Title Greater Hunter Native Vegetation Mapping v4.0. VIS ID 3855

Alternative title(s)

HunterGreater\_v4\_E\_3855

**Abstract** 

This dataset was superseded by the State Vegetation Type Map (<a href="https://datasets.seed.nsw.gov.au/dataset/nsw-state-vegetation-type-map">https://datasets.seed.nsw.gov.au/dataset/nsw-state-vegetation-type-map</a>) on 24.06.2022.

The GHM geodatabase builds on a wealth of information and previous mapping from the Hunter region. Existing field data, mapping, classification and remote sensing interpretation were augmented with new survey data to produce the vegetation community classification used in this project. The classification used a series of well documented analyses as well as expert review to achieve its end-point. The GHM geodatabase contains two principal vegetation layers. The GHM Vegetation Type layer and the Canopy Cover (v2) layer (individual tree crowns or clumps of tree crowns). The GHM also contains field plot localities, associated species information and plot-specific photographs. Data specific to each polygon (e.g. crown cover) and to each native vegetation community type (e.g. common name, scientific name) are included. Polygons, the fundamental spatial units, are built from computer-based feature recognition which delineates landscapes patterns. The GHM Vegetation Type map is built by attributing individual polygons with vegetation type from the GHM floristic classification through a multi-stage process. The process includes visual interpretation of SPOT 5 and ADS40 imagery as well as species distribution modelling and expert review. The project included a review of existing mapping and classification and established equivalences between these and the GHM Classification. VIS ID 3855

### Resource locator

<u>Data Quality</u> Statement Name: Data Quality Statement

Protocol: WWW:DOWNLOAD-1.0-http--download

Description:

DQS - Greater Hunter Native Vegetation Mapping v4.0. VIS ID 3855

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Greater Hunter Native Name: Greater Hunter Native Vegetation Mapping v4.0. VIS ID 3855 Geodatabase

Name: Greater Hunter Native Vegetation Mapping v4.0. VIS ID 3855 Documentation

<u>Vegetation</u>
<u>Mapping v4.0.</u>
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WMS Name: WMS

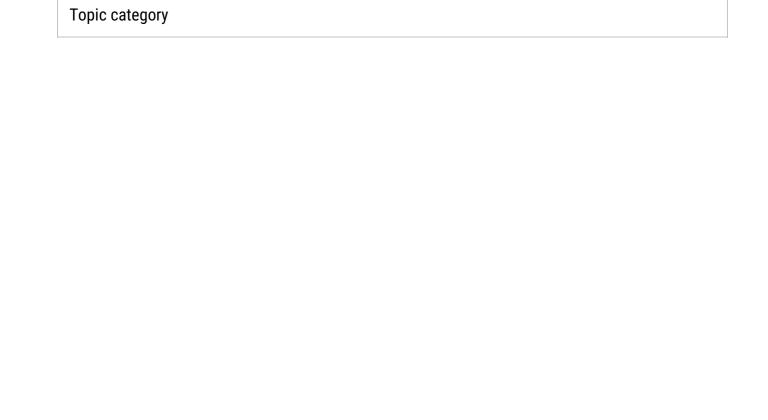
Protocol: WWW:DOWNLOAD-1.0-http--download

Description:

Web Map Service

**REST Service** Name: REST Service Protocol: WWW:DOWNLOAD-1.0-http--download Description: **ESRI REST Services directory** Function: download Unique resource identifier Code fe4f109f-7b7b-4932-974f-4df1f9112333 Presentation mapDigital form Edition Not known Dataset eng language Metadata standard ANZLIC Metadata Profile: An Australian/New Zealand Profile of AS/NZS ISO Name 19115:2005, Geographic information - Metadata Version **Dataset URI** https://datasets.seed.nsw.gov.au/dataset/fe4f109f-7b7b-4932-974f-4df1f9112333 To classify and map native vegetation communities across the greater Hunter region, **Purpose** including Hawkesbury Nepean CMA. The classification is intended to be integrated into the NSW Plant Community Type Classification for use in NSW assessment and regulatory tools. Version 4 of the map and classification should be regarded as draft, and may undergo minor changes as it is integrated into the NSW PCT and subsequent tools. underDevelopment Status Spatial representation Type vector Spatial reference system Authority code GDA94 / MGAZone 56 Code identifying the spatial 28356 reference system Equivalent 1:None scale Greater Hunter Native Vegetation Mapping v4.0 is a draft dataset undergoing review. Additional The vegetation types represented will not be altered but their distribution may be information subject to change. This project was funded by Catchment Action NSW, with additional source funding and material contributions from the Office of Environment and Heritage, Hunter Councils Inc, and Hunter Central Rivers Catchment Management Authority. For more information see: Sivertsen, D., Roff, A., Somerville, M., Thonell, J., and Denholm, B. 2011. Hunter Native Vegetation Mapping. Geodatabase Guide (Version 4.0), Office of Environment and Heritage, Department of Premier and Cabinet, Sydney, Australia.

Function: download



Keyword set	
keyword value	VEGETATION
Originating controlled vocabulary	
Title	ANZLIC Search Words
Reference date	2008-05-16
Geographic location	
West bounding longitude	149.501157
East bounding longitude	152.805743
North bounding latitude	-33.593445
South bounding latitude	-30.998426
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	2005-01-01
End position	N/A
Dataset reference date	
Date type	publication
Effective date	2012-06-30
Date type	revision
Effective date	2012-11-30
Resource maintenance	
Maintenance and update frequency	None
Contact info	
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Responsible party role	pointOfContact

### Lineage

Vegetation patterns at the stand scale were delineated using automated feature recognition software. Definiens eCognition was used to define segments with low internal variation (low heterogeneity). Pan-sharpened SPOT5 data (5m) from multiple years formed the basis of the segmentation. The data had been pre-processed to accentuate the range of spectral responses or colours. The spatial resolution is 5m and the minimum mappable unit was set to 400m2. The polygon boundaries have been smoothed and narrow slivers were eliminated. There were two stages in the feature recognition approach. The first stage was optimised to differentiate woody and non-woody vegetation. The second stage was optimised to differentiate vegetation patterns within the extent of woody vegetation. The first stage employed multi-temporal pan-sharpened SPOT - 5 data (5m). Only the red band (610-680nm) from each SPOT image was used to maximise the characteristic stability of woody vegetation over time. Each object was then classified as woody, non-woody and 'other' using the Crown Cover v2 layer and visual interpretation. For stage two the boundaries within the woody vegetation were dissolved and new objects were created within their boundaries using stretched, multi-temporal imagery. The contrast of all bands was increased using an adaptive equalisation stretch to maximise the separability of discrete vegetation patches within mosaics. The vegetation map was created by attributing vegetation polygons with a vegetation type. There are multiple stages involved but the fundamental steps are as follows: Survey sites that meet quality criteria are assigned a GHM type label using PATN analysis. Vegetation map units were defined using a hierarchical modelling approach that included the manual allocation of Keith Formation using visual identification, the use of a species distribution model to calculate the probability of GHM type in each polygon using environmental layers and a set of expert rules is developed to combine the formation classification and the modelled results. The results undergo visual quality assurance, again using manual image interpretation.

#### Limitations on public access

Scope dataset

## Responsible party

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Responsible party role distributor

Metadata date 2012-06-30

Metadata language eng