Title	Assessment of Near Future Change in Hydrology of Wetlands in HGL of the ACT 2017 (2nd Ed)
Alternative title(s)	ACT_HGL_NFHMOC_2017

Abstract

This dataset supersedes all earlier versions of 'Assessment of Near Future Change in Hydrology of Wetlands in HGL of the ACT '. It incorporates HGL boundary and management area edits based on updated soil landscape mapping for the ACT.

The focus of this dataset is climate change impacts on hydrological parameters of wetlands in the Australian Capital Territory. It contains digital spatial data developed to assist in land management decision making in the ACT. The dataset contains an assessment of the change brought about by climate change on the groundwater, surface water and precipitation components of wetland water balances. Three selected regional climate projection ensembles from the NARCliM (NSW/ACT Regional Climate Modelling) project were used in the assessment – multimodel mean, CCCMA3.1-R2 and ECHAM5-R3. Only near-future (1990-2009 to 2020-2039) projections were considered. Each variable was considered using annual and seasonal time periods. Field names in the dataset follow the following format:

Field name = MODEL_HYDRO VARIABLE_TIME PERIOD_VARIABLE

MODEL
C – Consensus (NARCliM Multimodel Consensus Scenario)
W – Wetter (NARCliM CCCMA3.1-R2 Wetter Scenario)
D – Drier (NARCliM ECHAM5-R3 Drier Scenario)

HYDRO VARIABLE
P – Precipitation
S – Surface water
G – Groundwater

TIME PERIOD
A – Annual
S – Seasonality

VARIABLE
AC – Absolute change (mm)
PC – Percent change (%)
MC – Magnitude of change
C – Current seasonality
NF – Near future seasonality

Hydrogeological landscape (HGL) unit boundaries developed as part of the broader ACT Hydrogeological Landscapes (HGL) Framework project where used to constrain the outputs for this hydrological assessment in the ACT. In all, there are 25 HGL defined. A weighted mean was used to calculate values for each HGL unit based on the proportions of corresponding 10km gridded data from the NARCliM data set.

The outcomes suggest that the consensus scenario is the better outcome for wetlands, and despite an increase in annual volumes, the level of seasonal change in found in both the wetter and dryer scenarios poses a risk to wetlands. It is also important to note that the levels of annual water source increase predicted in the wetter scenario may also have negative impacts on wetlands.

Spatial resolution of this product is 1:50 000.

Resource locator

Data Quality Statement	Name: Data Quality Statement Protocol: WWW:DOWNLOAD-1.0-http--download Description: Data quality statement for Assessment of Near Future Change in Hydrology of Wetlands in HGL of the ACT 2017 (2nd Ed) Function: download
Download Package - ACT HGL Near Future	Name: Download Package - ACT HGL Near Future Hydrological Magnitude of Change in Wetlands 2017 Protocol: WWW:DOWNLOAD-1.0-http--download

Hydrological Magnitude of Change in Wetlands 2017	Description: Data package containing ArcGIS spatial data and reporting for hydrological magnitude of change for mean annual volume of precipitation, surface water and groundwater recharge in the near future time period in each HGL unit. Function: download

Unique resource identifier

Code	98ca7f8e-b7de-4fca-85d1-7b0822ac35d5

Presentation form	Map digital
Edition	Second
Dataset language	English

Metadata standard

Name	ISO 19115
Edition	2016

Dataset URI	https://datasets.seed.nsw.gov.au/dataset/98ca7f8e-b7de-4fca-85d1-7b0822ac35d5
Purpose	This data package was generated for the ACT Environment and Planning Directorate as a component of the ACT Hydrogeological Landscapes (HGL) Framework project. The focus of this project was to assess impacts of climate change on wetlands and on land degradation issues related to salinity and erosion in the ACT.
Status	Completed

Spatial representation

Type	vector
Geometric Object Type	complex

Spatial reference system

Code identifying the spatial reference system	4283

Equivalent scale	1:None
Additional information source	**Source datasets:** OEH: NSW/ACT Regional Climate Modelling (NARCliM); Hydrogeological Landscapes (HGL) of the Australian Capital Territory 2017 (ACT_HGL_2017).

Topic category

Keyword set

keyword value	CLIMATE-AND-WEATHER-Climate-change WATER-Wetlands HAZARDS LAND-Use
Originating controlled vocabulary	
Title	ANZLIC Search Words
Reference date	2008-05-16

Geographic location

West bounding longitude	148.738
East bounding longitude	149.414
North bounding latitude	-35.933
South bounding latitude	-35.111
NSW Place Name	Australian Capital Territory

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	2017-04-01
End position	N/A

Dataset reference date

Resource maintenance

Maintenance and update frequency	Irregular
Contact info	
Contact position	Data Broker
Organisation name	NSW Department of Climate Change, Energy, the Environment and Water
Telephone number	131555
Email address	data.broker@environment.nsw.gov.au
Web address	https://www.nsw.gov.au/departments-and-agencies/dcceew
Responsible party role	pointOfContact

Lineage

The hydrogeological landscape (HGL) mapping used the following base data for delineation of map units: published 1:1 million, 1:250 000 and 1:100 000 geological mapping data (polygon); published 1:100 000 soil landscape data (polygon); soil profile data from the OEH SALIS database (point); and Digital Elevation Model (DEM) for the ACT and derivative products taken from the 30 and 10 metre DEM. The published and reconnaissance level mapping were combined and rationalised to create complete hydrogeological landscape classification (map unit) coverage for the entire ACT. NARCliM associated hydrological impact assessment model 10km gridded datasets was used to assign values to each HGL Unit.

Limitations on public access

Scope: dataset

DQ Topological Consistency

Effective date: 2017-05-19

Explanation: All polygons in the coverage are topologically correct and all polygons have been attributed. Data has been visually checked at applicable scales.

DQ Absolute External Positional Accuracy

Effective date: 2017-05-19

Explanation: The accuracy of the coverage varies across the mapping area as map polygon boundaries were derived from different sources. HGL boundaries derived from published and draft 1:100 000 scale mapping are generally accurate to 100 m. HGL boundaries derived from published 1:250 000 scale mapping are approximate and generally accurate to 250 m.

DQ Non Quantitative Attribute Correctness

Effective date: 2017-05-19

Explanation: All polygons are labelled with a field name consistent with the format MODEL_HYDRO VARIABLE_TIME PERIOD VARIABLE as described above. Attributes were checked as part of routine GIS capture quality assurance procedures, including a visual check of polygon tags against field data.

Responsible party

Contact position: Data Broker

Organisation name: NSW Department of Climate Change, Energy, the Environment and Water

Telephone number: 131555

Email address: data.broker@environment.nsw.gov.au

Web address: https://www.nsw.gov.au/departments-and-agencies/dcceew

Responsible party role: pointOfContact

Metadata point of contact

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Responsible party role	pointOfContact

Metadata date

2024-02-26T15:26:55.428201

Metadata language