



Dust Control

What is it?

Minimise the amount of dust (soil, building materials and residues) generated by wind erosion on building and construction sites. Research shows that average dust emission rates of over 2.5 tonnes per hectare per month occur on sites which have no dust control measures in place. The control measures discussed can be used on any building or construction site where dust may be generated and where dust may cause on or off-site damage.

Why is it important?

Sediment generated from wind erosion on building and construction sites can be a major source of pollution to local waterways. Follow the practices discussed in this fact sheet and you will minimise wind erosion from your site, meet your legal requirements and help protect our waterways.

Fact Sheet 18

WHAT DO I NEED TO DO?

Before starting site works:

Good site planning can eliminate dust being a problem.

- 1) Assess the dust potential of your site. Dust generating activities include major soil disturbances or heavy construction activity, such as clearing, excavation, demolition, cutting concrete or excessive vehicle traffic.
- 2) Decide upon dust control measures. A number of methods can be used to control dust from a site. The developer or builder will have to determine which practices are suitable based on specific site and weather conditions.
- 3) Document dust control measures on your Soil and Water Management Plan (if required) (**see Fact Sheet 3**) and ensure everyone working on the site understands them.

Installing the control measures:

These control measures will help to reduce the amount of soil and building materials loose on the site and therefore the dust that can be generated.

- 1) Stage works and disturb only small areas of the site at a time.
- 2) Maintain as much vegetation as possible. Existing trees and shrubs act as wind breaks, slowing wind velocities and provide coverage to surface soils.
- 3) Install constructed wind barriers if there is high risk of dust generation. Wind fences divert the wind up and over the site. Ensure that it is semi-permeable otherwise down-wind turbulence can make erosion worse.
- 4) Dampen the site slightly with a light application of water during excavation or when dust is being raised (be careful to only moisten ground surface, do not wet it to the point of creating mud).
- 5) Apply mulch to recently disturbed areas. Mulch can reduce wind erosion by 80%.
- 6) Where vegetative cover and mulching cannot be used (i.e. on site roads and entrances) apply rocks and stones.
- 7) For large open areas deep ploughing (tillage) brings soil clods to the surface where they rest on top of the dust, preventing it from becoming airborne.
- 8) Install a wheel wash where vehicles and/or equipment exit the site. Alternatively, a stabilised site access can be used (**see Fact Sheet 12**).

- 9) Cover sand and soil stockpiles with fabric, plastic or vegetation.
- 10) Ensure that relevant equipment and machinery have dust suppressors fitted.

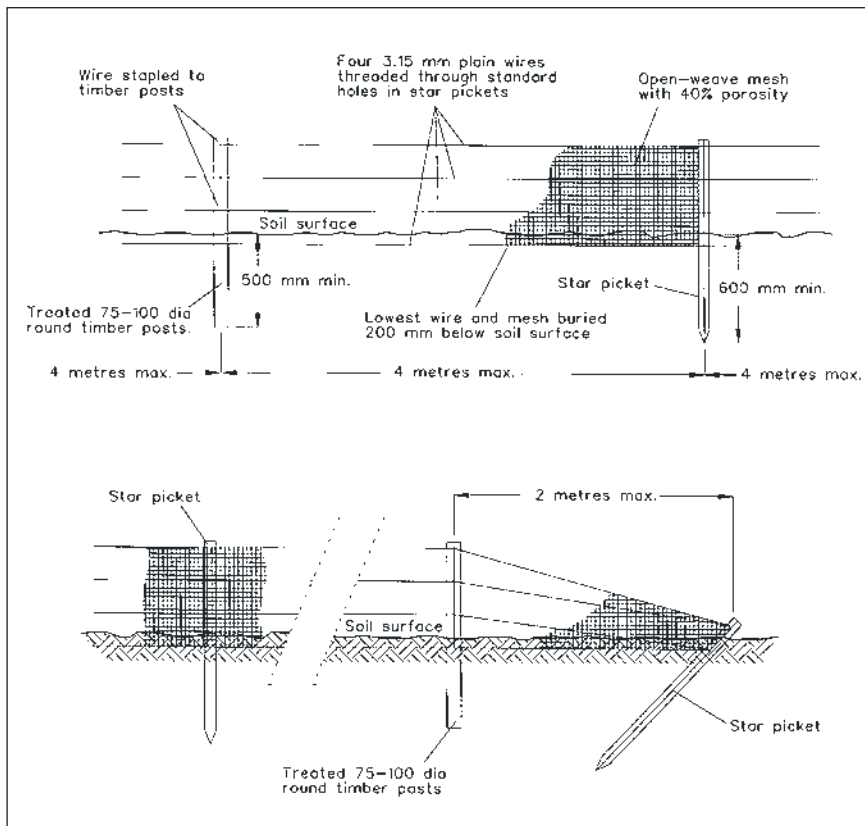


Figure 18A: Installation of a wind fence.

List of fact sheets

1. Soil & Water Management on Large Building & Construction Sites
2. Soil & Water Management on Standard Building & Construction Sites
3. Soil & Water Management Plans
4. Dispersive Soils – High Risk of Tunnel Erosion
5. Minimise Soil Disturbance
6. Preserve Vegetation
7. Divert Up-slope Water
8. Erosion Control Mats & Blankets
9. Protect Service Trenches & Stockpiles
10. Early Roof Drainage Connection
11. Scour Protection – Stormwater Pipe Outfalls & Check Dams
12. Stabilised Site Access
13. Wheel Wash
14. Sediment Fences & Fibre Rolls
15. Protection of Stormwater Pits
16. Manage Concrete, Brick & Tile Cutting
17. Sediment Basins
- 18. Dust Control**
19. Site Revegetation

Remember:

Everyone working on building and construction sites has a responsibility to prevent pollution. If you do have an accident and pollution occurs you are required by law to notify the site supervisor. If the site supervisor cannot be contacted, workers should immediately notify the local council so they can work with you to minimise any harm to the environment.

Acknowledgement:

Figure 18A from Landcom 2004 "Soils & Construction Volume I Managing Urban Stormwater (4th edition)". Text in this brochure has been obtained and modified from the "Do It Right On Site" brochure series, kindly provided by the Southern Sydney Regional Organisation of Councils.

Date of Issue: December 2008

Maintaining the control measures:

Dust control measures involving the application of water require more monitoring than structural or vegetative controls to remain effective. If structural controls are used, they should be inspected for deterioration on a regular basis to ensure that they are still achieving their intended purpose.