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|---|---|
| Title | ASDST Hearths Current Model |
| Alternative title(s) | curr_hth |
| Abstract | The Aboriginal Sites Decision Support Tool ASDST extends the Aboriginal Heritage Information Management System (AHIMS) by illustrating the potential distribution of site features recorded in AHIMS. ASDST was first developed in 2012 by the Office of Environment and Heritage (OEH) to support landscape planning of Aboriginal Heritage. The Tool produces a suite of raster GIS modelled outputs and is held in Esri GRID format. The first suite was published in 2016 as Version 7 at 100m resolution and in Lamberts Conic Conformal Projection (LCC). The current Version 7.5 was produced by the now Department of Planning, Industry and Environment (DPIE) in 2020 at 50m resolution in Geographic Coordinate System (GCS). Each layer covers the extent of NSW.<br><br>The suite of layers includes separate predictive layers for different Aboriginal site feature types. The feature codes used in layer naming conventions are:<br><br>• ALL = model for all feature types combined<br>• AFT = predicted likelihood for stone artefacts<br>• ART = predicted likelihood for rock art<br>• BUR = predicted likelihood of burials<br>• ETM = predicted likelihood of western mounds and shell<br>• GDG = predicted likelihood of grinding grooves<br>• HTH = predicted likelihood of hearths<br>• SHL = predicted likelihood of coastal middens<br>• STQ = predicted likelihood of stone quarries and<br>• TRE = predicted likelihood of scarred trees.<br><br>The feature models have been derived in two forms:<br><br>• The first form (“p1750XXX” where XXX denotes three letter feature code) predicts likelihood of feature distribution prior to European colonisation of NSW.<br><br>• The second form (“curr_XXX” where XXX denotes three letter feature code) predicts feature likelihood in the current landscape.<br><br>For both sets of feature likelihood layers, cell values range from 0 – 1000, where 0 indicates low likelihood and 1000 is high likelihood.<br><br>Please note the scale is likelihood and NOT probability. Likelihood is defined as a relative measure indicating the likelihood that a grid cell may contain the feature of interest relative to all other cells in the layer.<br><br>Additionally, there are other derived products as part of the suite. These are:<br><br>• drvd_imp = which is a model of accumulated impacts, derived by summing the difference between the pre colonisation and current version of all feature models. Cell values range from 0 – 1000, where 1000 is a high accumulated impact.<br><br>• drvd_rel = which is a model of the reliability of predictions based on an environmental distance algorithm that looks at recorded site density across the variables used in the models.<br><br>• drvd_srv = which is a survey priority map, which considers model reliability (data gap), current likelihood and accumulated impact. Cell values range from 0 – 1000 where 1000 indicates highest survey priority relative to the rest of the layer.<br><br>For more details see the technical reference on the ASDST website.<br><br>NB. Old layers with a suffix of “_v7” indicate they are part of ASDST Version 7 produced in 2016. The current models (Version 7.5) do not contain a version number in their name and will continue to be named generically in future versions for seamless access.<br><br>Updates applied to ASDST version 7.5<br><br>For all ASDST 7.5 data sets, the resolution was increased from a 100m cell to a 50m cell. All data sets were clipped and cleaned to a refined coastal mask. Cell gaps in the mask were filled using a Nibble algorithm. The pre-settlement data sets were derived by resampling the version 7 pre-settlement data sets to 50m cell size. The present-day data sets were derived from the version 7.5 pre-settlement layers and 2017-18 land-use mapping and applying the same version 7 parameters for estimating the |

preservation of each feature type on each land-use. For version 7.5, the model reliability data set was derived by resampling the version 7 data set to 50m cell size. Accumulated impact and survey priority version 7.5 data sets were derived by applying the version 7 processing algorithm but substituting the version 7.5 pre-settlement and present-day ASDST models.

