

# CIRES Outstanding Performance Award (OPA)

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## General Information

Nomination ID:230 - Submitted: 02-05-2024

# Liz Payton

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Nominated for Science Service Award

## Nominator Information

**Benét Duncan, Ben Livneh**

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## Nomination Statement

Ben Livneh and I would like to nominate Liz Payton for a 2024 CIRES Outstanding Performance Award in the Science Service category for her work as Chapter Lead Author of the Water chapter for the recently-released Fifth National Climate Assessment (NCA5). Liz is Western Water Assessment's Water Resources Specialist, and she was selected by USGCRP to serve as the lead author for the water chapter after a public nomination process. Liz's selection speaks to her deep expertise on water and climate issues and her stellar communication and project management skills. As the NCA5 Water Chapter Lead Author, she spent two full years leading development of the Water chapter, including:

- Building an interdisciplinary author team that represented diverse backgrounds and areas of expertise within the hydroclimatology space
- Leading her author team in drafting and refining content for the report, first with a detailed outline and later the full text and figures for the chapter
- Coordinating with her coauthors to ensure all text was developed on time and met user needs and tight word count and strict reporting guidelines
- Interfacing with government agencies and the National Academies on their technical reviews of the report
- Working directly with USGCRP staff to ensure that the chapter met all reporting rules, and to design and revise figures identified or developed by the author team
- Leading the processing of the many public review comments received through the open public comment process
- Interfacing with the lead authors of other NCA5 regional and sector chapters to ensure that the content of the Water chapter was complementary to the content in the rest of the report

Since the report's release in November 2023, Liz has conducted extensive outreach with resource managers, professional groups, and the media to share the results broadly. Her work producing this critical resource was truly outstanding. Through it all, she has represented CIRES and Western Water Assessment in the best possible way – sharing important scientific research and synthesizing information in ways that will be truly impactful for many years to come.

## Criteria

Criteria 1: Implementation of a service, idea, device, process, or system that aids in research, teaching, or outreach at CIRES.

The quadriennial National Climate Assessment is mandated by Congress and implemented by the US Global Change Research Program (USGCRP). It provides foundational scientific information about the presence and impacts of climate change on the nation, and it is used by government agencies, resource managers, communities, nonprofits, media, and others to increase learning and support climate-informed decisions. Liz's leadership of the NCA5 Water chapter aids in research, teaching, and outreach at CIRES. The Water chapter helps researchers identify new research that fills critical knowledge gaps, it provides information and figures that will be used in climate and hydrology courses to help educate the next generation of scientists, and – in partnership with the CIRES Communications team – it has already helped to support extensive outreach at CIRES.

Criteria 2: Development or improvement of a service that increases the efficiency, quality, or visibility of scientific research or outreach.


Liz's work on the NCA5 Water chapter has increased the visibility of CIRES and other scientific research at the intersection of climate and water at the highest levels of government. The chapter references over 200 peer-reviewed scientific publications and other reports, including many from CIRES and CU Boulder scientists. It includes information about climate impacts including drought and flooding, and it emphasizes the disproportionate impacts of water cycle changes on frontline communities.

Criteria 3: Providing a service that promotes or inspires excellence and dedication to research performed at CIRES or in the wider community.

Through her work as the Chapter Lead Author of the NCA5 Water chapter, Liz has demonstrated a deep commitment to excellence in hydroclimatology research. She assembled an interdisciplinary and diverse author team with that could speak to hydroclimate research happening at CIRES and in the wider scientific and practitioner community across the United States. Her work has already inspired new proposal ideas within WWA and CIRES, and it has sparked new collaborations with frontline communities (including Tribes) and across research institutions. Given the highly visible nature of the NCA5, it will undoubtedly inspire investment in hydroclimatology research over the coming years to support continued research about climate and water in ways that will be impactful and help to shape our understanding.

