits in terms of an acceptable increase in dust deposition over the existing background levels.

Table 10 - Long Term Impact Assessment Criteria for Deposited Dust

Pollutant	Averaging Period	Maximum Increase in Deposited Dust Level	Maximum Total Deposited Dust Level
Deposited dust	Annual	2 g/m ² /month	4 g/m ² /month

Note: Deposited dust is assessed as insoluble solids as defined by Standards Australia, 1991, AS3580.10.1-1991: Methods for Sampling and Analysis of Ambient Air - Determination of Particulates - Deposited Matter - Gravimetric Method.

7. Air Quality Management Controls

7.1 General Air Quality Controls

This AQMP has been designed in a manner that enables Lynwood Quarry to demonstrate compliance with the air quality criteria specified in the Development Consent. Holcim is committed to implementing all reasonable and feasible air quality mitigation measures, to reduce the potential impact of the operation on sensitive receivers. In order to mitigate potential air quality impacts from the operation, a number of air quality management controls have been, are currently, or will be, implemented. Air quality controls are outlined in **Table 11**.

Table 11 Air Quality Controls

Mitigation ID	Mitigation Measure	Reference Document	When Required/Status	Responsibility
Engineering Controls				
AQ1	Enclosed conveyors	Original EA and MOD 3	Complete. At all times until closure	Engineering Manager for maintenance
AQ2	Using belt scrapers to clean and prevent potential buildup of material which could lead to dust generation	Original EA and MOD 3	At all times until closure Maintenance as required	Engineering Manager for maintenance
AQ3	Enclosing the majority of crushing and screening plant.	Original EA and MOD 3	Complete. At all times until closure.	Engineering Manager for maintenance
AQ4	Fitting a dust extraction system at the crushing and screening plant.	Original EA and MOD 3	Complete (installed during construction). System does not work effectively, additional controls being installed	Engineering Manager for maintenance
AQ5	Fitting drill rigs with either water sprays or dry dust collection devices. Upgraded encapsulation of dust generating points, upgraded water spray nozzles, install fogging cannons in each building and install real time dust level monitoring instruments in each building.	Original EA and MOD 3	Required for all drilling.	Pit Manager and drilling contractor.
AQ6	Using the wheel wash station for vehicles leaving the quarry.	Original EA and MOD 3	Ongoing during operations	All staff and contractors
AQ7	Water sprays throughout the plant and on stockpiles.	Original EA and MOD 3	Ongoing during operations. System operation is weather dependent.	The extent to which the water sprays operate through the plant is at the Quarry Manager discretion, operation of fixed sprays on stockpiles is linked to wind speed.

Mitigation ID	Mitigation Measure	Reference Document	When Required/Status	Responsibility
Operational Controls				
AQ8	Watering haul roads and hardstand areas as required.	Original EA and MOD 3	Occurs throughout the day, frequency is at Pit Managers discretion & dependant on weather conditions.	Quarry Manager
AQ9	Sealing the quarry access road.	Original EA and MOD 3	Completed as part of construction	Quarry Manager
AQ10	Keeping unsealed haul road lengths to a minimum.	Original EA and MOD 3	Ongoing during operations	Quarry Manager
AQ11	Keeping exposed areas to a minimum. Only the area required for active operations has been cleared.	Original EA and MOD 3	Ongoing during operations	Quarry Manager
AQ12	Removing and rehabilitating unused roads.	Original EA and MOD 3	Roads required during operations	Quarry Manager
AQ13	Confining HME traffic to identified haul routes.	Original EA and MOD 3	Ongoing during operations	Pit Manager
AQ14	Rehabilitating exposed areas in accordance with the approved Rehabilitation and Landscape Management Plan	Original EA and MOD 3	Rehabilitation to be assessed annually through inspections	Quarry Manager
AQ15	Using dust suppression sprays on fine material stockpiles and the primary crusher.	Original EA and MOD 3	Ongoing during operations. System operation is weather dependent	Quarry Manager
AQ16	Reviewing meteorological conditions prior to blasting to avoid adverse conditions and minimise blast emissions.	Original EA and MOD 3	Prior to blasting	Pit Manager and Blast Contractor
AQ17	Use of adequate stemming in blast holes.	Original EA and MOD 3	During blast design	Pit Manager and Blast Contractor
AQ18	Regular inspections for visible dust and implementation of appropriate controls when excessive dust is observed.	Original EA and MOD 3	Ongoing during operations	Quarry and Pit Managers (assisted by Support Services Supervisor)
AQ19	Ongoing assessment of meteorological conditions to identify specific conditions that are conducive to excessive dust generation.	Original EA and MOD 3	Ongoing during operations	Quarry Manager

