Title	NSW Urban Vegetation Cover to Modified Mesh Block 2016
Alternative title(s)	Urban Vegetation Cover to the ABS Modified Mesh Block, 2016, Sydney Greater Metropolitan Area
Abstract	The NSW Urban Vegetation Cover to Modified Mesh Block 2016 provides both an area and percentage of vegetation for city blocks and infrastructure corridors in the Sydney Greater Metropolitan Area as of 2016. With this dataset, users can estimate tree canopy and vegetation cover in urban areas at many scales, such as mesh block, precinct, or local government area. Having current and accurate estimates of tree canopy and vegetation like this supports citizens and governments to reliably identify areas of tree canopy and confidently develop urban greening and heat island mitigation strategies and action. This dataset provides the user with information of high spatial accuracy. The dataset uses vegetation information derived from high resolution aerial photography combined with boundary and land use information from the Australian Bureau of Statistics (ABS) Mesh Block polygon dataset augmented with road and railroad data from the NSW Digital Cadastral Database. The content was co-designed with state and local governments and developed using scientifically-rigorous methodologies. The extent of the dataset covers urban, major urban, peri-urban and other urban areas within the Sydney Greater Metropolitan. While the dataset provides wall to wall coverage of many councils, it does not include far outlying rural areas in local government areas with a largely rural component.

Resource locator

Data Quality Statement	Name: Data Quality Statement Protocol: WWW:DOWNLOAD-1.0-http--download Description: Data quality statement for NSW Urban Vegetation Cover to Modified Mesh Block 2016 Function: download
User guide for OEH urban heat and green cover datasets	Name: User guide for OEH urban heat and green cover datasets Protocol: WWW:DOWNLOAD-1.0-http--download Description: Guidance and data description for use by NSW Local Government Areas for local environmental planning. This document contains detailed guiding information on the use conditions and descriptions for the NSW Office of Environment and Heritage (OEH) urban heat and vegetation cover datasets, especially for use in support of multi-scale analysis (i.e., local government areas and regional). Function: download
Download Package	Name: Download Package Protocol: WWW:DOWNLOAD-1.0-http--download Description: Data (Shapefile & Geodatabase) Function: download
ArcGIS Layer files for mapping tree canopy and vegetation	Name: ArcGIS Layer files for mapping tree canopy and vegetation Protocol: WWW:DOWNLOAD-1.0-http--download Description: Layer files for symbology when using ArcGIS/ArcMap v. 10.x for displaying the dataset. Layer files include All Vegetation, Shrubs & Trees only and Tree Canopy. Each layer file displays the percentage of each vegetation canopy group into five classes (less than 10%, 10% to 20%, 20% to 30%, 30% to 40% and greater than 40%) for the named vegetation attribute/field. Each class is a shade of green. Function: download
ArcGIS REST	Name: ArcGIS REST Service - NSW Urban Veg Cover

Service - NSW Urban Veg Cover	Protocol: WWW:DOWNLOAD-1.0-http--download
	Description:
	An ArcGIS Server web service represents a GIS resource—such as a map, locator, or image—that is located on an ArcGIS Server site and is made available to client applications. Depending on the layers enabled, this web service allows a user to query its features and/or visualise the dataset. This service is aimed at advanced geographical information users, and will require access to geographical information system (GIS) software such as ArcGIS/ArcMap.
	Function: download
WMS - NSW Urban Veg Cover	Name: WMS - NSW Urban Veg Cover
	Protocol: WWW:DOWNLOAD-1.0-http--download
	Description:
	Web Map Service (WMS) is a standard protocol for serving georeferenced map images over the internet that are generated by a map server using data from a GIS Database (NSW Government - Spatial Web Services Register June 2015). WMS allows a user to spatially visualise the dataset, but not query its features. This service is aimed at advanced geographical information users, and will require access to geographical information system (GIS) software such as QGIS and ArcGIS/ArcMap
	Function: download
Greater Sydney Canopy and Thermal Assessment 2014 and 2016	Name: Greater Sydney Canopy and Thermal Assessment 2014 and 2016
	Protocol: WWW:DOWNLOAD-1.0-http--download
	Description:
	This report describes the production of the information derived from digital aerial photography, satellite thermal and other data for environmental and other assessments for the Greater Sydney area, New South Wales, Australia. This includes the generation of baseline information on elevations, ground reflectance, presence of vegetation and its height, and accompanying meta-data. Historic data acquired in 2016 was used representing a relatively recent capture with large geographic coverage, and data acquired from 2014 used as a caparitor year over regions of interest. The information was generated using Urban Monitor® technology developed by the CSIRO. The spatial information produced supports further analysis by State, Local, Commonwealth and other agencies and research organisations involved in greenspace and other assessments. The digital data has been provided to enable it to be combined with other datasets.
	Function: download

Unique resource identifier

Code	46074093-2f84-460b-b87b-7bffc2d98a90

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/46074093-2f84-460b-b87b-7bffc2d98a90

Purpose	urban and environmental planning, vegetation/tree cover analysis

Status	Completed

Spatial representation

Type	vector

Spatial reference system

Code identifying the spatial reference system	4283

Spatial resolution	30 cm

Additional information source	Data geographic extent covers the ABS Significant Urban Area (SUA) of the Sydney Greater Metropolitan Area. The extent of the SUA means complete and consistent coverage for the major urban, urban, peri-urban and other urban areas of the Sydney GMA. This means that there is limited coverage for rural areas, primarily in many of the outlying and heavily rural Local Government Areas within the Greater Metropolitan Area.

