

Sub-seasonal to Seasonal Precipitation Forecasting for Water Management

April 25, 2022

The Honorable Jeanne Shaheen
Chairwoman
Senate Appropriations Subcommittee on
Commerce, Justice, and Science
United States Senate
Washington, DC 20510

The Honorable Jerry Moran
Ranking Member
Senate Appropriations Subcommittee on
Commerce, Justice, and Science
United States Senate
Washington, DC 20510

Dear Chairwoman Shaheen and Ranking Member Moran:

On behalf of the below-signed water management agencies and organizations, we are writing to request your support for a \$15 million Fiscal Year 2023 (FY23) appropriation to begin the Western pilot for improving sub-seasonal to seasonal (S2S) precipitation forecasting. The National Oceanic and Atmospheric Administration's (NOAA) [2020 report to Congress](#) under Public Law 115-25 recommended the creation of this pilot project.

The purpose of the pilot project is to improve precipitation forecasting for water management in the United States. As the report notes, NOAA pilot projects were chosen "...based on the existence of major climate phenomena that have huge economic impacts and for which current S2S predictive skill is too low to be effectively used by many stakeholders."

For many decades the scientific community has not been able to offer dependable forecasts beyond a week or two, and S2S forecasts have the ability to provide state and local water managers with reliable extended precipitation outlooks. These sub-seasonal (2- to 6-week) to seasonal (2- to 6-month) projections fill an important gap between weather and climate forecasting and represent a central component of seamless short-term and long-term predictions that are needed to support water project operations, drought preparedness and response, and innovative water management strategies such as forecast-informed reservoir operations.

NOAA's Climate Prediction Center has been issuing S2S precipitation outlooks since the mid- 1990s. Their skill for the Western U.S. has been minimal, just slightly better than predicting average weather conditions, and has shown little improvement over time. Forecasting precipitation at S2S timescales is scientifically challenging and has historically received little federal research funding support.

Your support for a \$15 million increase in the U.S. Weather Research Program line item within NOAA's Office of Oceanic and Atmospheric Research would begin development of reliable forecasting with longer lead times to provide water managers with critical data to operate infrastructure more efficiently and allocate resources to mitigate and manage impacts of extreme wet and dry conditions. The attached proposed committee report language describes how we believe this critical funding should be focused.

We appreciate your consideration and hope you will support S2S pilot project funding in FY23. Please contact Jordan Smith at jas@vnf.com with any questions or to schedule a meeting to discuss this project with your staff.

Sincerely,

Signature Page Follows

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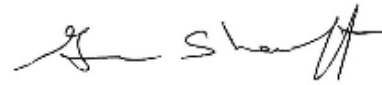
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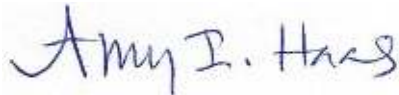
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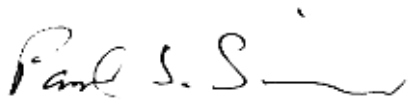
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Cc: The Honorable Catherine Cortez Masto
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The Honorable Mark Kelly
The Honorable Mike Lee
The Honorable Jeff Merkley
The Honorable Alex Padilla
The Honorable Mitt Romney
The Honorable Jacky Rosen
The Honorable Kyrsten Sinema
The Honorable Ron Wyden