Title	Goonoo Reserves Vegetation 2018 VIS_ID 4835
Alternative title(s)	GoonooReserves_2018_E_4835
Abstract	Eco Logical Australia (ELA) was commissioned by the NSW Office of Environment and Heritage (OEH) through the NSW National Parks and Wildlife Service (NPWS) to undertake vegetation survey and mapping of Goonoo National Park, Goonoo State Conservation Area, Coolbaggie Nature Reserve, Mogriguy National Park and Sappa Bulga National Park (Goonoo Reserves). The project sought to review existing data and mapping and align vegetation communities with the current state-wide vegetation classification through the collection of strategic data on the floristic and structural diversity of the Goonoo Reserves. The Goonoo Reserves are located approximately between 25 km and 44 km north east of Dubbo in the NSW Central Western Slopes region. Goonoo National Park covers an area of 9,066 ha, Goonoo State Conservation Area covers an area of 54,522 ha, Coolbaggie Nature Reserve covers an area of 1,793 ha and Mogriguy National Park covers an area of 399 ha. Sappa Bulga National Park which is located approximately 11 km south west of Dubbo forms part of this study and covers an area of 121 ha. The Goonoo Reserves located within the Brigalow Belt South (BBS) Bioregion (Pilliga subregion) and the Central West Local Land Service (LLS) Area. Existing vegetation surveys and mapping were reviewed and supplemented with 18 additional full floristic vegetation plots and over 720 rapid data points (RDPs). Plant Community Type (PCT) mapping was undertaken at a scale of 1:10,000 using a range of datasets including the attribution of segment 30 linework in three dimensions (3D) using stereo ADS40 imagery. VIS_ID 4835

Resource locator

Data Quality Statement	Name: Data Quality Statement Protocol: WWW:DOWNLOAD-1.0-http--download Description: Data quality statement for Goonoo Reserves Vegetation 2018 VIS_ID 4835 Function: download
Download package	Name: Download package Protocol: WWW:DOWNLOAD-1.0-http--download Description: Data (veg map) & documentation Function: download

Unique resource identifier

Code	f29b0e74-fe0f-4567-940c-afd23f491702

Presentation form	Map digital
Edition	01/03/2018
Dataset language	English

Metadata standard

Name	ISO 19115
Edition	2016

Dataset URI	https://datasets.seed.nsw.gov.au/dataset/f29b0e74-fe0f-4567-940c-afd23f491702
Purpose	Park and fire management
Status	Completed
Spatial representation	
Type	vector
Geometric Object Type	complex
Spatial reference system	
Code identifying the spatial reference system	4283
Spatial resolution	10 m
Additional information source	Eco Logical Australia 2018. Vegetation survey and mapping - Goonoo Reserves. Prepared for National Parks and Wildlife Service, NSW Office of Environmental and Heritage
Topic category	

Keyword set

keyword value	VEGETATION-Floristic BOUNDARIES-Biophysical ECOLOGY-Habitat FLORA-Native
Originating controlled vocabulary	
Title	ANZLIC Search Words
Reference date	2008-05-16

Geographic location

West bounding longitude	148.628485
East bounding longitude	149.182416
North bounding latitude	-32.342609
South bounding latitude	-31.807327
NSW Place Name	Central West NSW

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	2018-03-01
End position	N/A

Dataset reference date

Resource maintenance

Maintenance and update frequency	Unknown
Contact info	
Contact position	Data Broker
Organisation name	NSW Department of Climate Change, Energy, the Environment and Water
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Responsible party role	pointOfContact

