

Connah's Quay Low Carbon Power

Environmental Statement Volume IV Appendix 8-B: Air Quality Construction Dust Risk Assessment

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1. Air Quality Construction Phase – Dust Risk Assessment

1.1 Introduction

1.1.1 This Technical Appendix of the Environmental Statement (ES) supports **Chapter 8: Air Quality (EN010166/APP/6.2.8)**. For more details about the Connah's Quay Combined Cycle Gas Turbine (CCGT) fitted with Carbon Capture Plant (CCP) (hereafter referred to as the Proposed Development) refer to **Chapter 4: Proposed Development (EN010166/APP/6.2.4)**.

1.1.2 Emissions to air from the Proposed Development have the potential to adversely affect human health and sensitive ecosystems if not appropriately controlled. This technical appendix identifies and proposes measures to address the potential impacts and effects of the Proposed Development's dust generating activities on air quality during construction and decommissioning.

1.2 Scope

1.2.1 The assessment has considered the impact of emissions during the construction and decommissioning of the Proposed Development on local air quality from dust generating activities. The assessment considers impacts from the earliest year in which the construction works for the Proposed Development are due to commence. The assessment is split based on the construction activities' location and type:

- Main Development and Construction and Indicative Enhancement Area (C&IEA); and
- Connection Corridors (including the Proposed CO₂ Connection Corridor, Water Connection Corridor, and Electrical Connection Corridor).

1.3 Construction Dust Assessment Methodology

1.3.1 The following activities have been screened as potentially significant, based on the nature of construction activities proposed:

- demolition (removal of existing buildings and infrastructure);
- earthworks (soil stripping, spoil movement and stockpiling);
- construction (including on-site concrete batching); and
- track-out (Heavy Goods Vehicles (HGV) movements on unpaved roads and offsite mud on the highway).

Magnitude Definitions

1.3.2 The potential magnitude of dust emissions has been categorised in the Institute of Air Quality Management (IAQM) guidance (Ref 1) as detailed in **Table 1**. Note that in each case not all the criteria need to be met, and that other criteria may be used if justified in the assessment. The potential dust risk does not take into account proposed good practice controls and does not therefore represent the likely impact, only what is possible without controls.

Table 1: Adopted definitions of the Magnitude of Construction/Demolition Activities

Magnitude	Demolition	Earthworks	Construction	Track-out
Large	Total building volume >75,000 m ³ , potentially dusty construction material (e.g. concrete), on-site crushing and screening, demolition activities >12 m above ground level	Site area >110,000 m ² potentially dusty soil type (e.g. clay). >10 heavy earth moving vehicles at once, bunds >6 m high,	Total building volume >75,000 m ³ , on-site concrete batching, sandblasting	>50 Heavy Duty Vehicle (HDV) (>3.5 tonne) peak outward movements per day, potentially dusty surface material (e.g. high clay content), unpaved road length >100 m
Medium	Total building volume 12,000 m ³ – 75,000 m ³ , potentially dusty construction material, demolition activities 6 m – 12 m above ground level	Site area 18,000 m ² – 110,000 m ² , moderately dusty soil type (e.g. silt), 5 – 10 heavy earth moving vehicles at once, bunds 3 m – 6 m high	Total building volume 12,000 m ³ – 75,000 m ³ , potentially dusty materials e.g. concrete, on-site concrete batching	20 – 50 HDV peak outward movements per day, moderately dusty surface material (e.g. high clay content), unpaved road length 50 m – 100 m
Small	Total building volume <12,000 m ³ , construction material with low potential for dust release (e.g. metal)	Site area <18,000 m ² , large grain soil type (e.g. sand), <5 heavy earth moving vehicles at once, bunds <3 m high	Total building volume <12,000 m ³ , low dust potential construction materials e.g. metal/timber	<20 HDV peak outward movements per day, surface material low dust potential, unpaved road length <50 m

Magnitude	Demolition	Earthworks	Construction	Track-out
	cladding or timber), demolition activities <6 m above ground, demolition during wetter months			

