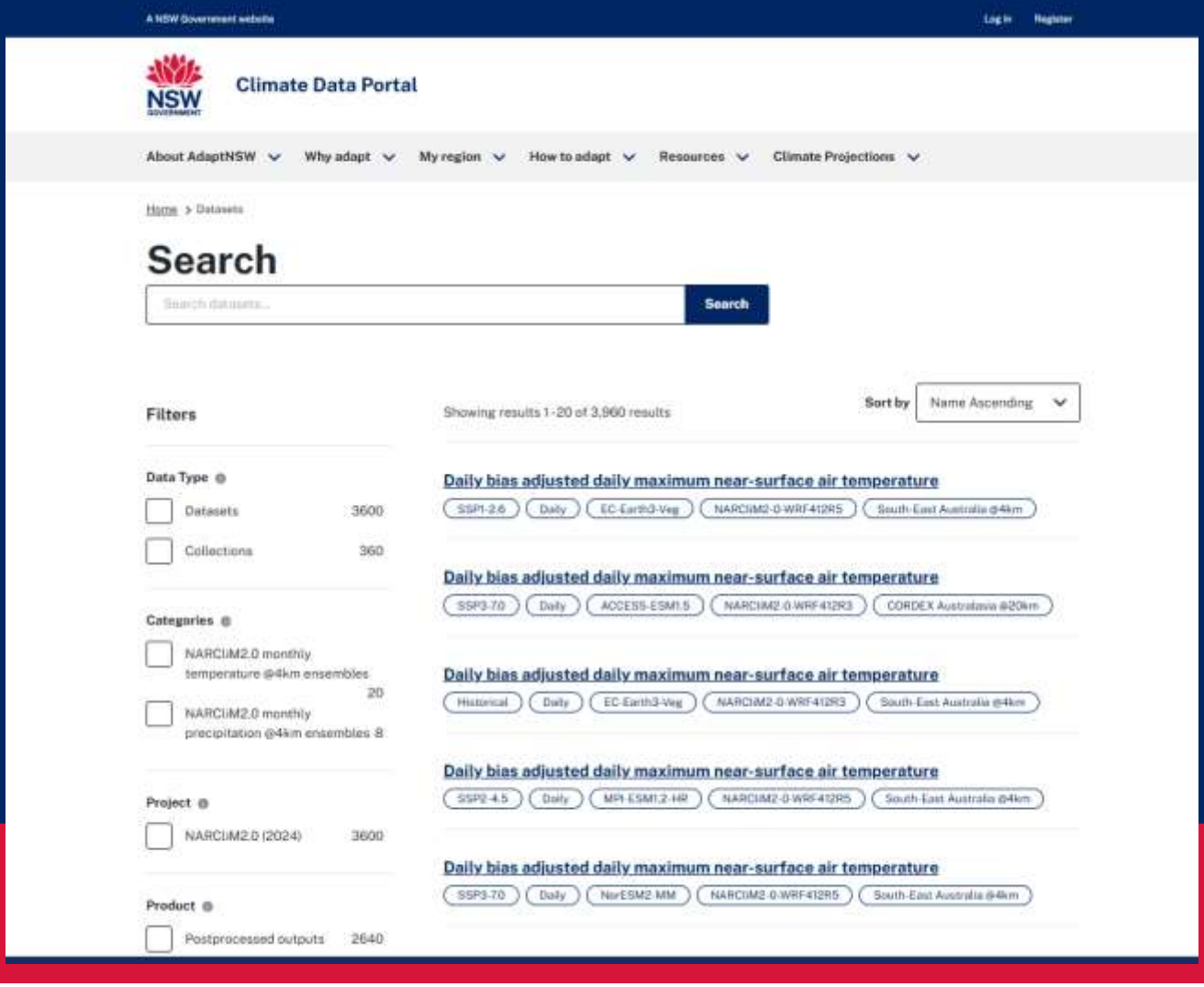
Department of Climate Change, Energy, the Environment and Water

NSW Climate Data Portal user guide

Version 1.1

15 August 2025



NSW GOVERNMENT

Acknowledgement of Country

Department of Climate Change, Energy, the Environment and Water acknowledges the traditional custodians of the land and pays respect to Elders past, present and future.

We recognise Australian Aboriginal and Torres Strait Islander peoples' unique cultural and spiritual relationships to place and their rich contribution to society.

Artist and designer Nikita Ridgeway from Aboriginal design agency – Boss Lady Creative Designs, created the People and Community symbol.

NSW Climate Data Portal user guide

Published by NSW Department of Climate Change, Energy, the Environment and Water

https://www.climatechange.environment.nsw.gov.au/climate-data-portal

First published: June 2025

Department or Agency reference number: DOC25/345237-1

More information

Please read the NARCliM data use terms and conditions and this user guide before using the Climate Data Portal. For questions about the NSW Climate Data Portal or the NARCliM climate projections and data, please contact narclim@environment.nsw.gov.au

For more information about NARCliM in general, please visit the AdaptNSW website: https://www.climatechange.environment.nsw.gov.au/narclim

Acknowledgements

Funded by the New South Wales Climate Change Fund and New South Wales Climate Change Adaptation Strategy.

Copyright and disclaimer

Contents

1 Getting started

1.1 About the NSW Climate Data Portal

The NSW Climate Data Portal ('the Portal') provides easy access to and download of the NSW and Australian Regional Climate Model project version 2.0 (NARCliM2.0) CMIP6[1] climate simulations. It is suitable for users with experience or building capacity in using climate data. As a user, you should have familiarity with the NetCDF file format (www.unidata.ucar.edu/software/netcdf/), as this is how NARCliM data are stored and guided the Portal design. The Portal enables:

- searching, discovering and filtering available NARCliM simulations and variables
- refining a selection tailored to an area and time range of interest
- exporting and downloading the data in a range of formats.

The Portal is built on the CKAN framework (https://ckan.org/), an open-source software for open data catalogues. For more information on CKAN, see Appendix A, or visit the CKAN webpage.

1.1.1 Review the landing page and supporting documents first

To access the Portal, you first visit the NSW Climate Data Portal landing page on the AdaptNSW website (www.climatechange.environment.nsw.gov.au/climate-data-portal). The landing page briefs the potential user on the Portal's background, purpose and intent, the target audience and expected experiences. This will assist you if the Portal is suitable for your NARCliM data needs.

You should review this document, the *Glossary of terms,* and the *Variables dictionary* [PDF 2.4MB] before navigating the Portal. For NARCliM information, refer to the National Computational Infrastructure website (https://nci.org.au/) and the *NARCliM2.0 Technical Notes* [PDF 4MB].

When you finish reviewing, click the link to the 'NSW Climate Data Portal' on the right-hand side of the landing page, and using the steps described below, start exploring NARCliM climate data.

1.1.2 Recommendations for using the Portal to access NARCliM

There are a few recommendations and points for using the Portal to keep in mind:

- Using all 10 NARCliM2.0 models is recommended in most use cases. You can access them through filtering Categories or by searching for **collections**. See Section 2.2.
- A point selection selects one grid cell. An area selection selects grid cells based on their centre points, not a 50% threshold.
- Selecting GeoTIFF as an output format will generate a file for each interval in the time frequency selection – Daily data for 85 years will generate 385 (days) x 85 (years) of GeoTIFFs.
- For best performance, we recommend keeping download file size below 12GB. See Appendix 6.4 for more details on download file size estimates.

