Title	RULSE Factors
Abstract	This landing page is the collection of data packages that are derived as input to the Hillslope Erosion equation. The Universal Soil Loss Equation (USLE) and its main derivate, the Revised Universal Soil Loss Equation (RUSLE), are widely used in estimating hillslope erosion Soil Erodibility (K-factor) Soil erodibility represents the soil's response to rainfall and run-off erosivity and is related to soil properties such as organic matter content, texture, structure, permeability and aggregate stability. Slope and Steepness (LS-factor) The effects of topography on hillslope erosion are estimated through the product of slope length (L) and slope steepness (S) subfactors, or LS factor, which often contains the highest detail and plays the most influential role in RUSLE. Rainfall Erosivity (R-factor) Rainfall is a main driver of soil erosion by water. The relation between rainfall and sediment yield is given by the rainfall erosivity. The R-factor is the sum of all erosive events during a 1-year period. Cover and Management (C-factor) One of the important and dynamic elements in the RUSLE model is the cover and management factor (C-factor), which represents effects of vegetation canopy and ground cover in reducing soil loss.
Resource locator	
Data Quality Statement	Name: Data Quality Statement Protocol: WWW:DOWNLOAD-1.0-http--download Description: Data quality statement for RULSE Factors Function: download
Digital mapping of soil erodibility for water erosion in NSW.	Name: Digital mapping of soil erodibility for water erosion in NSW. Protocol: WWW:DOWNLOAD-1.0-http--download Description: CSIRO Publication Function: download
RUSLE slope length and steepness factor across NSW, Australia	Name: RUSLE slope length and steepness factor across NSW, Australia Protocol: WWW:DOWNLOAD-1.0-http--download Description: CSIRO Publication Function: download
Modelling and mapping rainfall erosivity in NSW, Australia	Name: Modelling and mapping rainfall erosivity in NSW, Australia Protocol: WWW:DOWNLOAD-1.0-http--download Description: CSIRO Publication Function: download
Deriving RUSLE cover	Name: Deriving RUSLE cover factor from time-series fractional vegetation

factor from time-series fractional vegetation cover in NSW	cover in NSW Protocol: WWW:DOWNLOAD-1.0-http--download Description: CSIRO Publication Function: download
RULSE_K	Name: RULSE_K Protocol: WWW:DOWNLOAD-1.0-http--download Description: The soil erodibility (K) factor for NSW in unit (t.ha.h.ha-1.MJ-1.mm-1) - RASTER data Function: download
RULSE_LS	Name: RULSE_LS Protocol: WWW:DOWNLOAD-1.0-http--download Description: The slope and steepness (LS) factor for NSW (unitless) - RASTER data Function: download

Unique resource identifier	
Code	e4f8e129-25a9-4e54-b3ef-f7a290f40412
Presentation form	Map digital
Edition	1.0
Dataset language	English
Metadata standard	
Name	ISO 19115
Edition	2016
Dataset URI	https://datasets.seed.nsw.gov.au/dataset/e4f8e129-25a9-4e54-b3ef-f7a290f40412
Purpose	Data for land management and environment monitoring
Status	On going
Spatial representation type	grid
Spatial reference system	
Code identifying the spatial reference system	4283
Spatial resolution	100 m
Additional information source	Annual Hillslope Erosion is provided as Yearly timeseries commencing 2001
Topic category	

Keyword set

keyword value	SOIL-Erosion
Originating controlled vocabulary	
Title	ANZLIC Search Words
Reference date	2008-05-16

Geographic location

West bounding longitude	140.5
East bounding longitude	153.5
North bounding latitude	-37.5
South bounding latitude	-28.5
NSW Place Name	New South Wales

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	2001-01-01
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
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

Annual hillslope erosion was estimated from annual mean groundcover and rainfall erosivity from 2001. The mean annual hillslope erosion is the average annual erosion between years.

Limitations on public access

Responsible party

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Metadata date

2024-08-09T04:04:55.084459

Metadata language