



Acid sulfate soils fact sheet 3

Acid sulfate soil risk maps

October 2024

Purpose

Acid sulfate soils (ASS) are widespread in low-lying coastal areas of WA. They are common along the coastal plains within water-logged, groundwater-dependent and high watertable environments.

The Department of Water and Environmental Regulation (the department) has published ASS risk maps for most coastal regions of WA where there is a high to moderate probability of ASS occurring.

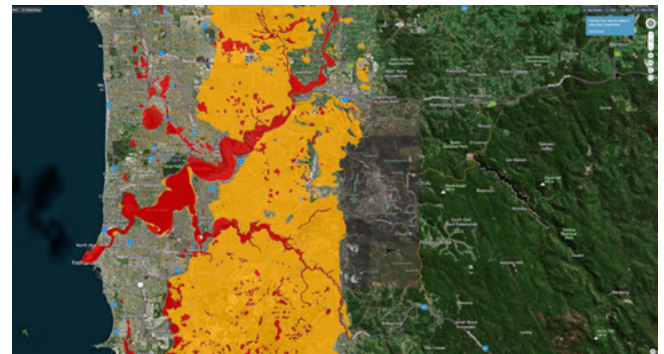
The risk maps can be used to consider potential ASS risks, and the potential need for site-specific investigations and management strategies, when planning activities have the potential to disturb ASS.

The ASS risk maps are accessible via [Landgate's Shared Land Information Platform](#) (SLIP). ASS data can be accessed through Landgate's online services, including WA Atlas and Interest Enquiry (see instructions at the end of this fact sheet).



Tractor-mounted sonic drill rig taking core samples as part of the department's ASS mapping program

Classification scheme in ASS risk maps



ASS risk map classes

► Class 1 (red)

High to moderate risk of ASS occurring within 3 metres of natural soil surface which could be disturbed by most land development activities including:

- earthworks involving soil disturbance more than 100 cubic metres
- dewatering or soil drainage.

► Class 2 (orange)

Moderate to low risk of ASS occurring within 3 metres of the natural surface but a high to moderate risk of ASS occurring beyond 3 metres that could be disturbed by soil excavation and dewatering associated with infrastructure works including:

- works involving lowering of the watertable (temporary or permanent)
- earthworks extending deeper than 3 metres below the natural ground surface
- works within 500 metres of wetlands.

► Investigation and management plans

ASS risk maps do not illustrate the severity of ASS in a particular area but provide a first indication that ASS could be present on the site.

Further investigation is needed to determine if ASS materials are present and whether they pose a risk to the environment.

Depending on the degree of ground or watertable disturbance associated with a development, an ASS management plan may be required prior to the commencement of ground-disturbing activities.

Applications for the development or subdivision of a site located within a mapped ASS risk area may attract a condition for the investigation and management of ASS disturbance. It is recommended that proponents seek further advice about this issue from the Department of Planning, Lands and Heritage (DPLH). Regardless of whether a development or subdivisional approval is subject to an ASS condition, appropriate investigation and management of ASS is required in accordance with Water Quality Australia's National Acid Sulfate Soils Guidance.

Map reliability

The ASS maps are provided as a guide to the location of ASS layers occurring at different depths in coverage. They have been prepared based on geological origin, depth to groundwater and partial 'ground truthing', or on-site investigation.

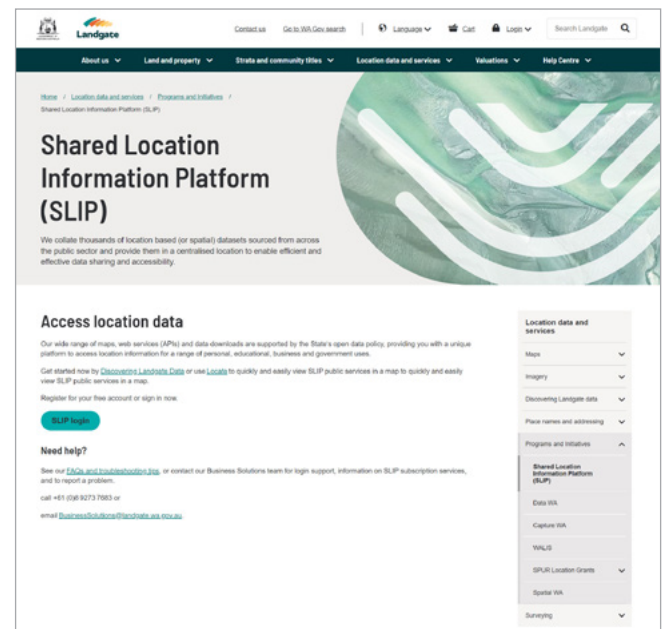
When using the ASS risk maps, remember:

- extreme variations in the nature and distribution of ASS can be expected
- depth to the ASS layer can be highly variable – the depths given in the key on the maps should be used as a guide only and not for a specific assessment of development potential
- ASS risk maps should only be used at the scale at which they are published – enlarging the maps will produce distortions so that boundaries on the map bear little resemblance to the occurrence of ASS material on the ground.

The maps have been prepared by the department to serve as a broad-scale land use planning tool in good faith, exercising all due care and attention. Users of these maps should satisfy themselves regarding the applicability of the maps to their situation and, where necessary, seek expert advice.

► How to find ASS risk maps

Administered by Landgate, SLIP gives online access to land and geographic information from various WA government agencies and private organisations.



ASS risk maps and data can be accessed in two ways:

1. WA Atlas – provides a map viewer service for accessing public data from State Government agencies. WA Atlas is free to use and can be accessed without registration.
2. Order a Property Interest Report – produced by Landgate's Interest Enquiry Service. This report provides information on property interests including any department ASS mapping. Users can check whether a property falls within a risk class area.



More information

For advice on ASS, or related matters, please contact your Local Government Authority. Additional resources, including National Guidelines on the investigation and management of ASS, can be found at [Water Quality Australia](#).

This document is available in alternative formats and other languages on request.

Related documents

Related fact sheets and further technical documents about ASS are available from the [Department of Water and Environmental Regulation](#) (the department).

Legislation

This document is provided for guidance only. It should not be relied upon to address every aspect of relevant legislation. Please refer to the [Department of Justice](#) for copies of the relevant legislation.

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Legal advice

The information provided to you by the department in relation to this matter does not constitute legal advice. Due to the range of legal issues potentially involved in this matter, the department recommends that you obtain independent legal advice.