

**Testimony of David Palumbo,
Deputy Commissioner of Operations,
U.S. Bureau of Reclamation
before the
Natural Resources Committee
Subcommittee on Water, Oceans, and Wildlife
U.S. House of Representatives
July 21, 2021**

Thank you, Chairman Huffman, Ranking Member Bentz, and members of the Subcommittee, for the opportunity to discuss with you the President's Fiscal Year (FY) 2022 Budget for the Bureau of Reclamation. I am David Palumbo, Deputy Commissioner of Operations for the Bureau of Reclamation.

The Bureau of Reclamation (Reclamation) is the largest supplier and manager of water in the Nation and the second largest producer of hydroelectric power. Reclamation manages water for agriculture, municipal and industrial use, and the environment, as well as providing flood control and recreation for millions of people. Reclamation's activities, including recreation benefits, support economic activity valued at \$66.63 billion, and support approximately 472,000 jobs. Reclamation delivers 10 trillion gallons of water to more than 31 million people each year, and provides water for irrigation of 10 million acres, which yields approximately 25 percent of the Nation's fruit and nut crops, and 60 percent of the vegetable harvest.

Reclamation's fundamental mission and programs – modernizing and maintaining infrastructure, conserving natural resources, using science and research to inform decision-making, serving underserved populations, and staying as nimble as possible in response to the real-time resiliency and long-term adaptation requirements of drought and a changing climate – position our agency to deliver significant contributions to the Biden-Harris Administration's core priorities. The Bureau of Reclamation's FY 2022 budget provides the foundation to meet our mission: to manage, develop, and protect water resources, consistent with applicable State and Federal law, in a cost effective and environmentally responsible manner in the interest of the American public. Reclamation remains committed to working with a wide range of stakeholders, including water and power customers, Tribes, State and local officials, and non-governmental organizations, to meet its mission.

Reclamation is requesting \$1,532,949,000 in gross Federal discretionary appropriations. Of the total amount, \$1,379,050,000 is for the Water and Related Resources account, which is Reclamation's largest account, \$64,400,000 is for the Policy and Administration account, and \$33,000,000 is for the California Bay Delta account. A total of \$56,499,000 is budgeted for the Central Valley Project Restoration Fund, to be offset by expected discretionary receipts in the amounts collected during the fiscal year. Reclamation also anticipates approximately \$900 million in other Federal, including mandatory, and non-Federal funds to support FY 2022 activities.

Racial and Economic Equity: Activities to Support Underserved Communities, Tribal Programs & Tribal Water Rights Settlements: Reclamation tackles the challenges of racial equity and

underserved communities through investments in tribal water rights settlements, the Native American Affairs technical assistance program, rural water projects, and investments in specific projects for underserved communities. Reclamation is confident in its ability to meet the legislated deadlines of tribal settlements.

Reclamation's budget supports Indian water rights settlements, continuing the high prioritization of these projects to meet Tribal trust and treaty obligations. The FY 2022 budget request includes a total of \$157.6 million for Indian water rights settlements consistent with settlement dates required by statute. In addition to requesting discretionary funding, these settlements will draw on available mandatory funding to support current settlement implementation activities.

The FY 2022 budget includes \$20.0 million for the Native American Affairs program to increase the capacity to work with and support Tribes in water resources development, including the resolution of water rights claims, sustainable and equitable water sharing agreements, and other water related technical and resource management activities. This funding will also strengthen Department-wide capabilities to achieve an integrated and systematic approach to Indian water rights negotiations to consider the full range of economic, legal, and technical attributes of proposed settlements.

By means of its request of \$92.9 million for the Rural Water program, Reclamation is also establishing and rebuilding clean water infrastructure for underserved populations, furthering the President's environmental justice goals as well as his commitment to Tribal Nations by ensuring that clean, safe drinking water is a right in those communities. The request consists of \$68.1 million for construction and \$24.8 million for operation, maintenance, and replacement of completed Tribal features.

Conservation, Climate Resilience, and Climate Science: Reclamation's projects were primarily designed and constructed in the first half of the 20th century with snowpack serving as the largest reservoir. The decrease in snowpack and earlier spring runoff have made climate resilience and adaptation an important focus area for Reclamation. Our investments address the unprecedented and persistent drought and our ability to combat climate change by continuing to fund the WaterSMART program, to improve water conservation and energy efficiency as well as proactive efforts to provide sound climate science, research and development, and clean energy. We will continue to seek to optimize non-Federal contributions to accomplish more with our Federal dollars.

