Metadata Statement

Department of Primary Industries and Regional Development

Title: Current Extent of Native vegetation - Western Australia
Custodian: Department of Primary Industries and Regional Development
Jurisdiction: Western Australia

Abstract: A dataset containing vegetation extent polygons from the mapping of remnant vegetation in Western Australia. This was originally compiled as part of the vegetation theme of the National Land and Water Resource Audit (NLWRA). The dataset has been progressively updated by the Department of Agriculture and Food post-NLWRA with assistance of the Department of Environment and Conservation. This has been carried out using digital aerial photography (orthophotos) acquired 1996 to 2020.

Search Words(s): Vegetation extent, National Land and Water Resource Audit (NLWRA), Western Australia

Geographic Extent: Western Australia

Beginning Date: January 2001
Ending Date: February 2020

Progress: In progress
Update Frequency: Annually (The Perth Metropolitan, Cape to cape and Geraldton region will be updated as soon as the most current orthophotography WANow/Vivid becomes available from Landgate).

Stored Data Formats: Oracle Spatial
Available Data Formats: Geomedia Access Warehouse and Arc View Shape files
Access Constraint: Subject to DPIRD digital data license agreement

Lineage: Data for the intensive land-use zone (ILZ) in south-western Australia was originally derived from 1995 LandSat TM satellite imagery. This has been corrected using digital aerial photography (orthophotos) acquired since 1996. The scale of mapping in the ILZ has recently been improved to 1:20,000 or greater. Areas derived from 1995 LandSat TM imagery at a scale 1:100,000 have been removed as of April 2012.
Dataset updates within the ILZ:

- The removal of spatial inaccuracies is continual.
- To be mapped, vegetation coverage must be greater than 20%, (ie. less than 80% cleared).
- Scale of capture is 1:20,000 or greater. The Perth Metropolitan coastal plain as far north as Geraldton and as far south as Cape Leeuwin has been captured at a scale of 1:10,000 or greater.
- Minimum polygon size is determined by scale of capture. Single trees are omitted and small groups of trees in a paddock are being progressively removed.
- Areas of planted vegetation previously mapped in error as remnant are removed with each update by using more recent and accurate photography and improved visual interpretation techniques.
- Cleared areas are removed from interpretation of recent orthophotography.
- Water bodies are removed.
- Salt scald areas with less than 20% native vegetation coverage are removed.
- Clear felled areas in forests are removed if less than 20% coverage is visible on orthophotography. This area can be replaced if more recent photography doesn’t show this.
- Sand dunes and rock outcrops are included as areas of native vegetation.
- Areas updated are checked for topological errors.
- Roadways, waterways and linear features are used to split larger features.
- ALCOA Jarrah, Huntly and Willowdale rehabilitation datasets were used (pre-1988) to remove areas replanted with non-native species.
- Plantations have been removed using available 2013 datasets.
- ALCOA Jarrah, Huntly and Willowdale rehabilitation datasets were used to insert historical areas of cleared forest. These areas are mapped as native vegetation in this dataset with the comment “REGROWTH ABOVE 20% COVER”.
- SLIP WMTS historical Metro ortho-photography was used to identify cleared areas. These areas are mapped as native vegetation in this dataset with the comment “REGROWTH ABOVE 20% COVER”. For a list of images used refer to Data Dictionary.
- A combination of Landgates WANow and Vivid imagery is used to update polygons as of 2020.

Initially, the extensive land-use zone (ELZ) was regarded as ‘remnant’. In 2007, areas greater than one hectare cleared for agriculture, mining and towns in the ELZ were removed from the dataset. Capture was carried out using pre-2007 orthophotography. Where this was not available, the Australian Greenhouse Office (AGO) 2002 Landsat Image was used. In 2011 more intensive mapping of cleared areas in the ELZ was carried out within 100 kilometres of some town sites at a scale of 1:20,000 or greater. Towns selected were Onslow, Karratha, Port Hedland, Tom Price, Newman, Broome, Derby, Kununurra, Fitzroy Crossing, Halls Creek, and also for the major irrigated regions at Kununurra and Carnarvon.
For a list of images used refer to Data Dictionary.

Edge matching for the dataset was conducted for the NLWRA to a tolerance of six metres. Plantation for harvesting were removed from the vegetation extent by DEC at the conclusion of the original dataset production. The resultant dataset has been progressively updated by the Department of Agriculture post-NLWRA with assistance of the Department of Environment and Conservation.

An attribute ‘ORTHOPHOTO’ has been added for orthophotography records within the ILZ. For orthophoto date index see Data Dictionary.

**Positional Accuracy:**  + or – 20m or greater (up to +/- 5000m) and  
+ or – 100m see accuracy map in Data Dictionary

**Attribute Accuracy:** Vegetation type is not attributed to this dataset. Attribution is limited to information relating to the capture of the dataset, see Data Dictionary for a list of attributes.

**Logical Consistency:** Data has been checked and corrected for topological errors using GeoMedia Professional and ArcEditor software.

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