Topic category

Keyword set

keyword value	VEGETATION
	HUMAN-ENVIRONMENT-Urban-Design
	HUMAN-ENVIRONMENT-Livability
	HUMAN-ENVIRONMENT-Planning
	LAND-Cadastre
	LAND-Cover
	LAND-Use

Originating controlled vocabulary

Title	ANZLIC Search Words
Reference date	2008-05-16

Geographic location

West bounding longitude	150.161133
East bounding longitude	151.875
North bounding latitude	-34.732584
South bounding latitude	-32.934929
NSW Place Name	Sydney Greater Metropolitan Area, Significant Urban Area

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	2016-01-01
End position	N/A

Dataset reference date

Resource maintenance

Maintenance and update frequency	Not planned

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 NSW Urban Vegetation Cover to Modified Mesh Block 2016 is a vector polygon dataset at sub-meter accuracy, developed through a contract with the Royal Melbourne Institute of Technology (RMIT). The dataset is derived from the overlay of the NSW Urban Vegetation Cover 2016 raster imagery dataset with the Australian Bureau of Statistics (ABS) Mesh Block, modified with the road and railroad datasets of the NSW Digital Cadastral Database. The vegetation cover raster imagery dataset was produced as a digital surface model through a reclassification of high resolution (30 cm) digital aerial photography analysed using Commonwealth Science and Industry Research Organisation's (CSIRO) Urban Monitor methodology. The analysis was conducted by CSIRO in 2018. Attention was provided to ensure minimal cloud coverage on the aerial photographs, and as a result, the flight date extends many months across 2016 to capture acceptable imagery for the full project study area extent. Quality control of the data was conducted continuously throughout the development of the data and included inspection of results and integrity testing. The Urban Vegetation Cover 2016 was overlayed with the ABS Mesh Block and the road and railroad dataset of the NSW Digital Cadastral Database (extraction dated 1/11/2016). The vegetation raster cover classification distinguishes six classes by analysing the spectral signature and elevation differences from the height of the feature to ground level - grass (less than 0.5 metres), shrub (0.5 to 3 metres), trees (3 to 10 metres, 10 to 15 meters and greater than 15 metres) and non-vegetation. Integration of the raster data with mesh block polygons was performed with the assistance of Western Australia University. This process analysed the vegetation composition within each area and derived a quantum of each vegetation class in square metres and a percent of each class by polygon. The final product was delivered to OEH to the data specifications.

Limitations on public access

Scope	dataset

DQ Completeness Commission

Effective date	2019-01-15
Explanation	The dataset has complete coverage for the designated Significant Urban Area of Sydney Greater Metropolitan Area and the major urban, urban, peri-urban and other urban areas of the included Local Government Areas. The Significant Urban Area sections that lie within the Lower Hunter, Central Coast, Greater Sydney and Illawarra Regions of Eastern/Coastal New South Wales, Australia are also included.

DQ Completeness Omission

Effective date	2019-01-15
Explanation	The dataset has complete coverage for the designated Significant Urban Area of Sydney Greater Metropolitan Area and the major urban, urban, peri-urban and other urban areas of the included Local Government Areas. As such it does not provide complete coverage to LGAs which have rural areas and may not include large areas devoted to national parks. This is due to the limits of the extent and completeness omissions of the Urban Vegetation Cover 2016 raster dataset. Therefore, the dataset cannot provide complete land cover/vegetation cover analysis for all areas within every LGAs in the study area.

DQ Conceptual Consistency

Effective date	2019-01-15
Explanation	Local Government Area users of the data will need to double check that their known boundaries are correctly identified. In the dataset, the LGA name that is given to a Modified Mesh Block may be inaccurate, due to the modified Mesh Blocks boundaries not nesting within the LGA boundaries completely. The LGA boundaries were overlaid with the Modified Mesh Blocks polygons and the LGA names were assigned to the Mesh Block with the greatest area within it. Note 2017 LGA boundaries were used. The knock on effect is that the Mesh Block may not correspond to the correct District. This issue most likely occurs with more rural Mesh Blocks at the boundaries, such as near Campbelltown, Wollondilly or Sutherland. It may also occur where roads form a boundary between LGAs. As adequate data validation was performed, this issue is likely minor and not affecting every LGA.

DQ Topological Consistency

Effective date	2019-01-15
Explanation	The dataset is deemed correct and consistent to the parameters of the Urban Monitor methodology, and the consistency of the NSW Digital Cadastral Database

DQ Absolute External Positional Accuracy

Effective date	2019-01-15
Explanation	98% of the features are expected to be within 2% of their true size and shape.

DQ Non Quantitative Attribute Correctness

Effective date	2019-01-15
Explanation	Non-quantitative attributes are deemed to be accurate as of the date of the review (15/01/2019) and by explanations provided in the source datasets.

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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Responsible party role	pointOfContact

Metadata date	2024-02-26T13:22:50.880245

Metadata language