Receptor Sensitivity Definitions

1.3.3 The assessment of the significance of the effects of construction dust has been made with respect to the receptor and area sensitivity definitions as outlined in **Table 2**. Sensitivity definitions have been made with reference to the IAQM guidance (Ref 1):

- receptors beyond 100 m are defined as low sensitivity to construction impacts, as it is considered that beyond this distance impacts would be limited; and
- ecological receptors (including statutory designations, and non-statutory ecological receptors of local importance such as Local Wildlife Sites, national and local nature reserves) have been included as there are a number of ecological sites within the 50 m study area from the Order limits and 250 m study area from the Main Development Area entrances.

Table 2: Receptor Sensitivity to Construction/Demolition Dust Effects

Sensitivity	Human Perception of Dust Soiling Effects	PM₁₀ Health Effects	Ecological Dust Deposition Effects
High	Enjoy a high level of amenity; appearance/ aesthetics/ value of property would be diminished by soiling; receptor expected to be present continuously	Public present for 8 hours per day or more, e.g. residential, schools, care homes	Locations with an international or national designation and the designated features may be affected by dust deposition
Medium	Enjoy a reasonable level of amenity; appearance/ aesthetics/ value of property could be diminished by soiling; receptor not expected to be present continuously	Only workforce present (no residential or high sensitivity receptors) 8 hours per day or more	Locations where there is a particularly important plant species, where dust sensitivity is uncertain or unknown or locations with a national designation where the features may be affected by dust deposition
Low	Enjoyment of amenity not reasonably expected; appearance/ aesthetics/ value of property not diminished by soiling; receptors are transient / present for limited period of time; e.g. playing fields, farmland, footpaths, short term car parks	Transient human exposure, e.g. footpaths, playing fields, parks	Locations with a local designation which may be affected by dust deposition

1.3.4 Distances have been measured from source to receptor in bands of less than 20 m, 21 m to 50 m, 51 m to 100 m and 101 m to 250 m for earthworks and construction, in accordance with the IAQM guidance (Ref 1). For track-out the receptor distances have been measured from receptor to the track-out route (up to 50 m) and up to 250 m from the site exit. For sensitivity of an area to ecological impacts, the distance bands are for less than 20 m and less than 51 m. These distance bands have been applied in **Table 3** and **Table 4**.

1.3.5 The approach applied in the assessment and summarised in **Table 3** to **Table 5** differs from the default examples provided in the IAQM guidance (Ref 1) in two respects:

- the adopted approach considers the sensitivity of individual receptors and their proximity to a source of emissions or work site, but not the absolute number of properties. The approach adopted recognises that available mitigation options cannot be adapted to take account of the number of affected receptors and therefore the selection of mitigation is informed solely by receptor sensitivity and distance from the dust generating activity. This is considered to be a robust and conservative approach; and
- distances have been calculated from the nearest boundary of the work site when considering on-site construction activities (earthworks, in this case), if the location of emissions source is not likely to be fixed throughout the duration of the works. This is a more conservative approach than the alternative of assuming the location and duration of every individual activity on site during the construction period.

Table 3: Sensitivity of the Area to Dust Soiling Effects on People/Property

Individual Receptor Sensitivity (from Table 2)	Number of Receptors	Distance from the Source (m)			
		< 20	21- 50	51 - 100	101 - 250
High	1 or more	High	High	Medium	Low
Medium	1 or more	Medium	Low	Low	Low
Low	1 or more	Low	Low	Low	Low

Table 4: Sensitivity of the Area to Human Health Impacts

Individual Receptor Sensitivity (from Table 2)	Baseline Annual Mean PM ₁₀ Concentration	Number of Receptors	Distance from the Source (m)			
			< 20	21 - 50	51 - 100	101 - 250
High	Greater than 32 µg/m ³	1 or more	High	High	High	Low
	28 µg/ m ³ to 32 µg/ m ³	1 or more	High	High	Medium	Low
	24 µg/ m ³ to 28 µg/ m ³	1 or more	High	Medium	Low	Low
	Less than 24 µg/ m ³	1 or more	Medium	Low	Low	Low
Medium	Greater than 32 µg/ m ³	1 or more	High	Medium	Low	Low
	28 µg/ m ³ to 32 µg/ m ³	1 or more	Medium	Low	Low	Low
	Less than 28 µg/ m ³	1 or more	Low	Low	Low	Low
Low	N/A - all concentrations	1 or more	Low	Low	Low	Low

