

On December 23, following a bicameral agreement and several amendments, Congress passed the Consolidated Appropriations Act (H.R. 2617).

Division A included appropriations for Agriculture Conservation Programs (Title II) and Rural Development (Title III). The Natural Resources Conservation Service (NRCS) conservation operations received \$941M. The bill references the explanatory statement of the bicameral agreement which directs \$16.8M be used for the Snow Survey and Water Forecasting Program; \$86.8M for the Soil Surveys Program; and \$800M for Conservation Technical Assistance. "The agreement provides an increase of \$7M to expand the NRCS Snow Telemetry Network [SNOTEL], of which \$1M is for a study, following consultation with the Committees, of potential expansion of the SNOTEL automated mountain weather monitoring network to the northeastern United States. The agreement also encourages consideration of expansion into the Alpine zone of glaciated mountain ranges, and consideration of working with interested university, tribal, and non-profit partners on the installation and maintenance of such SNOTEL sites." The agreement directs NRCS to work with States, irrigation districts, acequias, and others to implement area-wide plans to address drought resiliency and mitigation.

The bill provided: \$2M for the Watershed Rehabilitation Program; \$7M for the Healthy Forests Reserve Program; \$7.5B for wellhead and groundwater protection activities; and \$75M for Watershed and Flood Prevention Operations (WFPO). The agreement directs NRCS to collaborate with outside stakeholders and streamline guidance to use the WFPO funds for projects that modernize irrigation systems, while also providing benefits for drought response and wildlife habitats.

The bill provided \$596M for rural water and waste disposal grants and loans, including \$70M for grants to Native Americans. Section 734 requires iron and steel products used in water and waste projects to be produced in the United States. Section 748 authorized the USDA to provide potable water for extended periods to eligible communities impacted by drought, severe weather, or other natural disasters under the Emergency Community Water Assistance Grant Program.

Section 766 appropriated \$5M for the USDA to test soil, water, or other agricultural products for per- and polyfluoroalkyl substances (PFAS) at the request of agricultural producers, and assist with mitigation costs. The bill prioritizes the assistance "in states and territories that have established a tolerance threshold for PFAS in a food or agricultural product...."

Division B included appropriations for the Department of Commerce (Title I) and Science (Title III). The National Oceanic and Atmospheric Administration (NOAA) received \$6.3B (\$474.8M above FY22). This included \$224.2M for climate research (\$24.2M above FY22) with a focus on informing climate resilience efforts, western water issues, and wildfires and drought. It included \$1.25B for National Weather Service operating expenses, with an increase of \$91.2M (over FY22) for the procurement of future weather satellites and related systems essential for accurate weather forecasting.

The bicameral agreement directed funds to NOAA's Office of Oceanic and Atmospheric Research (OAR) for climate research. For the Water in the West Initiative, \$12.2M was appropriated for research, data stewardship, and the allocation of computer resources. Another \$4M was directed for the development of a collaborative and integrated fire weather research program, including a new NOAA Fire Weather Testbed. "The agreement provides \$12.1M across NOAA line offices for its efforts to improve [Subseasonal to Seasonal (S2S)] Weather Prediction. This includes \$5M in NWS Science and Technology Integration for the development of the Seasonal Forecast System and \$7.1M for the S2S research program in the OAR U.S. Weather Research Program, including \$1M to seed innovative research testbeds. As part of these efforts, NOAA is encouraged to pursue a pilot project for S2S precipitation forecasts for water management in the western United States. The pilot project should be carried out in coordination with NWS and should be focused on achieving measurable objectives for operational forecast improvement, including forecasts of seasonal mountain snowpack accumulation and total seasonal precipitation. The S2S work should be integrated, as much as is practicable, with the Water in the West Initiative and Fire Weather."

The agreement further directed \$14M of the competitive research funds (\$22.5M) be applied toward harmful algal blooms (HABs), with \$2M to "explore innovative methods to increase monitoring and detection of HABs in freshwater systems by partnering with academic institutions with expertise in unmanned aircraft systems." Another \$1M is directed toward the expansion of support "for States to assess domoic acid levels of HAB species in the marine environment." The agreement also supported NASA's contributions, in coordination with NOAA and other federal agencies, to monitoring and detecting freshwater HABs.

For the National Mesonet Program (NMP), the agreement provided \$24.7M (\$2M above FY22) for the continuation and expansion of the program. "Investments in the NMP going forward are encouraged to sustain coverage of data types and areas now included within the NMP, expand in situ and remote sensing capabilities to provide weather measurements in high-risk areas, such as vulnerable communities, and enhance coverage by the NMP in non-contiguous States and

Territories and other data sparse areas. Prior to acquisition of such data, NOAA shall assess the potential contribution of the data to improve forecast model skill. Of the funds provided, up to \$900,000 may be used for Meteorological Assimilation Data Ingest System activities, and up to \$600,000 may be used for costs associated with the National Mesonet Program Office. In addition to the funding provided for operational expenses, NOAA is encouraged to use authorities such as the Intergovernmental Personnel Act (42 U.S.C. 4701, et seq.) in order to ensure adequate staff support for this program. In addition, through NOAA Community Project Funding/NOAA Special Projects, the agreement provides \$3.35M to expand State mesonet programs."