Mitigation ID	Mitigation Measure	Reference Document	When Required/Status	Responsibility
AQ20	Ceasing or restricting as necessary dust generating activities during periods of high winds.	Original EA and MOD 3	Ongoing during operations	Quarry Manager and all staff and contractors
AQ21	Providing dust minimisation training as part of the Lynwood Quarry induction.	Original EA and MOD 3	Ongoing during operations	Quarry Manager and Holcim Environment and Community team
AQ22	Speed limits as per the Traffic Management Plan.	At all times	At all times	Quarry and Pit Managers

7.2 Pollution Reduction Program Controls

Holcim successfully implemented a Pollution Reduction Program (PRP) between September 2019 and August 2020 in consultation with the EPA. The EPL was amended during this time to include a series of pollution control measures to meet the requirements of U1.1. These pollution reduction program measures are outlined below, With currently only item number 16 outstanding, which is due to be completed during Spring 2020. The EPA was satisfied with the outcome of the PRP and such removed it from the EPL through a notice of variation dated 28 August 2020.

Table 12 - Pollution Reduction Program Measures

Item	Action	When	Status Update as at August 2020
1	Treat stockpiles and sales area floor with crusting agent (keep record of stockpiles treated on aerial photo)	Complete	Treatment complete on stockpiles & sales floor. Areas where treatment was not effective have been re treated. Observation is that this treatment is now working.
2	Retreat piles with crusting agent if crust is disturbed	Complete (Ongoing)	Dye in the crusting agent is now visible on the treated stockpiles, making it easier to assess when retreatment is required.
3	Establish bund across western end of Excess granite Man Sand Stockpile and Crust	Complete	The change to the tipping method on this stockpile & use of crusting agents has provided the necessary control for windblown dust generated at this stockpile.
4	Install additional spray rings (ESS) on discharge to: 311-ST01	Complete	Modifications required to improve effectiveness in high wind.
	331-BC15 (860)	Complete	Modifications required to improve effectiveness in high wind.
	321-ST04 (460)	Complete	Modifications required to improve effectiveness in high wind.
	392-ST01 (900)	Complete	Software updated to improve management of water addition to sand on this belt.

Item	Action	When	Status Update as at August 2020
	321-BI01 (220) - water sprays on 321-BC01 to wet material being transferred into this surge bin	Complete	Water sprays fitted.
	Automate operation & link to wind speed	Complete	Ongoing review & fine tuning of activation parameters.
5	Investigate adding water to sand along 331-BC14 to dampen material prior to discharge	Complete	Automated water addition system to be developed.
6	Install water cannons to wet back of primary surge and automate operation	Complete	Installation of water cannons is complete.
7	Install ESS spray heads at key locations around plant to replace existing	Complete	Sprays heads fitted.
8	a. Re-establish automated controls (linked to wind speed) for aerial sprays and water cannon on 860. b. Set up so that the system will re-initialise to automatic mode after a set time of being turned to manual. c. Optimise the duty cycle for sprays / cannons wetting the back of the Man Sand stockpile	Complete	Reviewing effectiveness of changes and fine tuning as required.
9	Ensure manual checks being carried out on operation of above sprays while automation is being re-established	Complete	Complete
10	Review dust controls in Air Management Plan and ensure they are being implemented	Complete	Actions 14 and 15 added to this plan
11	Pursue distributing CCC contacts via Discover Marulan newsletter	Complete	Contact details for committee members being provided to local newsletter for publication.
12	Develop community feedback plan	Complete	Community information evening held mid - December, communication plan in place.
13	Confirm availability of fogging system from Brisbane for trial in crusher house and arrange to get on site. If not available submit RfA for new system	Complete	System available late October. Decision made to be proceed with different type of equipment in the crusher house. Installed three fogging systems and ordered an additional five.
14	Review and set "cease to operate criteria" in adverse weather conditions	Complete	Quarry Manager and Project Manager to assess conditions with regards to ceasing operations when wind speeds >30kph experienced. PLC to be set to sound alarm for wind speeds > 30kph.
15	Include dust minimisation training in site induction	Complete	Toolbox complete. Now part of the induction process for new starters. Items to be added to site safety rules.

