NSW Natural Resources Data Directory
Metadata Entry Form

The name given to the dataset by the custodial organisation. It should be easily understood by any general enquirer (ie avoid use of acronymns).	**Title:** Estimated Inherent Soil Fertility – Upper Hunter and New England-North West Strategic Regional Landuse Areas
The business name of the custodial organisation or responsible party associated with the dataset.	**Custodian:** Office of Environment and Heritage (OEH), Department of Premier and Cabinet
The State or country in which the custodian of the dataset is domiciled	**Jurisdiction:** New South Wales

A narrative summary (ie complete sentences) of the content of the dataset. The abstract should contain enough information to enable a general enquirer to determine the relevance of the dataset for their needs. (Maximum 2000 characters)

Abstract:

This map provides an estimation of the inherent fertility of soils in the Upper Hunter and New England-North West Strategic Regional Landuse Areas. It uses the best available soils and natural resource survey coverage developed for the Land and Soil Capability (LSC) dataset.

The mapping describes soil fertility in NSW according to a five class system: outlined below.

- Low (1)
- Moderately low (2)
- Moderate (3)
- Moderately high (4)
- High (5)

It was derived from a lookup table system linking a fertility class to a particular soil type (Great Soil Group), which was then attributed for each map unit.

Individual map units have been grouped and dissolved according to the Soil Type field to produce the final map.

Words likely to be used by a non-expert to find the dataset. They must be selected from the list published in the ANZLIC Metadata Guidelines.

Search Words:
- LAND Topography
- SOIL Classification
- SOIL Surveys
- SOIL Erosion
- LAND Use management
- LAND Management
- LAND sustainability

Geographic Extent Name(s):
Upper Hunter and New England-North West Strategic Regional Landuse Areas

Datum and Projection: GDA 1994, Geographics.

Geographic Extent Polygon(s):

In decimal degrees

	West: 148.676179
	East: 152.631413
	North: -28.249244
	South: -33.072023

The earliest date for a record in the dataset, or use Not known	**Beginning Date:** 30/06/2009 ☐ Not known

The last date for a record in the dataset, or use Not known or Current	**Ending date:** 22/02/2012 ☐ Not known ☒ Current

The status of the process of creation of the dataset	**Progress:** ☒ Complete ☐ In progress ☐ Planned ☐ Not known

Tick the word or phrase which best describes the frequency of changes or additions to the data that are made after the initial completion of the dataset.	**Maintenance and Update Frequency:** ☐ Continual ☐ Annually ☐ Daily ☐ Bi-annually ☐ Weekly ☒ As required ☐ Monthly ☐ Irregular Cont'd: ☐ Quarterly ☐ Not planned ☐ Not known

Tick the format in which the data is stored, Digital or Non-digital. This element should also include a free text description of the format, eg paper, microfiche, Oracle database and any other information which helps describe it.	**Stored Data Format:** ☒ DIGITAL • Vector data stored as ESRI geodatabase ☐ NONDIGITAL

Tick the format in which the data is available, Digital and/or Non-digital. This element also includes an optional free text extension for additional relevant information.	**Available Format Type(s):** ☒ DIGITAL • A3 PDF map ☐ NONDIGITAL

Enter any restrictions or legal prerequisites that may apply to use of the dataset, eg requiring the user to enter into a licence/royalty agreement. Also state if there are no restrictions.	**Access Constraints:** A PDF map is available on the OEH website at: http://www.environment.nsw.gov.au/resources/soils/SRLUP1_5_Fertility_v1_4_120411_A3.pdf. The source digital data is not publicly available.

