WESTERN STATES WATER COUNCIL

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via email:
michael_brain@ios.doi.gov

Michael Brain
Principal Deputy Assistant Secretary for Water & Science
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Pam Melroy
Deputy Administrator
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Dear Mr. Brain and Ms. Melroy:

The Western States Water Council (WSWC) is a bi-partisan government entity created by Western Governors in 1965 that represents eighteen states. Our members are appointed by and serve at the pleasure of their respective Governors, advising them on water policy issues. Our mission is to ensure that the West has an adequate, secure, and sustainable supply of water of suitable quality to meet its diverse economic and environmental needs now and in the future. The WSWC strongly supports Landsat Next. We urge you to give this investment a high priority in your FY2026 budget requests.

As we address the results of decades of drought in the West and continuing climate uncertainty, adequately and expeditiously funding preparations for the launch of Landsat Next and its operations is critical. We are particularly concerned with maintaining data continuity and integrity with Landsat thermal-infrared (TIR) and reflected light imagery given the aging Landsat 8 and Landsat 9. Landsat spectral measurements are important – both thermal and reflected – with measurement accuracy and quality. Landsat Next will provide more and better data for water managers.

Landsat Next will continue to improve upon the 50-year Landsat record of land and water earth observations, with better spatial resolution and more timely 6-day revisits, and twice as many spectral bands (including new bands for identifying and monitoring agriculture, water use, and harmful algal blooms). The economic benefit to the U.S. economy is estimated to be about $2 billion annually. Much like weather observations and GPS, Landsat data is used every day to better understand our dynamic planet and adapt to its changing climate.

We have been active advocates for Landsat TIR as an increasingly essential tool for measuring, monitoring and managing water use in the western United States. Landsat is the only operational satellite having both thermal data and a spatial resolution fine enough to map water-resources use at the level of agricultural fields. Typical applications include mapping irrigated lands, as well as crop type, measuring and monitoring evapotranspiration and consumptive water uses, mapping the extent of surface and groundwater use, allocating and administering rights to the use of water, including approval of water rights transfers and evaluating beneficial consumptive use, facilitating water marketing opportunities, administering negotiated interstate agreements and monitoring interstate compacts, estimating water-use by invasive species, monitoring water and food sustainability and security, and providing information to help forecast and moderate commodity market fluctuations, as well as projecting wildfire risks.

There is an urgent need to accelerate, not delay, funding decisions in order to ensure there are no future data gaps. Uncertainty regarding future funding and TIR data availability has in the past been an obstacle to building operational water resources planning, monitoring and management programs. The western water community worked hard to secure a place for the TIR imager on both Landsat 8 and Landsat 9, and we will continue to work to ensure Landsat Next guarantees TIR imagery remains available. We are currently working with the OpenET Coalition to measure and monitor evapo-transpiration as a representation of consumptive agricultural water use. Under a WaterSMART grant we intend to integrate OpenET data with our regional Water Data Exchange (WaDE) and water rights data as a measure of reasonable consumptive use. NASA's TIR data is essential to this work.

OpenET uses the best available science to provide easily accessible satellite-based mapping of estimates of evapotranspiration (ET) for improved water management. Using the Data Explorer, users can explore ET data at the field scale for millions of individual fields or at the original quarter-acre resolution of the satellite data. With reliable and easily accessible ET data, local and regional water managers can gain a more detailed picture of water consumption in their area.

Similarly, the WSWC has supported the U.S. Bureau of Reclamation's 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 data 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.

We expect to see further uninterrupted innovations in water management based on NASA's TIR data from Landsat Next, with USGS operating the next generation satellites and archiving the data, as long as the data continues to be available at no cost to users.

The WSWC strongly supports a continuing National Land Imaging Program and expresses our strong support for the approval and construction of the Landsat Next mission without delay. Again, we ask that you give a high priority in your FY2026 budget requests for Landsat Next.

Sincerely,

Tony Willardson
Executive Director
Western States Water Council