

Title	2022 Heat Vulnerability Index for the Greater Sydney Region
Abstract	<p>The 2022 Heat Vulnerability Index (HVI) for Greater Sydney aims to combine information on urban heat, built form and population demographics to provide a fine-grained understanding of the spatial distribution of heat vulnerable populations.</p> <p>The Index combines indicators of heat exposure, sensitivity to heat, and adaptive capacity to produce the composite vulnerability index. The 2022 HVI dataset is built upon the methodology established in the creation of the 2016 Sydney HVI dataset (Sun et al 2018), integrating land cover, urban heat, and demographic data, aggregated to Statistical Area Level 1 (SA1) of the Australian Statistical Geography Standard (ASGS) produced by the Australian Bureau of Statistics (ABS).</p> <p>Broad comparisons can be made between the 2022 and 2016 HVI datasets, however there are multiple factors that may limit direct comparability over time. This includes variations in underlying datasets, the relative nature of the HVI, and the change in size of the study area between 2016 and 2022. When undertaking comparison it is recommended to examine the changes in the underlying datasets and the absolute values of the heat exposure, sensitivity and adaptive capacity indicators. This approach helps to explain the variations in HVI and informs effective heat mitigation strategies.</p> <p>The 2022 HVI is most useful at the SA1 scale. It is not recommended to aggregate the HVI dataset to larger scales (i.e. average HVI for a suburb or LGA). Aggregating spatially specific and individual data to geographic areas smooths out local variation, losing locational specificity and population variation. In cases where individual human exposure is of concern, this may either increase or decrease the representation of the actual exposure of a given individual, causing the neighbourhood effect averaging problem (NEAP) (Kwan 2018).</p> <p>Please refer to the methodology report for more information.</p>
Resource locator	
Show on SEED Web Map	<p>Name: Show on SEED Web Map</p> <p>Protocol: WWW:DOWNLOAD-1.0-http--download</p> <p>Description:</p> <p>Display dataset on SEED's map</p> <p>Function: download</p>
Data Quality Statement	<p>Name: Data Quality Statement</p> <p>Protocol: WWW:DOWNLOAD-1.0-http--download</p> <p>Description:</p> <p>Data quality statement for 2022 Heat Vulnerability Index for the Greater Sydney Region</p> <p>Function: download</p>
2022 Heat Vulnerability Index Dataset Methodology Report	<p>Name: 2022 Heat Vulnerability Index Dataset Methodology Report</p> <p>Protocol: WWW:DOWNLOAD-1.0-http--download</p> <p>Description:</p> <p>This report provides an explanation of the methodology, quality assurance and limitations of the 2022 Heat Vulnerability Index for Greater Sydney.</p> <p>Function: download</p>
2022 Heat Vulnerability Index for Greater Sydney Geodatabase	<p>Name: 2022 Heat Vulnerability Index for Greater Sydney Geodatabase</p> <p>Protocol: WWW:DOWNLOAD-1.0-http--download</p> <p>Description:</p> <p>This .zip folder includes the geodatabase files for the 2022 Heat Vulnerability Index for Greater Sydney. Note this file may not work for some versions of ArcMap. If using ArcMap, refer to the geopackage file.</p> <p>Function: download</p>