Document information about both the source data and the processing steps used to produce the dataset. For example, information about the source data generally includes a description, scale, media types and dates. Processing steps should include method of data capture. Use Not Known, Not Documented or Not Relevant if no	**Lineage:** The best available soils datasets were sourced to provide a single (seamless where possible) layer across the area. Datasets collated to derive this map included: • published and draft 1:100,000 soil landscape mapping [1:100,000 scale] • published and draft 1:250,000 soil landscape mapping [1:250,000 scale]

information is available. (Maximum 2000 characters)	• Land and Soil Resources of the Hawkesbury Nepean Catchment [1:100,000 scale] • Northern Comprehensive Regional Assessment [1:100,000 scale] • Reconnaissance soil landscapes of the Namoi CMA [1:100,000 scale] • Reconnaissance soil landscapes of the Border Rivers/Gwydir CMA [1:100,000 scale] • Land Systems of the Western Division [1:250,000 – 1:500,000 scale] • Brigalow Belt South Western Regional Assessment [1:100,000 scale] • Glen Innes Data Gap Reconnaissance Soils Mapping [1:100,000 scale] Each polygon was assigned a dominant soil type (Great Soil Group), from which a fertility value was derived using a lookup table modified from Charman (1978) (See Table 1). It is known that other soil types will exist in most if not all polygons, thus the map provides a guide to the most likely fertility of the soil. Assumptions made in the allocation of soil fertility mapping include: 1. The dominant soil type allocated to each polygon is representative of that area. 2. The dominant soil type has the typical characterictics/properties of soils classified under the Great Soil Group classification.
A brief assessment of the closeness of the location of spatial objects in the dataset in relation to their true position on the Earth. Use Not Known, Not Documented or Not Relevant if no information is available (Maximum 2000 characters)	**Positional Accuracy:** The accuracy of this map coverage varies across NSW, as map polygon boundaries were derived from many different sources and scales (see **Lineage**). Soil boundaries using published and draft 1:100,000 scale mapping by OEH are generally accurate to within 100 m. Soil boundaries using published or draft 1:250,000 scale, SCA and reconnaissance 1:100,000 – 1:250,000 level soil landscape mapping are generally accurate to within 250 m. Other small scale datasets (e.g., datasets up to 1:500,000) are approximate and generally accurate to within 500 – 2,000 m.
A brief assessment of the reliability assigned to features in the dataset in relation to their "real world" values. Use Not Known, Not Documented or Not Relevant if no information is available. (Maximum 2000 characters)	**Attribute Accuracy:** The accuracy of attributes used to derive this map coverage varies across NSW, as map polygon boundaries were derived from many different sources and map scales. A data source diagram (Figure 1) shows these different datasets and their quality according to the soils confidence classification outlined below: 1 - All necessary soil and landscape data is available at a regional scale (1:100,000) to undertake the assessment of LSC and derived Soil Fertility maps. 2 - Most soil and landscape data is available at a catchment scale (1:250,000) to undertake the assessment of LSC and derived Soil Fertility maps. 3 - Limited soil and landscape data is available at a reconnaissance catchment

scale (1:100,000 & 1:250,000) which limits the quality of the assessment LSC and derived Soil Fertility maps.

4 - Very limited soil and landscape data is available at the state scale (1:100,000 - 1:500,000) and the LSC and derived Soil Fertility maps should be used as a guide only.

A brief assessment of how well the logical relationships between items in the dataset, or spatial objects in the dataset, are maintained. Use Not Known, Not Documented or Not Relevant if no information is available. (Maximum 2000 characters)	**Logical Consistency:** ArcGIS was used to ensure all polygons in the feature class are topologically correct. (cluster tolerance 0.000003 DDeg).
A brief assessment of the completeness of coverage of the dataset, completeness of classification and completeness of verification (ie work carried out to validate the correct representation of "real world" features contained within the dataset. Use Not Known, Not Documented or Not Relevant if no information is available. (Maximum 2000 characters)	**Completeness:** All polygons were labelled with a soil fertility class as per the classification. An internal desktop review has been completed for the soil type (Great Soil Group) field used in the production of this map.
The business name of the organisation from which the dataset may be obtained. It need not be the same organisation as the Custodian.	**Contact Organisation:** Office of Environment and Heritage (OEH)
The position title of the person in the contact organisation who will answer questions about the dataset. Personal names of contacts are not acceptable.	**Contact Position:** Richard Hicks, Manager, Remote Sensing and Land Assessment
The mail address for the contact position. Include street name and number or post office box or bag number.	**Mail Address:** P.O. Box 717
The name of the suburb or town associated with the mail address for the contact position.	**Locality:** Dubbo
The name of the State or Territory, in acronym form (eg NSW), where the contact position is located.	**State:** New South Wales
The name of the country where the contact position is located.	**Country:** Australia
The official postcode for the address of the contact position.	**Postcode:** 2830
The telephone number of the contact position. Include the STD code.	**Telephone:** 6883 6501
The fax number of the contact position. Include the STD code.	**Facsimile:**
The electronic mail address of the contact position. If an email address is not available, use Not Known or None.	**Electronic Mail Address:** richard.hicks@environment.nsw.gov.au
Include additional metadata that supports documentation of the dataset, for example attribute information, an Internet address, reference to another directory or a suggestion that more information should be sought from the	**Additional Metadata:**

