| | |
|---|---|
| Title | Soil and Land Resources of the Hunter Region |

## Abstract


This digital soil landscape product contains natural resource mapping for the Hunter and Central Rivers sub-catchments plus extends to also include the Hunter Local Land Services (LLS) government boundary.

The dataset upgrades 1:250,000 soil landscape mapping for the Singleton area providing a standardised and seamless land and soil information across the region at 1:100,000 scale. Mapping covers an area of 37,639 km2 from Yarrowitch and Murrurundi in the north to around Rylstone and Woy Woy in the south and extends west to just past Ulan.

The project was partially funded by the Hunter LLS and will assist decision making, planning and environmental modelling throughout the region. It also supports improved decision making and management of highly productive agricultural area (e.g. Biophysical Strategic Agricultural Land) under the NSW Government's Strategic Regional Land Use Policy (SRLUP) and Mining Sepp.

Four hundred and sixty soil landscape map units have been described within the Hunter Region. Each unit is an inventory of soil and landscape information with relatively uniform land management requirements, allowing major soil and landscape qualities and constraints to be identified. Many representative type profiles are supported by laboratory analysis and soils are described using the Australian Soil Classification and the Great Soil Groups systems.

**Related Datasets:** The dataset area is also covered by the mapping of the Soil landscape 1:100 000 and 1:250 000 mapping series for the map sheets of Murrurundi, Blackville, Dungog, Newcastle, Port Stephens, Gosford/Lake Macquarie, Sydney, Wallerawang, St Albans, Dubbo and Singleton. Part of this area is also covered by the mapping of Hydrogeological landscapes of NSW and Acid Sulphate Soil Risk Mapping.

**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.

**Reference:** Department of Planning, Industry and Environment, 2020, *Soil and Land Resources of the Hunter Region*, version 1.5, NSW Department of Planning, Industry and Environment, Parramatta.


## Resource locator

| | |
|---|---|
| Data quality statement | Name: Data quality statement<br>Protocol: WWW:DOWNLOAD-1.0-http--download<br>Description:<br>DQS - Soil and Land Resources of the Hunter Region.<br>Function: download |
| Show on eSPADE Web Map | Name: Show on eSPADE Web Map<br>Protocol: WWW:DOWNLOAD-1.0-http--download<br>Description:<br>View dataset on eSPADE spatial viewer.<br>Function: download |
| Soil map information | Name: Soil map information<br>Protocol: WWW:DOWNLOAD-1.0-http--download<br>Description:<br>Web page about soil maps in NSW.<br>Function: download |
| Land and soil information | Name: Land and soil information<br>Protocol: WWW:DOWNLOAD-1.0-http--download |

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| | Description:<br>Web page about land and soil information in NSW.<br>Function: download |
| Soil and Land Resources data package | Name: Soil and Land Resources data package<br>Protocol: WWW:DOWNLOAD-1.0-http--download<br>Description:<br>Download data package: shapefile and ESRI layer file and PDF map unit reports.<br>Function: download |
| Soil and Land Resources reports | Name: Soil and Land Resources reports<br>Protocol: WWW:DOWNLOAD-1.0-http--download<br>Description:<br>Download PDF map unit reports<br>Function: download |
| Soil and Land Resources GIS data | Name: Soil and Land Resources GIS data<br>Protocol: WWW:DOWNLOAD-1.0-http--download<br>Description:<br>Download shapefile and ESRI layer file<br>Function: download |

## Unique resource identifier

| | |
|---|---|
| Code | 0be1f7e3-24c9-4897-b31f-3ffce6c2ed56 |

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|---|---|
| Presentation form | Map digital |
| Edition | 1.5 (v200803) |
| Dataset language | English |

## Metadata standard

| | |
|---|---|
| Name | ISO 19115 |
| Edition | 2016 |

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|---|---|
| Dataset URI | https://datasets.seed.nsw.gov.au/dataset/0be1f7e3-24c9-4897-b31f-3ffce6c2ed56 |
| Purpose | This dataset was partially funded by Hunter Local Land Services (LLS) to assist decision making, planning and environmental modelling throughout the catchment. It provides improved soil and land information to upgrade Land and Soil Capability and Soil Fertility mapping supporting the Government's SRLUP and mining SEPP policies. |
| Status | Completed |

## Spatial representation

| | |
|---|---|
| Type | vector |
| Geometric Object Type | surface |
| Geometric | 16170 |

Object Count

## Spatial reference system

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|---|---|
| Code identifying the spatial reference system | 4283 |

## Equivalent scale

1:None

## Additional information source

**GIS Field name descriptions**

S_NSWcode – unique soil map unit code using the NSW mastered naming convention.

S_NSWname - unique soil map unit name using the NSW mastered naming convention.

Process_D – Dominant geomorphic process group of the soil landscape.

Groups are named after either recent or current land-forming processes, or conditions that influence soil parent material or soil type. Descriptions of these groups are available within soil landscape reports, glossary and on the DPIE website.

Process_SD – Sub-dominant geomorphic process group of the soil landscape.

Version - Version number of dataset

**Version information**

Version 1.5 - Upgrades made to this version were minor. Changes related to linework rectificaiton over the Carboniferous sediment areas around Wingham and Camden Haven. A few codes were also updated to match new information for Camden Haven 1:100,000 sheet.