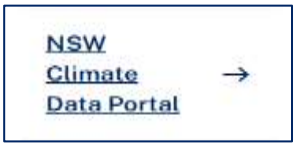
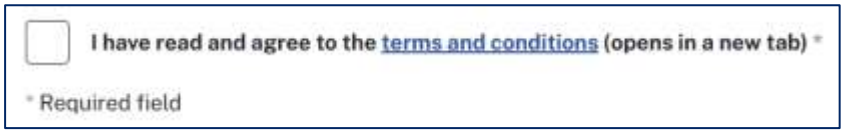
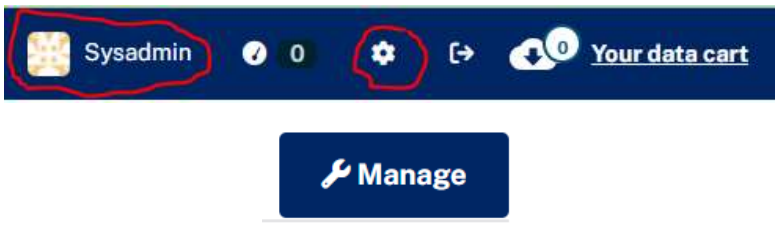
[1] Coupled Model Intercomparison Project (CMIP) phase 6 https://wcrp-cmip.org/cmip-phases/cmip6/.

1.2 Creating a user account

To download data, you are currently required to have a user account. This helps us provide direct support to users and provides users with a record of their Portal activities (more on this below).

Follow the steps in **Table 1** to create a user account.

Table 1: Steps to create a user account

Step	Screenshot image
After reading the Portal landing page, click the link to the 'NSW Climate Data Portal' on the right.	
When the Portal opens, click 'Register' in the top right corner.	
When the 'Register for an Account' page opens, complete the required fields and any additional information you want. You can edit your account details at any time.	
At the bottom of the page, open the link to the terms and conditions and read*, then click the tick box on the left.	
Write down/save your username and password. Click the 'Create Account' button.	
After you click 'Create Account' you will be sent an email to confirm your account. The email will include a link to complete the registration process. After completing your registration, you will be sent another email with the link to log in to the Portal.	
You can manage your account information by first clicking your name or Profile Settings (cog icon), then click the 'Manage' button.	

Note: * The *terms and conditions for NARCliM project data* govern the use of NARCliM climate data. They outline data licensing, data disclaimer, your privacy expectations and, importantly, the requirements for acknowledging the use of NARCliM data, and the proper citation.

2 Collections and Datasets in the Portal

This section explains how to search and discover collections and datasets in the Portal.

The Climate Data Portal offers 2 types of data for download:

- **Collections** – a group of datasets for all 10 NARCliM2.0 ensemble members for a variable. An example is all 10 NARCliM2.0 ensemble members for daily maximum temperature over South-east Australia and for one greenhouse gas emission scenario. Using collections will reduce search, selection and downloading, and is recommended in most use cases.
- **Datasets** – a specific set of simulations for one of the 10 NARCliM2.0 individual models. An example are the daily simulations for maximum temperature over South-east Australia from a specific NARCliM global climate model (GCM) and regional climate model (RCM), and for one greenhouse gas emission scenario.

The Portal offers a filtering tool to refine a search for a dataset. Filters are:

- **Variable name** - such as near-surface air temperature (tas)
- **Data Type** - datasets or collections
- **Categories** - find collections of like variables, frequencies and spatial domain
- **Project** that created the dataset (NARCliM2.0)
- **Product** type - i.e. postprocessed outputs, bias-adjusted data/outputs, climate indices
  - postprocessed outputs, including 15 CORDEX[2] core variables and 3 static variables
  - bias-adjusted outputs: maximum and minimum near-surface air temperature, precipitation
  - bias-adjusted climate indices: temperature and precipitation threshold indices
  - climate indices, such as Forest Fire Danger Index
- **Domain** - spatial extent, such as South-east Australia @4km or CORDEX Australasia @ 20km)
- **Experiment/Scenario** - Historical (1951-2014) and SSP1-2.6, SSP2-4.5, SSP3-7.0[3] (2015-2100)
- **Frequency** - daily, monthly or yearly time step
- **Ensemble member** – GCM and RCM

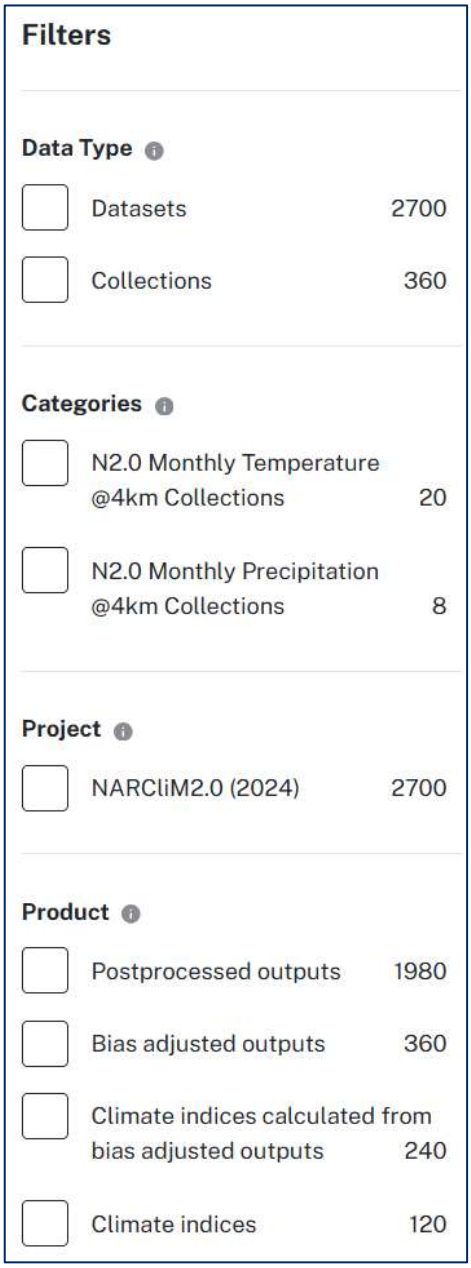
Datasets and Collections contain the complete time series of the simulation (i.e. Historical is 1951 to 2014, SSP scenarios are 2015 to 2100).

[2] Coordinated Regional Climate Downscaling Experiment (CORDEX).

[3] Shared Socio-economic Pathway (SSP) scenarios.

2.1 Searching, discovering and filtering datasets

You can search and discover datasets by using the filtering tool in the left-hand panel. The screenshot to the right shows the top section of the **Filters** tool.



The filtering tool provides a count of datasets that meet the filtered conditions. Once a choice is applied to one filter, the other filters update their dataset counts. Therefore, you only see the datasets that meet your filtering criteria.

First, select Datasets under Data Type.

- Use the filters to narrow down your choice.
- If you wish to filter by GCM or RCM, click 'More filters' below Spatial Domain filter (not shown here).
- Filtering values are ordered by count of datasets.
- Click the 'i' button next to the filter name. The pop-up box has a link to the *Glossary of terms*, which provides more information about filters and metadata.

As shown in the example results panel screenshot below, the number of results and the filters applied appears at the top. The list of datasets meeting your filtering criteria appears in the centre. You can sort datasets by Relevance, on Name ascending or Name descending or Date last modified using the pulldown menu. Each dataset has its description in bubbles below the name.

You are now ready to select a dataset from the centre of the panel. You can add it directly to your Data Cart by clicking the 'blue cloud' button to the right of the dataset name. This button contains the number of files in the dataset and the approximate size of this dataset.

You can also click the name of the dataset and be taken to the Selection Tool page. See Section 3 of this user guide for more information on using the selection tools.

2.2 Searching, discovering and filtering collections

Currently, collections are searched by using the search box at the top of the page or the Categories filter. More categories of collections (ensembles) will be created in the future.