Table 1: Fertility classes of Great Soil Groups

Modified from **Charman, P.E.V. 1978 (ed.),** *Soils of New South Wales: Their Characterisation, Classification and Conservation,* **Tech. Handbook No. 1, Soil Conservation Service of NSW, Sydney.**

Soil Type (Great Soil Group)	Estimate_Fertility	Fertility_value
Acid Peats	Low	1
Alluvial Soils - Light Sandy Textured (Sands to Sandy Loams)	Moderately low	2
Alluvial Soils - Medium Textured (Loams, Clay Loams)	Moderately high	4
Alpine Humus soils	Low	1
Black Earths	High	5
Brown Earths	Moderate	3
Brown Podzolic Soils	Moderate	3
Calcareous Red Earths	Moderately low	2
Calcareous Sands	Low	1
Chernozems	High	5
Chocolate Soils	Moderately high	4
Chocolate Soils - low iron	Moderately high	4
Desert Loams	Moderately low	2
Earthy Sands	Low	1
Euchrozems	Moderately high	4
Gleyed Podzolic Soils	Moderately low	2
Grey Brown and Red Calcareous Soils	Low	1
Grey Brown Podzolic Soils	Moderately low	2
Grey, Brown and Red Clays	Moderate	3
Humic Gleys	Moderately low	2
Humus Podzols	Low	1
Kraznozems	Moderately high	4
Lateritic Podzolic Soils	Moderately low	2
Lithosols	Low	1
Neutral to Alkaline Peats	Low	1
Non Calcic Brown Soils	Moderate	3
Peaty Podzols	Low	1
Podzols	Low	1
Prairie Soils	Moderately high	4
Red and Brown Hardpan Soils	Low	1
Red Brown Earths	Moderate	3
Red Earths - less fertile (granites and metasediment)	Moderately low	2
Red Earths - more fertile (volcanics and granodiorites)	Moderately high	4
Red Podzolic Soils - less fertile (granites and metasediment)	Moderately low	2
Red Podzolic Soils - more fertile (volcanics and granodiorites)	Moderately high	4
Rendzinas	Moderate	3
Siliceous Sands	Low	1
Solodic Soils	Moderately low	2
Solodized Solonetz	Moderately low	2
Solonchaks	Low	1
Solonetz	Moderately low	2
Solonized Brown Soils	Moderately low	2
Soloths	Moderately low	2
Terra Rossa Soils	Moderate	3
Weisenboden	Moderate	3
Xanthozems	Moderate	3
Yellow Earths	Moderately low	2

Yellow Podzolic Soils - less fertile (granites and metasediment)	Moderately low	2
Yellow Podzolic Soils - more fertile (volcanics and granodiorites)	Moderate	3

Figure One: Data Confidence Diagram

DATA CONFIDENCE
UPPER HUNTER AND NEW ENGLAND - NORTH WEST STRATEGIC
REGIONAL LANDUSE AREAS

Good — All necessary soil and landscape data is available at a regional scale (1:100,000) to undertake the assessment of LSC and derived Soil Fertility maps.

Fair — Most soil and landscape data is available at a catchment scale (1:250,000) to undertake the assessment of LSC and derived Soil Fertility maps.

Low — Limited soil and landscape data is available at a reconnaissance catchment scale (1:100,000 & 1:250,000) which limits the quality of the assessment LSC and derived Soil Fertility maps.

Very Low — Very limited soil and landscape data is available at the state scale (1:100,000 - 1:500,000) and the LSC and derived Soil Fertility maps should be used as a guide only.

Not Assessed — Mapping under review