Item	Action	When	Status Update as at August 2020
16	Plant trees to form a long term wind break (determine location and appropriate species, if planting not feasible in this spring will need to be next autumn).	Spring 2020	Preparation works such as ripping and spraying have occurred in order for planting to be completed during Spring 2020.
17	Review dust controls for processing plant buildings and seek funding to upgrade (linked to item13)	Complete	Majority of works completed, with a positive effect. Conveyor encapsulation took longer than anticipated. Assessing dust collection system proposal.
18	Determine & implement method for controlling windblown dust from the north & south faces of the Man Sand stockpile over the rail loadout reclaim tunnel	Complete	Water Cannon on South side of stockpile implemented to control windblown dust
19	Arrange independent review of effectiveness of control measures being implemented	Complete	Site inspection complete, report received.
20	Controls for Train Loadout	Complete	Sprays in loading building upgraded. Modified departure procedure agreed with Pacific National to ensure all sand & roadbase wagons are sprayed prior to departure



Figure 2 Location of Spray Rings

8. Air Quality Monitoring

8.1 Inspections

Routine inspections by the Quarry Manager (or delegate) of air quality controls and monitoring equipment will occur throughout the operational lifetime of the development. Detail on the nature and frequency of these inspections are documented in Section 9 of the EMS.

The Lynwood Quarry Manager (or delegate) will undertake monthly formal inspections of environmental management controls. Checklists have been developed to guide these inspections. Any issues arising from these inspections will be reported in Holcim's Incident Management System (INX) as non-conformances and will be managed in accordance with site incident procedures and actioned as necessary to resolve the non-conformance.

The inspections cover the full site including the quarry pit, infrastructure areas and rehabilitation areas. Inspections are completed by different Holcim personnel including the Quarry Manager, Production and Pit Managers. Support Services Supervisor all other site supervisors.

8.2 Monitoring Locations and Methodology

To assess compliance against dust deposition and dust concentration criteria for Lynwood Quarry, depositional dust, TSP and PM₁₀ will be monitored at the locations shown on **Figure 1**.

Monitoring consists of the following:

- Five depositional dust gauges located at locations representative of the nearest residential receivers; and
- Two high volume air samplers, one to the east and one to the west of Lynwood Quarry.

The air quality monitoring undertaken at Lynwood Quarry is detailed in **Table 13** below.

Table 13 - Current Lynwood Quarry Air Quality Monitoring Program

Site No.	Parameters Monitored	Units of Measure	Averaging Period	Sampling Frequency	Sampling Method
DD5	Deposited dust	g /m ² /month	Month, annual	Monthly	AM-19
DD6 (Internal Gauge)	Deposited dust	g /m ² /month	Month, annual	Monthly	AM-19
DD8	Deposited dust	g /m ² /month	Month, annual	Monthly	AM-19
DD11	Deposited dust	g /m ² /month	Month, annual	Monthly	AM-19
DD12	Deposited dust	g /m ² /month	Month, annual	Monthly	AM-19
DD13	Deposited dust	g /m ² /month	Month, annual	Monthly	AM-19
HVAS1	PM ₁₀	µ/m ³	24 hour, annual	24 hours, every 6 days	AM-22
HVAS2	PM ₁₀	µ/m ³	24 hour, annual	24 hours, every 6 days	AM-22
*	TSP	µ/m ³	24 hour, annual	24 hours, every 6 days	AM-22

Note: DD : Depositional Dust monitoring location, HVAS = High Volume Air Sampler.

lusw DEC, 2005, Approved Methods for the Sampling and Analysis of Air Pollutants in NSW.

*It should be noted that TSP is not directly monitored by Holcim and is calculated from PM₁₀ results. This was approved by DPIE as part of the 2010 Environmental Monitoring Program (Umwelt 2010).