Reclamation is continuing efforts to manage drought. Across the West, we are seeing drought at a scale and intensity that we have not seen before. California is currently experiencing its third driest year on record; the second two consecutive driest years on record, and the driest year since 1977. In the Central Valley of California, precipitation has been far below normal, at the bottom 10th percentile of historic levels, which equates to snow and rain precipitation of less than half of average for this date. Reclamation plays a crucial role in managing and regulating water operations in California, coordinating closely with the State, fishery agencies and local operating partners to evaluate options. The FY 2022 budget continues to support drought mitigation and planning efforts, including a request of \$184.7 million for operations within the Central Valley

Project, which includes work to modernize facilities and take advantage of water conservation efforts. In addition, the FY 2022 budget includes \$33 million for the California Bay-Delta Restoration account and \$56.5 million for the Central Valley Project Restoration Fund. In the Colorado River Basin, the period from 2000 through 2021 has been the driest 22-year period in more than 100 years of record-keeping and one of the driest in the past 1,200 years based on paleohydrology data. The FY 2022 budget includes salinity control efforts along the river with both the Title I (\$17.6 million) and Title II (\$7 million) Programs, while continuing to implement the Drought Contingency Plans (DCP) in coordination with the Seven Basin States through the Lower and Upper Colorado River Programs. Drought response activities include \$15 million for the DCP to conserve water in Lake Mead to reduce the likelihood of the Lake declining to further critical elevations and \$3 million for the Upper Colorado River Operations Program for Demand Management.

The Klamath Basin is also experiencing one of the driest hydrologic years on record. The 2022 budget includes \$24.1 million for the Klamath Project with \$3.3 million for water conservation, water quality monitoring, and water measurement operations; \$15.7 million for Tribal Trust Obligations and Endangered Species Act compliance, and \$2.5 million for maintenance activities and the rehabilitation of Link River Dam.

Climate change adaptation is a focus of Reclamation's science efforts. Funding will focus on innovation strategies that are necessary to address present and future hydrologic changes. The Desalination Program supports water purification science, development, and demonstrations for the purpose of converting unusable waters to useable water supplies. The Science and Technology Program addresses the full range of technical issues confronting Reclamation water and hydropower managers.

WaterSMART: The WaterSMART Program directly contributes to Administration priorities for conservation, climate science, adaptation, and resiliency. WaterSMART also serves as the primary contributor to the Reclamation/Interior Water Conservation Priority Goal. Projects funded through WaterSMART since 2010, including WaterSMART Grants and Title XVI projects, are expected to save more than one million acre-feet of water each year, once completed. The FY 2022 budget includes \$54.1 million for WaterSMART programs.

Modernizing and Maintaining Infrastructure: Reclamation's dams and reservoirs, water conveyance systems, and power generating facilities serve as the water and power infrastructure backbone of the American West. Reclamation's water and power projects throughout the western United States provide water supplies for agricultural, municipal, and industrial purposes. Reclamation's projects also provide energy produced by hydropower facilities and maintain ecosystems that support fish and wildlife, hunting, fishing, and other recreation, as well as rural economies. Changing demographics and competing demands are increasingly impacting already strained systems, and the proper management of this infrastructure is critical to Reclamation's ability to achieve progress on its mission objectives. This budget addresses priorities by allocating funds based on objective and performance-based criteria to most effectively implement Reclamation's programs and its management responsibilities for its water and power infrastructure in the West.

Funding is provided for dam safety and Extraordinary Maintenance (XM) of Reclamation facilities. Reclamation manages 491 dams throughout the 17 Western States. Reclamation's Dam Safety Program has identified 364 high and significant hazard dams. Through constant monitoring and assessment, Reclamation strives to achieve the best use of its limited resources to ensure dam safety and to maintain our ability to store, conserve, and deliver water and to generate hydropower. The FY 2022 budget request includes \$207.1 million for the Dam Safety Program. Reclamation's XM request is part of its overall Asset Management Strategy that relies on condition assessments, condition/performance metrics, technological research and development, and strategic collaboration to better inform and improve the management of its assets and address infrastructure maintenance challenges. Additional XM items are directly funded by revenues, customers, or other Federal agencies (e.g., Bonneville Power Administration). The FY 2022 budget includes \$125.3 million for XM related activities.

Renewable Energy: Reclamation owns 78 hydroelectric power plants and operates 53 of those plants that account for 15 percent of the hydroelectric capacity and generation in the United States. Each year on average, Reclamation generates about 40 million megawatt hours of electricity and collects over \$1.0 billion in gross power revenues for the Federal Government. It would take more than 130 billion cubic feet of natural gas or about 7.1 million tons of coal to produce an equal amount of energy with fossil fuels; as a result, Reclamation's hydropower program displaces over 18 million tons of carbon dioxide that may have otherwise been emitted by traditional fossil fuel power plants.

