

# PUBLIC HEALTH: ACID SULFATE SOILS AND DUST

Water levels in the River Murray have dropped due to continuing drought conditions and exposed areas of wetlands, riverbanks and the Lower Lakes that were previously submerged. As a result, some dry areas have formed which in some cases has exposed acid sulfate soils. Continual drying in these affected areas and further exposure of soils is likely to result in increased dust. This fact sheet provides information on the impacts associated with acid sulfate soils and dust.

## Acid sulfate soils

Left undisturbed, acid sulfate soils are harmless but when exposed to oxygen in the air through disturbance or drainage these soils produce sulfuric acid and can lead to the release of heavy metals and other contaminants.

Without effective management, acid sulfate soils can pose risks to the environment including water quality and have potential impacts on human and animal health and agriculture.

Direct contact with acid sulfate soils should be avoided due to the potential for skin and eye irritation. If contact occurs affected areas should be washed with water.

## Dust

Dust storms are typically restricted to drier inland areas of Australia, however continuing drought conditions are leading to impacts in coastal areas. Areas such as the Lower Lakes have recently reported an increase in dust due to continued drying in the area. The generation of dust in such areas is likely to continue given persistent drought conditions and the further exposure of soils.

## Health impacts of dust from acid sulfate soils

The most common symptoms experienced due to dust exposure are irritation to the eyes and upper airways. Some people may be more vulnerable to the effects of dust such as those with pre-existing respiratory and chronic illnesses.

Under current conditions the presence of acid sulfate soils is not considered to significantly increase the risk to public health from dust in the River Murray and Lower Lakes areas.

## Acid sulfate soils, dust and rainwater tanks

Dust from a variety of sources will settle on roofs. This could include dust from acid sulfate soils. However due to dilution and dispersion the presence of heavy metals and other compounds in acid sulfate soils are considered not to represent a significant risk to rainwater collection.

As a general rule gutters and roof catchment areas should be cleaned more often in high dust areas. Installation of first flush diverters will also assist in reducing the collection of accumulated dust and other debris in rainwater tanks.

## Acid sulfate soils, dust and transmission into the food chain

Due to dilution and dispersion, concentrations of metals and other compounds in acid sulfate soil dust are considered unlikely to present any significant risks to consumers.

## RESOURCES

### SA Health

Phone 8226 7100

[www.dh.sa.gov.au/pehs/](http://www.dh.sa.gov.au/pehs/)

### Department of Water, Land & Biodiversity Conservation

[www.dwblc.sa.gov.au/murray/drought/index.html](http://www.dwblc.sa.gov.au/murray/drought/index.html)

### Environment Protection Authority

Phone: 8204 2000

[www.epa.sa.gov.au/](http://www.epa.sa.gov.au/)

### CSIRO

[www.clw.csiro.au/acidsulfatesoils/atlas.html](http://www.clw.csiro.au/acidsulfatesoils/atlas.html)

