

# Agricultural Land Use Mapping Resources in NSW - User's guide

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## Purpose

Various sources of information are used to identify agricultural industries and their dependent resources for land use planning purposes. Currently there are a number of different methodologies and datasets used across NSW. These datasets were developed at different time frames and for different purposes. This user's guide outlines the current datasets and terminology used to map agricultural lands or some of the dependent resources within NSW for land use planning purposes.

## Using the Maps

Each map is created for a specific purpose. The maps discussed in this user's guide are broken into two themes. The first being maps that are developed using biophysical data only such as soil, climate or topography (eg Biophysical Strategic Agricultural Land or Land and Soil Capability mapping). These types of maps help to identify land where agricultural industries that rely on certain biophysical criteria may be located. The second theme are maps that include biophysical information plus economic and social data too such as infrastructure, access to markets, economic advantages and labour (eg Important Agricultural Land or Critical Industry Cluster mapping). These maps also help those identify industries not reliant of biophysical criteria for their location such as intensive agriculture (eg poultry or protected cropping).

All of these data sets could be used for local or regional strategic planning purposes as well as agricultural assessments of a local area or region when conducting an Agricultural Impact Statement or Environmental Impact Statement. However, Important Agricultural Land (IAL) maps are a preferred option if it is available. This is due to it considering a combination of biophysical, economic and social inputs at the state, regional and local level.

The mapping datasets are further discussed in the following sections outlining their strengths, limitations and currency. It is important to note that these maps are not suitable for site assessment at the property scale. This user's guide also does not specifically refer to prime agricultural land as this is a generic term which is not defined or described by any NSW datasets

## Important Agricultural Land (IAL)

### What is IAL?

Important Agriculture Land is the existing or future location of local or regionally important agricultural industries or resources. It includes a combination of biophysical resources and socio-economic (infrastructure, proximity to processing facilities, markets etc) requirements for local or regionally important agricultural industries. Importantly, this includes those industries not primarily or solely dependent on productive soils such as poultry or protected cropping. The IAL mapping is useful for strategic planning, regional and local environmental planning and regional economic development.

**Strengths**

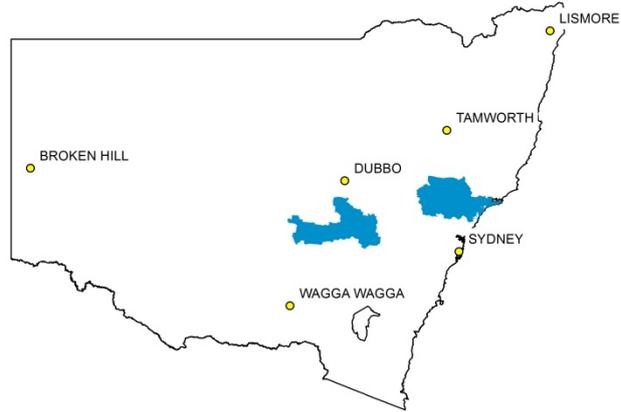
It focusses on the range of factors important to the predominant or leading agricultural industries rather than focussing entirely on biophysical factors such as soils, for which some industries have little or no reliance (e.g. intensive agriculture).

**Limitations**

Due to scale limitations IAL Maps are not suitable for assessing development proposals or for property specific planning purposes.

Coverage does not include the whole state. It is completed at local scale for some councils only.

**Coverage Map – areas where IAL completed**



**Further information**

Original maps for Singleton, Muswellbrook, Orange, Cabonne, Blayney and Forbes councils pilot areas can be found on the NSW DPI website at: <http://www.dpi.nsw.gov.au/content/agriculture/resources/lup/ag-mapping>

Maps for the Lower Hunter councils (Cessnock, Lake Macquarie, Maitland, Port Stephens and Newcastle) can be found on the Hunter and Central Coast Regional Environmental Management Strategy website at: <http://www.hccrems.com.au/product/mapping-important-agricultural-lands-lower-hunter-region-nsw/>

A guideline to identifying important agricultural lands in NSW is available at <http://www.dpi.nsw.gov.au/land-and-water/land-use/lup>

**Regional Farmland Mapping**

**What is Regional Farmland Mapping?**

Regional Farmland Mapping was developed to identify and protect State Significant, Regionally Significant and Significant Non-contiguous farmland to maintain strong resource base for the current and future production of food and fibre. Regional Farmland Mapping has been undertaken in the Northern Rivers and Mid-North Coast regions of the state only.

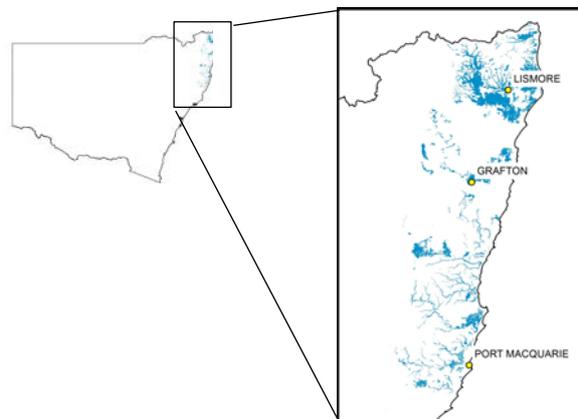
**Strengths**

Although the mapping criterion focuses on biophysical and climatic data, it considers a wider range of agricultural industries than BSAL mapping. It included comprehensive community, industry and government agency consultation.

