

Potential Acid Sulphate Soils

What are acid sulphate soils?

Potential acid sulfate soils are naturally occurring – most were formed in and around Melbourne more than 10,000 years ago. They are not contaminated and do not contain any man-made chemicals. Potential acid sulphate soils are formed in a low-oxygen environment. Once dug up and exposed to air, they can become acid sulfate soil, which has the potential to leach acid into the ground and waterways.

As its name suggests, potential acid sulfate soil is soil that has the potential to release acidic compounds if exposed to air for long enough for it to oxidise – the chemical reaction that creates acid sulfate.

Actual acid sulfate soil is soil that has already oxidised – dried out – and needs to be treated before it can be disposed. A common treatment for acid sulfate soils is to mix it with lime, which restores its pH balance, creating material that is classified as clean fill.

A common treatment for potential acid sulfate soils is to submerge it in water to ensure it remains waterlogged and does not have the chance to dry out and oxidise. As long as it remains wet, it is not possible for potential acid sulfate soil to oxidise.

MBC is fully licenced to accept potential and actual acid sulfate soil and has been doing so for more than 20 years.

Where are acid sulphate soils found?

Acid sulphate soils are naturally occurring and are created along coastal and inland regions under waterlogged conditions.

In Victoria, this means that most acid sulphate soils formed and are excavated along coastal areas.

GLENELG HOPKINS CMA

PORT PHILLIP & WESTERNPORT CMA

Maddingley

Melbourne

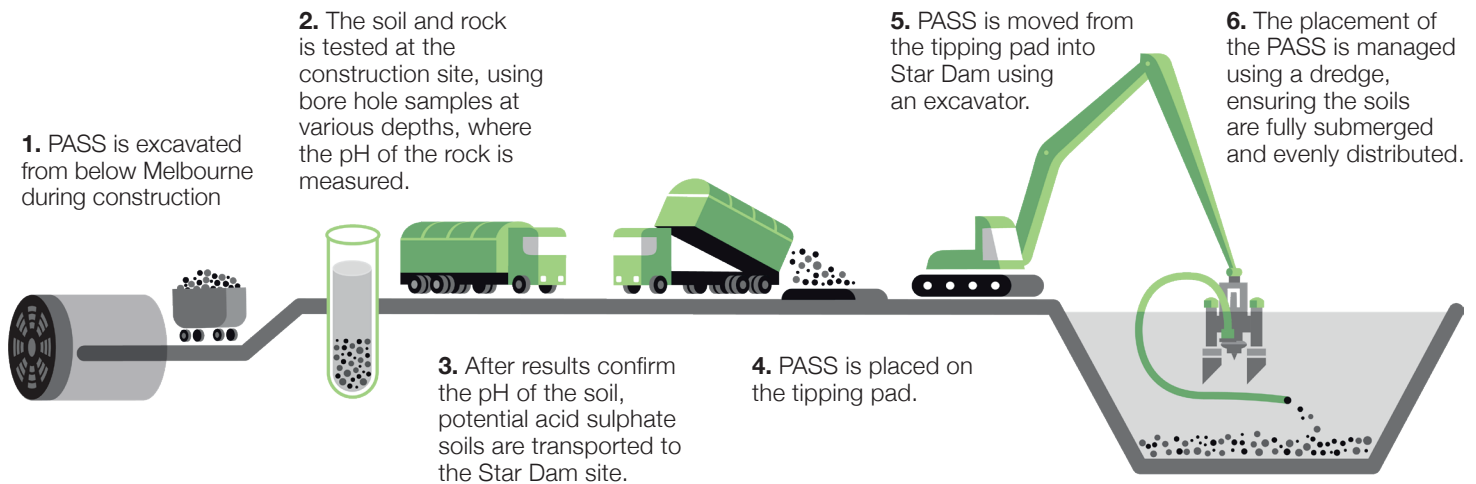
CORANGAMITE CMA

Werribee

Geelong

Managing potential acid sulphate soils

MBC receive potential acid sulphate soils from construction and development projects in the major projects pipeline.



The duration of filling is likely to be more than two years.

Policies and approvals

MBC manage acid sulphate soils in line with government policies and industry sustainability standards.

- Victoria's Value Creation and Capture Framework - Maximising social, economic and environmental value from infrastructure investment;
- Victorian Best Practice Guidelines for Assessing and Managing Coastal Acid Sulfate Soils (Department of Sustainability and Environment, 2010);
- EPA issued A18 permit to discharge or dispose of waste to aquifer;
- Statewide Waste and Resource Recovery Infrastructure Plan Victoria 2017-2046

MBC already have approval from the Victorian EPA and Moorabool Shire Council to safely manage and dispose of acid sulphate soils.

MBC is developing a Risk Management and Monitoring Program in accordance with Permit Condition PER_G5 of 300415. Once developed, this RMMP will supersede the EMP.

Under planning permit number PA2018319, issued and approved by Moorabool Shire Council, MBC has approval for the use and development of the Star Dam site, including the filling of Star Dam with potential acid sulphate soils.

To learn more, [click here to read our Star Dam Environmental Management Plan](#)