8.3 Monitoring Standards and Record Keeping

Air quality monitoring at Lynwood Quarry is undertaken in accordance with all relevant Australian Standards, legislation and EPA approved methods for sampling. The Australian Standards and EPA approved methods relevant to the AQMP are listed below:

- All sampling and analysis will be undertaken in accordance with the Protection of the Environment Operations (Clean Air) Regulation 2010 and the guidelines specified in the DECC publication *"Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (2005)"*;
- All dust deposition gauges will be sampled monthly for insoluble matter and ash in accordance with *AS/NZS 3580.10.1:2003 Methods for Sampling and Analysis of Ambient Air - Determination of Particles - Deposited Matter - Gravimetric Method*; and
- HVAS will measure and analyse PM₁₀ in accordance with *AS/NZS 3580.9.8-2001 Method for Sampling and Analysis of Ambient Air - Determination of Suspended Particulate Matter - PM₁₀ Continuous Direct Mass Method using a Tapered Element Oscillating Microbalance Analyser*.

To comply with monitoring and recording conditions included in EPL 12939 for Lynwood Quarry, all monitoring records required to be kept by the licence will be:

- In a legible form, or in a form that can readily be reduced to a legible form;
- Kept for at least four years; and
- Produced in a legible form to any authorised officer of EPA who asks to see them.

The following records will also be kept in respect of air quality monitoring undertaken:

- The dates on which the monitoring was undertaken;
- The times at which the monitoring was undertaken;
- The point at which the monitoring was undertaken; and
- The name of the person who undertook the monitoring.

8.4 Meteorological Monitoring

A meteorological station is installed at Lynwood Quarry as detailed on **Figure 1** in accordance with the requirements of **Schedule 3 Condition 15A** of the Development Consent. The data will be used to assess any dust related compliance or complaints as well as to inform proactive management.

9. Reporting and Compliance Management

Reporting requirements are outlined in **Section 9.1 and 9.2** below. This includes:

- **Annual Review** – completed each March, covering the previous calendar year;
- **Reporting of exceedances of air quality results** – see Section 9.1 for details.

9.1 Evaluation of Air Quality Results

The Quarry Manager will review monitoring results against the air quality criteria cited in Section 6. In the event of the monitoring results exceeding the air quality criteria, the Quarry Manager or delegate will review:

- Meteorological data;
- The occurrence of any extraordinary events during the sampling period;
- The location and duration of activities on site during the sampling period; and
- Any other activities within the immediate region of Lynwood Quarry.

If the monitoring results are found to be outside the sites air quality criteria the Quarry Manager will initiate the following protocol:

- As soon as becoming aware of the breach of monitoring results the Quarry Manager will notify the Holcim NSW Planning and Environment Manager and enter the incident into INX;
- The Quarry Manager will notify the Secretary of the DPIE and the EPA of the incident as soon practicable;
- A report will be prepared and submitted by the Quarry Manager to the DPIE via the NSW Major Projects Portal and EPA **within 7 days** of becoming aware of the incident, this report will include:
 - Cause of the non-compliance;
 - Environmental Harm caused due to the non-compliance; and
 - Actions undertaken to rectify the non-compliance and ensure.
- Following the reporting of subsequent review, should it be concluded that the Quarry is the source of elevated pollutant levels, the continuous improvement process outlined in Section 10 of the EMS is to be implemented and corrective actions identified.

9.2 External Reporting

A summary of air quality monitoring results will be provided in the Lynwood Quarry Annual Review. The Annual Review will be prepared and submitted to the Secretary, in accordance with **Schedule 5 Condition 10** of the Lynwood Quarry Development Consent. The Annual Review will be made available to the public through the Lynwood Quarry web site.

In addition, in accordance with Protection of the Environment Legislation Amendment Act 2011 (Amendment Act) and **Schedule 5 Condition 13** of the Development Consent, Holcim will also publish air quality monitoring results on the Holcim website <http://www.holcim.com.au>.

Performance monitoring, which includes an assessment of the effectiveness of air quality monitoring and compliance with the relevant Development Consent and EPL conditions, may be discussed at Community Consultative Committee (CCC) meetings.

The effectiveness of the dust management controls utilised at Lynwood Quarry will be reported to DPIE within the Annual Review by the reporting of monitoring data. The Annual Review will also identify whether any additional dust management controls are required to be implemented at

Lynwood Quarry or whether there are any technological advancements in dust control which are suitable for implementation at Lynwood Quarry.

