

## Title

Acid Sulfate Soils Risk

## Abstract

This project has mapped the occurrence of Acid Sulfate Soils (ASS) along the coast of NSW and provides information that will assist land management and rehabilitation. In their natural state, these soils are submerged but when exposed or drained, they become oxidised and sulphuric acid is produced. This reduces soil fertility, kills vegetation and reduces fish populations. The identification of the location and extent of potential acid sulfate soils (PASS) is the essential first step in managing this problem. 128 map sheets were mapped for risk of occurrence of ASS at a scale of 1:25,000. This project was co-funded by the Natural Resources Audit Council (NRAC), and was revised in 1997.

In this version, (v2.5.1), ASS risk maps have not been remapped, however minor attribution changes to the GIS linework have occurred to fix errors and some additional original information has been incorporated into the attribute tables. This data provides maps of elevation, landform process groups and landform elements for the mapped area. The symbology for the ASS probability risk map classes can also now be simplified to reflect only probability, potential depth from the surface and presence of areas with Pleistocene sediments or ASS scalding.

**Related Datasets:** The dataset area is also covered by the mapping of the [Soil and Land Resources of Central and Eastern NSW](#) and [Soil Landscapes of Central and Eastern NSW](#) and [Hydrogeological landscapes of NSW](#).

**Online Maps:** This and related datasets can be viewed using [eSPADE](#) (NSW's soil spatial viewer), which contains a suite of soil and landscape information including soil profile data. Many of these datasets have hot-linked soil reports. An alternative viewer is the [SEED Map](#); an ideal way to see what other natural resources datasets (e.g. vegetation) are available for this map area.

**References:** Naylor, SD, Chapman, GA, Atkinson, G, Murphy CL, Tulau MJ, Flewin TC, Milford HB, Morand DT, 1998, *Guidelines for the Use of Acid Sulfate Soil Risk Maps*, 2nd ed., Department of Land and Water Conservation, Sydney.

## Resource locator

### [Show on SEED Web Map](#)

Name: Show on SEED Web Map

Protocol: WWW:DOWNLOAD-1.0-http--download

Description:

Display dataset on SEED's map

Function: download

### [Data quality statement](#)

Name: Data quality statement

Protocol: WWW:DOWNLOAD-1.0-http--download

Description:

DQS - Acid Sulfate Risk maps

Function: download

### [Show on eSPADE Web Map](#)

Name: Show on eSPADE Web Map

Protocol: WWW:DOWNLOAD-1.0-http--download

Description:

View this dataset on the eSPADE spatial viewer.

Function: download

### [Download package](#)

Name: Download package

Protocol: WWW:DOWNLOAD-1.0-http--download

Description:

Download data package: shapefile, PDF Risk maps and guidelines of this product.

Function: download

### [Acid Sulfate](#)

Name: Acid Sulfate Soils web page

[Soils web page](#)

Protocol: WWW:DOWNLOAD-1.0-http--download

Description:

DPE's web page about acid sulfate soils in NSW.

Function: download

[DPE's Land and soil website](#)

Name: DPE's Land and soil website

Protocol: WWW:DOWNLOAD-1.0-http--download

Description:

Soil information, mapping & management; land degradation & geodiversity.

Function: download

[ArcGIS REST Map Services](#)

Name: ArcGIS REST Map Services

Protocol: WWW:DOWNLOAD-1.0-http--download

Description:

Connect to REST map services using ArcGIS or ArcGIS online map viewer.

Function: download

[Web Map Service \(WMS\)](#)

Name: Web Map Service (WMS)

Protocol: WWW:DOWNLOAD-1.0-http--download

Description:

Connect to WMS using your GIS.

Function: download

[Web Map Tile Service \(WMTS\)](#)

Name: Web Map Tile Service (WMTS)

Protocol: WWW:DOWNLOAD-1.0-http--download

Description:

Connect to WMTS using your GIS.

Function: download

[KML Service](#)

Name: KML Service

Protocol: WWW:DOWNLOAD-1.0-http--download

Description:

Download KML for use in Google Earth.

Function: download

**Unique resource identifier**

Code 1eb85cf2-ca9d-4170-8ed2-7b54c45e00c2

**Presentation form** Map digital

**Edition** 2.5.1

**Dataset language** English

**Metadata standard**

**Name** ISO 19115

**Edition** 2016

Dataset URI	<a href="https://datasets.seed.nsw.gov.au/dataset/1eb85cf2-ca9d-4170-8ed2-7b54c45e00c2">https://datasets.seed.nsw.gov.au/dataset/1eb85cf2-ca9d-4170-8ed2-7b54c45e00c2</a>
Purpose	Legislative and Regulatory requirements - identifying areas of potential and known areas of Acid Sulfate Soils along coastal NSW
Status	Completed
Spatial representation	
Type	vector
Spatial reference system	
Code identifying the spatial reference system	4283
Equivalent scale	1:None
Additional information source	<p><b>GIS Field names</b></p> <p>TAG - Master ASS code (risk, process, element, additional descriptive information and elevation)</p> <p>TAG_name - Master ASS name</p> <p>LF_PROCESS - Landform process name</p> <p>Proces_Cde - Landform process code</p> <p>LF_ELEMENT - Landform element name</p> <p>Elemnt_Cde - Landform element code</p> <p>ELEVATION - Elevation name using Australian Height Datum (AHD)</p> <p>Elev_Cde - Elevation code</p> <p>RISK - Risk/probability of occurrence name (High probability, Low probability, No known occurrence, Disturbed terrain, Beach)</p> <p>ADDITIONAL - Additional descriptive information (scalds or Pleistocene sediments presence)</p> <p>Prob_Tag - Probability map code (probability, elevation and additional descriptive information)</p> <p>Prob_Name - Probability map name (probability, elevation and additional descriptive information)</p> <p>Legend - Probability map code and name label for legend</p> <p>Version - Version of dataset</p> <p>VersDate - Date of version</p> <p><b>PLEASE NOTE:</b> This web map services (WMS) has been customised for use at ArcGIS Online/Bing Maps/Google's standard scale levels. It is recommended that this WMS is used at these scale levels for best display of symbology, labelling and the layer's performance. Major scales levels useful for this dataset include: 1:288,895, 1:144,448,1:72,224, 1:36,112,1:18,056, 1:9,028.</p>
Topic category	