**Available Formats**

- View online using eSPADE spatial viewer
- Download reports or GIS ESRI shapefiles(.shp) & layer files (.lyr) from SEED data portal.
- Soil profile points data is also available in MS spreadsheet format by contacting the data custodians at soils@environment.nsw.gov.au

## Topic category

## Keyword set

| | |
|---|---|
| keyword value | SOIL |
| | SOIL-Erosion |
| | SOIL-Physics |
| | LAND-Topography |
| | LAND-Geography |
| | HAZARDS-Flood |
| | HAZARDS-Landslip |
| | LAND-Use |
| | VEGETATION |
| | SOIL-Chemistry |

Originating controlled vocabulary

| | |
|---|---|
| Title | ANZLIC Search Words |

| | |
|---|---|
| Reference date | 2008-05-16 |

## Geographic location

| | |
|---|---|
| West bounding longitude | 149.6689 |
| East bounding longitude | 152.80518 |
| North bounding latitude | -33.55684 |
| South bounding latitude | -31.27719 |
| NSW Place Name | Hunter-Central Rivers Catchment and Hunter Local Land Services |

## Vertical extent information

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|---|---|
| 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 | 2012-01-01 |
| End position | N/A |

## Dataset reference date

## Resource maintenance

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|---|---|
| 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 mapping was upgraded to Soil and Land Resource 1:100,000 scale standard by the NSW Government using: * existing published 1:100,000 soil landscape mapping (Blackville, Dungog, Murrurundi, Port Stephens, Sydney, Newcastle, St Albans, Wallerawang, Gosford/Lake Macquarie 1:100,000 map sheets). Some linework and attribute changes were made in these mapping areas; * existing published 1:100,000 soil and land resources mapping (Hawkesbury Nepean Catchment, Merriwa Plateau and Liverpool Plains) Some linework and attribute changes were made in these mapping areas; * new mapping for partial or entire Gulgong, Merriwa, Muswellbrook, Camberwell, Ellerston, Upper Manning, Wingham, Camden Haven, Bulahdelah, Foster, Mudgee, Mount Pomany, Howes Valley, Cessnock 1:100,000 map sheets. Other existing mapping including Soil Landscapes of the Dubbo and Singleton 1:250,000 sheets and Soil Landscapes of the Hunter Councils Region where also used when upgrading mapping for the catchment.<br><br>Traditional soil survey methods and standards were used to produce this soil map product. Information from previous soil and geology surveys were used. Linework was captured by digitizing on screen at approximately 1:10,000 using ArcGIS. Provisional soil landscapes were established on the dominant geomorphic processes responsible for the formation of the landscape and on the geological parent material. The boundaries of these soil landscapes were mapped using the interpretation of ADS40 photography, SPOT satellite imagery, DEM and radiometric imagery.<br><br>Fieldwork was conducted to assess a suite of soil and landscape properties and collect type profiles. Facets (sub landscapes) classes, their dominant soill types were identified and soil landscape hazards assessed. Over 1710 additional detailed soil profiles and observations were collected across the project area to fill knowledge and data gaps. Many of these profiles include laboratory analysis to support the survey.<br><br>The minimum suite of soil properties laboratory tested includes pH 1:5 water, Electrical Conductivity (EC) and Emerson Aggregate however a sizeable proportion also includes a much greater suite of testing aligning with that of the soil landscape mapping series. |
| Limitations on public access | |

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| Scope | dataset |

DQ Completeness Commission

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|---|---|
| Effective date | 2018-01-22 |
| Explanation | All polygons in the GIS layer are labeled with a unique soil landscape code(S_NSWcode) and name (S_NSWname) and dominant geomorphic process group (Process_D). A subdominant process group class, if applicable is also provided (Process_SD). PDF reports are available for each map unit. |

DQ Conceptual Consistency

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|---|---|
| Effective date | 2018-01-22 |
| Explanation | Map unit concepts and polygons, major soil types and soil landscape descriptions have been field verified by a peer soil scientist for all map units. |

DQ Topological Consistency

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|---|---|
| Effective date | 2018-01-22 |
| Explanation | ArcGIS was used to ensure all polygons in the shape file are topologically correct. All polygons have a unique identifier. |

DQ Absolute External Positional Accuracy

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|---|---|
| Effective date | 2018-01-22 |
| Explanation | Observations and soil profiles were located using a handheld GPS. Soil boundaries of this 1:100,000 scale map product are generally accurate to within 100 m on the ground but variations will occur especially where soil boundaries are gradual. |

DQ Non Quantitative Attribute Correctness

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|---|---|
| Effective date | 2018-01-22 |
| Explanation | Soil landscape map units are individualised by unique combinations of soil type, topography, geology, geomorphic process containing variations in vegetation, land use, existing erosion/land degradation and constraints to development. The land and soil attributes in this product were predominately assessed using field observations, remote sensing interpretation (satellite, radiometric and ADS40) and laboratory analysis where available. |

## Responsible party

| | |
|---|---|
| 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 |

## Metadata point of contact

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| Contact position | Data Broker |
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| Responsible party role | pointOfContact |

## Metadata date

2024-02-26T15:26:46.491336

## Metadata language