## Resource locator

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|---|---|
| Data Quality Statement | Name: Data Quality Statement<br>Protocol: WWW:DOWNLOAD-1.0-http--download<br>Description:<br>Data quality statement for ASDST Artefacts Pre1750 Model<br>Function: download |
| ArcGIS Rest Service | Name: ArcGIS Rest Service<br>Protocol: WWW:DOWNLOAD-1.0-http--download<br>Description:<br>ESRI Rest Service<br>Function: download |

## Unique resource identifier

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|---|---|
| Code | 433d72b5-781a-481b-9aa3-2de0a0ba8b58 |

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| Presentation form | mapDigital |
| Edition | 7.5 |
| Dataset language | eng |

## Metadata standard

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|---|---|
| Name | ANZLIC Metadata Profile: An Australian/New Zealand Profile of AS/NZS ISO 19115:2005, Geographic information - Metadata |
| Version | 1.1 |

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|---|---|
| Dataset URI | https://datasets.seed.nsw.gov.au/dataset/433d72b5-781a-481b-9aa3-2de0a0ba8b58 |
| Purpose | To support landscape planning of Aboriginal Heritage. |
| Status | completed |
| Spatial representation type | grid |

## Spatial reference system

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| Authority code | GDA94 Geographic (Lat\Long) |
| Code identifying the spatial reference system | 4283 |

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| Spatial resolution | 50 m |

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| Additional information source | For further information and to download the reference to the technical manual describing product derivation, please visit this website: https://www.environment.nsw.gov.au/research-and-publications/our-science-and-research/our-research/cultural-science/aboriginal-sites-decision-support-tool |

## Topic category

## Keyword set

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|---|---|
| keyword value | HERITAGE-Aboriginal<br>HUMAN-ENVIRONMENT-Planning |
| Originating controlled vocabulary | |
| Title | ANZLIC Search Words |
| Reference date | 2008-05-16 |

## Geographic location

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| West bounding longitude | 141 |
| East bounding longitude | 154 |
| North bounding latitude | -38 |
| South bounding latitude | -28 |
| NSW Place Name | NSW |

## Vertical extent information

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| 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

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|---|---|
| Begin position | 1990-01-01 |
| End position | N/A |

## Dataset reference date

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|---|---|
| Date type | publication |
| Effective date | 2021-06-22 |
| Date type | revision |
| Effective date | 2020-01-07 |

## Resource maintenance

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| Maintenance and update frequency | None |
| Contact info | |
| Organisation name | NSW Department of Climate Change, Energy, the Environment and Water |

| | |
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| Full postal address | NSW<br>Australia<br>data.broker@environment.nsw.gov.au |
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| Email address | data.broker@environment.nsw.gov.au |
| Responsible party role | pointOfContact |

## Lineage

The ASDST models and derived layers were developed using Aboriginal site data from the Aboriginal Heritage and Information Management System (AHIMS). The models were derived using presence only statistical modelling using the GRASP tool in S-Plus (see: Lehmann, A., Overton, J. M. C. & Leathwick, J. R., 2002. GRASP: Generalized Regression Analysis and Spatial Predictions. Ecological Modelling, 157: 189-207). Each model uses a unique combination of variables, but can include various terrain indices; various indices of proximity to water; geology; soils; pre1750 vegetation and climate variables. The derived products also make use of land-use, native vegetation extent and tenure data to estimate site likelihood in the present landscape. The products describing model reliability and survey priority utilised the environmental distance algorithm of Faith and Walker (Faith, D. P. and P. A. Walker (1996). "Environmental diversity: on the best-possible use of surrogate data for assessing the relative biodiversity of sets of areas." Biodiversity and Conservation 5(4): 399-415.). All spatial data was current and accurate at the time of model completion on the 20/12/2012.

Grids were published in 2016, updated in 2020 and republished 2021.

Limitations on public access

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|---|---|
| Scope | dataset |

## Responsible party

| | |
|---|---|
| Contact position | Data Broker |
| Organisation name | NSW Department of Climate Change, Energy, the Environment and Water |
| Full postal address | NSW<br>Australia<br>data.broker@environment.nsw.gov.au |
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| Web address | https://www.nsw.gov.au/departments-and-agencies/dcceew |
| Responsible party role | pointOfContact |

## Metadata point of contact

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|---|---|
| Contact position | Data Broker |
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| Email address | data.broker@environment.nsw.gov.au |
| Responsible party role | distributor |

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|---|---|
| Metadata date | 2021-06-22 |
| Metadata language | eng |