Table 5: Sensitivity of the Area to Ecological Impacts

Individual Receptor Sensitivity (from Table 2)	Distance from the Source (m)	
	< 20	21- 50
High	High	Medium
Medium	Medium	Low
Low	Low	Low

Risk Definitions

1.3.6 The potential dust emission magnitude of each type of activity and the sensitivity of the area are combined to establish the likely risk of impacts, based on the assumption of no applied mitigation. Each activity category is considered in turn, using the relationships set out in the risk matrices reported in **Table 6**.

Table 6: Classification of Risk of Unmitigated Impacts

Sensitivity of Area	Dust Emissions Magnitude		
	Large	Medium	Small
Demolition			
High	High risk	Medium risk	Medium risk
Medium	High risk	Medium risk	Low risk
Low	Medium risk	Low risk	Negligible risk
Earthworks and Construction			
High	High risk	Medium risk	Low risk
Medium	Medium risk	Medium risk	Low risk
Low	Low risk	Low risk	Negligible risk
Track-out			
High	High risk	Medium risk	Low risk
Medium	Medium risk	Low risk	Negligible risk
Low	Low risk	Low risk	Negligible risk

1.3.7 Based on the risk level of dust impacts, suitable good practice measures for dust control should be applied based on the highest level of risk to the area posed by each category of activities. The IAQM have published recommended packages of mitigation measures that, based on the opinion of the membership of the professional body, represent the level of potential risk. These measures all have a long history of successful implementation in the UK, and most are established good practice measures on any large construction site.

1.4 Construction Dust Assessment

Magnitude Assessment

1.4.1 For the purpose of this assessment, the Main Development Area is considered to be a large emissions source for fugitive dust emissions from demolition, earthworks, construction, and track-out, with a site area of more than 100,000 m² as defined in the IAQM guidance (Ref 1). It is assumed that the demolition of the current site structures above 12 m in height located where the proposed Connah's Quay Low Carbon Power Abated Generating Station would be built (i.e. existing gas treatment plant (GTP), existing GTP above ground installation (AGI), and existing stores building), the removal of temporary modular structures) and the construction of structures up to 150 m (above ground level) in height would form part of these works as well as up to 200 two-way HDV movements at peak construction. Further remedial measures, of a smaller scale, may be required depending on the requirements of the detailed design and the outcome of further Ground Investigations (GI). The C&IEA would also require enabling works in preparation for laydown. This would include the breaking up and removal of vegetation and hardstanding/concrete to create a level surface for the laydown area.

1.4.2 Due to the overall scale of the Proposed Development Main Development Area and C&IEA a "large" magnitude for all activities is a reasonable classification.

1.4.3 Most areas away from the Main Development Area and C&IEA should be treated separately as on-site activities would mainly relate to pipes installation, which has a lower dust production potential, as well as a shorter work time span. The Connection Corridors locations are considered to be a medium emissions source for fugitive dust emissions from earthworks and construction, and a small emission source for track-out and demolition related activities.

Receptor Identification

1.4.4 The Main Development Area is located less than 250 m north-west of human receptors in Connah's Quay and south-east of Flint, in Flintshire, north-east Wales. Several human receptors are located along the southern border of the Main Development Area, along the A458 and Kelsterton Road, some within 20 m of the Order limits. There are a few properties along the B5129 near the C&IEA in Connah's Quay, 50 m from the Order limits at the closest point. There are also residential properties within 100 m of the Proposed CO₂ Connection Corridor on Coed Onn Road.