Any investigations related to exceedances will be detailed in the Annual Review and EPL Annual Returns.

9.3 Community Complaints and Independent Review

9.3.1 Community complaints

Complaints relating to air quality from Lynwood Quarry are to be managed in accordance with the requirements of the Lynwood Quarry EMS. A summary of complaints will be published on the Lynwood Quarry website and provided in the Annual Review.

9.3.2 Independent Review

In the event a landowner considers Lynwood Quarry is exceeding air quality criteria at his or her property, the landowner may request an independent review of the air quality impacts at the property. The independent review will be conducted in accordance with the procedure described in **Schedule 4 Condition 2** of the Development Consent.

9.4 Training

All employees and contractors working on site will undergo a site induction and training, which will cover issues relating to air quality management, including:

- The existence and requirements of this Plan;
- Dust control measures;
- Location of sensitive receivers;
- Internal speed limits; and
- Complaints reporting.

Further details regarding staff induction and training are outlined in the EMS.

10. Adaptive Management

In accordance with **Schedule 5 Condition 6** of the Development Consent, Holcim will assess and manage air quality related risks to ensure compliance with the criteria outlined in **Section 6**.

Where a non-compliance relating to air quality criteria has occurred, Holcim will to the satisfaction of the secretary of the DPIE:

- Take all reasonable and feasible measures to ensure the exceedance ceases and does not recur;
- Consider all reasonable and feasible options for remediation (where relevant) and submit a report to the DPIE describing those options and any preferred remediation measures or other course of action; and
- Implement remediation measures as directed by the Secretary of DPIE.

Table 14 outlines the Trigger Action Response Plan for this management plan with this prepared to meet **Schedule 5 Condition 2** of the Development Consent.

Table 14 – Trigger Action Response Plan – Air Quality

Key Element	Trigger Response	Condition Green	Condition Amber	Condition Red
Above Annual Criteria: - Dust depositional dust; - TSP; and - PM10	Trigger	Depositional Dust Annual Average is <2 g/m ² /month	Depositional Dust Annual Average is >2 g/m ² /month; but <4 g/m ² /month	Depositional Dust Annual Average is >4 g/m ² /month
		TSP Annual Average is <60ug/m ³ /month	TSP Annual Average is >60 ug/m ³ /month but <90ug/m ³ /month	TSP Annual Average is >90 ug/m ³ /month
		PM ₁₀ Annual Average is <20 ug/m ³ /month	PM ₁₀ Annual Average is >20 ug/m ³ /month but <30 ug/m ³ /month	PM ₁₀ Annual Average is >30 ug/m ³ /month
	Response	No response required. Continue monitoring program.	Review and investigate operational activities and respective control measures. Implement additional remedial measures as per Section 6.	- Review and investigate operational activities and respective control measures. Implement additional controls if due to Holcim operational activities as per Section 6; - Consider need to engage an air quality consultant if non compliances are due to Holcim activities. Review of trends; - Reporting of non - compliance in the Annual Review; and - Submit an incident report to DPIE as per Schedule 5 Condition 6 and 8 of the Project Approval.
Above Short Term PM ¹⁰ Criteria:	Trigger	PM ₁₀ result is <40 ug/m ³ for short term criteria	PM ₁₀ result is >40 ug/m ³ but <50 ug/m ³ for short term criteria	PM ₁₀ result is > short term criteria of 50 ug/m ³

Key Element	Trigger / Response	Condition Green	Condition Amber	Condition Red
	Response	No response required. Continue monitoring program.	Review and investigate operational activities and respective control measures. Implement additional remedial measures, such as: • Deployment of additional water sprays; • Relocation or modification of dust-generating sources.	• Submit an incident report to DPIE as per Schedule 5 Condition 6 and 8 of the Project Approval; • Review and investigate operational activities and respective control measures. Implement additional controls if due to Holcim operational activities; • Consider need to engage an air quality consultant if non-compliances are due to Holcim activities; and • Reporting of non-compliance in the Annual Review.
Visual Dust	Trigger	Wind Speeds below 15kph.	Wind Speeds between 15 and 30kph.	Wind Speeds > 30kph.
	Response	Continue AQMP implementation.	Support Services Supervisor reviews effectiveness of control measures. Implement additional remedial measures, such as: • Deployment of additional water cart / water sprays; • Relocation or modification of dust-generating sources; and • Temporary halting of dust generating activities.	Inspection of site by Production and Quarry Managers to determine if there is a need to halt dust generating activities. • Halted activities do not recommence until remedial measures or additional remedial measures are in place or wind speeds drop to acceptable levels; and • Record as a non-compliance in the incident report.
Crusher plant dust	Trigger	No dust is seen coming from crusher or site plant.	A moderate amount of dust is seen coming from the crusher or site plant.	Excessive dust is seen coming from the crusher and other site plant.