Lineage

Eco Logical Australia (ELA) was commissioned by NPWS to undertake vegetation survey and mapping of Goonoo National Park, Goonoo State Conservation Area, Coolbaggie Nature Reserve, Mogriguy National Park and Sappa Bulga National Park (Goonoo Reserves). This project seeks to review existing data and mapping and align vegetation communities with the current state-wide vegetation classification through the collection of strategic data on the floristic and structural diversity of the Goonoo Reserves. Existing vegetation surveys and mapping were reviewed and supplemented with 18 additional full floristic vegetation plots and over 720 rapid data points (RDPs). Plant Community Type (PCT) mapping was undertaken at a scale of 1:10,000 using a range of datasets including the attribution of segment 30 linework in three dimensions (3D) using stereo ADS40 imagery. A total of 658 species from 76 plant families have been recorded across the Goonoo Reserves, of which 11% (73) were exotic (five being noxious weeds). New records for the threatened flora species Tylophora linearis (BC Act Vulnerable and EPBC Act Endangered), Commersonia procumbens (BC Act and EPBC Act Vulnerable) and significantly Pomaderris brunnea (BC Act Endangered and EPBC Act Vulnerable) were identified in the Goonoo Reserves as part of this study A total of 17 unique PCTs totalling 65,665 ha of native vegetation were mapped across the Goonoo Reserves including two Endangered Ecological Communities (EECs) listed under the NSW Biodiversity Conservation Act 1995 (BC Act) with one of these communities also being listed under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). To facilitate a greater understanding of the vegetation types within the Goonoo Reserves to non-botanical specialists, a ‘common name’ has been developed for each PCT based on general species composition, structure and landscape position. Based on the results of this project, the following recommendations have been developed: 1. The fire management strategies for the Goonoo Reserves be reviewed and updated in accordance with the revised plant community type mapping and recommended fire intervals contained within this report. 2. Investigate the feasibility of research into the effects of low intensity burning in dense Acacia triptera (Spurwing Wattle) shrubland in areas previously subjected to high intensity fire to attempt to re-establish naturally occurring plant communities. 3. Supplementary vegetation survey is undertaken in those plant community types identified as part of this study, but not surveyed in detail (e.g. PCTs 425, 474 and 479). 4. Targeted surveys be undertaken for threatened flora species in appropriate seasons to develop accurate population estimates and management strategies. 5. Feral animals be controlled in accordance with a regional feral animal control strategy and in consultation with adjoining land owners. 6. A weed control strategy be developed to ensure noxious weed are controlled in accordance with the NSW Biosecurity Act 2015.

A range of datasets were used in this project including high resolution (50 cm) stereo Airborne Digital Sensor (ADS40) imagery, existing BBS WRA mapping (Beckers & Binns, 2000), State Forest Type Mapping (Lindsay, 1967), contour mapping, drainage mapping, full floristic vegetation plot data and rapid data point (RDP) data.

Plant Community Type mapping Vegetation mapping was undertaken using a ‘heads-up’ on screen digitising approach in ArcGIS10.2 and Summit Evolution at a scale of 1:10,000. Spatial data were loaded into the GIS and RDPs were combined with full floristic vegetation plots to form a combined dataset which was overlain on the high resolution three dimensional (3D) ADS40 (50 cm) imagery. RPDs and vegetation plots were used as an initial guide to identifying PCTs. API was then used to attribute the Segment 30 linework with the most appropriate PCT based on distinct patterns in the landscape representing vegetation communities. Where necessary, vegetation community boundaries (polygons) were modified on-screen at between a 1:5,000 and 1:10,000 scale with the final mapped product being accurate at a 1:10,000 scale. Supplementary datasets such as drainage and soil type were used to help inform the API and to delineate boundaries between vegetation communities. The BBS WRA mapping (Beckers & Binns, 2000) was used to guide and/or to validate the allocation and extent of each PCT mapped. Attributing and mapping PCTs in 3D provides a level of accuracy unable to be achieved in two dimensions, and highlights limitations of the Segment 30 linework. Individual tree species, midstorey dominants such as White and Black Cypress Pine, Spurwing Wattle and various heathy formations are readily identifiable in 3D, with landscape position, elevation and topographical features greatly assisting in the accurate identification of PCTs. PCTs were attributed in accordance with VIS Classification database (OEH, 2015) which follows the NSW Vegetation Classification Assessment (Benson, Richards, Waller, & Allen, 2010). PCTs were assigned based on a quantitative comparison of vegetation plot and RDP data with the vegetation descriptions, characteristic species in the upper, mid and ground structural layers, vegetation structure, soils, landform and other relevant data contained within the VIS Classification database (OEH, 2015). Each polygon was assigned the following attributes: • PCT ID – PCT identification code • BVTID – Biometric Vegetation Type code • NAME – PCT community name • COMMNAME – Common name derived from the PCT for this study • STATUS – Listing status (e.g. NSW Biodiversity Conservation Act 1995, BC Act Endangered) • FORMATION – Vegetation formation • CLASS – Vegetation class • FIREINTERV – Recommended fire intervals in years • HECTARES – Area of polygon in hectares • NAME_SHORT – Reserve name • TYPE – Reserve Type Due to extensive ground-truthing, the PCT mapping is considered to be reliable at a 1:10,000 scale. The majority of major and minor trails across the Goonoo Reserves were accessed during the course of this project, however there are still some large (>1000 ha), continuous areas in the reserves which were not visited during the course of this project. Due to the extensive coverage of RDPs across all landscape positions, confidence in these areas is still high.

Limitations on public access	
Scope	dataset
DQ Topological Consistency	
Explanation	geometrically & topologically correct

Responsible party

Contact position	Data Broker
Organisation name	NSW Department of Climate Change, Energy, the Environment and Water
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Responsible party role	pointOfContact

Metadata point of contact

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Metadata date

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Metadata language