Name of dataset or data source:

Steep Land

Custodian of the dataset or data source:

ED Science (E&H)

### **Description:**

Steep Land was first acknowledged within the Soil Conservation Act 1938 legislation as Protected Lands primarily due to land degradation impacts associated with tree clearing. Early designation of these areas was mapped by hand using topographic basemaps or interpreted from aerial photographs with 3D stereoscopes at various scales. Then acquisition of satellite data enabled all of NSW to be captured, however this was coarse and mapping of steep lands remained disputable over some areas. In 2020 Department of Customer Services (DCS) released state-wide 5m resolution digital elevation data in the form of aerial lidar and photogrammetric point-cloud. This has been generated from a combination of 1km, 2km and 5km tiles. Department of Planning, and Environment have utilised the source data from DCS to create the Steep Land product. Data cleansing and quality assessments have been completed. The Steep Land 5m product has been created to effectively replace the following existing products: \* [Vulnerable Lands] (https://datasets.seed.nsw.gov.au/dataset/vulnerable-landprotected-riparian73a9e) - Steep or Highly Erodible (SHE) \* [SRTM18](https://datasets.seed.nsw.gov.au/dataset/srtm18) -Shuttle Radar How was Steep Land determined? Using a smoothed digital elevation model of the earth surface, a slope product was created. This was generated using the Horn 3x3 (1981) method which uses the eight pixels around the central cell to calculate the weighted gradient in northsouth and east-west directions, and trigonometry to calculate the maximum slope in the aspect direction. Having determined the slope values, accurate identification of land 18 degrees or greater and 30 degrees or greater across NSW was possible. Steep areas are identified by thresholding the slope value. Only the values of interest are extracted. The Steep Land products are available covering NSW or in zone mosaics 54, 55, 56. They are in binary form. Please adjust the symbology as required. 18 degrees: \* 0 - Not Steep (below 18 degrees) \* 1 - Steep (areas identified as 18 degrees or greater). 30 degrees: \* 0 - Not Steep (below 30 degrees) \* 1 -Steep (areas identified as 30 degrees or greater). Please contact data.broker@environment.nsw.gov.au for more information.

# Data quality rating:

- ★Institutional Environment 5
- ★Accuracy 5
- ☆Coherence 3
- ★Interpretability 4
- ☆Accessibility 1

## **INSTITUTIONAL ENVIRONMENT**

**Excellent** 

\*

- ✓ Does the information have the potential to enhance services or service delivery?
- ✓ The data aligns with the Data Quality Framework, including:
  - Legislation
  - Policies
  - Information Asset Governance
  - Standards
  - Data Management Plans

The following governance roles and responsibilities for this asset are clearly assigned:
 Information Asset Owner
 Information Asset Custodian
 Information Steward

- ACCURACY Excellent
- ✓ Data has been subject to a data assurance process (for example: Checking for errors at each stage of data collection and processing, or verifying data entry and making corrections if necessary.)
- Data is revised and the revision is published if errors are identified

Data collection is authorised by law, regulation or agreement

The Custodial agency has no commercial interest or conflict of interest in the data

- ✓ There are no known gaps in the data or if there are gaps (for example: non-responses, missing records, data not collected), they have been identified in caveats attached to the dataset.
- ✓ No changes have been made or other factors identified (for example: weighting, rounding, de-identification of data, changes or flaws in data collection or verification methods) that could affect the validity of the data; or any changes/factors have been identified in caveats attached to the asset.
- ✓ The data collection met the objectives of the primary user. The data correctly represents what it was designed to measure, monitor or report.
- i Find out more about the quality assurance processes from the NSW Government Standard for Data Quality Reporting. https://www.finance.nsw.gov.au/ict/resources/data-quality-standard

COHERENCE Good

- ✓ Standard definitions, common concepts, classifications and data recording practices have been used.
- Elements within the data can be meaningfully compared.
- This data is generally consistent with similar or related data sources from the same discipline
- X The data can be analysed over time (for example, there have not been any significant changes in the way items are defined, classified or counted over time).
- X The data does not form part of a collection or, if it is the latest in a series of data releases, there have not been any changes in methodology or external impacts since the last data release.

INTERPRETABILITY Very Good

- ✓ A data dictionary is available to explain the meaning of data elements, their origin, format and relationships
- ✓ Information is available about the primary data sources and methods of data collection (e.g. instruments, forms, instructions).
- ✓ Information is available to help users evaluate the accuracy of the data and any level of error
- ✓ Information is available to explain concepts, help users correctly interpret the data and understand how it can be used

- X Information is available to explain ambiguous or technical terms used in the data
- i Find out more about the data dictionary from the Custodian (contact details below).
- i Find out more about the primary data sources and methods of data collection from the Custodian (contact details below).
- i Find out more about concepts used in this dataset and how to understand or interpret the data from the Custodian (contact details below).
- i Find out more about ambiguous or technical terms used in the data from the Custodian (contact details below).

ACCESSIBILITY Poor

- ✓ Data is available online with an open licence
- X Data is available in machine-processable, structured form (e.g. CSV format instead of an image scan of a table)
- X Data is available in a non-proprietary format (e.g. CSV, XML)
- X Data is described using open standards (e.g. RDF, SPARQL) and persistent identifiers (URIs or DOIs)
- X Data is linked to other data, to provide context (e.g. employee ID is linked to employee name or species name is linked to genus)

#### **DATA DISCLAIMER**

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For more information about this dataset or data source, contact:	NSW Department of Climate Change, Energy, the Environment and Water
Data Broker email:	data.broker@environment.nsw.gov.au
Data Broker phone:	131555

## Understanding the Data Quality Statement

The data quality statement aims to help you understand how a particular dataset could be used and whether it can be compared with other, similar datasets. It provides a description of the characteristics of the data to help you decide whether the data will be fit for your specific purpose.

#### About the quality rating:

The reporting questionnaire asks five questions for each of these data quality dimensions:

- Institutional Environment
- Accuracy
- Coherence
- Interpretability
- Accessibility

For each question: "yes" = 1 point; "no" = 0 points

 $The \ number \ of \ points \ determines \ the \ Quality \ Level \ for \ each \ dimension \ (high, \ medium, \ low).$ 

Only dimensions with four or five points receive a star.

Points	<b>Quality Level</b>	Star / No Star
0	Poor	No Star
1	Poor	No Star
2	Fair	No Star
3	Good	No Star
4	Very Good	Star
5	Excellent	Star

## Evaluating data quality

Quality relates to the data's "fitness for purpose". Users can make different assessments about the dataquality of the same data, depending on their "purpose" or the way they plan to use the data.

The following questions may help you evaluate data quality for your requirements. This list is not exhaustive. Generate your own questions to assess data quality according to your specific needs and environment.

- What was the primary purpose or aim for collecting the data?
- How well does the coverage (and exclusions) match your needs?
- How useful are these data at small levels of geography?
- Does the population presented by the data match your needs?
- To what extent does the method of data collection seem appropriate for the information being gathered?
- Have standard classifications (eg industry or occupation classifications) been used in the collection of the data?If not, why?
  Does this affect the ability to compare or bring together data from different sources?
- Have rates and percentages been calculated consistently throughout the data?
- Is there a time difference between your reference period, and the reference period of the data?
- What is the gap of time between the reference period (when the data were collected) and the release date of thedata?
- Will there be subsequent surveys or data collection exercises for this topic?
- Are there likely to be updates or revisions to the data after official release?