1.4.5 The Main Development Area is located immediately adjacent to the Dee Estuary RAMSAR, Special Area of Conservation (SAC), Special Protection Area (SPA) and Site of Special Scientific Interest (SSSI) and the River Dee and Bala Lake (SAC and SSSI). The majority of the dust generating activities are located considerably further from the designated sites and in many cases are more than 100 m away.

1.4.6 The magnitude of change in air pollutant concentrations of construction dust deposition rates would be greatest at these representative locations closest to the Proposed Development. Assessment of the representative receptors therefore represents an upper estimate of the potential construction dust effects.

Area Sensitivity Assessment

1.4.7 The sensitivity of the area is defined by considering the most sensitive receptors and the distance to the source for:

- dust soiling effects on people and amenity;
- human health effects of particulate matter (PM₁₀), including consideration of existing background concentrations; and
- ecological effects of dust deposition.

1.4.8 Most sensitive receptors near to the Main Development Area and Connection Corridors are classified as being highly sensitive as they also encompass residential properties, some of which are located less than 20 m from the Order limits.

1.4.9 The existing background annual mean PM₁₀ concentration is 9.6 micrograms per cubic metre ($\mu\text{g}/\text{m}^3$), less than the lowest screening category within the IAQM methodology (28 $\mu\text{g}/\text{m}^3$), therefore representing the lowest baseline risk (Ref 1; Ref 2).

1.4.10 The sensitivity of the area to dust soiling effects at nearby sensitive receptors is classified as high for the Main Development Area and Connection Corridors for effects on people and property, based on the sensitivity of receptors within the study area and their distance from dust sources (**Table 7**). The sensitivity of the area to human health impacts is low for the Main Development Area and Connection Corridors based on the existing baseline PM₁₀ level.

1.4.11 There are high sensitivity ecological sites within the study area, namely the Dee Estuary ecological site, some adjacent to and within the Order limits.

Table 7: Summary of Area Sensitivity for Receptors of Construction Dust

Activity	Site	Dust Soiling	Human Health	Ecological
Demolition	Main Development Area and C&IEA	High	Low	High
	Connection Corridors	High	Low	High
Earthworks	Main Development Area and C&IEA	High	Low	High
	Connection Corridors	High	Low	High
Construction	Main Development Area and C&IEA	High	Low	High
	Connection Corridors	High	Low	High
Trackout	Main Development Area and C&IEA	High	Low	High
	Connection Corridors	High	Low	High

Selection of Dust Control Measures

1.4.12 The risk of impacts from uncontrolled dust generating activities has been determined through combination of the potential dust emission magnitude and the sensitivity of the area, for each activity to determine the package of good practice dust control measures that should be incorporated into the **Framework Construction Environmental Management Plan (CEMP)** (EN010166/APP/6.5) prior to any consideration of likely effects or the need for site specific mitigation measures. The risks summarised in **Table 8** confirm that the relevant recommended measures from the IAQM 'high risk category' (as listed in Section 8.2 of the IAQM guidance (Ref 1) and reproduced in **Annex A** of this document) would be an appropriate package of good practice control measures to be adopted for the proposed construction and decommissioning phases of the Proposed Development.

Table 8: Risk of Impacts from Unmitigated Activities

Site	Activity	Demolition	Earthworks	Construction	Track-out
Main Development Area and C&IEA	Magnitude	Large	Large	Large	Large
	Risk of impacts from unmitigated activities				
	Dust soiling	High Risk	High Risk	High Risk	High Risk
	Health PM ₁₀	Medium Risk	Low Risk	Low Risk	Low Risk
	Ecology	High Risk	High Risk	High Risk	High Risk
Connection Corridors	Magnitude	Small	Medium	Medium	Small
	Risk of impacts from unmitigated activities				
	Dust soiling	Medium Risk	Medium Risk	Medium Risk	Low Risk
	Health PM ₁₀	Negligible	Low Risk	Low Risk	Negligible
	Ecology	Medium Risk	Medium Risk	Medium Risk	Low Risk

1.4.13 **Table 8** illustrates the task and location specific dust risks for the Proposed Development. In practice it is far more effective to control the generation of dust at source, than it is to seek to control its movement after it has become airborne. Consequently, the most effective good practice options are commonly applied at low, medium and high risk sites and the fundamental difference is the frequency that measures would be required at a high risk site compared to lower risk sites. In each case the IAQM approach is to seek the application of physical control measures as a matter of good practice and to have the ability to implement specific additional mitigation, such as the frequency of damping down, in a way that is proactively the day to day conditions on a work site. By adopting the high risk package of dust controls at all work sites and phases within the **Framework CEMP (EN010166/APP/6.5)** there is clarity about the dust control measures required for all project works.

