

Regional Climate Change and Hydrology Literature Synthesis Series



[Recent US Climate Change and Hydrology Literature Applicable to US Army Corps of Engineers Missions Report Cover](#)



[2-digit Hydrologic Unit Code Boundaries for the Continental United States, Alaska, Hawaii, and Puerto Rico](#)

ALEXANDRIA, VIRGINIA. The U.S. Army Corps of Engineers (USACE) has released a new regional climate change and hydrology literature synthesis for the Pacific Northwest Region.

The report is the final report of a series of 21 regional climate syntheses prepared by USACE under the leadership of the Institute for Water Resources (IWR) Global and Climate Change team at the scale of 2-digit U.S. Geological Survey (USGS) Hydrologic Unit Codes (HUC) across the continental United States, Alaska, Hawaii and Puerto Rico.

The Civil Works Technical Reports within the series are:

- **Alaska Region:** Water Resources Region 19. This report focuses on Water Resources Region 19, the Alaska Region. The region is fully within the Alaska USACE district.
- **Arkansas, White and Red Rivers Region:** Water Resources Region 11. This report focuses on Water Resources Region 11, the Arkansas-White-Red Rivers. The Albuquerque, Ft. Worth, Little Rock, and Tulsa USACE districts each include territory within Water Resources Region 11.
- **California Region:** Water Resources Region 18. This report focuses on Water Resources Region 18, the California Region. The California Region is within the USACE Los Angeles district, Sacramento district, and San Francisco district territories, with an exception of a small portion of the region which is within Mexico.
- **Caribbean Region:** Water Resources Region 21. This report focuses on Water Resources Region 21, the Caribbean Region. The Caribbean Region is within the South Atlantic Division. The Antilles Area Office (SFAO) is located in San Juan, Puerto Rico

Rico and is the only Jacksonville USACE District Area Office located in Puerto Rico. The area also covers the Virgin Islands and the British Virgin Islands.

- **Great Basin Region:** Water Resources Region 16. This report focuses on Water Resources Region 16, the Great Basin Region. The majority of the region is within the USACE Sacramento district territory, however, Water Resources Region 16 also extends into the USACE Walla Walla and Los Angeles districts.
- **Great Lakes Region:** Water Resources Region 04. This report focuses on Water Resources Region 04, the Great Lakes. The Detroit, Buffalo, New York, and New England USACE districts each include territory within Water Resources Region 04.
- **Hawaii Region:** Water Resources Region 20. This report focuses on Water Resources Region 20, the Hawaii Region. The Honolulu District covers Water Resources Region 20.
- **Lower Colorado River Region:** Water Resources Region 15. This report focuses on Water Resources Region 15, the Lower Colorado River Region. The Albuquerque and Los Angeles USACE districts each include territory within Water Resources Region 15.
- **Lower Mississippi River Region:** Water Resources Region 08. This report focuses on Water Resources Region 08, the Lower Mississippi River. The New Orleans, Vicksburg, Little Rock, Memphis, and St. Louis USACE districts each include territory within Water Resources Region 08.
- **Mid-Atlantic Region:** Water Resources Region 02. This report focuses on Water Resources Region 02, the Mid-Atlantic Region. The New York, Philadelphia, Baltimore, and Norfolk USACE districts each include territory within Water Resources Region 02.
- **Missouri River Region:** Water Resources Region 10. This report focuses on Water Resources Region 10, the Missouri River. The Omaha and Kansas City USACE districts each include territory within Water Resources Region 10.
- **New England Region:** Water Resources Region 01. This report focuses on Water Resources Region 01, the New England Region. The entirety of the region is within the New England USACE district.
- **Ohio Region:** Water Resources Region 05. This report focuses on Water Resources Region 05, the Ohio Region. The entire Ohio Region is within the USACE Louisville, Nashville, Huntington, and Pittsburgh district territories.
- **Pacific Northwest Region:** Water Resources Region 17. This report focuses on Water Resources Region 17, the Pacific Northwest Region. The Pacific Northwest Region boundary is coincident with the USACE district territories of Portland, Seattle, and Walla Walla.
- **Rio Grande Region:** Water Resources Region 13. This report focuses on Water Resources Region 13, the Rio Grande Region. The region encompasses portions of the Albuquerque and Fort Worth USACE districts.
- **Souris-Red-Rainy Region:** Water Resources Region 09. This report focuses on Water Resources Region 09, the Souris-Red-Rainy Region. The region is fully within the St. Paul USACE district.
- **South Atlantic-Gulf Region:** Water Resources Region 03. This report focuses on Water Resources Region 03, the South Atlantic-Gulf. The Wilmington, Charleston, Savannah, Jacksonville, Atlanta, and Mobile USACE districts and a relatively small section of the Mississippi Valley Division are within the region.
- **Tennessee Region:** Water Resources Region 06. This report focuses on Water Resources Region 06, the Tennessee Region. The entire Tennessee Region is within the USACE Nashville district territory.

- **Texas Gulf Region:** Water Resources Region 12. This report focuses on Water Resources Region 12, the Texas-Gulf Region. The Albuquerque, Ft. Worth, Dallas, and Galveston USACE districts each include territory within the region.
- **Upper Colorado Region:** Water Resources Region 14. This report focuses on Water Resources Region 14, the Upper Colorado Region. The Upper Colorado Region is within the South Pacific Division. The Sacramento and Albuquerque USACE districts each include territory within the Upper Colorado Region.
- **Upper Mississippi Region:** Water Resources Region 07. This report focuses on Water Resources Region 07, the Upper Mississippi Region. The St. Paul, Chicago, Rock Island, and St. Louis USACE districts each include territory within Water Resources Region 07.

USACE is increasingly considering potential climate change impacts when undertaking long-term planning, setting priorities and making decisions that affect resources, programs, policies and operations.

Each of these regional reports summarizes observed and projected climate and hydrological patterns cited in reputable peer-reviewed literature and authoritative national and regional reports, and characterizes climate threats to USACE business lines, (e.g., flood risk management). They also provide context and linkage to other agency resources for climate resilience planning, such as downscaled climate data for subregions and watershed vulnerability assessment tools.

Kathleen D. White, PhD, PE, and Jeffrey R. Arnold, PhD, of IWR's Global and Climate Change team, led the effort. More information about these regional climate change and hydrology literature syntheses and other vulnerability assessments and reporting can be found on the Responses to Climate Change website.

Learn More:

- [Responses to Climate Change](#)
- [Regional Literature Syntheses](#)
- [USACE Climate Change Adaptation Plans](#)