Written Testimony of the
WESTERN STATES WATER COUNCIL

Submitted to the
Senate Energy and Natural Resources Committee
Public Lands, Forests & Mining Subcommittee

Legislative Hearing
June 7, 2022

Chairwoman Cortez Masto, Ranking Member Lee and Members of the Subcommittee:

S. 2568 - Open Access Evapotranspiration (Open ET) Data Act

The Western States Water Council, a government entity advising eighteen western governors, strongly supports efforts to enhance and expand the availability of and open access to consistent and comprehensive water supply, demand and water use data and information, such as through an Open Access Evapotranspiration (OpenET) data program and supports related federal authorizing legislation and appropriations (see #473 attached). S. 2568 would authorize the creation of a software system and data platform by means of an operational use partnership that is crucial to improving access to data and information for more effective water management and use.

The Council particularly appreciates the fact that S. 2568 explicitly directs the Secretary of the Interior to "…coordinate data analyses, use, and collection efforts with other Federal agencies, States, and Tribal governments through existing coordinating organizations, such as — (A) the Western States Water Council; and (B) the Western States Federal Agency Support Team [WestFAST]." WestFAST was created a decade ago at the request of western governors to focus collaboration between federal and state agencies with water resources responsibilities. OpenET will involve partners from federal and state agencies, institution of higher education, private sector entities, and nongovernmental organizations using satellite and weather data to map consumptive water use/evapotranspiration (ET) at the individual field scale.

In the West, the predominant consumptive use of water is ET from irrigation. With this program, the Department of the Interior will be able to partner with the OpenET consortium and with a broad network of collaborators to refine, develop applications, and operationalize the use of OpenET, providing credible, transparent, automated, and easily accessible consumptive water use data across the West. No such system exists today. There is a need for developing new monitoring technologies such as OpenET that provide more timely data availability and more refined spatial coverage. Currently access to satellite and ET data is limited and expensive, keeping it out of the hands of many water users and decision-makers. OpenET will allow water managers to assess how much water is being used via a cost-effective and easy-to-use web-based platform, filling a critical water data management gap.

The Council has long supported the use of remote sensing technologies and data from Landsat missions to improve the measurement and monitoring of consumptive water use through a partnership between the National Atmospheric and Space Administration (NASA) and U.S.

Geological Survey (USGS). The recent launch of Landsat 9 and ongoing efforts to define the next Landsat mission help ensure that the data necessary for an operational OpenET program are available. Similarly, the Council has supported the U.S. Bureau of Agrimet network of weather stations that provide data that serves as an important and efficient ground-truthing, calibration, and model validation tool for analysis of information products derived from satellite platforms such as OpenET. Agrimet provides basic data on precipitation, temperature, solar radiance, wind speed and humidity required to calculate reference ET and inform remote-sensing platforms. The Agrimet weather observing network suffers from the challenges of aging instrumentation infrastructure, deferred maintenance, need for technology upgrades, and funding that fails to keep up with these needs, making it difficult to maintain data continuity and coverage for users.

The Council urges the Subcommittee to favorably report S. 2568. The Council has and plans to continue to urge the Appropriations Committee to prioritize OpenET and Agrimet requests so as to allow these valuable tools to benefit federal, state and local policymakers, water managers and water users as the West continues to face water supply, use and management challenges exacerbated by drought.

Position No. 473
(*See also No. 428, 385, 345, 320, 284, 256, and 235*)
Adopted as revised September 16, 2021

POSITION
of the
WESTERN STATES WATER COUNCIL
regarding
FEDERAL WATER AND CLIMATE DATA COLLECTION AND ANALYSIS PROGRAMS
Deadwood, South Dakota
September 16, 2021

WHEREAS, the Western States Water Council is a policy advisory body representing eighteen states, and has long been involved in western water conservation, development, protection, and management issues, and the member states and political subdivisions have long been partners in cooperative federal water and climate data collection and analysis programs; and

WHEREAS, in the West, water is a critical, vital resource and sound decision-making demands accurate and timely data on precipitation, temperature, evapotranspiration, soil moisture, snow depth, snow water content, streamflow, groundwater, water quality and similar information; and

WHEREAS, the demands for water and related climate data continue to increase, and this information is used by federal, state, tribal, and local government agencies, as well as private entities and individuals to: (1) forecast flooding, drought and other climate-related events; (2) project future water supplies for agricultural, municipal, and industrial uses; (3) estimate streamflows for hydropower production, recreation, and environmental purposes, such as for fish and wildlife management, including endangered species needs; and (4) facilitate water management and administration of water rights, decrees, and interstate compacts; and

WHEREAS, without timely and accurate information, human life, health, welfare, property, and environmental and natural resources are at considerably greater risk of loss; and

WHEREAS, critical and vital information is gathered and disseminated through a number of important federal programs including, but not limited to: (1) the Snow Survey and Water Supply Forecasting Program, administered by the National Water and Climate Center (NWCC) in Portland, Oregon, and funded through USDA's Natural Resources Conservation Service (NRCS); (2) NWCC's Soil and Climate Analysis Network (SCAN); (3) the U.S. Geological Survey's (USGS) Groundwater and Streamflow Information Program (GWSIP) and National Streamflow Network, which are funded through the Department of Interior; (4) Landsat thermal data, archived and distributed by the USGS, and other remotely-sensed data acquired through the National Atmospheric and Space Administration (NASA) and its water-related missions; (5) the National Oceanic and Atmospheric Administration's (NOAA) National Weather Service and Climate Programs Office; (6) the Environmental Protection Agency's National Environmental Information Exchange Network (NEIEN); and (7) the Bureau of Reclamation's Agrimet System and similar weather station networks; and

WHEREAS, state-of-the-art technology has been developed to provide real or near real-time data in formats that can be shared and used by different computer programs with the potential to vastly improve the water-related information available to decisionmakers in natural resources and emergency management, and thus better protect the public safety, welfare and the environment; and

WHEREAS, these federal programs and newly proposed projects and programs provide useful products to assist in visualizing and interpreting data on water and snow, water use, evapotranspiration and other parameters making water supply, demand and availability information more accessible and easy to interpret; and

WHEREAS, over a number of years, the lack of capital investments in water data programs has led to the discontinuance, disrepair, or obsolescence of vital equipment needed to maintain existing water resources related data gathering activities; and

WHEREAS, there is a serious need for adequate and consistent federal funding to maintain, restore, modernize, and upgrade federal water, weather and climate observation programs, not only to avoid the loss or further erosion of critical information and data, but also to address new emerging needs, with a primary focus on coordinated data collection and dissemination; and

WHEREAS, wildfires, floods, and other natural disasters have led to the significant loss of monitoring capabilities and require timely action to restore, maintain, and upgrade sensors and observing systems and networks.

NOW THEREFORE BE IT RESOLVED, that the Western States Water Council urge the Administration and the Congress to give a high priority to the allocation and appropriation of sufficient funds for these critical, vital programs, which benefit so many, yet have been or are being allowed to erode to the point that it threatens the quantity and quality of basic data provided to a myriad, growing and diffuse number of decisionmakers and stakeholders, with significantly adverse consequences.

BE IT FURTHER RESOLVED, that the Western States Water Council supports efforts to enhance and expand the availability of and access to consistent and comprehensive water supply, demand and water use data and information, such as, but not limited to, the Open Access Evapotranspiration (OpenET) data program and related federal authorizing legislation and appropriations.