**Limitations**

It does not identify land for industries that are not highly dependent on biophysical attributes such as soils or landscapes (eg intensive agriculture or emerging industries such as blueberries). Mapping scale is not suitable for property level assessment.

**Coverage Map – Location of Regional Farmland Map**



**Further information**

Further information please contact the Department of Planning and Environment (1300 305 695 or [information@planning.nsw.gov.au](mailto:information@planning.nsw.gov.au))

## Land and Soil Capability (LSC)

### What is LSC?

Land and Soil Capability maps are classified into 8 classes based on a range of agricultural practices that can be sustained, ease of management and risk of degradation. The limitations to agricultural use are determined by factors including, but not limited to soil properties and climate. The more limitations for agricultural practices, the higher the classification and the lower the agricultural versatility or value. The LSC Assessment Scheme has replaced the Rural Land Capability Assessment maps.

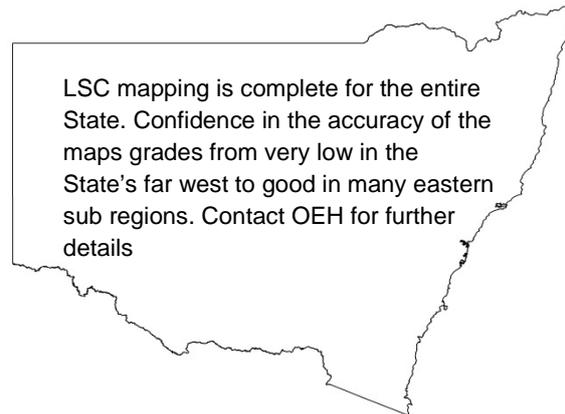
#### Strengths

The LSC assessment scheme is suitable for broad-scale assessment of land capability, particularly for assessment of lower intensity, dry-land agricultural land use. LSC maps provide a guide to the capability of the land and the broad identification of soil management problems.

#### Limitations

The mapping is broad-scale and should only be used at the scale of the soil map datasets that underpin the maps. These maps are not suitable for site assessment at the property scale. It is less applicable for high intensity land use or non soil reliant industries (eg poultry).

#### Coverage Map – all of State



### Further information

The assessment of LSC is based on the mapping method and rule set developed by Office of Environment and Heritage (OEH) in 2012 (<http://www.environment.nsw.gov.au/soils>). Access to digital files can be found at: <https://www.seed.nsw.gov.au>

## Critical Industry Cluster (CIC)

### What is CIC Mapping?

Critical Industry Cluster mapping identifies localised concentrations of interrelated productive industries based on an agricultural product that provides significant employment opportunities and contributes to the identity of the region. Potential impacts by state significant mining or coal seam gas proposals on the mapped clusters is required in NSW. Two critical industry clusters exist in NSW– for equine and viticulture industries in the Upper Hunter region.

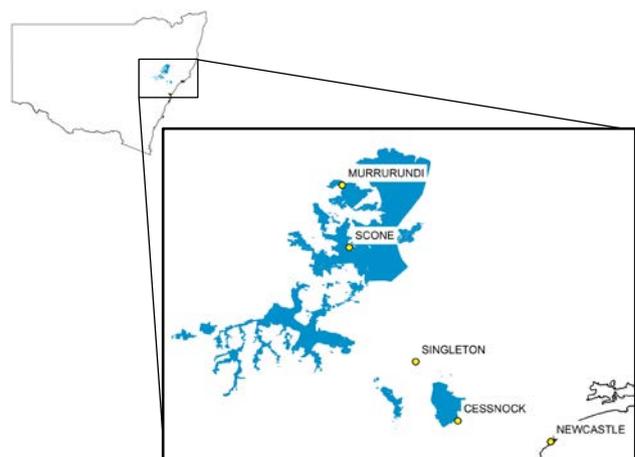
#### Strengths

CIC mapping identifies two industries that provides clear development and marketing advantages and consists of a unique combination of factors such as location, infrastructure, heritage and natural resources. It is not reliant upon the biophysical factors alone.

#### Limitations

The mapping is limited to only the equine and viticulture industries in the Upper Hunter. The mapping program no longer exists to identify other industries.

#### Coverage Map – Location of CICs



## Further information

Access to digital files can be found at: <https://www.seed.nsw.gov.au>. Further information please contact the Department of Planning and Environment (1300 305 695 or [information@planning.nsw.gov.au](mailto:information@planning.nsw.gov.au))

## Biophysical Strategic Agricultural Land (BSAL)

### What is BSAL?

Indicative Biophysical Strategic Agriculture Land maps were introduced in 2012. These maps identify the inherent land and water resources that are important on a national and state level for agriculture – particularly, but not exclusively broad acre cropping across NSW. These lands intrinsically have the best quality soil and water resources, topography, are naturally capable of sustaining high levels of agricultural productivity and require minimal management practices to maintain this. BSAL is used for the purposes of assessing impacts from state significant mining and coal seam gas proposals, and is referenced in the Mining SEPP.