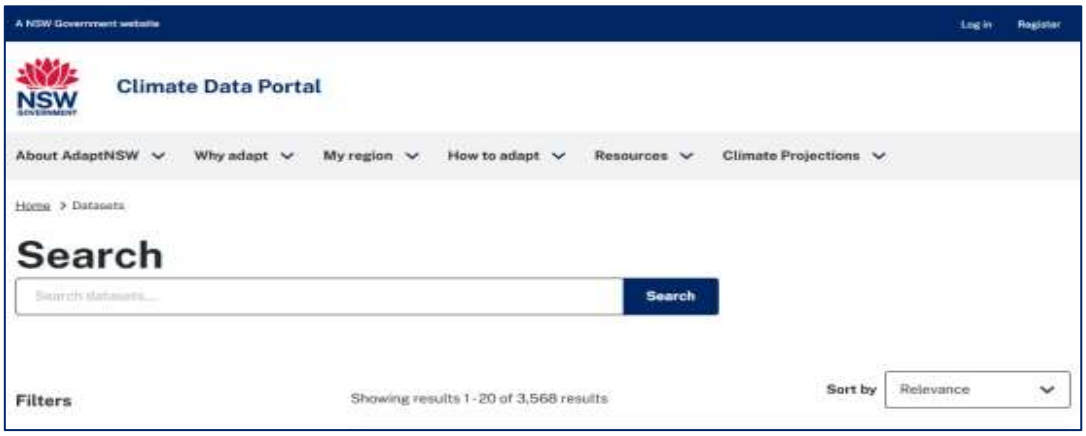
To clear the search, simply click the 'Search' button in the Search box.

For more information on using the Search box, see Appendix B.

Main tip for using the Search box to filter collections

Nearly every dataset is also part of a collection. Therefore, there are some easy steps to searching and selecting the collection you want.

- Review the filters to find the terms used that best describe the collection you want.
- In the search box, use '+', with terms; for example, **Temperature +monthly +'1-2.6' +4km** will find collections for 'Monthly temperature under SSP1-2.6 scenario, for South-east Australia at 4km'.
- The more filter terms you apply, the narrower list your search box results will return.



You can now select a collection from the centre section. Unlike datasets, collections do not currently show the filtering criteria. You can click the collection name and be taken to the Selection Tools page (see Section 3). Alternatively, click the 'blue cloud' button and add it directly to your Data Cart for download. The blue cloud button contains the number of dataset files in the collection.

3 Refining selections using selection tools

Once you have searched and identified the dataset or collection you are interested in, you can now:

- refine your dataset or collection choice using one of 6 spatial selection tools
- define a date range for your output
- choose an output format to download
- add your dataset or collection to your Data Cart.

After you have clicked the name of the dataset or collection on the Search page, you will be taken to the Selection Tool page. At the top of the page, you will see a description of your choice of search results – 'Monthly daily maximum near-surface air temperature' in the example screenshot below. Datasets will populate these categories, but collections currently will show 'unspecified'.

At the bottom of the page, you will see one of 2 things. For datasets, you will see detailed metadata. For collections, you will see the list of datasets within the collection. For more details about the metadata and collections' datasets list, please see Appendix C.

Also note: After using the selection tool and adding a dataset or collection to your Data Cart, you can 'continue shopping' by going back to the search page, finding a different dataset or collection, using the selection tool and adding it to the Data Cart.

3.1 Selecting your area of interest

With the Portal selection tools, you can refine your dataset choice through 6 spatial selection tool options. This section explains these 6 tools. When you click a spatial tool, it will show as bold with a red underline (see 'Full geographic coverage' example in screenshot below).

Outputs are available in NetCDF, GeoTIFFs or CSV formats. Your choice of spatial selection will limit the format available. For example, point selections will only be available in CSV.

For ease of use, the Portal has been designed to retain your selection options for each area of interest tool. This means that after adding a dataset to your Data Cart, you can return to the search page, find another dataset, and make the same selection of area of interest.

This is screenshot of what you will see for the tool '**Select your area of interest**'. Each of these are explained below.

3.1.1 Full geographic coverage

The ‘Full geographic coverage’ tool simply uses the full extent of your dataset choice to the full extent of the spatial domain you chose.

you select Full geographic coverage as your area of interest, you can proceed to select a date range and output format (Sections 3.2 and 3.3, respectively).

For Full geographic coverage, you can download datasets in NetCDF or GeoTIFF format.

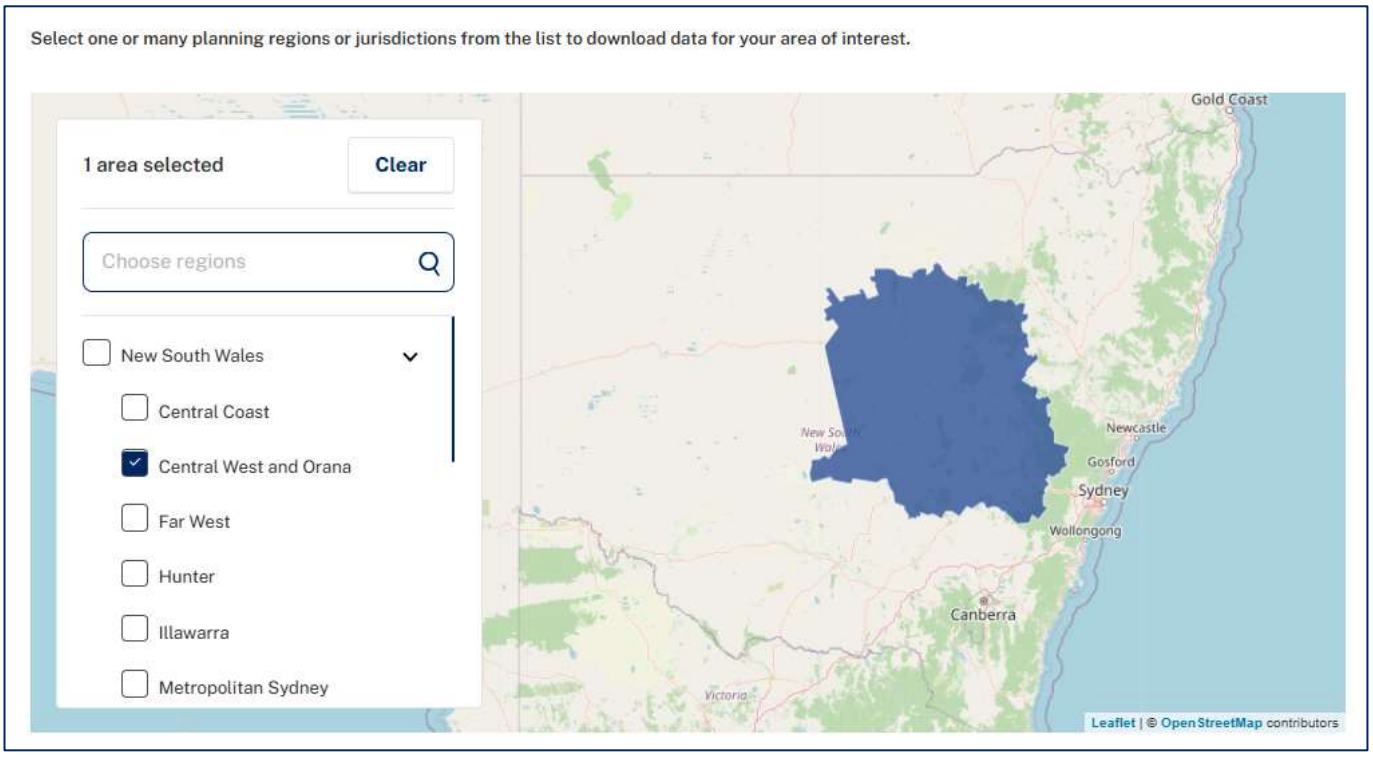
3.1.2 Choose a planning region

The ‘Choose a planning region’ tool lets you select the boundaries of one or more NSW planning regions, states or territories to which you want to ‘cookie cut’ your dataset. Because the outputs are areas, you can download datasets in NetCDF and GeoTIFF format.

When you select this tool, the map will appear below the selection tool options, containing a box with pulldown selection options for each state or territory and each NSW planning region. See screenshot below, noting that the search box works best when the menus are fully open.

When your region selection is intersected with your dataset, this tool will select all grid cells that have their centre point within the selected region.

Note, currently the ‘Clear’ button only works at the state/territory level. Additionally, you can type a short text that will return results for any menu that is open.



3.1.3 Draw a custom region of interest

The ‘Draw a custom region of interest’ tool lets you interactively draw a shape for your area of interest. It allows you to define an area of interest that crosses pre-defined planning region borders. As an alternative, see Section 3.1.6 on how to upload a shapefile.

