

MANAGING BLACK SLAG AFFECTED SOILS

Tip Sheet

WHAT IS BLACK SLAG?

Black slag is a by-product of the Pasminco Cockle Creek (lead and zinc) Smelter, which operated in Boolaroo until 2003. Black slag (also called black sand or black grit) was distributed from the smelter between the 1960s and 1990s, and was frequently used as a filling material in landscaping and engineering works in the local area due to its excellent drainage properties, easy handling, load bearing capacity, and abundant supply.

Black slag may be found in foreshore reserves, parks, sports fields, drains, retaining walls, roadways, and on private property.

HOW DO I RECOGNISE BLACK SLAG?

The black slag in Lake Macquarie City is a black, gritty or granular material, which may be shiny or dull, with particles ranging from coarse grit (1-2mm in diameter) to fine dust (less than 0.05mm in diameter).

Black patches on the ground are typical of sites where black slag is present, as shown in image 1 and 2.

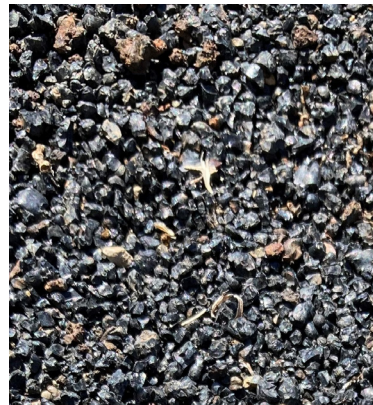


Image 1: Close up of black slag



Image 2: Typical example of exposed black slag

HOW DO I KNOW IF A SITE IS SLAG AFFECTED?

You can call Council's Customer Service Centre on 4921 0333 to check whether a particular property or site is listed in Council's database of contaminated land. However, this database is not exhaustive, as Council may not have been made aware of many sites where black slag is present. In this case, visual identification and reporting of black slag is important. If you are concerned about, or suspect the presence of, black slag; please contact Council's Customer Service Centre.

WHAT ARE THE HEALTH RISKS?

In most cases, black slag deposits in Lake Macquarie City present a low health risk if the slag is covered and an adequate barrier is in place to prevent exposure. Black slag contains varying concentrations of heavy metals including lead, copper, zinc, arsenic, chromium, and cadmium. The main contaminant of concern is lead.

Lead concentrations in black slag affected soils may impact human health if the slag is ingested (from hand to mouth) or if the dust is inhaled in quantities above safe health thresholds, with young children and pregnant women most at risk. Consult your doctor if you are concerned about your exposure to black slag. Council recommends that residents take precautions to minimise their exposure to black slag.

WHAT PRECAUTIONS CAN I TAKE?

On residential sites, there are simple things you can do to reduce the potential health risks associated with exposure to black slag affected soils. Cost effective 'cap and contain' techniques that establish a physical barrier over slag deposits, combined with sound housekeeping and ongoing maintenance of topsoil and grass, or other appropriate cover material, over contaminated soil can help reduce the potential problem. Removal and off-site disposal is a more expensive alternative solution with the benefit that no on-going site maintenance is required.

CAP AND CONTAIN TECHNIQUES	HOUSEKEEPING AND MAINTENANCE	PUBLIC EDUCATION
<ul style="list-style-type: none">✔ Grassed areas: Import and spread 200 mm of clean topsoil. Cover with new turf, or with pavers or gravel where grass is difficult to maintain (for example, in shaded areas or areas in high traffic areas).✔ Gardens: Cease growing vegetables in black slag affected soils. Spread 200 mm of 'clean' topsoil over the surface and convert area to lawn (or to a paved/ gravel /concrete asurface). Advice on avoiding the harmful effects of contamination during gardening (including vegetable gardens) is published in the World Health Organisation's "Contaminated Soils in Gardens" factsheet, and the NSW Ministry of Health – Hunter New England District "Lead in North Lake Macquarie" website.✔ Children's play areas: Treat with clean top-soil to a depth of 200 mm and cover with new turf or paving. Ensure sand pits are filled with clean imported sand from professional landscaping materials suppliers.	<ul style="list-style-type: none">✔ Contaminated soil from the garden may enter the house on footwear or clothing. Place durable mats at all points of entry and clean regularly, depositing accumulated soil into the household garbage bin. Leave yard shoes outside the house.✔ Regularly clean floors by wet mopping.✔ Remove dust from toys and furniture using a damp cloth.✔ Adopt routine washing of children's hands after playing in the garden or on the floor.	<ul style="list-style-type: none">✔ Wear gloves when direct contact with slag is unavoidable.✔ Wear disposable overalls in high or prolonged contact situations.✔ Avoid hand to mouth gestures.✔ Wash hands before eating or smoking.✔ Avoid generating dust. Dampen the slag to minimise dust disturbance.✔ Wear a disposable dust mask (type P1 or P2) if dust is unavoidable.

HOW DO I REPORT BLACK SLAG CONTAMINATION TO COUNCIL?

Council welcomes as much information as possible on the location of black slag affected sites in the City. New sites will be investigated and managed in accordance with Council's policies and processes - including being documented in Council's **Contaminated or Potentially Contaminated Land Database**.

Please report information about black slag affected sites to Council's Customer Service Centre on 4921 0333.

WHERE CAN I FIND OUT MORE?

NSW Environment Protection Authority

www.epa.nsw.gov.au/clm
131 555

NSW Ministry of Health, Hunter New England Local Health District

www.hnehealth.nsw.gov.au
1800 063 635

Pasminco

www.pasminco.com.au

FACT SHEETS

WHO Contaminated Soil in Gardens Fact sheet

The Lead Group fact sheets

Lead, your health and the environment

NEED FURTHER ASSISTANCE?

4921 0333 @ COUNCIL@LAKEMAC.NSW.GOV.AU LAKEMAC.COM.AU