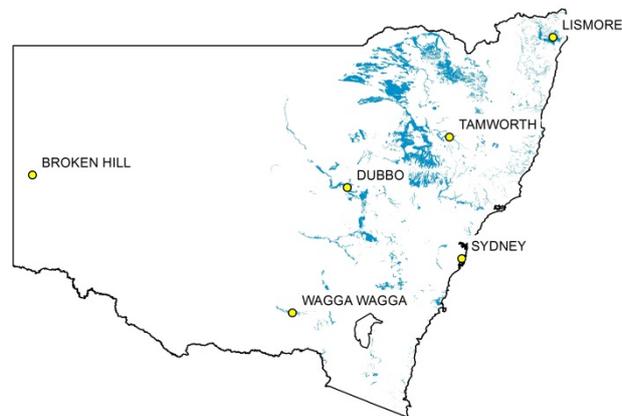
#### Strengths

Identification of BSAL is based on meeting a list of biophysical criteria. The maps identify where it is expected that these important national and state significant soil and water characteristics will be found that meet the criteria (about 3.5% of the State).

#### Limitations

The maps are at a state/regional scale with varying accuracies and degrees of confidence. A site verification process is required to determine if the maps are correct at the local scale. It does not identify land for industries that are not highly soil dependant (eg intensive agriculture) nor for extensive grazing industries (eg beef cattle).

#### Coverage Map – Location of BSAL



## Further information

Access to digital files can be found at: <https://www.seed.nsw.gov.au>. Further information please contact the Department of Planning and Environment (1300 305 695 or [information@planning.nsw.gov.au](mailto:information@planning.nsw.gov.au)) or the Office of Environment and Heritage (OEH).

## Agricultural Land Classification (ALC)

### What is ALC?

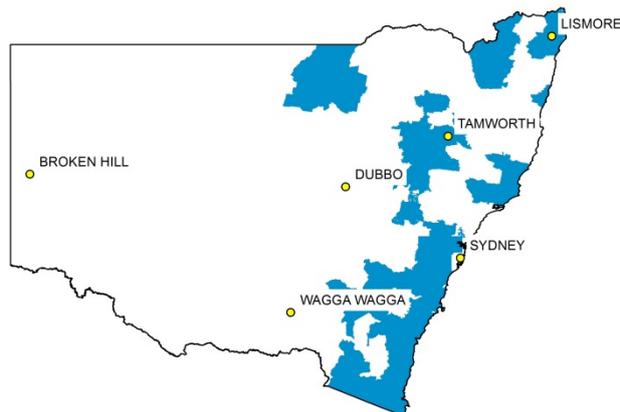
Agricultural Land Classification, or otherwise known as Agriculture Land Suitability, is a historical five class system classifying land in terms of its suitability for general agricultural use. Agricultural land is classified by evaluating biophysical, social and economic factors in terms of constraint. The mapping ceased in 2000, but is still being used by local government and other industry representatives involved in land assessment and evaluation. Given its limitations, caution is recommended if using this mapping. Other datasets identified above provide more accurate information due to the increase in available digital information that under pins the mapping.

**Strengths**

Prioritises agricultural land into 5 classes based on general agricultural use to be used in a strategic context.

**Limitations**

Poor quality control of product, limited availability and suitability for digital conversion (available as paper maps only in some areas), does not identify specific industry needs and excludes non-soil based agricultural needs.

**Coverage Map – areas where ALC completed****Further information**

DPI Agriculture encourages the use of IAL mapping due to its high level of biophysical, economic and social data used to create the maps. However, further information on the ALC mapping approach can be found at: [http://www.dpi.nsw.gov.au/\\_\\_data/assets/pdf\\_file/0004/189697/ag-land-classification.pdf](http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0004/189697/ag-land-classification.pdf)

**Other Mapping Datasets**

Many other datasets are used to underpin the development of the above mentioned maps such as inherent soil fertility mapping, soil and landscape mapping, topography, climate data etc. These are available at varying government agency websites, in particular the Office of Environment and Heritage (<http://www.environment.nsw.gov.au>) and the Australian Collaborative Land Use and Management Program (<http://www.agriculture.gov.au/abares/aclump>). Other more localised datasets such as irrigation scheme areas are also available for various parts of the state. Please contact your Regional Department of Planning and Environment Office or Local Council for this information.

The SEED (Sharing and Enabling Environmental Data) data portal developed by the NSW Government is available at <https://www.seed.nsw.gov.au>. It makes a broad range of environmental data available through a single online source. Further information please contact [info@seed.nsw.gov.au](mailto:info@seed.nsw.gov.au)

**More information**

Please contact [landuse.enquires@dpi.nsw.gov.au](mailto:landuse.enquires@dpi.nsw.gov.au) or the Department of Primary Industries Agricultural Land Use Planning Unit on (02) 6391 3800

For updates go to [www.dpi.nsw.gov.au/factsheets](http://www.dpi.nsw.gov.au/factsheets)

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