This tool has 2 options (see screenshot below):

1. You can draw a shape by clicking on the default polygon and move the corners and click the lines to add a vertex point.
2. You can type in longitude and latitude points for your area.

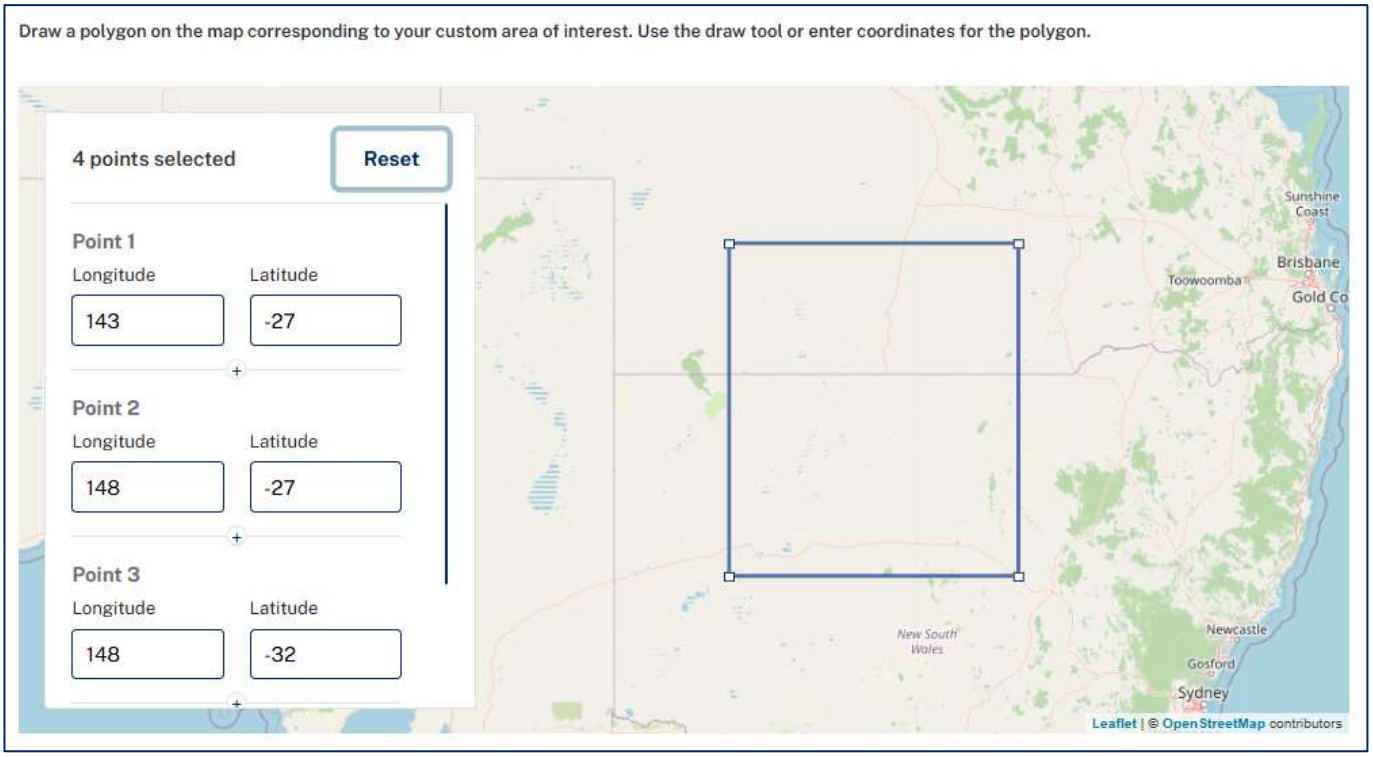
Use the ‘Reset’ button to remove your edits and start over if needed. You can also add a point by clicking the ‘+’ plus button below each point in the menu.

If you hover your mouse over a Point in the list, a trash can will appear in the upper right corner that you can use to delete a point.

When your polygon is intersected with your dataset choice, this tool will select all grid cells that have their centre point within the drawn polygon.

Like the ‘Choose a planning region’ tool, when using the ‘Draw a custom region’ tool, you can download datasets in NetCDF or GeoTIFF format only.

While the default does not have decimal places, you can add or edit points to include decimals.



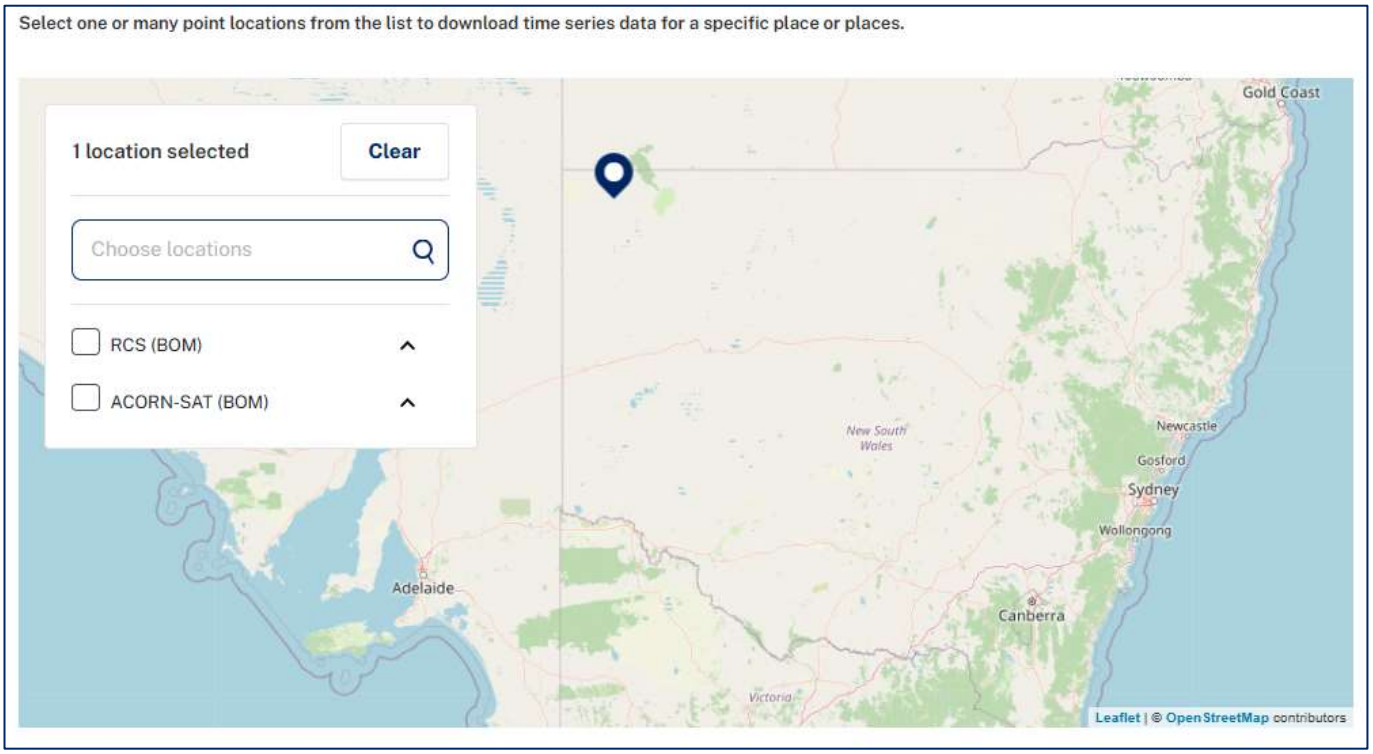
3.1.4 Choose points of interest

The ‘Choose points of interest’ tool is like the ‘Choose a planning region’ tool that uses pre-defined locations, except this tool provides you point-based climate time-series data.