Reclamation's FY 2022 budget request includes \$3.5 million to support Department energy initiatives through increasing Reclamation Project hydropower capabilities. These activities include: policy development, oversight, and support services facilitating non-Federal hydropower development on Reclamation projects through Lease of Power Privilege and Federal Energy Regulatory Commission licensing. These actions allow Reclamation to derive additional value and revenue from existing public infrastructure and reduce project operating costs (e.g., water and power delivery costs). Revenues derived from incremental hydropower production are invested in the underlying public infrastructure to ensure continued, reliable operations and benefits. These investments, in combination with prior year's efforts will ensure that Reclamation can continue to provide reliable water and power to the American West.

Water management, improving and modernizing infrastructure, using sound science to support critical decision-making, finding opportunities to expand capacity, reducing conflict, and meeting environmental responsibilities were all addressed in the formulation of the FY 2022 budget. Reclamation continues to look at ways to plan more efficiently for future challenges faced in water resources management to improve the way it does business.

Account Level Details

The FY 2022 budget allocates funds to projects and programs based on objective, performance based criteria to implement Reclamation's programs and its management responsibilities most effectively for its water and power infrastructure in the West.

The FY 2022 budget for Reclamation totals \$1.533 billion in gross budget authority. The budget is partially offset by discretionary receipts in the Central Valley Project Restoration Fund (\$56.5 million) resulting in net discretionary budget authority of \$1.476 billion.

Water and Related Resources: \$1,379,050,000

The FY 2022 Water and Related Resources budget provides funding for five major program activities – Water and Energy Management and Development (\$434.0 million), Land Management and Development (\$49.1 million), Fish and Wildlife Management and Development (\$193.2 million), Facility Operations (\$322.0 million), and Facility Maintenance and Rehabilitation (\$380.7 million). The funding proposed in Reclamation’s FY 2022 budget supports key programs important to the Department and in line with Administration objectives.

By far, the greatest portion of Reclamation’s Water and Related Resources budget is dedicated to delivering water and generating power. This is accomplished within over 300 congressionally authorized projects. Certain programs are also particularly notable, including Dam Safety—described above—and others, due to their unique nature and interest to Congress and other stakeholders. In addition to infrastructure needs and other overarching initiatives that fulfill the President’s priorities noted above, a few additional programs that directly respond to Administration goals are described below.

Reclamation’s FY 2022 budget of \$27.5 million for *Research and Development* (R&D) programs includes both Science and Technology, and Desalination and Water Purification Research—both of which focus on Reclamation’s mission of water and power deliveries.

The Science and Technology program supports engineering innovation that promotes economic growth, supports maintaining and improving our water and power infrastructure, and spurs continued generation of energy. Program outcomes enable reliable water and power delivery to our customers, improve safety, limit the impacts of invasive species, and ensure that Reclamation can meet its environmental compliance responsibilities. These activities support the Administration’s priorities for the FY 2022 budget, including job creation by supporting technology transfer activities that may lead to new business opportunities for private industry. The program also supports Administration priorities related to maintaining and improving our water and power infrastructure by partnering with the U.S. Army Corps of Engineers to foster research projects to develop technologies that extend the operating life and reduce maintenance costs of Reclamation’s structures. The Administration’s priority related to energy from all sources is supported by hydropower research that ensures that Reclamation is maximizing reliability, reducing maintenance costs, and exploring new energy development opportunities. Research on safety is ensuring our workers can perform their jobs safely and securely.

The Desalination and Water Purification Research program priorities include development of improved and innovative methods of desalination and reducing costs to develop new water supplies. The research and testing funded out of this program supports Executive Order 14008 including job creation, by supporting innovative new solutions that spur the creation of new

businesses by entrepreneurs and by advancing Reclamation's competitive edge in the area of water treatment and desalination.

Reclamation's continued water delivery and power generation cannot be accomplished without meeting our environmental responsibilities. Reclamation meets these responsibilities associated with individual projects, such as the Central Valley Project and the Middle Rio Grande Collaborative Program, through a large number of activities. The FY 2022 budget funds Reclamation's Endangered Species Act recovery programs and other programs that contribute towards these efforts, such as the Columbia/Snake River Salmon Recovery Program, the San Juan River Recovery Implementation Program, the Upper Colorado Recovery Implementation Program, and the Multi-Species Conservation Program within the Lower Colorado River Operations Program, among many others.

Including other efforts, Reclamation helps address the West's water challenges through the WaterSMART program. Through WaterSMART, Reclamation works cooperatively with States, Tribes, and local entities as they plan for and implement actions to address current and future water shortages, including drought; degraded water quality; increased demands for water and energy from growing populations; environmental water requirements; and the potential for decreased water supply availability due to climate change, drought, and population growth.

The Aquatic Ecosystem Restoration Program is a new program that addresses aquatic ecosystems in connection to Reclamation projects. The FY 2022 budget includes \$1 million for the Aquatic Ecosystem Restoration Program. The program provides broad authority for Reclamation to fund fish passage improvements and aquatic habitat enhancement, including removal of dams or other aging infrastructure if such projects are supported by a broad multi-stakeholder group, and if it maintains water security for all involved. This new authority aligns with the Administration's priorities for climate change and climate resiliency.