<b>Keyword set</b>	
keyword value	Soil SOIL-Chemistry
<b>Originating controlled vocabulary</b>	
Title	ANZLIC Search Words
Reference date	2008-05-16
<b>Geographic location</b>	
West bounding longitude	149.827341
East bounding longitude	153.635511
North bounding latitude	-37.471307
South bounding latitude	-28.158544
<b>Vertical extent information</b>	
Minimum value	-100
Maximum value	2228
<b>Coordinate reference system</b>	
Authority code	urn:ogc:def:cs:EPSG::
Code identifying the coordinate reference system	5711
<b>Temporal extent</b>	
Begin position	1994-01-07
End position	N/A
<b>Dataset reference date</b>	
<b>Resource maintenance</b>	
Maintenance and update frequency	Not planned
<b>Contact info</b>	
Contact position	Data Broker
Organisation name	NSW Department of Climate Change, Energy, the Environment and Water
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Web address	<a href="https://www.nsw.gov.au/departments-and-agencies/dcceew">https://www.nsw.gov.au/departments-and-agencies/dcceew</a>
Responsible party role	pointOfContact

## Lineage

The maps predict the distribution of Acid Sulfate Soils (ASS) based on an assessment of the geomorphic environment. This assessment has involved mapping of the environments in which they are likely to be found, being the coastal lowlands up to approximately 10m AHD and carrying out fieldwork to establish field relationships between landform, elevation and occurrence of ASS. Landform elements were used as the basic mapping unit. These provide a basis for land use planning and allow the application of elevation classes so that the depth of occurrence of ASS within a landform element can be estimated. It allows the prediction of soil management problems in other areas with similar landform and soil characteristics. ASS maps are not intended to provide site specific ASS information. The information derived from the maps cannot be used in the assessment of the potential to effectively manage ASS in a particular development. When using ASS maps, it must always be remembered that there can be expected to be extreme variations in the nature and distribution of ASS and that the depth to the ASS layer can be highly variable. The depths given in the map key should be used as a guide only and not used for a specific assessment of development potential. It is recommended that all land use activities likely to disturb ASS require appropriate soil investigations and a management plan to avoid environmental degradation.

Limitations on public access

Scope	dataset
<b>DQ Completeness Commission</b>	
Effective date	2023-01-10
Explanation	Spatial data capture is complete for the entire dataset . Complete for presentation and usage at 1:25000 only. Additional project attributes are available in the spatial data from version 2.5.
<b>DQ Completeness Omission</b>	
Effective date	2009-01-10
<b>DQ Conceptual Consistency</b>	
Effective date	1900-01-01
Explanation	All lines and polygons are labelled. All duplicates were eliminated, lines do not undershoot or overshoot. Polygons and lines were matched with adjoining map tiles. Topological consistency verification was performed as part of the quality assurance procedures using Genamap software and a series of checking procedures implemented (including visual check against field sheet).
<b>DQ Topological Consistency</b>	
Effective date	1900-01-01
<b>DQ Absolute External Positional Accuracy</b>	
Effective date	1900-01-01
Explanation	ASS maps should be used at the scale at which they were published. Enlarging the maps will produce distortions whereby boundaries will no longer represent map units on the ground. ;\n;\nLandform element boundaries were delineated and published at 1:25000 scale. Boundaries between landform classes that could be delineated reliably were drawn as solid lines and as broken lines where they were diffuse or difficult to identify. Elevation information provided on each landform element is approximate only. ;\n;\nDisturbed terrain was identified by aerial photograph interpretation or from sources such as maps supplied by local councils. There are some areas of disturbed terrain which are not shown on the maps. These are typically associated with urban areas where the development prevented the identification and delineation of the disturbance.
<b>DQ Non Quantitative Attribute Correctness</b>	
Effective date	1900-01-01
Explanation	Mapped codes were checked as part of the GIS capture quality assurance procedures, including a visual check of polygon tags against field sheets following digital capture. Soil samples were taken in the field and analysed in the laboratory. During the field work phase, field meetings were held with ASS surveyors to ensure consistency in site selection strategies, soil profile description methods and soil sampling techniques. Quality control and consistency in the mapping and coding of landform elements were also maintained by field checking by other ASS surveyors in the team and regular meetings to discuss and review the process.;\nAttributes updates for legend August 2005 - a field that reflects the legend description based on 12 groupings, 5 High Risk, 5 Low Risk, disturbed terrain and No Risk.

## Responsible party

Contact position	Data Broker
Organisation name	NSW Department of Climate Change, Energy, the Environment and Water
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Responsible party role	pointOfContact

## Metadata point of contact

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Responsible party role	pointOfContact

Metadata date 2024-08-01T03:25:31.148227

Metadata language