Currently, the Portal uses the point locations for the Australian Bureau of Meteorology’s (BOM) Reference Climate Stations (RCS) and Australian Climate Observations Reference Network (ACORN) stations. See the BOM or RCS or ACORN-SAT websites for more information.

Like the ‘Choose a planning region’ tool, the search box works best when the menus are fully open.

Because these are point locations, when you use the ‘Choose points of interest’ tool, you can currently download datasets in CSV format only.



3.1.5 Draw points of interest

The ‘Draw points on a map’ tool lets you interactively draw a point or points on a map for where you want climate time-series data.

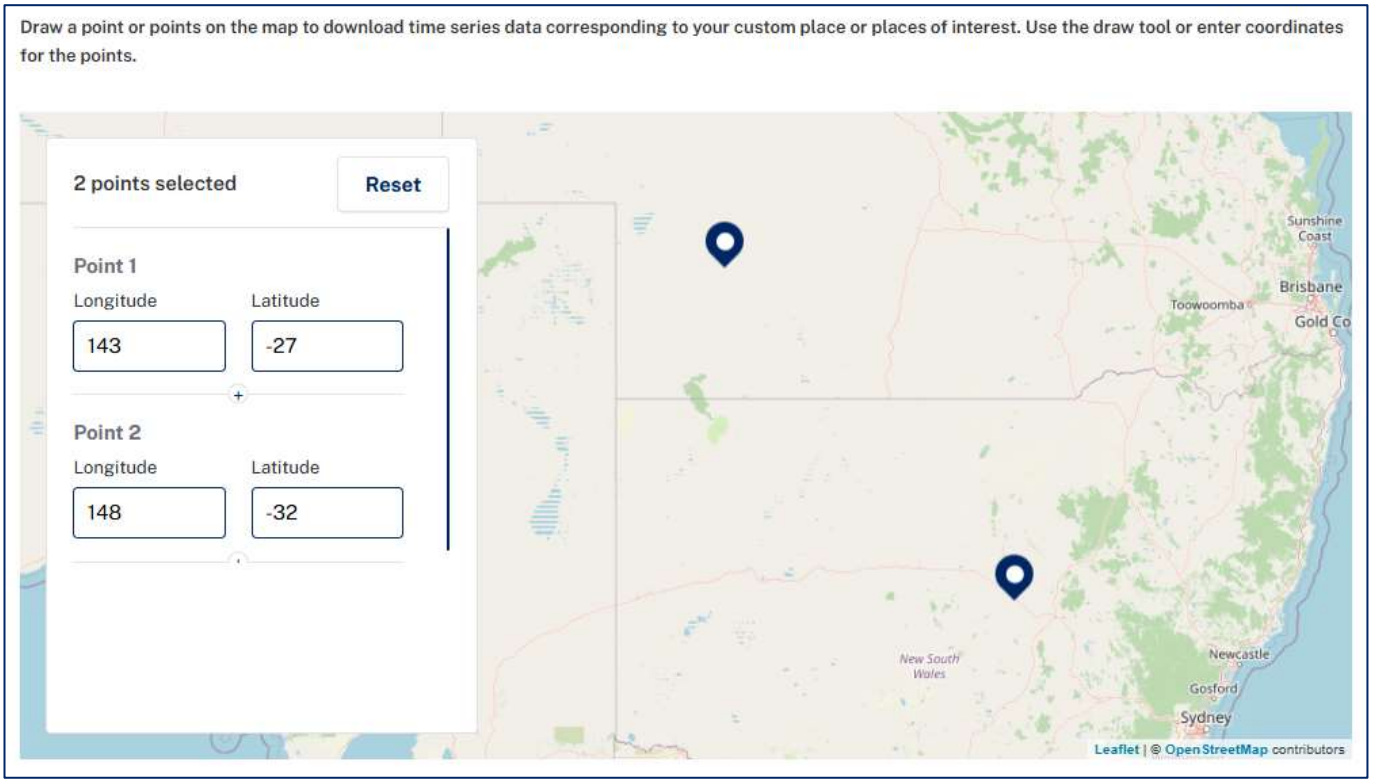
This tool has 2 options (see screenshot below):

1. You can add points by clicking on the map at a location. You can then click and drag the point if you need to change the location.
2. You can type in longitude and latitude points for your location of interest. There is currently no option to import a file of point locations.

Because these are point locations, you can download datasets in CSV format only.

Use the ‘Reset’ button to remove your edits and start over if needed. You can also add a point by clicking the ‘+’ plus button below each point in the menu. If you hover your mouse over a point in the list, a trash can will appear in the upper right corner that you can use to delete a point.

While the default does not have decimal places, you can add or edit points to include decimals.



3.1.6 Upload a shapefile

If you already have a shapefile (or shapefiles) of your area of interest, you can upload it and 'cookie cut' or intersect it with your dataset choice.

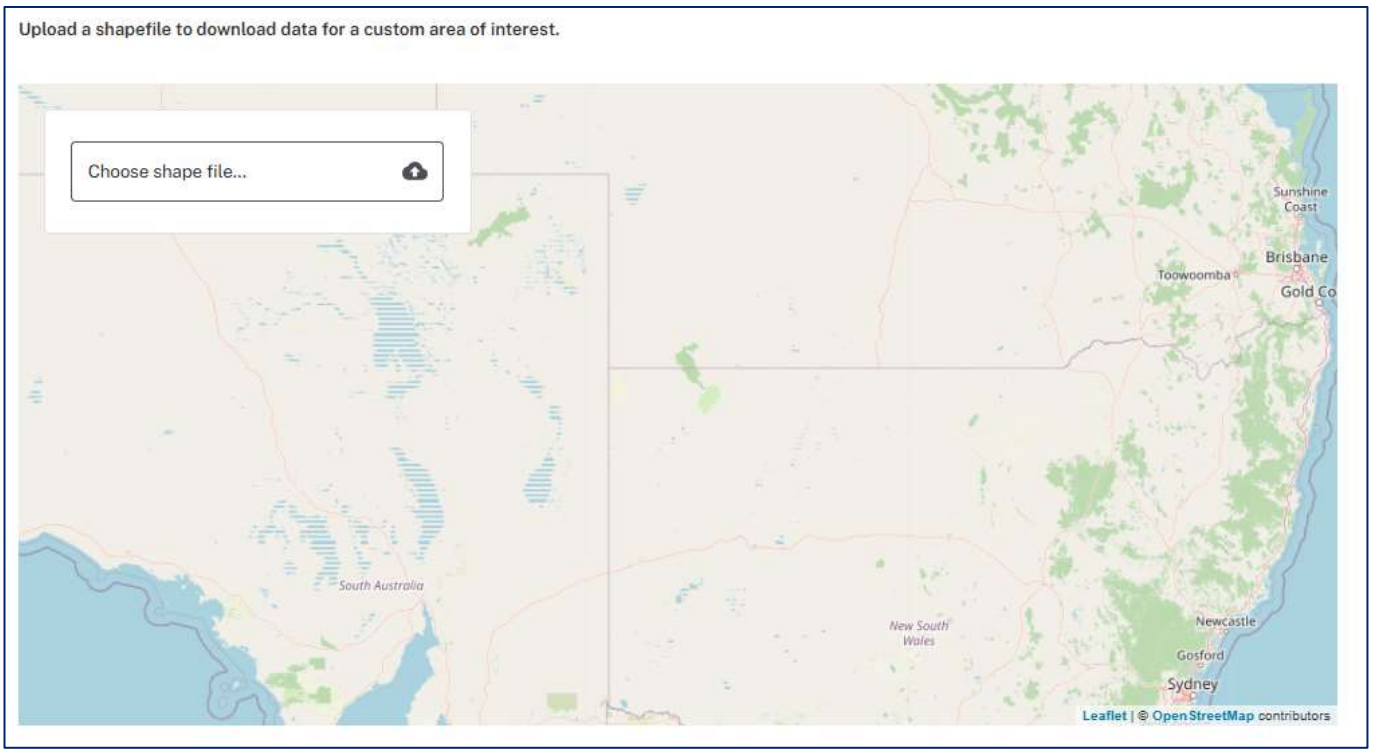
Ensure all shapefile component files are included and use WinZip to compress the files and upload it to the map. You can click the 'Choose shapefile' box and navigate to this Zip file or drag and drop it in (see screenshot below).