## Supporting Documentation

- Liz\_Payton\_supportingdocs\_02\_05\_24\_861.pdf

 Download All Documents as a ZIP File

## Supporting Statements

### Allison Crimmins

acrimmins@usgcrp.gov

February 20, 2024

CIRES Outstanding Performance Awards Committee  
Cooperative Institute for Research in Environmental Sciences  
University of Colorado, Boulder

Dear CIRES OPA Committee,

I am writing to express my enthusiastic support for Liz Payton's nomination for the 2024 CIRES Outstanding Performance Award for Science Service in recognition of her work as the Chapter Lead Author of the Fifth National Climate Assessment's (NCA5) Water chapter.

My name is Allison Crimmins and I am the Director of the National Climate Assessment. I am a climate scientist on detail from the Environmental Protection Agency (EPA) Office of Air and Radiation to the White House Office of Science and Technology Policy (OSTP), where I led the fifth National Climate Assessment at the U.S. Global Change Research Program. My expertise is in assessing climate impacts and risks, particularly on health and economic damages, and I also led the 2016 U.S. Climate and Health Assessment.

Published in November 2023, NCA5 is the preeminent source of authoritative information on the risks, impacts, and responses to climate change in the United States. It provides a critical foundation for educators, researchers, policymakers, resource managers, and others to inform decisions and use the latest cutting-edge science in their work. As the Water Chapter Lead Author, Dr. Payton assembled and led an interdisciplinary author team that developed a comprehensive synthesis of the impacts of climate change on the water sector. Liz's commitment to assess, summarize, and communicate the latest understanding of climate change resulted in an authoritative, useful, and balanced report.

Authors like Dr. Payton are selected for their expertise and proven ability to integrate, evaluate, and interpret the latest scientific findings, discuss associated uncertainties, analyze current trends in global change, and project major climate trends. Selection of Chapter Lead authors involved additional criteria, including experience with leading collaborative teams under tight deadlines. Liz's expertise made her the ideal choice to lead the Water chapter. The role of the Chapter Lead is demanding, requiring skills in collaboration, scientific communication, and technical analysis. Dr. Payton spent years in this role, and I

express my deepest appreciation and admiration for all her efforts.

The NCA5 Water chapter was made up of a diverse team of authors, bringing together many different perspectives from experts across different fields of study. Development of the chapter was particularly difficult, given the need to cover such a huge topic within the constraints of this project (e.g., time constraints, word limits, extensive documentation requirements, etc.) The chapter garnered particular interest from the Department of the Interior and the EPA, which led to many comments and discussions with agency employees to come to consensus on the final materials. Because Water is a topic that spans multiple chapters of NCA5, Dr. Payton had to work closely to collaborate with fellow authors across the report to ensure consistency and avoid redundancy. The chapter not only covers changes in the water cycle and impacts on water quality, but speaks in plain language about how water-related climate changes will affect people and communities in disproportionate and inequitable ways, and how water managers and city/state/tribal planners around the country are building resiliency against threats to water availability and water quality. The content of the chapter led by Dr. Payton increases the visibility of this critical research and provides valuable scientific data to decisionmakers.

This Assessment has already had a great impact and will continue to reach users and raise public awareness of climate issues; not just in the United States, but around the world. Dr. Payton displayed great diligence and patience, leading her team through the many rounds of review in the development of this report, incorporating input from extensive public engagement such as public workshops, three opportunities for public comment, multiple rounds of Federal agency evaluation, and an external peer review conducted by the National Academies of Sciences, Engineering, and Medicine. The extensive peer and public review process is critical to ensuring the Assessment is credible and scientifically rigorous, and places a lot of demand on Chapter Leads like Dr. Payton. This Assessment also presented extraordinary challenges due to the pandemic, necessitating many virtual meetings, and Dr. Payton's sacrifices, patience, and time. She not only led her author team through the daunting development process, but did so with great spirit and humor. There is no compensation paid for being an author of the NCA; however, authors like Dr. Payton who volunteered to lead the development of NCA5 are recognized by the White House for providing an important service to the United States.

NCA5 has generated extensive media coverage, and leaders across the Nation are elevating the messages and sharing this resource widely. Dr. Payton played a critical role in making sure that the report was not only accurate, but also credible, understandable, and timely. In addition, she worked to ensure the report is fully compliant with the Global Change Research Act of 1990 and other applicable laws and policies. Individuals, local, state, and Tribal governments, businesses, and civil society continue to seek information to understand, plan, mitigate, and adapt. Dr. Payton's contributions to the NCA5 include meeting these practitioner needs, as well as providing robust materials that can be used in teaching and research. Furthermore, Liz led additional outreach and engagement events, including public engagement webinars, to ensure the final product was user-driven and widely distributed.