Key Element	Trigger Response /	Condition Green	Condition Amber	Condition Red
	Response	Continue AQMP implementation.	• Increase sprinklers; • Monitor weather conditions; • Review the adequacy of screening; and • Review the operational settings of the crusher plant.	• Stop crushing; • Increase sprinklers; • Monitor weather conditions; • Review the adequacy of screening; • Review the operational settings of the crusher plant; and • Only recommence activities if mitigation measures have been reviewed and are effective.
In pit dust	Trigger	No dust is seen coming from quarrying (in pit) activities	A moderate amount of dust is being generated from quarrying (in pit) activities. Dust is not leaving the pit.	Excessive dust is being generated from quarrying (in pit) activities. Dust is leaving the pit.
	Response	Continue AQMP implementation.	• Additional water carts / water sprays; • Monitor weather conditions; and • Review operational activities. • Additional use of dust suppression agents	• Stop quarrying; • Additional water carts; • Monitor weather conditions; • Review operational activities; and • Only recommence activities if mitigation measures have been reviewed and are effective.
Haul road dust	Trigger	No dust is seen coming from transport along haul roads.	A moderate amount of dust is seen coming from haul roads.	Excessive dust is seen coming from transport along haul roads. Dust is leaving site.
	Response	Continue AQMP implementation.	• Additional water carts / water sprays; • Monitor weather conditions; • Review operational activities. • Additional use of dust suppression agents	• Stop haulage; • Additional water carts; • Monitor weather conditions; • Review operational activities; and • Only recommence activities if mitigation measures have been reviewed and are effective.

11. Review and Improvement

This AQMP will be reviewed, and revised as necessary, in accordance with the requirements of **Schedule 5 Condition 5** of the Development Consent which states “*within 3 months of the submission of an:*

(a) incident report under condition 8 below;

(b) Annual Review under condition 10 below;

(c) audit report under condition 11 below; and

(d) any modifications to this consent,

the Applicant must review, and if necessary revise, the strategies, plans, and programs required under this consent, to the satisfaction of the Secretary.”

A summary of air quality monitoring results will be outlined in the Annual Review.

In terms of sub clause b), the requirement to review and update management plans will be assessed during the preparation of each Annual Review. The Annual Review will state which management plans require updating and which management plans do not require updating. Details on the requirements to prepare Annual Reviews are outlined in the Environmental Management Strategy.

Updated versions of management plans will be put on the website.

12. Definitions

The terminology utilised within this AQMP is defined in **Table 15** below.

Table 15 - Definitions

Term	Definition
Dust Deposition	Dust particles that settle out from the air – measured in grams per square per unit time (g/m ² /month).
HVAS	High Volume Air Sampler.
Non-Compliance	Occurs when environmental monitoring results do not comply with Development Consent Criteria.
PM₁₀	Particulate matter less than 10 micrometres (µm) in size.
PM_{2.5}	Particulate matter less than 2.5 micrometres (µm) in size.
TSP	Total Suspended Particulate (µg/m ³). The nominal size of this fraction has particles with a diameter of up to 50 micrometres (µm).
µg/m³	Micrograms per cubic metre.

13. Roles and Responsibilities

Environmental roles and responsibilities for Lynwood Quarry personnel are outlined below.

Table 16 Roles and Responsibilities

Personnel	Responsibilities
Quarry Manager	Provide that sufficient resources are allocated for the implementation of this Plan.
Line Manager	Have a working knowledge of this AQMP. Be aware of the environmental legislative requirements associated with the Lynwood Quarry and take measures to ensure compliance.
Support Services Supervisor	Coordinate the air quality monitoring requirements of this plan. Evaluate and report monitoring results as required. Coordinate air quality related incident investigations and reporting as required by legislation and internal standards and guidelines. Assist with the review of this plan.
All employees and contractors	Comply with all requirements of this AQMP. Report all potential environmental incidents to the Quarry Manager immediately. Seek approval from the Quarry Manager prior to making changes to infrastructure/processes which may result in increased air quality emissions.

