Title	Streambanks 3rd Order Strahler and Above - Cessnock LGA
Abstract	The Department of Planning provides support to Local Government to enable evidence-based planning decisions. Biodiversity and Conservation Division collaborated with Cessnock City Council in 2021-2022 to deliver environmental map layers (Environmental Lands Study) that facilitate council's review of their Local Environment Plan. This dataset is one of those and maps all streambanks of larger streams in the 196,468-hectare Cessnock Local Government Area using the Strahler system to identify stream type. All tenures were mapped excluding National Parks and Wildlife Service (NPWS) estate because they are formally reserved and protected under Local Environment Plans and were outside of the scope of the Environmental Lands Study. Data is in vector format and was produced to a scale range of 1:500 – 1:3000. The process for delineating streambanks for the Cessnock LGA began by mapping stream order, then adding LiDAR and NearMap imagery as a basemap. The technique of hillshading was then used to show the streambank top edge and topographic features of streambanks. All streams higher than 2nd order were buffered by 100m to create the area of interest (AoI) for mapping streambanks. High resolution Light (or Laser) Detection and Ranging (LiDAR) was converted to a hillshade to facilitate the delineation of 3rd order and above streambanks. Streambanks were mapped at a scale of 1:3,000 as lines using a pen graphic tablet and the dataset saved to a file geodatabase.

Resource locator

Data Quality Statement	Name: Data Quality Statement Protocol: WWW:DOWNLOAD-1.0-http--download Description: Data quality statement for Streambank Mapping - 3rd Order Strahler and above - Cessnock LGA Function: download
Cessnock Environmental Lands Study	Name: Cessnock Environmental Lands Study Protocol: WWW:DOWNLOAD-1.0-http--download Description: The Department of Climate Change, Energy, the Environment and Water's Biodiversity, Conservation and Science – Regional Delivery collaborated with Cessnock City Council in 2021 to 2022 to deliver a report and package of spatial data layers to inform an environmental lands study. It comprises 6 comprehensive map layers that collectively cover the entire Cessnock Local Government Area (LGA) and identify lands of environmental or ecological value. Function: download
Download Package	Name: Download Package Protocol: WWW:DOWNLOAD-1.0-http--download Description: Data (Shapefile and Geodatabase) Function: download

Unique resource identifier

Code	20a54e2e-ea41-4cd2-9143-7d328539d5e3
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/20a54e2e-ea41-4cd2-9143-7d328539d5e3
Purpose	Biodiversity assessment and legislative planning.
Status	Completed
Spatial representation	
Type	vector
Spatial reference system	
Code identifying the spatial reference system	4283
Spatial resolution	2 m
Topic category	

Keyword set

keyword value	WATER-Hydrology
Originating controlled vocabulary	
Title	ANZLIC Search Words
Reference date	2008-05-16

Geographic location

West bounding longitude	150.80129
East bounding longitude	151.62356
North bounding latitude	-33.13904
South bounding latitude	-32.65055
NSW Place Name	Cessnock LGA

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	2022-01-04
End position	N/A

Dataset reference date

Resource maintenance

Maintenance and update frequency	As needed
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

The object of this part of the Cessnock environmental lands study was to identify streambank edges accurately so that native vegetation within 40 m of a streambank edge could be mapped. Cessnock City Council will require this data for their LEP zoning framework specifically where the watercourse plus 40 m from the top of bank for third order streams or larger, comprises riparian and estuarine vegetation on waterfront land, consistent with the NSW Water Management Act 2000 or equivalent future legislation. To account for this legislative requirement, a buffer of 40 m was applied to mapped streambanks to ensure that any development or other activities consider the recommended riparian corridor widths as specified under the Act to establish and preserve the integrity of riparian corridors. The first step in mapping streambanks is to map stream order, which is undertaken using the Strahler system. The Strahler system (Strahler 1952, 1957) is based on the confluence of streams of the same order. A first order stream has no other streams flowing into it. When 2 streams with the same order join, the resulting stream has the next highest order than the joining streams. For example, when 2 second order streams join, the resulting stream is third order (DPI 2018). When 2 streams with different orders join, the resulting stream has the same order as the highest order of the 2 joining streams. For example, when a first and second order stream join, the downstream stream is second order.

Limitations on public access

Responsible party

Contact position	Data Broker
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Telephone number	131555
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Responsible party role	pointOfContact

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Responsible party role	pointOfContact

Metadata date

2024-08-27T22:09:37.475606

Metadata language