

Capability

What are Acid Sulphate Soils?

Acid Sulphate Soils (ASS) are naturally occurring soils containing iron sulfides, commonly pyrite. When these soils are exposed to air during disturbances such as earthworks or dewatering the iron sulfides oxidize causing the production of sulfuric acid. The acid can result in lowering of pH conditions, the release of toxic quantities of iron, aluminum and heavy metals from soil and can be aggressive to buried structural objects.

Within the Swan Coastal Plain, ASS are typically marine or estuarine deposits commonly found in low-lying coastal areas or in areas which were once inundated. Disturbance to ASS during site earthworks can cause significant environmental damage and requires careful planning and management.

The management of ASS in Western Australia is regulated by the Western Australian Planning Commission (WAPC) Bulletin 64 – Acid Sulphate Soils Department of Environment and other government guidelines.

360 Environmental and Acid Sulphate Soils

360 Environmental is able to provide expert advice and regulatory compliance for the identification, assessment and management of ASS in the planning and implementing phases of projects.

Services provided by 360 Environmental include:

- ✓ Identification of planning and regulatory compliance requirements;
- ✓ Detailed field investigations involving assessment of soils and groundwater characteristics;
- ✓ Field and laboratory testing of ASS in accordance with recommended guidelines;
- ✓ Preparation of ASS Investigation Reports and Management Plans based on project requirements;
- ✓ Obtaining regulatory approvals on behalf of our clients for the management of ASS in the planning phase of projects;
- ✓ Assessments of the site-specific risks associated with ASS and their potential impediments for proposed developments;
- ✓ Liaison with regulatory authorities; and
- ✓ Provision of advice during construction works for the management of ASS.

360 Environmental has undertaken several ASS investigations and developed management plans for various property developments in the Perth metropolitan area. Innovative advice is provided regarding key aspects of construction works, including management of soil extraction, handling and stockpiling operations, excavated ASS monitoring and validation programs, monitoring and reporting strategies, contingency measures and proposed corrective actions.

For further information on how we can assist you please contact us:

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environmental management consultants

Acid Sulphate Soils