Dr. Payton embodies the excellence and meaningful engagement foundational to the CIRES Outstanding Performance Award for Science Service. Her hard work, dedication to scientific integrity, and generous contribution of her vision, expertise, and creativity has been a great service to the Nation and the world. Sincerely,

Allison Crimmins  
Director, National Climate Assessment

U.S. Global Change Research Program  
White House Office of Science and Technology Policy  
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## Katy Human

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Dear OPA Selection Committee,

We write enthusiastically in support of Liz Payton receiving an Outstanding Performance Award in Science Service. Paton lead-authored the Water Chapter of the Fifth National Climate Assessment, placing her alongside just 32 others who led the development of concise and compelling state-of-science assessments. The NCA is a Congressionally mandated report released every four years by the US Global Change Research Program, and Liz's selection as lead author of Water, the fourth chapter, speaks volumes about her reputation and leadership in her field of research: Climate change impacts on water.

This letter focuses on Liz's extraordinary skills in, and her dedication to, communicating the results of her team's work. She was highly motivated to ensure policymakers, water providers, other decision-makers, and the general public could understand and use the information she and her co-authors provided.

First, her chapter had to meet very short length limits, so word choice mattered tremendously. Liz led her team through a process that resulted in terrifically "tight and bright" language – short and resoundingly clear: "Climate change will continue to cause profound changes in the water cycle, increasing the risk of flooding, drought, and degraded water supplies for both people and ecosystems," the team wrote. "These impacts will disproportionately affect frontline communities. While data and tools for water resources planning are improving, water infrastructure standards and management policies have been slow to meet the new challenges."

We applaud this clear language. In writing up a press release about Liz's work, we used those sentences almost verbatim; I cannot remember another time we were able to do this, because scientific writing tends to be far more verbose, dense, and difficult to parse.

Secondly, Liz navigated beautifully between the federal communications people involved (at USGCRP) and the CIRES and CU Boulder communications teams. She shared information appropriately, honored embargoes and deadlines, ensuring we all understood them, and she helped us anticipate and prepare for significant media interest in the NCA. This was not easy work: the final "go" decision for issuing the report belonged to the White House, and so those of us interested in helping get word out had to wait in limbo, working up communications plans that might - or might not - sync with federal communications that we were not privileged to see until public release. Liz connected us to the right people and shared content that was allowed to be shared. She was a consummate professional.

She also asked for help, because she rarely engages directly with the media. Liz worked with the CIRES Communications team to prepare talking points and answers to possible tricky questions, going so far as to sit for a "murder board," in which several people, including CIRES Director Waleed Abdalati, pretended to be skeptical/bored/curious/antagonistic journalists. She worked to answer our tough questions and took lessons back to her desk and continued to craft responses until she knew she could articulate her

team's work. Media coverage of the NCA was enormous: a quick Google news search turned up more than 1,500 hits, with more than half including "water." Some outlets, like CBS News, reach hundreds of millions of people. So Liz's work on the NCA water chapter likely meant millions of people learned something about the state-of-science on climate change and water. That's extraordinary.

Liz traveled to the White House for the unveiling of report and expertly led two online webinars to engage with the public about the team's findings. And then earlier this month, she was asked to speak at a climate and water panel organized for journalists attending the American Association for the Advancement of Science annual meeting in Denver this year. She was among other luminaries including Nobel Prize (Medicine) winner Thomas Cech and Lisa Dilling, a former CIRES Fellow and now chief scientist at the Environmental Defense Fund.

We hope you will consider Liz for this award in Science Service. Her above-and-beyond work in communicating the findings of the NCA Water Chapter is the kind of work that "inspires excellence and dedication to research performed at CIRES or in the wider community," as the criteria note.

Sincerely,

Katy Human and Stephanie Maltarich  
CIRES Communications

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