JEFF HICKS

Director of Digital Solutions

Jeff Hicks, Director of Digital Solutions at The Water Institute, has more than 15 years of experience leading teams to scale environmental applied research into data-driven decision support applications.

Through his work on Climate.gov, the U.S. Climate Resilience Toolkit, and the National Climate Assessment, Jeff helped to develop many foundational climate data analyses and decision support tools used nationally in government and private industry. Through his career, Jeff also led or supported development of several high-profile environmental planning and assessment applications for DoD, NOAA, NASA, the U.S. Forest Service, and Los Alamos National Laboratory; and for a global set of companies including ExxonMobil, Dow Chemical, DuPont, Intel, Honeywell, and Kodak; and dozens of state, regional, and local governments.

Prior to joining The Water Institute, Hicks led Fernleaf Interactive which he co-founded in 2014 as a private company spinoff of the National Environmental Modeling and Analysis Center (NEMAC) at the University of North Carolina Asheville; Fernleaf continues to expand the reach of the NEMAC's applied research in community climate resilience by advising dozens of local and regional governments nationwide. Jeff was previously a software engineer with Locus Technologies and a geospatial software engineer with NEMAC. He received his bachelor's degree in environmental studies from the University of North Carolina at Asheville.

PROFESSIONAL EXPERIENCE

2022–Present: Director of Product Strategy, The Water Institute

2014–2022: Co-founder, Fernleaf

2011–2014: Software Engineer, Locus Technologies

2006–2011: Geospatial Software Engineer, National Environmental Modeling and Analysis Center

ORGANIZATION ROLE

Director of Digital Solutions

PROJECT ROLE / FOCUS AREAS

Solution development

GIS and data visualization

Decision support

Entrepreneurship

EDUCATION

BS Environmental Studies, University of North Carolina at Asheville, 2008

SELECTED PROJECTS

EnDMC technical development. *The Water Institute. (2022–Present) Solution Lead.* Jeff is leading the overall team effort to advance the Environmental Data and Model Catalog (EnDMC) which increases discoverability and preserves data provenance for complex environmental modeling tasks.

Defense climate advisory support. *The Water Institute. (2022–Present) Senior Advisor.* Jeff supported the US Air Force to establish, execute, and expand its custom climate projection capability that serves the DoD, US Intelligence Community, and NATO mission partners. Jeff led an analysis of unanswered requests for tailored projection information received to date throughout OCONUS and in response, directed rapid development of a tool now leveraged by USAF operators to fill information requests. To meet the evolving mission space, Jeff collaborated with the unit commander from visioning to securing funding to grow a team of USAF personnel and contractors.

Data-driven resilience planning. *Fernleaf. (2014–2022) Principal.* Support for dozens of local and regional governments including Charleston, SC; Tallahassee, Jacksonville, Alachua County, Palm Beach County, West Palm Beach, Lake Worth Beach, Lantana, Ocean Ridge, Briny Breezes, Boynton Beach, Delray Beach, Highland Beach, Boca Raton, Fort Lauderdale, Broward County, Hollywood, Hallandale Beach, North Miami, and Tampa International Airport, FL; New Bern, New Hanover County, the 24 jurisdictions of the Land of Sky Regional Council of Governments, Orange County, Durham City and County, Chapel Hill, Raleigh, and Cary, NC; Houston, TX; the greater Detroit region, MI; and the Hampton Roads region of VA.

NOAA's Climate Explorer. *Fernleaf. (2016–2022) Technical Lead.* Jeff served as the lead data analyst and overall technical lead for the Climate Explorer, the featured resilience tool that supports the US Climate Resilience Toolkit's Steps to Resilience framework. As part of that effort, Jeff supported the development of an interactive county-scale CMIP5 projection time series tool that makes it possible for users to interact with terabytes of climate projection data. Jeff has supported conducing workshops for a wide range of stakeholders in use of projection data to inform localized decisions.

National Climate Assessment state summary analyses and indicator development. *NEMAC. (2015–2016) Technical Analyst.* Expanding on the 3rd National Climate Assessment, a series of state and regional supplements were added to better contextualize climate changes at a local level. Jeff led the spatial climate data processing and visualization efforts for national, regional, and state map products within these supplements in collaboration with the National Centers of Environmental Information (NCEI) and the North Carolina Institute for Climate Studies (NCICS). Additionally, Jeff supported development of several climate change indicators in support of the National Climate Assessment and associated supplements in collaboration with efforts at the US Global Change Research Program and University of Maryland.