## Title South Creek Hydrogeological Landscapes: June 2020 (First Edition) **Alternative** South Creek HGL - 2020 title(s) This dataset was developed to support the South Creek Stormwater Project (SCSP). **Abstract** Primarily a desktop study, existing Western Sydney HGLs covering the South Creek area have been reviewed and adjusted to reflect available soil mapping. LF7 landform modelling for the catchment has been used to define HGL management zones to which salinity hazard ratings are assigned. These ratings are at a landform element scale, an improvement on the original HGL ratings which were applied to the whole HGL unit. For this dataset, additional information can be found in the relevant HGL unit descriptions provided in the original Western Sydney HGL data package. Spatial resolution for this product is 1:50,000. This is intended to be an interim product. A future update will incorporate more recent refinements to the soil landscape boundaries and provide basic descriptions for the updated HGL units in South Creek. It is also intended to add a small area of the Western Sydney Aerotropolis zone that falls outside the South Creek catchment. The HGL concept provides a structure for understanding how differences in salinity are expressed across the landscape. A HGL spatially differentiates areas with similar salt stores and pathways for salt mobilisation. The process of delineating a HGL relies on the integration of a number of causative factors: geology, soils, slope, regolith thickness, and climate; an understanding of the different modes of salinity development; and the impacts of salinity within landscapes (land salinity, salt load and salt concentration in streams due to salt contributions from base flow and runoff). Information sources such as soil landscape maps, site characterisation, salinity occurrence maps, hydrogeological data, surface water and groundwater data are incorporated into standardised unit descriptions. Hydrogeological Landscapes (HGL) and associated salinity impacts and hazards are available as a custom layer in eSPADE, which includes links to individual HGL unit descriptions. Resource locator Name: Data Quality Statement **Data Quality Statement** Protocol: WWW:DOWNLOAD-1.0-http--download Description: Data quality statement for South Creek Hydrogeological Landscapes: June 2020 (First Edition) Function: download Name: Connect to eSPADE Connect to **eSPADE** Protocol: WWW:DOWNLOAD-1.0-http--download Description:

View this dataset and other soil-related datasets on eSPADE soil spatial viewer.

Function: download

<u>Download</u> <u>Package</u> Name: Download Package

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

Description:

Package contains ArcGIS Geodatabase and Shapefile and layer file for displaying overall salinity hazard, and an Excel table displaying HGL attributes.

Function: download

SEED link: Western Sydney HGL -2011 Name: SEED link: Western Sydney HGL - 2011

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

Description:

The Western Sydney HGL was used to develop the South Creek HGL product. Western Sydney HGL descriptions should be used in conjunction with the South Creek dataset. Function: download Unique resource identifier c7268b17-6585-4d20-bd59-68cfe3093440 Presentation Map digital First **English** Metadata standard ISO 19115 2016 **Dataset URI** https://datasets.seed.nsw.gov.au/dataset/c7268b17-6585-4d20-bd59-68cfe3093440 This data package supports urban and land planning and management for the South Creek catchment in Western Sydney. It provides an interim classification of salinity hazard across the landscape. Planned Spatial representation vector complex Object Type Spatial reference system identifying the 4283 Equivalent 1:None Source datasets: Western Sydney Hydrogeological Landscapes: May 2011 (DPE); Soil Additional and Land Resources of the Hawkesbury-Nepean Catchment (DPE); Soil Landscapes of information the Penrith 1:100,000 sheet (DPE); GEODATA TOPO 250K Series 3 (Geoscience Australia); Surface Geology of Australia 1:1 million scale, New South Wales - 2nd edition (Geoscience Australia); Sydney 1:250,000 Geological Series Sheet SI 56-05, third edition (NSW Geological Survey); New South Wales Digital Elevation Models (DFSI). Topic category Keyword set **WATER-Salinity** keyword value SOIL

LAND-Use

Code

form

**Edition** 

Dataset

language

Name

Edition

Purpose

**Status** 

Type

Code

spatial

scale

source

reference system

Geometric

	GEOSCIENCES-Geology
	GEOSCIENCES-Hydrogeology
Originating controlled vocabulary	
Title	ANZLIC Search Words
Reference date	2008-05-16
Geographic location	
West bounding longitude	150.68
East bounding longitude	150.937
North bounding latitude	-34.042
South bounding latitude	-33.594
NSW Place Name	South Creek catchment
Vertical extent information	
Minimum value	-100
Maximum value	2228
Coordinate reference system	
Authority code	urn:ogc:def:cs:EPSG::
Code identifying the coordinate reference system	5711
Temporal extent	
Begin position	2019-03-01
End position	N/A
Dataset reference date	
Resource maintenance	
Maintenance and update frequency	As needed
Contact info	
Contact position	Data Broker
Organisation name	NSW Department of Climate Change, Energy, the Environment and Water
Telephone number	131555
Email address	data.broker@environment.nsw.gov.au
Web address	https://www.nsw.gov.au/departments-and-agencies/dcceew
Responsible party role	pointOfContact
Lineage  The hydrogeological landscape (HGL) mapping used the following base data for delineation of map units: Existing Western Sydney HGL mapping; Published 1:250 000 geological mapping data (polygon); Published 1:100 000 and 1:250 000 soil landscape data (polygon); Soil profile data from the DPE SALIS database (point); Digital Elevation Model (DEM) for South Creek catchment and derivative products taken from the 5 and 30 metre DEM.	

HAZARDS

Limitations on public access

Scope dataset

**DQ Completeness Commission** 

Effective date

2022-03-16

**DQ Completeness Omission** 

Effective date

2022-03-16

**DQ** Topological Consistency

Effective

date

2022-03-16

Explanation All polygons in the coverage are topologically correct and all polygons have been

attributed. Data has been visually checked at applicable scales.

DQ Absolute External Positional Accuracy

Effective date

2022-03-16

Explanation The accuracy of the coverage varies across the mapping area as map polygon

boundaries were derived from different sources. HGL boundaries derived from published and draft 1:100 000 scale mapping are generally accurate to 100 m. HGL boundaries derived from published 1:250 000 scale mapping are approximate and generally

accurate to 250 m.

DQ Non Quantitative Attribute Correctness

Effective date

2022-03-16

Explanation All polygons are labelled with a hydrogeological landscape unit tag, and attributed with

information relevant to salinity management. Attributes were checked as part of routine GIS capture quality assurance procedures, including a visual check of polygon tags

against field data.

Responsible party

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>

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Responsible party role pointOfContact

Metadata date 2024-02-26T13:08:20.983965

Metadata language