Currently, the Portal uses only WinZip format, not 7-Zip or any other format.

The Portal will read your file and display the shapefile.

When your shapefile polygon is intersected with your dataset choice, this tool will select all grid cells that have their centre point within the drawn polygon.

Like the 'Choose a planning region' tool, when using the 'Upload a shapefile' tool, you can download datasets in NetCDF or GeoTIFF format only.



3.2 Selecting a date range

After selecting your area of interest using one of the tools described in Section 3.1, you can refine your choice further by selecting a date range for your output. The 'Select a date range' tool is designed as a slider bar to adjust the start and end year that you want your output to contain. You can also enter a year value (YYYY) in the boxes representing the start and end year. See the example in the screenshot below.

A few tips for using the 'Select a date range' slider tool:

- Your date range selection has to be a minimum of 20 years.
- The start and end dates/years are specific to the dataset:
  - Historical datasets extend from 1951 to 2014
  - SSP greenhouse gas emissions scenarios extend from 2015 to 2100.
- Based on your year selection, the actual date ranges appearing in our output will begin on 1 January of the start year and end on 31 December of the end year (for example: 2015-01-01 to 2100-12-31. There are a couple of exceptions to the standard 365-day calendar:
  - the GCM UKESM1.0-LL uses a non-Gregorian calendar (360 days – 30 days per month)
  - the GCM NorESM2-MM does not contain leap years (excludes 29 February), so each year has 365 days.
  - The use of the 'Select a date range' is not impacted by these exceptions. You will get all available days within your selection of start and end year.

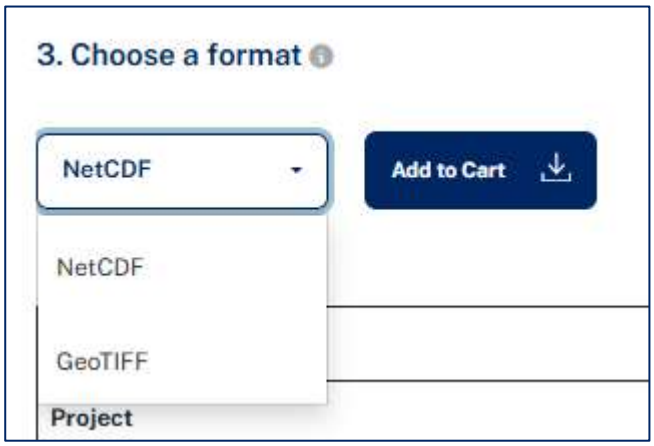
Note that a collection is treated the same as a dataset. A date range selection will be applied to all datasets in a collection equally.

3.3 Selecting an output format

Once you have selected the spatial and time range extents that you want, the final step is to select your output format and add it to your Data Cart, using the third step 'Choose a format'.

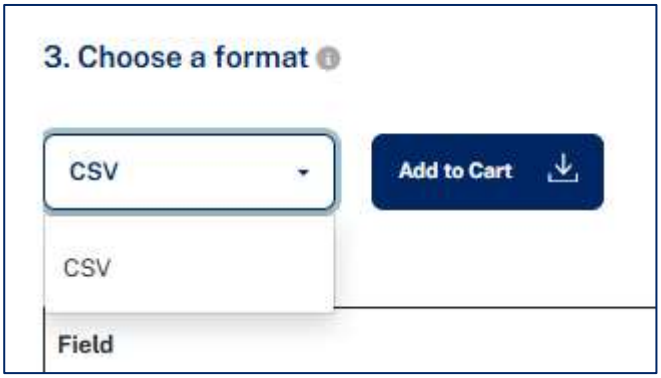
Like the first 2 steps, the output format you select will be applied to all datasets in a collection.

When you select the 'Full geographic coverage', 'Choose a planning region', 'Draw a custom region' or 'Upload a shapefile' tools, you can export and download your datasets or collections to either NetCDF or GeoTIFF format. See screenshot to the right.



Select your option from the pulldown menu and then click the 'Add to Cart' button. You will see the following pop-up window adding your selection to the Data Cart:

When you select the 'Choose points of interest' or 'Draw points of interest' tools, you can export and download to CSV only. See screenshot to the right.



Select an output format and then click the 'Add to Cart' button. You will see a pop-up window adding your selection to the Data Cart.

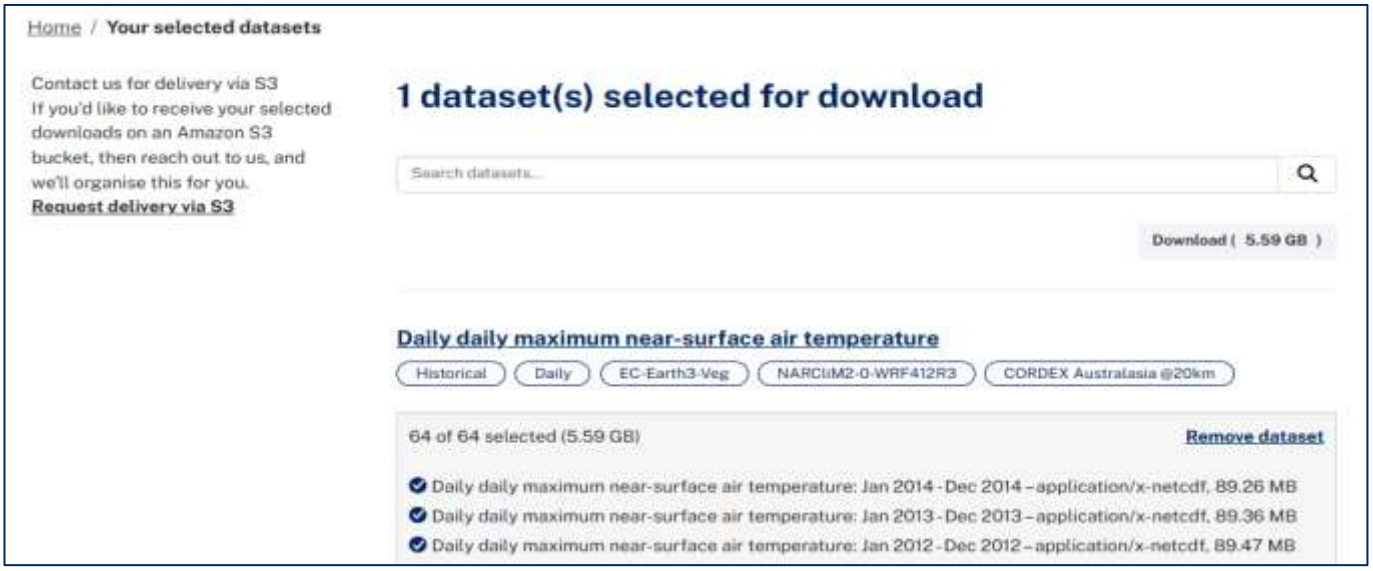
There are a few things to note when selecting an output format.

- CSV files are generated for each unique point selected and each dataset in a collection. When you select 2 points for a dataset, you will get 2 separate CSV files. Each row of data corresponds to the frequency you selected (Daily or Monthly) and the number of rows will correspond to the number of years selected in the date range tool.
- Be aware that when GeoTIFF is selected, a GeoTIFF is created for each selected frequency for the date range. For example, if you select Daily frequency and want 2015–2100 date range, you will get 365 x 85 GeoTIFFs, or **31,025 GeoTIFFs**! This will take a very long time to process and be a very large file to download!

4 Downloading data from the Data Cart

At this point you are ready to review your selection in the Data Cart and download your datasets. Click the 'Your data cart' button on the top right corner of the page.

