

Title	Soil and land constraint assessment maps: Hawkesbury Nepean Catchment
Abstract	<p>This dataset contains maps and data on soil and land constraints that may impact on a range of land uses throughout the Hawkesbury Nepean Catchment. It reveals the physical capability of the land for different land uses, together with a broad indication of potential economic costs associated with overcoming the constraints. It should assist in many planning and natural resource management processes throughout the catchment. Land uses dealt with include: development – standard residential, medium density, high density and rural residential agriculture – cropping and grazing wastewater disposal – surface irrigation, trench absorption and pump-out methods. Background information and methodology is provided in the accompanying Technical Report DECCW (2010) Soil and land constraint assessment for urban and regional planning.</p>
<b>Resource locator</b>	
<a href="#">Data Quality Statement</a>	<p>Name: Data Quality Statement</p> <p>Protocol: WWW:DOWNLOAD-1.0-http--download</p> <p>Description:</p> <p>Data quality statement for Soil and land constraint assessment maps: Hawkesbury Nepean Catchment</p> <p>Function: download</p>
<a href="#">GIS maps: soil and land constraint assessment</a>	<p>Name: GIS maps: soil and land constraint assessment</p> <p>Protocol: WWW:DOWNLOAD-1.0-http--download</p> <p>Description:</p> <p>GIS constraint maps of 9 land uses and management processes over Hawkesbury Nepean Catchment (25 m raster)</p> <p>Function: download</p>
<a href="#">PDF maps: soil and land constraint assessment</a>	<p>Name: PDF maps: soil and land constraint assessment</p> <p>Protocol: WWW:DOWNLOAD-1.0-http--download</p> <p>Description:</p> <p>PDF copies of the maps for 9 land uses and management processes over the catchment</p> <p>Function: download</p>
<a href="#">Technical Report: DECCW (2010), Soil and land constraint assessment for urban and regional planning</a>	<p>Name: Technical Report: DECCW (2010), Soil and land constraint assessment for urban and regional planning</p> <p>Protocol: WWW:DOWNLOAD-1.0-http--download</p> <p>Description:</p> <p>Technical report describing the background, methodology, use and interpretation of the constraint assessment process</p> <p>Function: download</p>
<a href="#">Notes on map interpretation and other related publications</a>	<p>Name: Notes on map interpretation and other related publications</p> <p>Protocol: WWW:DOWNLOAD-1.0-http--download</p> <p>Description:</p> <p>(i) interpretation notes; (ii) Australian Planner journal paper (2011); (iii) conference paper for domestic wastewater disposal</p> <p>Function: download</p>
<b>Unique resource identifier</b>	
Code	d9a95086-870e-41a1-8f29-a42f4ddd57e2

<b>Presentation form</b>	Map digital
<b>Edition</b>	1
<b>Dataset language</b>	English
<b>Metadata standard</b>	
<b>Name</b>	ISO 19115
<b>Edition</b>	2016
<b>Dataset URI</b>	<a href="https://datasets.seed.nsw.gov.au/dataset/d9a95086-870e-41a1-8f29-a42f4ddd57e2">https://datasets.seed.nsw.gov.au/dataset/d9a95086-870e-41a1-8f29-a42f4ddd57e2</a>
<b>Purpose</b>	Assist Local Councils and regional planning bodies in urban and regional planning in Hawkesbury-Nepean Catchment, including western Sydney
<b>Status</b>	Completed
<b>Spatial representation type</b>	grid
<b>Spatial reference system</b>	
<b>Code identifying the spatial reference system</b>	4283
<b>Spatial resolution</b>	25 m
<b>Topic category</b>	

<b>Keyword set</b>	
keyword value	SOIL LAND LAND-Use HUMAN-ENVIRONMENT-Planning
<b>Originating controlled vocabulary</b>	
Title	ANZLIC Search Words
Reference date	2008-05-16
<b>Geographic location</b>	
West bounding longitude	149.41
East bounding longitude	151.4778
North bounding latitude	-35.1645
South bounding latitude	-32.6974
NSW Place Name	Hawkesbury Nepean Catchment
<b>Vertical extent information</b>	
Minimum value	-100
Maximum value	2228
<b>Coordinate reference system</b>	
Authority code	urn:ogc:def:cs:EPSG::
Code identifying the coordinate reference system	5711
<b>Temporal extent</b>	
Begin position	2000-01-01
End position	N/A
<b>Dataset reference date</b>	
<b>Resource maintenance</b>	
Maintenance and update frequency	Not planned
<b>Contact info</b>	
Contact position	Data Broker
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Responsible party role	pointOfContact

## Lineage

Concepts and methodology of the product are presented in DECCW (2010) and Gray et al (2011). The product builds on the soil landscape data contained in Soil and Land Resources of the Hawkesbury Nepean Catchment (DECCW 2009). This contains descriptions of all soil-landscape units in the Catchment, including details on their qualities and constraints, derived from mapping programs predominantly carried out at 1:25 000 scale but published at 1:100 000 scale.

Spatial modelling of the soil-landscape units down to facet level was achieved using GIS techniques with a 25 m digital elevation model (DEM) as described in Yang et al (2008). Erosion hazard mapping using methodology described in Yang et al. (2006) was also applied.

References Department of Environment and Climate Change, 2009, Soil and Land Resources of the Hawkesbury-Nepean Catchment interactive DVD, Department of Environment and Climate Change NSW, Sydney.

<https://datasets.seed.nsw.gov.au/dataset/soil-and-land-resources-of-the-hawkesbury-nepean-catchment2bef0> DECCW 2010. Constraint Assessment for Urban and Regional Planning, DECCW Technical Report, prepared by JM Gray, GA Chapman, X Yang, M Young, NSW Department of Environment, Climate Change and Water, Sydney. Gray JM, Chapman GA, Yang X, Young M, 2011. Constraint Assessment for Urban and Regional Planning, Australian Planner, 48:1, 12-23 Yang, X, Chapman, GA, Gray, JM. and Young, MA (2007). Delineating soil-landscape facets from digital elevation models using compound topographic index and terrain analysis. Australian Journal of Soil Research, 45(8):569–576. Yang, X, Chapman, G and Heemstra, S 2006, Estimating soil erosion hazard for NSW coastal catchments using RUSLE in a GIS environment, in 10th Annual SIA Conference on Urban Stormwater Management, Parramatta, 27–30 June 2006

## Limitations on public access

Scope dataset

## DQ Topological Consistency

Effective date 2011-06-01

Explanation The polygons of the original soil landscape products had been checked with GIS methods

## DQ Absolute External Positional Accuracy

Effective date 2011-06-01

Explanation Observations and soil profiles used for original soil mapping were located using handheld GPS (accurate to 50m) or using 1:25,000 topographic maps. Soil boundaries on this 1:100,000 scale map is generally accurate to within 100m on the ground but variations will occur especially where soil boundaries are gradual. Extensive field checking of soil landscape boundaries had been undertaken prior to finalising the original mapping.

## DQ Non Quantitative Attribute Correctness

Effective date 2011-06-01

Explanation The land and soil constraints in the original soil-landscape map products were predominately assessed using field observations, remote sensing interpretation (satellite, radiometric and aerial photos) and laboratory analysis of dominant soil materials. Further checking of representative facet boundaries and final constraint results was undertaken prior to finalisation of the product

## Responsible party

Contact position Data Broker

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## Metadata point of contact

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**Metadata language**