Australian Government
Commonwealth Environmental Water Holder

FLOW Monitoring Evaluation Research

We acknowledge the First Nations peoples as the Traditional Owners and Custodians of the lands, waterways and skies of the Murray-Darling Basin. We respect their continuing connection to culture and Country, and we thank them for their knowledge and science and the values reflected in these data.

Inundation frequency of Commonwealth environmental water – wetlands and floodplains (excludes river lines)

Dataset name	CEW_inundation_freqency_wetlands_floodplains_2014-2023
Dataset citation	CEWH Flow-MER (2024) Frequency of Commonwealth environmental water - wetland and floodplain inundation 2014-2023. Flow-MER Program. Commonwealth Environmental Water Holder, Australian Government Department of Climate Change, Energy, the Environment and Water. Sourced from https://data.gov.au/data/dataset/flow-mer-cew-inundation on [date-sourced].
Description	Extent of surface water (outside of river channels) thought to contain Commonwealth environmental water either alone or in partnership with other water holders. Mapped as the annual frequency of inundation. Raster data set derived from Landsat and Sentinel-2 observations of water extent checked annually with water managers. Excludes natural flooding and inundation by other sources of environmental water where there was not a component of Commonwealth environmental water. Compiled by the Flow-MER Basin scale project. 2014-2019 data based on information from the Long Term Intervention Monitoring (LTIM) project.
Currency	**Date from:** 1/7/2014
	Date to: 30/6/2023
Spatial domain	**Jurisdiction/Location:** Murray-Darling Basin
	Geographic extent: -24.586 138.568 152.489 -37.682
	Coordinate system: GDA1994, Australia Albers, EPSG 3577
Dataset status	**Progress:** complete for the period stated
	Maintenance and update frequency: Annual updates within the life of the Flow-MER project
Attributes	Raster data set. Pixel values are integers representing the frequency of annual watering. e.g. 1 = inundated by water containing Commonwealth environmental water just one time during 2014-2023 9 = inundated by water containing Commonwealth environmental water in every year 2014-2023
Data quality	**Lineage:** Inundation layers were compiled from multiple sources including the water observations from space, Sentinel-2, Inundation maps for NSW inland floodplain wetlands, Tassel Cap, local knowledge, airborne imagery interpretation, MikeFlood model outputs, GPS tracks. Prepared annually by the Flow-MER project. Pixel values representing Commonwealth environmental water are extracted from each year's inundation mapping and converted into an annual inundation raster (pixel values 1 = inundated by Commonwealth environmental water and 0= not inundated). Annual Basin maps are then stacked into a layered mosaic in ArcGIS using the mosaic function to SUM through the annual layers to represent the combined frequency over the multi-year period.
	Positional accuracy: 25m Landsat and 10m Sentinel2 products combined together and rescaled to 25m pixels. Inundation extents are checked visually by regional water delivery managers but are considered to be "best available estimates" of the maximum inundation extent.

	Attribute accuracy:
	Logical consistency:
	Completeness: Compiled annually to represent the maximum extent of all actions that incorporate Commonwealth environmental water indicated in CEWH acquittal reporting however is not guaranteed to be complete.
Access and License	**Distribution Landing Page:** https://data.gov.au/data/dataset/6a64f124-035b-4f71-9bc5-4bbb322b0267
	Distribution format: GeoTIFF
	Access constraints: Creative Commons license CC BY-SA 4.0 Attribution-ShareAlike 4.0 International). https://creativecommons.org/licenses/by-sa/4.0/ Attribution — You must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use. ShareAlike — If you remix, transform, or build upon the material, you must distribute your contributions under the same license as the original. redistribute the material in any medium or format must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.
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Contributors	LTIM and Flow-MER Basin-scale project: Annual mapping by Enzo Guarino (Hydrology team). Regional water managers. NSW OEH, CEWH Delivery Teams. CEW Frequency mosaic by Shane Brooks (Ecosystem Diversity leader).
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Custodian	Commonwealth Environmental Water Holder (CEWH), Department of Climate Change, Energy, the Environment and Water
Contact	Commonwealth Environmental Water Holder (CEWH) cewomonitoring@dcceew.gov.au
Maintainer	Flow-MER Basin scale project Shane Brooks (Flow-MER data manager) https://brooks.eco/contact
Metadata information	**Metadata date:** 8/10/2024