Controlling dust from development sites.

This guide has been developed to educate developers on the different methods of reducing dust emissions from construction sites and clarifying the expectations council has when it comes to industry best practice.

Research (Livingston, et al., 1988) has shown that on average dust emission rates of over 2.5 tonnes per hectare per month occur at urban construction sites; therefore it is important that developers, contractors and builders are aware of their responsibilities and obligations when it comes to controlling dust emissions.

What is a dust nuisance?
Dust can be considered to be a nuisance when it is settling on surfaces and possessions, affecting visibility, contaminating tank water supplies and or the movement of a material into a water or the negative impact upon human health or wellbeing.

The level of dust nuisance on site is generally influenced by four main factors:
• Weather conditions
• The size and scale of the development
• Topography and location of the development
• The actions of site workers

Responsibilities
Companies and property owners have a general environmental duty to take all reasonable and practicable measures which is considered industry best practice in the case of sediment and erosion controls to prevent or minimise the emissions from construction sites under the Environmental Protection Act 1994.


An environmental nuisance is unreasonable interference with an environmental value which may be caused by, airborne particles such as dust or the unhealthy, offensive or unsightly condition caused by a contaminate such as dust.

The Environmental Protection (Air) Policy 2008 defines Environmental air values as the qualities of the air environment that are conducive to:
(a) protecting the health and biodiversity of ecosystems; and
(b) human health and wellbeing; and
(c) protecting the aesthetics of the environment, including the appearance of buildings, structures and other property; and
(d) protecting agricultural use of the environment.

What is best practice?
Best practice for the control of wind erosion and dust involves the identification of sensitive receptors such as residential dwellings and waterways and tailoring control measures to eliminate, minimise and control dust emissions through appropriate measures such as:
• Limiting the amount of exposed land
• Phasing the works
• The application or provision of protective ground cover including but not limited to vegetation, mulch, organic binders and dust retardants;
• Leaving the ground surface in a rough cloddy condition;
• Limiting traffic movements on disturbed areas;
• Stabilising access tracks;
• Keeping the ground surface damp;
• Limiting stockpiled material height to 2 metres or less;
• Temporary stabilising long term stockpiles;
• The installation of wind breaks or barriers to either reduce the wind speed or capture dust emissions on site;
• Promptly revegetating or sealing exposed soils once finished levels reached.
Some of the possible treatment options for activities that generally cause dust are set out in the table below:

<table>
<thead>
<tr>
<th>Site condition</th>
<th>Permanent vegetation</th>
<th>Protective ground covers</th>
<th>Watering</th>
<th>Chemical surface stabilisation</th>
<th>Gravel tracks</th>
<th>Stabilised entry/exit</th>
<th>Haul truck covers</th>
<th>Minimise site disturbance</th>
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</thead>
<tbody>
<tr>
<td>Areas not subject to traffic</td>
<td>✓</td>
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<td>Areas subject to traffic</td>
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<td>Material stockpiles</td>
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<td>Unpaved tracks</td>
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<td>Earth transport</td>
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</table>

As modified from (IECA International Erosion Control Association Australasia Best Practice Erosion & Sediment Control 2008 pg 6.13)

It is also really important that the level of control on the site is appropriate to the size and scale of the exposed areas of the site. If control measures are not able to effectively control the dust then further controls need to be implemented.

It is highly recommended that dust suppression measures be incorporated into the sediment and erosion control plan for developments and that measures are used in conjunction with each other.

**Enforcement / Fines / Penalties**
Any site that causes a dust nuisance that is not implementing industry best practice could be subject to a range of offences related to causing an environmental nuisance under the Environmental Protection Act and/or be a breach of a condition of the development permit. Where a developer is determined to be negligent in their ‘general environmental duty’ or in breach of a condition of their development permit it can result in the issue of on the spot fines and/or issue of compliance notices.

**Recycled Water Locations**
Unitywater has recycled water carriers can access at the following locations within Moreton Bay Regional Council:

- First Avenue, Bongaree
- Cribb Road, Brendale
- Aquatic Drive, Burpengary
- Mewett Street, Caboolture
- 67 Weier Road, Morayfield
- Neurum Road, Woodford