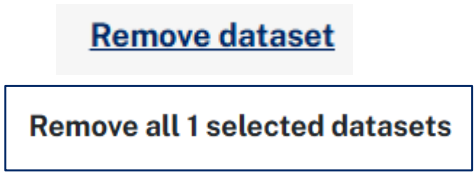
When your Data Cart opens, you will see something like this:



There are a few expectations to set when looking at your dataset in the Data Cart.

- A collection selection will appear as the list of all datasets in that collection.
- The size of the download in the download button is the estimated size of the dataset after selection of the source data. It does not reflect the output format or spatial selection. See Appendix 6.4 for more details on download file size estimates.
- The list under the dataset title corresponds to each year of simulation. Simulation years have a check mark if it is part of your time range selection. The checkboxes cannot be checked or unchecked here to change your selection.
- Files in the dataset list show the source as NetCDF, regardless of your output format selection.

To remove a dataset from your Data Cart, click the 'Remove dataset' link. To remove all datasets, scroll to the bottom of your list and click 'Remove all selected datasets', located just above the footer navigation menu.



Once you are satisfied the Data Cart contains the datasets you wish to download, click the 'Download' button near the top. If the request was successfully submitted, you will see this message:

Request processing failure - If you do not see this message or get an error message (i.e. Request processing failure), please contact narclim@environment.nsw.gov.au

4.1 Receiving an email to download your data request

If your download request was successfully processed, you will receive an email from ckan@integrations.dpie.nsw.gov.au with the subject 'Your CDP data request is ready for download'. The email will provide a link to download your data. Note that the size of the requested data file(s) and the output format will impact the time between you requesting the data and receiving this email.

With regards to the email and download, note that:

- the download link will expire in 7 days
- the download file will be in a 'zip' format
- the zip file name is autogenerated, as such the file name doesn't reflect the job name:
  - the zip file contains a folder labelled with the username and timestamp
  - the folder contains all datasets, with names describing the dataset.

Data request failed to process

If your data cart request was submitted but not successfully processed, you will receive a different email from ckan@integrations.dpie.nsw.gov.au with the subject 'Your CDP data request failed'.

This email will explain where you can find information about the job request, and you'll need to contact the NARCliM mailbox at NARCliM@environment.nsw.gov.au for assistance.

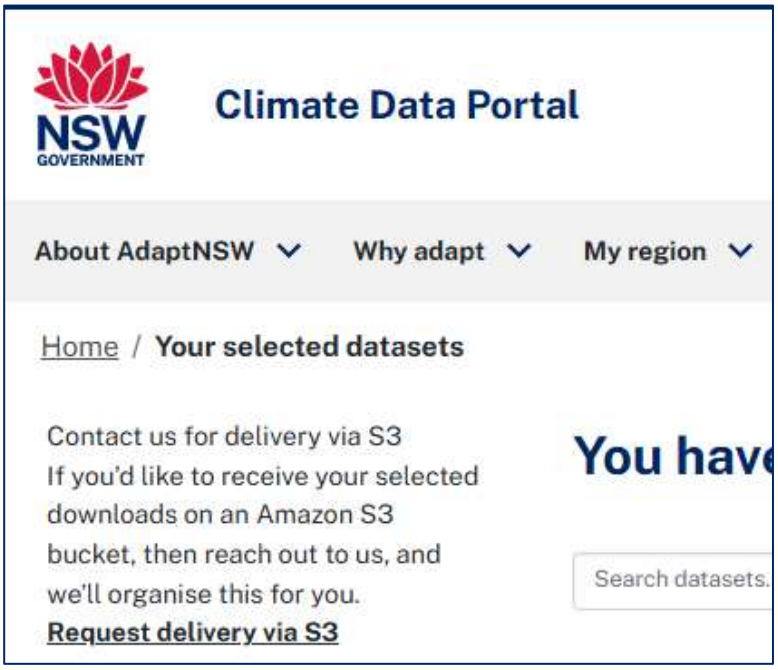
4.2 Downloading with an Amazon S3 bucket

You can request to have your dataset requests delivered to an Amazon AWS S3 bucket, if you have access to one. Used of this tool requires at least one dataset in your Data Cart.

If you want your data request be sent to an AWS S3 bucket, then click the 'Request delivery via S3' link and we will assist you in setting it up.

If you know in advance that you want your request be sent to an AWS S3 bucket, contact us directly about this via our mailbox - NARCliM@environment.nsw.gov.au.

The link is on the left-hand side of the Data Cart page (see screenshot to the left).



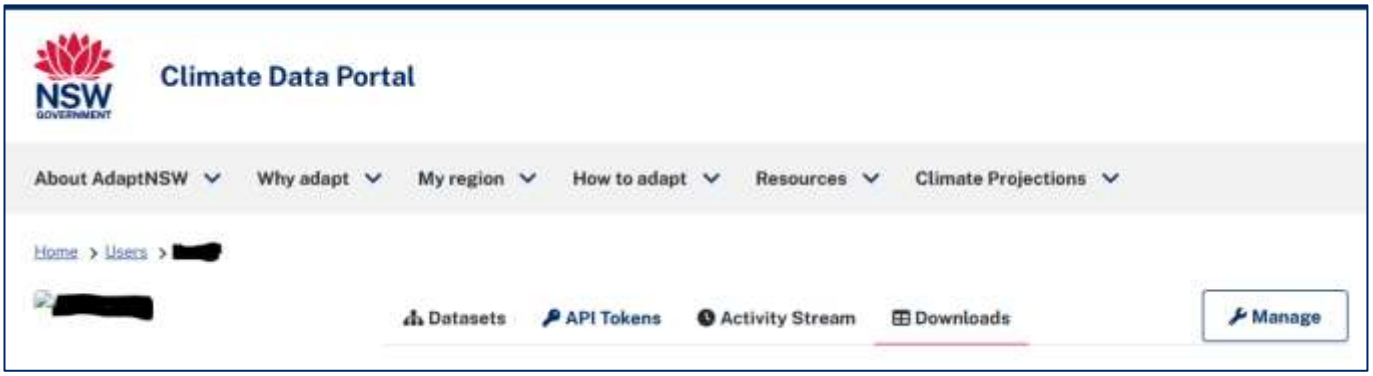
5 Managing user account information

The Portal has a few functions that allow you to review your activity, to download histories and to manage your user profile. This section will cover these tools.

Reviewing activity history

Click your username on the top right of the page. You will then be taken to your user page (see screenshot below). You will notice that the directory path is Home > Users > *Your_Username*.

In the left column, you will see a summary of your user information.



There are 4 tabs and a 'Manage' button:

- **Datasets** tab lists any datasets that you have posted on the Portal. This will likely say that "you haven't created any datasets".
- **API Tokens** – unless you a Portal administrator, you won't need to create an API Token.
- **Activity Stream** – a history of activities associated with your account
- **Downloads** – Your download request history in a table. This table will show:
  - the dataset name with a link to go to the Selection page
  - organisation owning the dataset
  - your username
  - request submission date and time
  - details column with a 'Copy' button.

When you click the 'Copy' button in the Details column, you can access the code used for that dataset request. If you request data and receive an email that your request failed, this code should be sent to the Portal mailbox to diagnose the problem.

- **Manage** button – to edit your user profile. See Table 1 in Section 1 for more information.

6 Appendices

6.1 Appendix A: Climate Data Portal technical information

The Climate Data Portal is built on the CKAN framework (https://ckan.org/), an open-source software for open data catalogues. CKAN is widely used for enterprise data projects and access.

CKAN offers developers a tool that provides an expansive set of tools to deliver end-users a robust, interconnected system of functionality that has the following features:

- It stores metadata and indexes of datasets (not the data itself), making it quicker to find data.
- All data must be available on the internet in a permanent URL and directly linkable and have no captcha.
- Structure data requirements, e.g. no tables inside pdf or doc; common offenders are statistic bulletins; no table as images.
- Open formats: CSV, json, xml. GeoTIFF.
- Open licenses: Open data and content can be freely used, modified and shared by anyone for any purpose – http://opendefinition.org (EX: CC 4.0, OdbL, OGL).
- CKAN uses Apache Solr as its search engine. For further details check the Solr documentation (https://solr.apache.org/guide/6_6/searching.html#searching).

