METADATA STATEMENT: UPPER BILLABONG CREEK CATCHMENT

Category	Element	Description
Data set	Title	Land Use: Upper Billabong Creek Catchment
Custodian	Custodian	General Group Manager, Natural Resource Products Division, NSW Department of Land & Water Conservation (DLWC), 23-33 Bridge Street SYDNEY NSW AUSTRALIA 2000
	Jurisdiction	New South Wales, Australia
Description	Abstract	A data set of land use as at November 1999 for the Upper Billabong Creek Catchment, in southern New South Wales. The land use classification is based upon the modified Baxter & Russell classification and presented according to the specifications contained in www.LUCs.gov.au/land&water/landuse. This classification is referred to as the Australian Land Use and Management (ALUM) Classification. Version 4 of the classification is used to describe the land use classes. The mapping was undertaken in January and February 2001. The date of the data set is set as the land use occurring at the time the satellite imagery was acquired in November 1998.
	Search Word	Land use, land use mapping
	Geographical Extent Name	Catchment of the upper sections of the Billabong Creek in southern New South Wales.
	GEN Category	Covers the following 1:100 000 map sheets: Rosewood, Holbrook, Walbundrie; the NSW section of Corryong, Tallangatta and Albury 1:100 000 map sheets and those sections of the Tarcutta and Wagga Wagga 1:100 000 map sheets that drain into the Billabong Catchment. Includes parts or all of the following Local Government areas: Urana, Lockhart, Culcairn, Corowa, Hume, Wagga Wagga, Holbrook, Tumut, Tumbarumba and the City of Albury.
	GEN Custodial Jurisdiction	Billabong Creek, New South Wales
	GEN Name	Land Use Map, Upper Billabong Creek Catchment.
	Geographical Extent Polygon	
	Geographic Bounding Box	
	North Bounding Latitude	-34.998 or 34º59'53"S
	South Bounding Latitude	-36.498 or 36º29'55"S
	East Bounding Longitude	148ºE (or 148.00)
	West Bounding Longitude	146.501 or 146º30'E

Data Currency	Beginning Date	28 November 1999
	Ending Date	28 November 1999
Dataset Status	Progress	Completed
	Maintenance & Update Frequency	On going as required. There are no proposals to update the land use data at this stage.
Access	Stored Data Format	Genamap binary format, ArcInfo coverage
	Available Format Type	Genamap export; ARCInfo coverage
	Access Constraint	Unrestricted
Data Quality	Lineage	The data set is a newly prepared series of land use maps prepared by DLWC for the Upper Billabong Creek Catchment in NSW. Line work is drawn on 1:50 000 plots of satellite imagery. Information plotted onto the satellite imagery prior to mapping comprised: ▪ the cadastral layer from the NSW Digital Cadastre Database ▪ boundaries of State Forests, National Parks and Nature Reserves from the NSW Digital Cadastre Database ▪ Property Agreements and Management Contracts funded under the NSW State Government's Native Vegetation Management Fund ▪ clearing consents issued by the NSW Department of Land and Water Conservation for hardwood and/or softwood plantation establishment. The ALUM classification defines three levels of land use description – primary, secondary and tertiary. For the Upper Billabong Creek project, a majority of the land use descriptions is down to the tertiary level. Mapping is undertaken directly onto the satellite imagery using the satellite imagery, aerial photography and local knowledge as the main data sources. Details of the aerial photography are: ▪ Rosewood 1:100 000 map sheet: date of photography-January 1998; scale: 1:25 000 ▪ Corryong 1:100 000 map sheet: date of photography-February 1998; scale: 1:25 000 ▪ Holbrook and Tallangatta 1:100 000 map sheets: date of photography-January 1998; scale: 1:25 000 ▪ Walbundrie and Albury 1:100 000 map sheets: date of photography-January-February 1996: scale: 1:50 000 ▪ Tarcutta and Wagga Wagga 1:100 000 map sheets: date of photography February 1998; scale 1:25 000 The patterns and spectral signatures in the Landsat 7 imagery, which comprise band combinations of 453 RGB