14. References

NSW DEC 2007. Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales.

National Environment Protection Council (NEPC), 2003. Advisory reporting standards for PM_{2.5}.

NSW Minerals Council, 2000. Technical Paper- Particulate Matter and Mining Interim Report

Standards Australia, AS/NZS 3580.10.1:2003 Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method.

Standards Australia, AS/NZ 3580.9.3:2003 Methods for sampling and analysis of ambient air - Determination of suspended particulate matter- Total suspended particulate matter (TSP) - High volume sampler gravimetric method.

Standards Australia, AS/NZS 3580.1.1:2007 Methods for sampling and analysis of ambient air - Guide to siting air monitoring equipment.

Umwelt (Australia) Pty Limited, 2010. Environmental Impact Statement, Readymix Holdings Pty Ltd, Proposed Lynwood Quarry, Marulan.

Umwelt (Australia) Pty Limited, 2010. Environmental Assessment, Holcim (Australia) Pty Limited - Proposed Modification to Lynwood Quarry, Marulan.

15. Change Information

Table 17 summarises the main changes in the management plan updates.

Table 17 Summary of Document Changes

Version	Date	Change Summary
1	October 2016	Update for MOD 5 Modification
2	October 2019	Review of the template for all Lynwood management plans; • General structure updates throughout the document; • Section 2- Consultation (new section added); • Section 3 – Statutory requirements – separate section; • Section 4 – update to baseline information; • Section 5 – Addition of potential impacts section; • Section 7 – inclusion of responsibilities and timing for controls. Information provided regarding the pollution reduction program • Section 10 – addition of TARP; and • Section 15 – inclusion of change information. The following did not change: • No change to monitoring or reporting requirements; and • No change to figures.
3	February 2020	Response to DPIE comments. Addition of EPA 2020 consultation.
4	September 2020	Response to EPA comments.

Appendix 1 – AQMP Government Feedback

APPENDIX 1 – AQMP Government Feedback

DPIE Feedback from 17 December 2019 Response Email

Condition	Satisfactory (Yes/No/Partial)	Document Reference	Action Required	Holcim Comment
Air Quality Operating Conditions, condition 13, Schedule 3				
(a) implement best practice management to minimise the dust emissions of the development;	Partial	It is noted that some activities have been completed and others are yet to be completed. Please include a column in the table that outlines whether or not the activity has been completed or is yet to be. Please include timeframes for the completion of any outstanding actions	AQ5 Fitting a dust extraction system at the crushing and screening plant – it is noted that additional controls are being installed. What do these include? AQ7 Water sprays throughout the plant and on stockpiles - does not clearly outline when the water sprays will be used on the plant and stockpiles. Are these constantly in operation or trigger dependant (related to wind)? AQ8 Watering haul roads and handstand areas as required - is this constant throughout the day? Or only triggered by adverse wind conditions? AQ11 keeping exposed areas to a minimum - lacks explanation of how this will be achieved or reference to relevant information Change AQ14 to say, "Rehabilitating exposed areas in accordance with the approved Rehabilitation and Landscape Management Plan"	There is a column for When required/status AQ5 – Upgraded encapsulation of dust generating points, upgraded water spray nozzles, install fogging cannons in each building, install real time dust level monitoring instruments in each building AQ7 – The extent to which the water sprays operate through the plant is at the QM discretion, operation of fixed sprays on stockpiles is linked to wind speed AQ8 – occurs throughout the day, frequency is at Pit Managers discretion & dependant on weather conditions AQ11 – Only the area required for active operations has been cleared. Once areas are no longer required for operations they will be rehabilitated as per the site Rehabilitation & Landscape Management Plan. This sentence has been added to AQ11. AQ14 – changed
(b) carry out periodic air quality monitoring to determine whether the development is complying with the relevant conditions of this consent;	Partial	It is noted that the frequency and nature of air quality inspections are included in Section 9 of the EMS.	Please include the full detail of the inspections in the Air Quality Management Plan.	Section 8 has been updated with more details.

