



Acid sulfate soil risk maps

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

The Department of Environment Regulation (DER) has published ASS risk maps for most coastal regions of Western Australia where there is a high to moderate probability of ASS occurring.

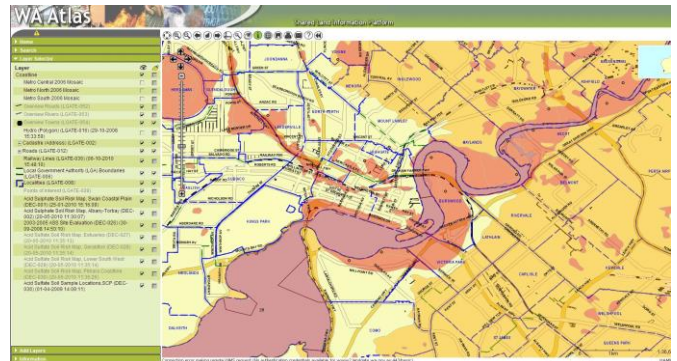
Where a development cannot be redesigned to avoid disturbing ASS, the risk maps are used to trigger site-specific investigations and management strategies for ASS soil disturbance and/or lowering of the groundwater table.

The ASS risk maps are accessible via Landgate's Shared Land Information Platform (SLIP). ASS data can be accessed through a number of 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 DER'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 3m of natural soil surface which could be disturbed by most land development activities including:

- earthworks involving soil disturbance in excess of 100m³; and
- dewatering or soil drainage.

Class 2 (orange)

Moderate to low risk of ASS occurring within 3m of the natural surface but a high to moderate risk of ASS occurring beyond 3m 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 beyond 3m below the natural ground surface; and
- works within 500m 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.

Applications for the development or sub-division of a site located with a mapped ASS risk area may attract a condition for the investigation and management of ASS disturbance.

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

Depending on the degree of ground disturbance associated with a development, an ASS management plan may be required to be prepared and submitted to DER for review prior to the commencement of ground-disturbing activities.

Map reliability

The ASS maps are provided as a guide to the location of ASS layers occurring at different depths in the area of coverage. They have been prepared on the basis of 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; and
- 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 DER 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 in regard to the applicability of the maps to their particular situation and, where necessary, seek expert advice.

How to find ASS risk maps

Administered by [Landgate](#), the state government's Shared Land Information Platform (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 WA 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 DER ASS mapping. Users can check whether or not a property falls within a risk class area.

More information

For advice on ASS, or related matters, please contact DER Contaminated Sites on 1300 762 982.

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

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Related documents

Additional publications about ASS are available online from www.der.wa.gov.au/ass or can be requested by phoning 1300 762 982.

Legislation

This document is provided for guidance only. It should not be relied upon to address every aspect of the relevant legislation. Please refer to the State Law Publisher (SLP) for copies of the relevant legislation, available electronically from the SLP website at www.slp.wa.gov.au

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Legal advice

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