2022 Heat Vulnerability Index for Greater Sydney Geopackage	<p>Name: 2022 Heat Vulnerability Index for Greater Sydney Geopackage</p> <p>Protocol: WWW:DOWNLOAD-1.0-http--download</p> <p>Description:</p> <p>This file provides the 2022 Heat Vulnerability Index for Greater Sydney in GeoPackage format.</p> <p>Function: download</p>
2022 Heat Vulnerability Index Tabular Data	<p>Name: 2022 Heat Vulnerability Index Tabular Data</p> <p>Protocol: WWW:DOWNLOAD-1.0-http--download</p> <p>Description:</p> <p>This spreadsheet provides the tabular data for the 2022 Heat Vulnerability Index dataset.</p> <p>Function: download</p>
2022 Heat Vulnerability Index for Greater Sydney Metadata	<p>Name: 2022 Heat Vulnerability Index for Greater Sydney Metadata</p> <p>Protocol: WWW:DOWNLOAD-1.0-http--download</p> <p>Description:</p> <p>This document provides metadata for the 2022 Heat Vulnerability Index for Greater Sydney dataset.</p> <p>Function: download</p>
Land Surface Temperature for Greater Sydney Summer 2022-2023	<p>Name: Land Surface Temperature for Greater Sydney Summer 2022-2023</p> <p>Protocol: WWW:DOWNLOAD-1.0-http--download</p> <p>Description:</p> <p>This file includes the land surface temperature data that was used to create the 2022 Heat Vulnerability Index for Greater Sydney, in .tif format.</p> <p>Function: download</p>
Metadata for Greater Sydney LST Summer 2022-2023	<p>Name: Metadata for Greater Sydney LST Summer 2022-2023</p> <p>Protocol: WWW:DOWNLOAD-1.0-http--download</p> <p>Description:</p> <p>This document provides metadata for the land surface temperature data that was used to calculate the 2022 Heat Vulnerability Index for Greater Sydney.</p> <p>Function: download</p>
Esri REST Service	<p>Name: Esri REST Service</p> <p>Protocol: WWW:DOWNLOAD-1.0-http--download</p> <p>Description:</p> <p>REST Service</p> <p>Function: download</p>

Unique resource identifier	
Code	08c39277-8b70-4c4d-905e-5c931c2eef08
Presentation form	Table digital
Edition	1
Dataset language	English

Metadata standard		
Name	ISO 19115	
Edition	2016	
Dataset URI	https://datasets.seed.nsw.gov.au/dataset/08c39277-8b70-4c4d-905e-5c931c2eef08	
Purpose	Green infrastructure, tree canopy and urban heat planning and mitigation. management	
Status	Completed	
Spatial representation		
Type	vector	
Spatial reference system		
Code identifying the spatial reference system	4283	
Spatial resolution	30 m	
Topic category		
Keyword set		
keyword value	CLIMATE-AND-WEATHER-Climate-change CLIMATE-AND-WEATHER-Extreme-weather-events CLIMATE-AND-WEATHER-Temperature HUMAN-ENVIRONMENT-Housing HUMAN-ENVIRONMENT-Planning HUMAN-ENVIRONMENT-Livability	
Originating controlled vocabulary		
Title	ANZLIC Search Words	
Reference date	2008-05-16	
Geographic location		
West bounding longitude	150.16937	
East bounding longitude	151.52	
North bounding latitude	-34.48392	
South bounding latitude	-33.46811	
NSW Place Name	Greater Sydney Region	
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	2021-01-06
End position	N/A
Dataset reference date	
Resource maintenance	
Maintenance and update frequency	Not planned
Contact info	
Contact position	Data Broker
Organisation name	NSW Department of Planning, Housing and Infrastructure
Telephone number	131555
Email address	data.broker@environment.nsw.gov.au
Web address	https://www.nsw.gov.au/departments-and-agencies/departments-of-planning-housing-and-infrastructure
Responsible party role	pointOfContact
Lineage	<p>The overall heat vulnerability index is calculated based on exposure, sensitivity, and adaptive capacity and uses quintiles, with 1 representing low vulnerability and 5 representing high vulnerability.</p> <p>More information regarding the methodology used to develop the dataset can be found in the Methodology Report.</p>
Limitations on public access	
Responsible party	
Contact position	Data Broker
Organisation name	NSW Department of Planning, Housing and Infrastructure
Telephone number	131555
Email address	data.broker@environment.nsw.gov.au
Web address	https://www.nsw.gov.au/departments-and-agencies/departments-of-planning-housing-and-infrastructure
Responsible party role	pointOfContact

Metadata point of contact

Contact position	Data Broker
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Organisation name NSW Department of Planning, Housing and Infrastructure

Telephone number 131555

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

Web address	https://www.nsw.gov.au/departments-and-agencies/departments-of-planning-housing-and-infrastructure
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Responsible party	pointOfContact
role	

Metadata date	2025-04-22T05:38:24.762590
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Metadata language