Aging Infrastructure Program and Account: Sec. 1101, Title XI of P.L. 116-260 amends 43 U.S.C. 510b to establish the *Aging Infrastructure Account*, authorizing an annual appropriation for Reclamation to provide for the extended repayment of work by a transferred works operating entity or project beneficiary to conduct extraordinary operation and maintenance work at a Reclamation facility. It is envisioned that the discretionary funds would be from a transfer from Water and Related Resources as proposed in FY 2022 appropriations language. The FY 2022 budget includes \$1 million. Mandatory funds would be appropriated from the receipt account.

The account would receive deposits from repayment of reimbursable costs under a repayment contract. Under the program, Reclamation will provide funding to non-Federal partners who rehabilitate infrastructure projects that are owned by the Federal government. Those entities would repay the funds to the Aging Infrastructure Account over periods of up to 50 years. Funds from that account would be available to be spent without further appropriation for future projects.

Electric Vehicles and Charging Infrastructure: A total of \$3.5 million is included in this request to support the DOI Zero Emission Vehicle (ZEV) investment strategy that is comprised of three

core elements: replacing hydrocarbon powered vehicles with ZEVs; investing in ZEV charging infrastructure; and integrating ZEV fleet and infrastructure management.

Central Valley Project Restoration Fund (CVPRF): \$56,499,000

This fund was established by the Central Valley Project Improvement Act, Title XXXIV of P.L. 102-575, October 30, 1992. The budget of \$56.5 million is expected to be offset fully by discretionary receipts based on what can be collected from project beneficiaries under provisions of Section 3407(d) of the Act. The discretionary receipts are adjusted on an annual basis to maintain payments totaling \$30.0 million (October 1992 price levels) on a three-year rolling average basis. The budget was developed after considering the effects of the San Joaquin River Restoration Settlement Act (P.L. 111-11, March 30, 2009), which redirects certain fees, estimated at \$2.0 million in FY 2022, collected from the Friant Division water users to the San Joaquin Restoration Fund.

California Bay-Delta Restoration Fund: \$33,000,000

The CALFED Bay-Delta Restoration Act (P.L. 108-361), as amended, authorized multiple Federal agencies to participate in the implementation of the CALFED Bay-Delta Program as outlined in the August 28, 2000, Record of Decision (ROD) for the CALFED Bay-Delta Program Programmatic Environmental Impact Statement and Environmental Impact Report. The legislation directed the implementing agencies to undertake a set of broadly described programmatic actions identified in the ROD to the extent authorized under existing law. In addition, the Act authorized \$389.0 million in Federal appropriations for new and expanded authorities.

The FY 2022 budget of \$33.0 million implements priority activities pursuant to P.L. 108-361. Six Federal agencies – the Department of the Interior, Department of Commerce, Department of Agriculture, Department of the Army, Environmental Protection Agency, and the Council on Environmental Quality – work together to ensure that the Federal actions and investments the Administration is undertaking are coordinated in a fashion to help address California’s current water supply and ecological challenges. This budget supports actions under the following program activities: \$1.7 million for Renewed Federal State Partnership, \$2.3 million for Smarter Water Supply and Use, and \$29.0 million to address the Degraded Bay Delta Ecosystem.

Policy and Administration: \$64,400,000

The \$64.4 million budget will be used to: 1) develop, evaluate, and directly implement Reclamation-wide policy, rules, and regulations, including actions under the Government Performance and Results Act; and 2) manage and perform functions that are not properly chargeable to specific projects or program activities covered by separate funding authority. A new Diversity, Inclusion and Compliance initiative will address identified high priority needs in support of Executive Order 13985, Advancing Racial Equity and Support for Underserved Communities through the Federal Government, and Executive Order 13988, Preventing and Combatting Discrimination on the Basis of Gender Identity and Sexual Orientation. In addition, \$1.6 million is requested for increased cybersecurity as a sustained response to the SolarWinds attack, and to improve future protection and detection capabilities.

Central Utah Protection Completion Act (CUPCA)

The Department's 2022 CUPCA Program budget of \$20 million reflects the Administration's commitment to strengthening our climate resiliency and supporting conservation partnerships. As authorized, the completion of the Central Utah Project (CUP) Utah Lake System pipelines will deliver 60,000 acre-feet of municipal and industrial water to Salt Lake and Utah Counties. The completed project will provide increased water security, helping communities adapt to and increase their resiliency under changing climate conditions.

The request provides funding to continue construction of the system; support the recovery of endangered species; and implement fish, wildlife, and recreation mitigation and water conservation projects. One of the goals of the project is the recovery of the June sucker fish, a critical element of listed species recovery efforts.