The agreement provided \$2.5M within the Aviation Operations and Aircraft Services to observe and predict atmospheric rivers.

Title I, Section 104, incorporated congressional notification requirements for NOAA satellite programs and provides life cycle cost estimates for weather satellite programs, including the Geostationary Operational Environmental Satellite (GOES) R-Series Program (\$11.7B), the Joint Polar Satellite System (JPSS) (\$11.3B) and the Polar Follow On Program (\$6.8B).

Under Title III, the National Aeronautics and Space Administration (NASA) received \$25.4B (\$1.34B above FY22). This included \$7.8B for NASA's Science Mission Directorate (\$180.6M above FY22) for improved information about Earth and space.

Division D included appropriations for the Army Corps of Engineers (Corps) (Title I), and partial appropriations for the Department of the Interior (Title II). The Corps received \$8.31B, with funds for investigations (\$173M), construction (\$1.8B), and operations and maintenance (\$5.1B)

The agreement included \$2.1M to implement the results of a pilot effort in FY20 on the procurement of advanced integrated Global Positioning System and optical surveying and mapping equipment, and directed the Corps to brief the Appropriations Committees on proposals to include this equipment at Corps Districts nationwide. To continue the Beneficial Use of Dredged Material Pilot Program, the agreement provides \$4.1M for project cost sharing.

Regarding the Columbia River Treaty, the agreement directed the Corps to coordinate a classified briefing with the State Department on post-FY23 flood control operations under the Treaty, within 60 days, and to provide a classified detailed assessment of its funding requirements for those operations within the next 90 days.

The agreement directed \$3.15M for the National Levee Flood Inventory, to expedite work on non-federal levees, noting that \$15M was appropriated in FY20 to implement levee safety initiatives, and directing the Corps to provide an update on these activities to the Appropriations Committees.

Regarding Missouri River operations, the Committees also directed the Corps to provide a report on the rationale and expected implications of an upcoming test flow, releasing water from the Missouri River mainstem dams.

The agreement provided \$5.7M toward updating water control manuals "at projects located in states where a Reclamation facility is also located, in regions where FIRO projects exist, and where atmospheric rivers cause flood damages." An additional \$1M was directed to expand the scope of the update to other projects in the Corps portfolio "to ensure that actions being conducted for water control manual updates and incorporation of FIRO-based principles are properly aligned with one another." The agreement also provided \$2.2M to update water control manuals for non-Corps owned high hazard dams where the dam owner is actively investigating the feasibility of applying FIRO technology. "The agreement provides \$5M in addition to the budget request to continue developing and incorporating improved weather forecasting for Corps reservoirs and waterway projects through the multiagency, multidisciplinary FIRO research effort by completing Phase 2 and starting Phase 3. The Corps is encouraged to consider applying FIRO to additional section 7 dams, including the Seven Oaks Dam in California."

The bill appropriated \$7.2M for the Corps Water Infrastructure Finance and Innovation Act (WIFIA) program. The Corps has not yet published the final rule to implement the program authorized in 2014 and funded in FY20, FY21, and FY22 (for a total of \$81M prior to FY23). The initial appropriations narrowed the authorization to only be used for projects that are focused on maintaining, upgrading and repairing dams identified in the National Inventory of Dams as being owned by non-federal entities. The Appropriations Committees noted: "The Administration is strongly encouraged to expeditiously finalize efforts to stand up the program to provide the financial assistance envisioned in the legislation." They also directed the Corps to provide a briefing on opportunities to expand the program in the future to include levees.

The Department of the Interior received \$1.8B for the Bureau of Reclamation's western water projects and regional programs in the Water and Related Resources Account (\$30M above FY22), which included: the Upper Colorado River

Basin Fund ((\$22.2M); the Lower Colorado River Basin Development Fund (\$7.6M); Colorado River Compliance Activities (\$21M); Drought Contingency Plan Implementation in the Lower Colorado River (\$50M); the Aging Infrastructure Account (\$500,000); the Dam Safety Program (\$210M); and funds for operations and maintenance of various Reclamation projects and facilities across the West. An additional \$23M was appropriated for the Central Utah Project.

The USBR appropriation also included WaterSMART grants (\$65M), the Water Conservation Field Services Program (\$3.9M), Cooperative Watershed Management (\$5M); Basin Studies (\$15M); Drought Responses & Comprehensive Drought Plans (\$38M); and the Title XVI Water Reclamation & Reuse Program (\$60M).

The agreement directed \$134M from Water Conservation and Delivery appropriations toward water storage projects authorized by section 4007 of the Water Infrastructure Improvements for the Nation (WIIN) Act. Additional direction on funding included aquifer storage and recovery projects (\$20M); desalination projects in WIIN section 4009(a) (\$12M); Airborne Snow Observatory Program (\$4M); and snow modeling data processing in coordination with NOAA and USDA (\$1.5M).

