DUST MANAGEMENT PROCEDURE

OVERVIEW

This procedure outlines the requirements for managing dust on construction sites to minimize impacts to workers, the site and the surrounding environment.
Dust risks are identified and controlled through the Project Hazard Register. Management measures are aligned with the WA Department of Water and Environmental Regulation (DWER) guideline.

RESPONSIBILITIES

Managing Director / General Managers	Ensure resources and systems are in place to manage dust risks in line with legislative and DWER (*Department of Water and Environmental Regulation)* requirements.
Project Manager	Ensure dust management is planned, resourced, and implemented for each project. Monitor compliance and address significant risks or issues.
Site Manager	Complete the Dust Management Site Assessment and determine site classification prior to works. Implement, monitor, and maintain dust control measures in line with site classification and conditions. Ensure required controls (e.g. watercarts, wind fencing, stabilisation) are in place and effective. Coordinate required notifications to neighbouring properties and stakeholders. Report, manage, and escalate dust-related complaints.
HSEQ Team	Provide guidance on dust risk assessment, controls, and regulatory requirements. Support monitoring, complaint investigation, and corrective actions. Review performance and drive continual improvement.
Workers and Subcontractors	Comply with dust control measures and site requirements. Report dust issues, ineffective controls, or environmental concerns.

1. DUST MANAGEMENT SITE ASSESSMENT

Procedure:

The Site Manager is responsible for completing the Dust Management Site Assessment Form before the commencement of any construction activity.

Site classifications — Threshold scores

Based on the total score obtained from the Dust Management Site Assessment Form and notwithstanding any allowance for special site conditions during the dry period, (October 1- March 31) the following Site Classification will apply:

- Site Classification 1 — under 199;
- Site Classification 2 — 200 to 399;
- Site Classification 3 — 400 to 799, and
- Site Classification 4 — over 800.

Note: Special Consideration

Construction during dry period (October 1- March 31).

a) Where other land uses are within 100 meters of the site:
   I. Sites assessed as Class 3 will automatically become Class 4, and
   II. Sites assessed as Class 2 will automatically become Class 3.

Where other land uses are situated between 100 meters and 500 meters from the site, an on-site re-evaluation of Class 3 sites shall be conducted by the engineer for the developer, the local government or the DWER to determine the extent of additional Class 4 requirements considered necessary (if any).

2. DUST MANAGEMENT ACTIONS

Procedure:

Site Classification 1 — under 199

- No Action Required.

Site Classification 2 — 200 to 399

- Allow for the use watercart, wind fencing and surface stabilisation during the construction period.
- Areas of disturbed land may need to be stabilised to reduce the exposed area of disturbed land at any time.

Site Classification 3 — 400 to 799

- Install wind fencing before commencing any construction work.

- Allow for the use of a watercart and surface stabilisation during the construction period.
- Watercart required in good working condition and of not less than 10,000 litres capacity per 7.5 hectares.
- Surface stabilisation equipment will be available to commence operation on site within 48 hours.
- Wind fencing is to be erected within 18 hours of being required.
- If dust-related complaints are generated due to activities on the site, the local government or an authorised DWER officer will advise to distribute advisory notices to adjoining land occupiers within 48 hours.
- Allowance for surface stabilisation to be maintained after the construction period and until change of ownership/control takes place.

Site Classification 4 — over 800 (considered high risk)

- Install wind fencing before commencing any construction work.
- Provide a watercart and surface stabilisation during the construction period.
- Watercart required in good working condition and of not less than 10,000 litres capacity per 5 hectares.
- Surface stabilisation equipment will be available to commence operation on site within 48 hours.
- Additional wind fencing is to be erected within 18 hours of being required.
- Provide surface stabilisation after the construction period and until change of ownership/control takes place.

Advisory notices will be issued to adjoining land occupiers, the local government and the EPA at least 48 hours before site works commence.

The notices will include,

- Name of the developer,
- Engineer for the developer,
- Contractor/s and the contract period.

The notices shall also contain contact telephone numbers.