Condition	Satisfactory (Yes/No/Partial)	Document Reference	Action Required	Holcim Comment
(c) regularly assess meteorological and air quality monitoring data and relocate, modify and/or stop operations on site to ensure compliance with the air quality criteria in this consent;	Yes		N/A	Nil
(d) Minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events; and	Yes			Nil
(e) Minimise the area of surface disturbance and maximize progressive rehabilitation of the site, to the satisfaction of the Secretary.	Partial	The AQMP includes a general commitment to minimise the area of surface disturbance but not explain or demonstrated how this will be achieved.	Provide further detail regarding progressive rehabilitation and how site disturbance will be minimised or link to Rehabilitation and Landscape Management Plan	AQ14 provides reference to Rehabilitation and Landscape Management Plan.
Air Quality Management Plan (Condition 15 Schedule 3)				
a) be submitted to the Secretary for approval by 30 November 2016, unless otherwise agreed by the Secretary;	N/A		N/A	Nil
(b) Be prepared in consultation with the EPA	Partial		Please provide evidence of consultation with the EPA	AQMP to be sent to the EPA for review.

Condition	Satisfactory (Yes/No/Partial)	Document Reference	Action Required	Holcim Comment
c) Describe the proposed air quality management system; and ☐ compliance with the relevant conditions of this consent; ☐ best practice management is being employed; and ☐ the air quality impacts of the development are minimised during adverse meteorological conditions and extraordinary events;	Partial		Include more of the mitigation measures mentioned in Table 11 into the Trigger Action Response Plan, eg. if excessive dust is seen coming from the crusher or any of the site plant	Other triggers have been added.
d) Describe the proposed air quality management system; and	Yes			Nil
e) Include an air quality monitoring program that: • Is capable of evaluating the performance of the development • Includes a protocol for determining any exceedance of the relevant conditions of consent; • Effectively supports the air quality management system; and • Evaluated and reports on the adequacy of the air quality management system.			It is understood that the EPA has noted monitoring point DD5 is likely non-compliant and will likely need to be relocated. Please relocate DD5 and update the plan to reflect this.	DDG 5 will be relocated mid-January to the point shown on the attached plan.
General				

Condition	Satisfactory (Yes/No/Partial)	Document Reference	Action Required	Holcim Comment
Avoid vague language eg. "where appropriate" in Table 14.				Where appropriate has been removed.
Table 14 is better described as a Trigger Action Response Plan (TARP), rather than a 'contingency plan'. Please label it accordingly and correct the reference in section 10.				Relabeled as a TARP
Table 11 and 14 should be linked				Further links have been made across these tables.
Amend the Pollution Reduction Program Measures table to reflect the latest updates				See update in Section 7.2 of the AQMP.
Provide locational detail of spray rings mentioned in Table 12.				See Figure 2
Include a provision in the TARP which seeks to remediate any dust generated from any equipment or plant				TARP has been updated. There are no plans to remediate (ie. Removal of dust) as part of this AQMP. This management plan provides great detail into mitigation measures to reduce and prevent dust.

Appendix 2 – AQMP EPA Feedback

APPENDIX 2 – AQMP EPA Feedback

EPA Feedback from 27 August 2020 Response Email

Feedback	Document Reference	Action Required	Holcim Comment
General			
Data ranges to be updated in Tables 3, 4, 5 and 7 where applicable	Table 3 – Depositional Dust Range Table 4 - Depositional Dust (Comparison between pre - construction and operations) Table 5 - Overall PM10 Results Table 7 - Post 1 January 2013 (Construction and Ongoing Operations)	Tables 3, 4, 5 and 7 requires an update	Tables 3, 4, 5 and 7 updated
Typo	Section 6.2	Correct 'metro' to 'metre'	Corrected
Review air quality these controls in light of completion of the PRP. Update which have been achieved or if changes have been made.	Table 11 – Air Quality Controls	Update Table 11	Review of air quality controls has occurred with no changes proposed. Controls need to be reflected even if already completed or implemented.
Update to recognise the completion of the PRP.	Section 7.2 and Table 12	Update wording in Section 7.2 and Table 12	Wording has been updated in 7.2 to note the completion of the PRP. Table 12 has also been updated where applicable.
Wrong choice of word	Section 9.1, second paragraph, second bullet point	Change 'of' to 'and'	Corrected