		multispectral merged with 12.5 metre pixel panchromatic indicate very specific recognition of individual agricultural activities. Twelve landholders within the main cropping belt were visited and questioned as to the land use activities and crop types occurring in particular paddocks in November 1999. All cropping activities (down to crop type) are reliably identified. The DLWC spatial database for Property Agreements and Management Contracts was used to identify the class 'other conserved areas' which are primarily private conservation agreements (Class 1.1.7). The same database for Clearing Consents was used to identify areas recently cleared and planted to softwood and hardwood in a well-defined plantation. The spectral signatures in the satellite imagery for these areas is the same as cultivated areas (if completely bare) or native grassland. Local knowledge was used for specific features such as those areas with irrigation licences and the commodities they produce. DLWC records on irrigation licences were used to help confirm the existence of irrigated crops. Field verification was undertaken in two phases. The first phase was before the satellite and aerial photograph interpretation occurred, to establish if the imagery patterns were consistent. This involved discussion with a number of landholders on all three sheets (qv) and looking particularly for stubble residues within paddocks. The existence of stubble residues was used to confirm the presence of a crop within the year the satellite imagery was taken. The second phase of the field verification was carried out after the satellite imagery and aerial photograph interpretation was completed. This was used to confirm specific land uses such as rural residential lands, swamps, effluent disposal, and recently established softwood plantations. In addition a number of landholders were interviewed to provide further checks on the land use classification. Polygon data were digitised in Genamap and migrated to ArcInfo for full attribution.
	Positional Accuracy	50 metres for the original DLWC mapping.
	Attribute Accuracy	An independent officer of DLWC from the North Coast Region validated the original mapping and classification of polygons. The officer has more than 20 years experience in land use classification techniques. Data were verified by checks of the satellite imagery and aerial photographs. The verification was done between 4-6 June 2001. The overall accuracy of the mapping is 99.5%. Once the data had been converted into digital format,

		additional checks were undertaken to validate the data.
	Logical Consistency	All lines and polygons are tagged. Topological consistency is performed as part of the quality assurance procedures using Genamap. Data are then cleaned and built in ArcInfo.
	Completeness	The majority of land uses are described to the tertiary level with some description at secondary level for approximately 25 percent of the total survey area
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	Contact Position	Data Coordinator
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Metadata Date	Metadata Date	10th September 2001
Additional Metadata	Additional Metadata	Attached
Attached is a current list of land use classes in the data set.		
	Land Use Code	Land Use Class (Version 4, Australian Land Use and Management Classification)
	1.1.7	Nature conservation – other conserved area
	1.3.3	Other minimal use – remnant native cover
	1.3.4	Other minimal use – rehabilitation
	2.2.0	Production forestry
	3.1.1	Plantation forestry – hardwood plantation
	3.1.2	Plantation forestry – softwood plantation
	3.1.3	Plantation forestry – plantation forest nurseries
	3.2.1	Farm forestry – woodlots
	3.2.2	Farm forestry – windbreaks
	3.3.1	Grazing modified pastures – native/exotic pasture mosaic
	3.4.0	Cropping
	3.5.0	Perennial horticulture
	3.5.1	Perennial horticulture – tree fruits
	3.5.4	Perennial horticulture – vine fruits
	3.6.0	Seasonal horticulture
	4.1.2	Irrigated plantation forestry – irrigated softwood plantation
	4.3.0	Irrigated modified pastures
	4.4.0	Irrigated cropping
	4.5.1	Irrigated perennial horticulture – irrigated tree fruits

	4.5.4	Irrigated perennial horticulture – irrigated vine fruits
	5.2.0	Intensive animal production
	5.4.1	Residential – urban residential
	5.4.2	Residential – rural residential
	5.5.0	Services
	5.5.3	Services – recreation & culture
	5.5.4	Services – defence facilities
	5.7.1	Transport & communication – airports/aerodromes
	5.7.2	Transport & communication – roads
	5.7.3	Transport & communication – railways
	5.8.2	Mining – quarries
	5.9.2	Waste treatment & disposal – land fill
	5.9.5	Waste treatment & disposal – sewage
	6.2.0	Reservoir
	6.2.1	Reservoir – water storage & treatment
	6.3.0	River
	6.5.1	Marsh/wetland – conservation
	6.5.3	Marsh/wetland – intensive use