

Managing stockpiles



Environment
Protection
Authority Victoria



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Guidance sheet

How to eliminate or reduce the risk of harm from erosion, sediment and dust

Description

Stockpiles can generate sediment and dust. Stockpiles can include:

- excavated soils and minerals
- structural soils and backfill material
- demolition and waste materials stockpiles.



Stockpiling is the short or long-term storage of material.

Step two: assess risks

To help assess the risk of sediment and dust transport from stockpiling, you can:

- identify key stockpiling areas on your site
- understand how sediment and dust on site can be transported offsite (including the expected wind direction) and into the environment
- consider nearby sensitive receivers.

Step three: implement controls

The controls below may assist you to manage your stockpiles to prevent impacts to the environment.

- Design and designate an area for stockpiles before site works commence. Locate stockpiles away from the site boundary, waterways and catchments, residential areas, and other sensitive receivers. Use the location to protect stockpiles from the prevailing wind.



The steps in this guidance sheet follow the risk management process described on our website (see [How to manage environmental risk](#)).

Step one: identify hazards

Uncontrolled release of sediment and dust into the environment from stockpiling.

More information

See our website: epa.vic.gov.au/for-business/find-a-topic/erosion-and-sediment/advice-for-businesses

Contact us:
1300 372 842 (1300 EPA VIC) or
contact@epa.vic.gov.au

The actions you take and the controls you decide to implement will support you to comply with your [general environmental duty](#) and other duties under the *Environment Protection Act 2017*.



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Shape stockpiles, taking into consideration width to height ratio, nature of stockpiled material, location, access and available area for the stockpile. Limit stockpile heights based on their stability, manageability, dust and amenity impacts.

- You may need more gentle slopes for unstable soils. Avoid building steep sided stockpiles that have sharp changes in shape.
- Store fine or powdery material (less than 3 mm in size) inside buildings or enclosures if practicable.
- Divert stormwater away from stockpiles using a catch drain or earth bank.
- Cover small stockpiles with mulch, hessian, tarpaulins or stabilisation matting (see Figure 1). Anchor covers will prevent them from blowing away.
- Contour stockpiles within floodplains to minimise erosion during high rainfall events.
- Keep stockpiles for shortest time possible.
- Minimise the time the stockpile will be inactive.
- Stabilise inactive soil stockpiles left for long periods of time by establishing vegetation or grass (for example hydroseeding). Subsoil stockpiles may need an outer layer of topsoil to help establishing grass.
- Surround stockpiles with sediment control fences to minimise run-off of material. Remove sediment when it is halfway up the sediment control fence, return the material to the stockpile and consider implementing additional controls for effective management.
- Erect fences, screens with shade cloth or use other windbreaks such as trees, hedges and earth-banks of similar height and size to the stockpile.
- Enclose stockpiles within bunkers.
- Use machinery to contour or scarify across the slope of the surface of the stockpiles. It will help reduce run-off velocity and erosion.
- Suppress dust from small stockpiles using water or chemical dust suppressants¹, apply using a water truck or hand-held hose.

Step four: check controls

Monitor controls you put in place to ensure they operate effectively and as planned. To manage stockpiles, you can:

- Measure and monitor the size and geometry of the stockpiles. Adjust the height and dimensions of stockpiles to control the stability and dust and amenity impacts.
- Monitor stormwater catchment diversion controls. Ensure catch drains and earth banks are adequately diverting stormwater.
- Remove accumulated stockpile material adjacent to sediment control fences and reinforce fences as required.
- Regularly clean and maintain wind barriers.
- Where practicable use “real time” downwind dust measurement or boundary video to assess effectiveness of dust management activities.
- Where necessary be prepared to increase level of dust mitigation if measures are not effective.



Figure 1. Covered stockpile.
(Photo courtesy of McConnell Dowell.)



These are *examples or options only* of what you could put in place to eliminate or reduce the risk of harm to human health and the environment. You can implement other controls, so long as you can demonstrate you have eliminated or reduced the risk of harm as far as [reasonably practicable](#) (EPA website).

¹ Prior to using chemical suppressants assess if they will cause additional environmental risks.

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