Assessment of Dust Risk

1.4.14 The proposed good practice measures proposed as embedded mitigation, via the **Framework CEMP (EN010166/APP/6.5)**, are considered comprise a set of well established and effective measures to control dust emissions. Control is achieved by minimising the magnitude and frequency of emissions at source and by providing clear responsibilities to proactively consider the performance of routine control measures and to respond promptly when additional short term measures are also required. This leads to the overall conclusion that the risk from dust for the Proposed Development with the proposed mitigation measures embedded through the **Framework CEMP (EN010166/APP/6.5)**, is a **Negligible to low risk** for all areas of construction phase works.

1.4.15 A CEMP would be prepared by the Principal Contractor(s) once appointed and the works would be managed in accordance with this CEMP. The CEMP would be subject to approval by the local planning authority and would be prepared in accordance with the **Framework CEMP (EN010166/APP/6.5)**. Additional site-specific measures could be identified in the Principal Contractor(s) CEMP if conditions (the presence of new receptors) or phasing of works changed at a later date.

1.4.16 The dust risk is summarised in **Table 9**.

Table 9: Risk of Impacts from Mitigated Activities

Site	Activity	Demolition	Earthworks	Construction	Track-out
Main Development Area and C&IEA	Dust soiling	Low Risk	Low Risk	Low Risk	Low Risk
	Health PM ₁₀	Low Risk	Low Risk	Low Risk	Low Risk
	Ecology	Low Risk	Low Risk	Low Risk	Low Risk
Connection Corridors	Dust soiling	Low Risk	Low Risk	Low Risk	Low Risk
	Health PM ₁₀	Negligible	Low Risk	Low Risk	Negligible
	Ecology	Low Risk	Low Risk	Low Risk	Low Risk

1.5 Cumulative Dust Impacts

- 1.5.1 The cumulative impacts from existing sources of fugitive dust in the area are accounted for in the adoption of site-specific background pollutant concentrations from archive sources.
- 1.5.2 The full list of short-listed proposed schemes to be considered for the Proposed Development is detailed within **Chapter 24: Cumulative and Combined Effects (EN010166/APP/6.2.24)**.
- 1.5.3 There is a risk that there could be cumulative impacts at dust sensitive receptors screened into the construction dust assessment for the Proposed Development due to the construction of other proposed schemes happening simultaneously. The locations and timings of construction works and the location of road links that could potentially be affected by track out have been considered for all of the short-listed schemes. As there is no overlap between the assessment distance criteria for the Proposed Development and any other known scheme it can be concluded with confidence that combined effects would not occur.
- 1.5.4 It is reasonable to assume that each of the proposed schemes would be required by their respective consent to consider the risk of dust impacts and to have to implement proportionate control measures to ensure impacts at sensitive receptors are minimised. The use of good practice measures to manage dust risk is standard practice on all well managed construction sites across the United Kingdom (UK) and its requirement through conditions on development consents is also established good practice.
- 1.5.5 It is concluded that none of the proposed schemes are undertaking construction works that would be able to give rise to a cumulative or combined effect on amenity.

References

- Ref 1. Institute of Air Quality Management (IAQM). (2024). Guidance on the assessment of dust from demolition and construction Version 2.1.
- Ref 2. Centre for Ecology and Hydrology and APIS (2017). Air Pollution Information System.
- Ref 3. Department for Environment, Food and Rural Affairs (2020). 2018-based background maps for PM₁₀. Available at: <https://uk-air.defra.gov.uk/data/iaqm-background-home> (Accessed 03/06/2025).

