Title	Woody Extent Vegetation - Cessnock LGA. VIS ID 5123
Abstract	The Department of Planning provides support to Local Government to enable evidence-based planning decisions. Biodiversity and Conservation Division collaborated with Cessnock City Council in 2021-2022 to deliver environmental map layers (Environmental Lands Study) that facilitate council's review of their Local Environment Plan. This dataset is one of those and delineates woody vegetation at fine scale across the 196,468-hectare Cessnock Local Government Area (LGA). All tenures were mapped excluding National Parks and Wildlife Service (NPWS) estate because they are formally reserved and protected under Local Environment Plans and were outside of the scope of the Environmental Lands Study. Data is in vector format and was produced to a scale range of 1:500 – 1:3000 and captures individual trees or shrubs with diameters down to 3m whilst excluding and eliminating shadow effects. The dataset is an accurate fine-scale baseline woody dataset for the Cessnock LGA that is current with the image dates of 2017-19 in the east and 2011 for a small area in the far west. From here on the layer will require maintenance and updating as landuse and landcover changes over time. However, the layer's accuracy means that maintenance and update requirements are minimal in terms of mapping expertise and resources. Either field verified data or newer high-resolution imagery can be used to perform maintenance and updating of the layer.

Resource locator

Data Quality Statement	Name: Data Quality Statement
	Protocol: WWW:DOWNLOAD-1.0-http--download
	Description:
	Data quality statement for Woody Vegetation - Cessnock LGA
	Function: download
Cessnock Environmental Lands Study	Name: Cessnock Environmental Lands Study
	Protocol: WWW:DOWNLOAD-1.0-http--download
	Description:
	The Department of Climate Change, Energy, the Environment and Water's Biodiversity, Conservation and Science – Regional Delivery collaborated with Cessnock City Council in 2021 to 2022 to deliver a report and package of spatial data layers to inform an environmental lands study. It comprises 6 comprehensive map layers that collectively cover the entire Cessnock Local Government Area (LGA) and identify lands of environmental or ecological value.
	Function: download
Download Package	Name: Download Package
	Protocol: WWW:DOWNLOAD-1.0-http--download
	Description:
	Data (Shapefile and Geodatabase)
	Function: download

Unique resource identifier

Code	b957b962-a2a2-4dc9-8460-c8e6ec0f5dbf

Presentation form	Map digital

Edition	1

Dataset language	English

Metadata standard

Name	ISO 19115
Edition	2016
Dataset URI	https://datasets.seed.nsw.gov.au/dataset/b957b962-a2a2-4dc9-8460-c8e6ec0f5dbf
Purpose	Biodiversity assessment, mapping refinement and legislative planning.
Status	Completed

Spatial representation

Type	vector

Spatial reference system

Code identifying the spatial reference system	4283

Spatial resolution	3 m

Topic category

Keyword set

keyword value	LAND-Cover
	VEGETATION

Originating controlled vocabulary

Title	ANZLIC Search Words
Reference date	2008-05-16

Geographic location

West bounding longitude	150.80129
East bounding longitude	151.62356
North bounding latitude	-33.13904
South bounding latitude	-32.65055
NSW Place Name	Cessnock LGA

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	2021-01-07
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 dataset is an accurate fine-scale (1:500 – 1:3000) baseline woody dataset for the Cessnock LGA that is current with the image dates of 2017-19 in the east and 2011 for a small area in the far west. All analyses were undertaken using the Geographic Information System "ArcMap" and Python programming language. Automated and manual procedures were used to finalise the dataset. The automated process produced an initial woody vegetation mask from remotely sensed data as a 1Bit raster with two classes, 0 for cleared and 1 for woody vegetation. A Python based algorithm was developed to create an initial and accurate vegetation mask so that ensuing manual editing was minimised. The algorithm was designed to eliminate non-vegetation responses such as shadows, false vegetation responses, roof buildings, water bodies, roads, and high reflectance objects. The initial vegetation mask for each tile was manually refined using ESRI's ArcScan extension. The extension was designed to vectorise hardcopy maps and has very efficient raster editing tools. Editing in ArcScan is a two-step process, first is to manually refine raster edges/boundaries and the last step is vectorisation with comprehensive parameters to control the degree of line smoothing. Editing for most of the LGA was conducted with high accuracy due to delineation against high resolution Nearmap imagery with 6 cm pixel resolution. A very small area in the western section used 50cm ADS40 imagery where Nearmap imagery was unavailable. As a result of the higher resolution imagery, minimum woody tree/shrub size was 3 metre diameter crown or greater than 12 metres squared (0.00012 hectares). Final data production was the conversion the refined raster data to vector polygon using ArcScan's vectorising and line smoothing functionality. From here on the layer will require maintenance and updating as landuse and landcover changes over time. However, the layer's accuracy means that maintenance and update requirements are minimal in terms of mapping expertise and resources. Either field verified data or newer high-resolution imagery can be used to perform maintenance and updating of the layer.

Limitations on public access

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

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Metadata date	2024-08-27T22:06:17.951298

Metadata language