

# ACID SULFATE SOIL

## What are Acid Sulfate soils?

Acid Sulfate Soils (ASS) are soils that contain iron sulphides that are stable and do not cause a problem when waterlogged. However when they are exposed to air, after drainage or excavation, the soils rapidly form sulphuric acid. This acid can leach into the surrounding area acidifying neighbouring drains, wetlands, creeks, estuaries and bays, causing severe environmental damage. It can affect industries such as fishing and tourism, and can impact on public and private infrastructure by causing serious damage to steel and concrete structures. Polluted water may also have health impacts.

## Where do Acid Sulfate soils occur?

ASS occur in low-lying coastal areas less than 5m above the high tide level. In NSW ASS have been found on every coastal estuary and embayment. ASS planning maps developed by the Department of Sustainable Natural Resources (DSNR) show areas that may be affected by the presence of ASS.

## Maps indicating ASS

The ASS maps identify 5 classes of land, with Class 1 being the highest at risk of ASS. If you require further information, a copy of the ASS Maps may be viewed online through our Local Environmental Plan (LEP) maps. A copy of the Acid Sulfate Soil Manual is available at the City of Canada Bay Council Administration Building upon request.

The ASS maps further identify the types of work likely to present an environmental risk if undertaken. If these types of works are proposed, then further investigation is required to determine ASS impacts, as shown in the table below.

Class	Works
1	Any works
2	Works below natural ground surface. Works lowering the water table.
3	Works beyond 1m below natural ground surface. Works by which the water table is likely to be lowered beyond 1m below natural ground surface.
4	Works beyond 2m below natural ground surface. Works by which the water table is likely to be lowered beyond 2m below natural ground surface.
5	Works within 500 metres of adjacent Class 1, 2, 3 or 4 land that is below 5 metres Australian Height Datum by which the watertable is likely to be lowered below 1 metre Australian Height Datum on adjacent Class 1, 2, 3 or 4 land.