Annex A

Table A-10: Highly Recommended Mitigation for a High-Risk Site (adapted from IAQM, Ref 1)

Activity	Mitigation
Communications	Develop and implement a stakeholder communications plan that includes community engagement before work commences on-site.
	Display the name and contact details of person(s) accountable for air quality and dust issues on the Proposed Development. This may be the environment manager/engineer or the site manager.
	Display the head or regional office contact information.
	Develop and implement a Dust Management Plan (DMP), which may include measures to control other emissions, approved by the Local Authority. The DMP may include monitoring of dust deposition, dust flux, real-time PM ₁₀ continuous monitoring and/or visual inspections.
Site Management	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.
	Make the complaints log available to the local authority when asked.
	Record any exceptional incidents that cause dust and/or air emissions, either on- or offsite, and the action taken to resolve the situation in the logbook.
Monitoring	Hold regular liaison meetings with other high-risk construction sites within 500 m of the Proposed Development (or greater, if applicable), to ensure plans are co-ordinated and dust and particulate matter emissions are minimised. It is important to understand the interactions of the off-site transport/ deliveries which might be using the same strategic road network routes.
	Undertake daily on-site and off-site inspection, where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the local authority when asked. This should include regular dust soiling checks of surfaces such as street furniture, cars and windowsills within 100 m of Proposed Development, with cleaning to be provided if necessary.
	Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the local authority when asked.
	Increase the frequency of site inspections by the person accountable for air quality and dust issues on-site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.

Activity	Mitigation
Preparing and Maintaining the Site	Agree approach to monitoring with the Local Authority ahead of construction commencing. Data would be collected before any work commences on-site to provide a comparative baseline should real-time airborne particulate or dust deposition monitoring be required.
	Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.
	Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period where operations are within 100 m of receptors.
	Avoid site runoff of water or mud.
	Keep site fencing, barriers and scaffolding clean using wet methods.
	Remove materials that have a potential to produce dust from the Order limits as soon as possible, unless being re-used on-site. If they are being re-used on-site cover as described below
Operating vehicle/machinery and sustainable travel*	Ensure all vehicles switch off engines when stationary - no idling vehicles.
	Avoid the use of diesel- or petrol-powered generators and use mains electricity or battery powered equipment where practicable.
	Impose and signpost a maximum-speed-limit of 15 mph on surfaced and 10 mph on unsurfaced haul roads and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of the local authority, where appropriate).
Operations	Produce a Construction Traffic Management Plan to manage the sustainable delivery of goods and materials.
	Implement a Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing).
Waste Management	Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.
	Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.
	Ensure equipment is readily available on-site to clean any dry spillages and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.
Waste Management	Avoid bonfires and burning of waste materials.

Table A-11: Activity-Specific Mitigation Measures (adapted from IAQM, Ref 1)

Activity	Mitigation
Demolition	Soft strip inside buildings before demolition (retaining walls and windows in the rest of the building where possible, to provide a screen against dust).
	Ensure effective water suppression is used during demolition operations. Handheld sprays are more effective than hoses attached to equipment as the water can be directed to where it is needed.
	Avoid explosive blasting, using appropriate manual or mechanical alternatives.
	Bag and remove any biological debris or damp down such material before demolition.
Earthworks	Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable.
	Use Hessian, mulches or tackifiers where it is not possible to re-vegetate or cover with topsoil, as soon as practicable.
	Only remove the cover in small areas during work and not all at once.
Construction	Avoid scabbling (roughening of concrete surfaces) if possible.
	Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.
	Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery.
	For smaller supplies of fine powder materials ensure bags are sealed after use and stored appropriately to prevent dust.
Trackout	Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being continuously in use.
	Avoid dry sweeping of large areas.
	Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.
	Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable.
	Record all inspections of haul routes and any subsequent action in a site logbook.
	Install hard surfaced haul routes, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned.

Activity	Mitigation
	Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).
	Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits.
	Access gates to be located at least 10 m from receptors where possible.