Section 203 of the bill amended the SECURE Water Act (42 U.S.C. 10364(e)) to increase funding for water management from \$750M to \$820M.

Division G included further appropriations for the Department of the Interior (Title I) and the Environmental Protection Agency (Title II). The Department of the Interior (DOI) received \$14.7B in discretionary appropriations (\$574M above FY22). This included \$1.3B for the Bureau of Land Management (BLM) (approximately \$81M above FY22); \$1.8B for the U.S. Fish and Wildlife Service (\$128M above FY22); \$3.5B for the National Park Service (\$210M above FY22); \$1.5B for the U.S. Geological Survey (\$103M above FY22); and \$1.9B for Bureau of Indian Affairs (BIA) Operation of Indian Programs (\$87M above FY22).

The agreement directed \$57.1M toward BLM's abandoned mine lands and hazardous materials program. The bill also provided \$168.9M for the Abandoned Mine Reclamation Fund.

From the USGS appropriations, the agreement provided \$304.4M for Water Resources, including \$1.75 for a regional Integrated Water Availability Assessment (IWAA) study program for saline lakes; \$3.5M for work with Open ET; \$5M to establish a center to study complete fresh water cycles and watersheds from mountaintops to shorelines; \$1M to work with BLM on streamflow permanence modeling in the Pacific Northwest. Funding for Groundwater and Streamflow Information (\$114.5M) included federal priority streamgages (\$25.7M) and the Next Generation Water Observing System (NGWOS) (\$29.5M). The agreement included \$100M for the National Water Quality Program, with \$7.49M for HAB research and an increase of \$500,000 to support PFAS research in consultation with states and tribes to determine priority mapping areas. The National Geospatial program was funded at \$93.6M, including \$10M for the Alaska mapping and hydrography datasets.

For BIA Water Resources programs, the agreement directs \$18.4M for water filtration systems, technician training, and other program needs. The bill also appropriated \$825,000 for land and water claim settlements. Notably, this was \$825,000 more than was included in the budget request.

The Environmental Protection Agency (EPA) received \$10.1B (\$576M above FY22). This included \$4.5 billion for State and Tribal Assistance Grants (\$129M above FY22). Within this amount, the bill includes \$2.76B for Clean Water (\$1.63B) and Drinking Water (\$1.13B) State Revolving Funds (SRFs), although \$1.5B of that is directed toward Community Project Funding for 715 drinking water, wastewater, and storm water management projects across the country (allocating \$863M of the CW SRFs, and \$609M of the DW SRFs toward specific projects). Section 419 requires iron and steel products produced in the U.S. for projects using SRF funds. The bill also appropriated \$68M for the EPA WIFIA program.

The bill appropriated \$16M for four new infrastructure grant programs authorized in the Drinking Water and Wastewater Infrastructure Act, including: (1) the Midsize and Large Drinking Water System Infrastructure Resilience and Sustainability program; (2) the Indian Reservation Drinking Water Program; (3) Stormwater Infrastructure Technology; and (4) Enhanced Aquifer Use and Recharge.

The agreement provided \$6M for HAB efforts and \$5M for research grants on safe and sustainable water resources (AWIA section 2007). The agreement directed the EPA to brief the Appropriations Committees prior to making any changes to the grant formulas or categorical allocations of funds.

The bill also provides \$4.2B to the Forest Service for Wildland Fire Management (WFM), which includes \$2.6B in cap adjusted fire suppression funding. In addition, the bill includes \$1.6B for wildfire preparedness and suppression activities.

Division N included \$27B in supplemental appropriations for disaster relief. The Farm Service Agency received \$27M for the Emergency Forest Reserve Program. The Natural Resources Conservation Service (NRCS) received \$925M for

the Emergency Watershed Protection Program. The Rural Water and Waste Program received \$265M for damages to water and waste systems.

The Army Corps of Engineers received \$1.48B to make necessary repairs to projects impacted by hurricanes and other natural disasters and to construct projects that will increase resiliency from future flooding and storms. The United States Geological Survey received \$41M for expenses related to the consequences of wildfires, hurricanes, and other natural disasters.

For wildfires, the DOI Wildland Fire Management (WFM) received \$75M for wildland fire suppression activities. The Forest Service received \$510M for Forest Service Non-Fire and \$375M for WFM for wildland fire suppression activities. Another \$1.45B was appropriated for the Hermit's Peak/Calf Canyon Fire Assistance Program, which may be used for water treatment facility improvements needed to treat drinking water sources contaminated by the fire.

The Environmental Protection Agency (EPA) received \$1.67B for the Clean and Drinking Water SRFs for wastewater treatment works and drinking water facilities impacted by Hurricanes Fiona and Ian and another \$600M to address the water crisis in Jackson, Mississippi.