Other data platforms in New South Wales that are built on CKAN include:

- NSW SEED Portal (Sharing and Enabling Environmental Data) https://www.seed.nsw.gov.au/
- NSW Planning Portal https://www.planningportal.nsw.gov.au/

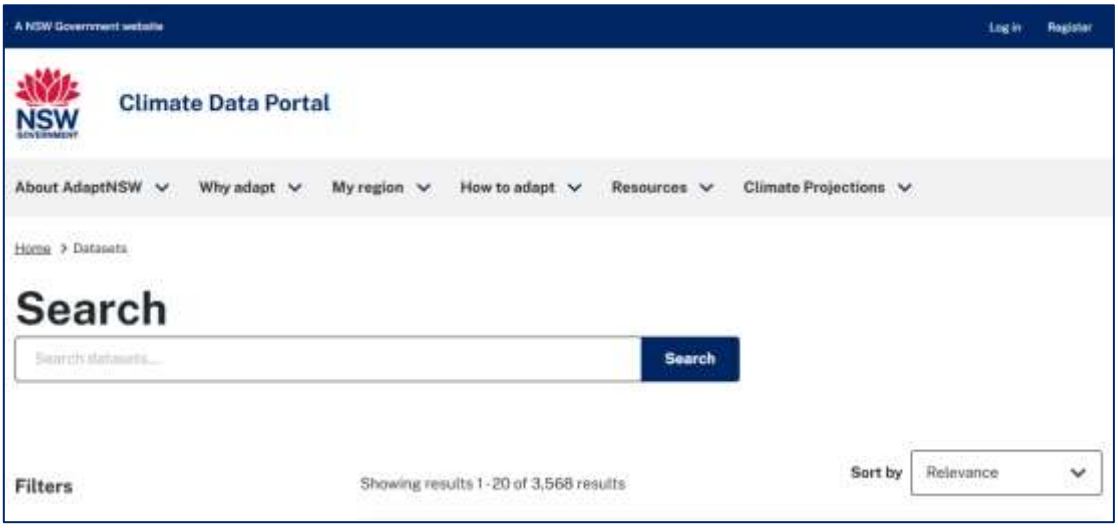
Spatial domain extents:

- CORDEX Australasia @20km (AUS-18):
  - South-west corner: 89.14°, –52.57°
  - North-east corner: –153.79°, –12.09°
- South-East Australia @4km
  - South--west corner: 134.30°, –40.22°
  - Northwest corner: 160.94°, –22.47°

Return to Getting started

6.2 Appendix B: Using the Portal's Search box

This appendix explains how to effectively use the Search box on the Datasets page in the NSW Climate Data Portal to improve searches for datasets and collections.



6.2.1 Search quickly for datasets and collections

- The Search box lets users search for datasets without using filters, and is essential for narrowing down search results for collections with the current release.
- The Search box supports both word and word combination searches. For example, search for:
  - Variable_id (i.e. the short abbreviation of the variable), such as **tasmax, pr** or **txg35**
  - **Temperature** will return all datasets and collections with 'temperature' in the title
  - **Temperature +air** will return all datasets and collections with 'temperature' and 'air' in the title
  - **Temperature -air** (hyphen) will return all datasets and collections with 'temperature' in the title, but exclude those with 'air' in the title
  - **'Air temperature'** (with single quotations) will return all datasets and collections with the exact word combination 'air temperature' in the title.
- The search box also supports wild card searches by using a search field name plus a value.
  - For example, a search for **Title:temp*** will return all dataset variable names or collection names that contain a word starting with 'temp', such as 'daily surface temperature'.
  - Wild cards are not supported by just typing **temp***; you must type **Title:temp***.
- To search for a collection, use the simple search with '+', such as **Temperature +monthly +'1-2.6' +4km** to find the collections for 'Monthly temperature under SSP1-2.6 scenario, for South-east Australia at 4km'. Collection titles consist of the collection description.

6.2.2 Tips and tricks when using the Search box

- Word capitalisation does not affect the search.

- Searching datasets with hyphenated words ('-') such as **near-surface** will return all datasets with the words 'near-surface', 'near' and 'surface' in the title. Use single quotation marks for specific searches, for example, **'near-surface'** for datasets and collections.
- Type **title:'historical'** (with quotations) to search for all collections with 'historical' in the title. The term 'Historical' appears in titles of collections, not datasets.
- Type **title:historical+CORDEX** to search for all collections of historical datasets at the CORDEX 20km spatial extent, as these 2 terms are in collection titles.
- To refresh or perform a new search using the Search box, simply click either the page title 'Climate Data Portal' or the 'Search' button next to the blank search box. The dataset and collection count will reset to their total amount. Don't use the back arrow or screen refresh buttons.
- Search box results will update the filtering options in the left-hand panel to show the new count of datasets and collections that match the search criteria.
- To further refine a search after using the Search box, use the filters in the left-hand panel.
- The Search box is used for a single search. The Search box resets the total count each time it is used.

Notes about the Climate Data Portal and the Search box

- With the initial release of the Climate Data Portal in 2025, the filtering tools on the left-hand panel on the page only work with datasets, not collections yet.
- Using filters for collections is to be planned for a future update.
- Collection searches using the Search box enable you to search and select like datasets, such as 'monthly air temperature for SSP1-2.6 at 4km' and download all 10 NARCliM2.0 models/ensemble members at one time.
- The Climate Data Portal's underlying framework, CKAN (https://ckan.org/), supports 2 search modes – simple and advanced – and both can use the Search box. CKAN uses Apache Solr as its search engine. For further details check the Solr documentation (https://solr.apache.org/guide/6_6/searching.html#searching).

Return to Searching for collections

6.3 Appendix C: Reviewing dataset metadata

If you selected a dataset, you will find a table with detailed metadata for your dataset at the bottom of the selection page. Most metadata fields have been included on this page to provide you upfront information about your dataset.

For example, the metadata provided for the 'Daily minimum near-surface air temperature' dataset is:

Field	Value
Project	NARCliM2.0 (2024)
Product	Bias adjusted outputs
CMIP Generation	CMIP6
Variable	Bias Adjusted Precipitation
Acronym	prAdjust
Units	kg m^{-2} s^{-1}
Scenario	Historical
Date Start	1 January 1951
Date End	31 December 2014

These metadata elements are based in CORDEX archiving/metadata specifications (21 March 2025).

To review metadata for collections, you need to go to the bottom of the selection page, select one of the datasets within the collection and view the dataset metadata.

Metadata in the table has been pulled directly from the dataset and has been thoroughly quality controlled before being made available. If you have any questions about metadata, please contact the NARCliM mailbox at NARCliM@environment.nsw.gov.au.

Return to Refining your selection

6.4 Appendix D: Download size estimations

It is recommended that downloads from the Data Cart (not to your own AWS S3 bucket) are kept to 12GB or below. For reference, Table 2 provides examples of download sizes of collections. Note that Monthly data (12 files per year) is significantly smaller than Daily data (365 files per year)

Table 2: Estimated file sizes

Collection (10 models)	Spatial extent	Time range	Estimated size
Daily bias-adjusted precipitation, one scenario	Full extent at 4km (South-east Australia)	35 years	21.1 GB
Daily bias-adjusted precipitation, one scenario	NSW and ACT	65 years (i.e., all historical)	11.8 GB
Daily bias-adjusted precipitation, one scenario	NSW and ACT	35 years	6.7 GB
Daily bias-adjusted precipitation, one scenario	NSW and ACT	20 years	3.7 GB
Monthly bias-adjusted precipitation, one scenario	Full extent at 4km (South-east Australia)	85 years (scenario)	4.8 GB
Monthly bias-adjusted precipitation, one scenario	Full extent at 4km (South-east Australia)	65 years (historical)	3.8 GB

If you have any questions about downloads, please contact the NARCliM mailbox at NARCliM@environment.nsw.gov.au.

Return to Downloading data from the Data Cart