3. STABILISATION METHODS

Procedure:

Wind Fencing

- The effectiveness of any wind fence depends upon its location with respect to the wind direction and velocity, as well as the shape, width, height, and porosity of the fence.
- Wind fencing is most effective when it is perpendicular to the direction of the prevailing wind but will have little to no effect when the wind direction is parallel to the fence.
- Solid fences provide significant reductions in wind velocity for relatively short leeward distances, whereas porous barriers provide smaller reductions in velocity for more extended distances.
- The height of the barrier is important influencing the effectiveness of a fence. Reduced wind velocities can be experienced on the leeward side of a porous fence for a distance of up to 40 or 50 times the height.
- Wind-borne sand build up along the fence is to be removed on a regular basis to prevent damage and to ensure maximum efficiency.

Wind fences are to be made of shade cloth or hessian and are to be maintained on a regular basis. Rips or breaks in the fence are repaired as required.

Water Use

Water is effective in reducing dust lift-off from unsealed roads and other trafficked areas on-site, but its efficiency decreases as wind velocity and evaporation rate increase.

- Site watering is more effective if it is undertaken prior to strong breezes developing.
- The use of water is recommended for the management of dust in areas where bulk earthworks have been or are being conducted, however, application rates need to ensure that the water content of the top layer of soil is kept high enough to prevent dust generation.
- The use of scheme water for dust suppression should be discouraged and alternative supplies should be used wherever possible. Care must be taken to ensure that the quality of the water used does not have other adverse environmental impacts, such as saline water on vegetation.

Chipped Vegetation

Chipping vegetation provides effective mulch, which can be used as a ground cover to prevent dust lift-off by shielding exposed surfaces.

Hydromulch

Hydromulch is very effective at preventing dust lift-off from areas where bulk earthworks have been completed and little or no further vehicular or pedestrian traffic is likely.

- Hydromulch can be varied to suit the requirements of the site location e.g. just mulch and water can be used effectively in the short term or seed, fertiliser and stabiliser can be added if longer-term stabilisation is required.
- For hydromulch to be effective, in the medium to long-term, vehicular and pedestrian access to the treated areas is to be restricted.
- For long-term effectiveness barrier fencing is be used, to control access.
- For short-term dust suppression, hydromulch without grass seed may be used with greater effect than water alone.

- It will need to be re-applied, to areas which have been disturbed by vehicular or pedestrian traffic,

The effectiveness of hydromulch is dictated by the constituents of the mulch. The use of shredded paper and water may not be effective in high wind areas without the use of chemical stabilisers in the mix, as well as the use of other stabilisation methods e.g. wind fencing.

4. NOTIFICATION OF NEIGHBOURING SITES

Procedure:

For Classification 3 sites, if requested by the local government or an authorised DWER officer, a completed "Notice to Residents" will be distributed to all properties within a 200-metre radius of the boundaries of the development site, and any residents adjoining the development site, within 48 hours of being required to do so.

For Classification 4 sites, a completed "Notice to Residents" will be distributed to all properties within a 200-metre radius of the boundaries of the development site, and any residents adjoining the development site, at least 48 hours before site works commence.

The following is to be included in The 'Notice to Residence'.

1) Name of developer;
2) Date for commencement of earthworks;
3) Date when final stabilisation will be completed;
4) Name of the site engineer for the developer delegated.
5) Telephone number of the site engineer for the developer delegated the responsibility for implementing dust control measures on behalf of the developer;
6) Name of the local government where the development is occurring;

Telephone number of the local government where the development is occurring.

5. COMPLAINTS

Procedure:

The Site Manager shall inform the HSE Department of all dust related complaints and log it, upon receipt HSE along with the Site Manager will manage the investigation, corrective action and close out of the complaint.

REFERENCES

- *Work Health and Safety Act 2020*
- *Work Health and Safety Regulations 2022*
- *Department of Water and Environmental Regulation - www.wa.gov.au/organisation/department-of-water-and-environmental-regulation*
- *Environmental Protection Authority - www.epa.wa.gov.au*
- *Guideline-For Managing Impacts of Dust*