

Research and Technology Funds in the Water Supply and Water Quality Bond Act for November 2018

The bond act promotes scientific research to discover new ways of using water more efficiently.

DWR, State Water Board and University research

86048. The sum of sixty million dollars (\$60,000,000) is appropriated from the Fund for water measurement and information systems, as follows:

(a) The sum of twenty million dollars (\$20,000,000) is appropriated to the department for development of methods and installation of water measuring equipment to improve estimates of water balance, water budgets, diversions and water use to support water allocations, drought management, groundwater management, water quality management and water rights.

(b) The sum of ten million dollars (\$10,000,000) is appropriated to the State board for development of information systems, technologies, and data that improve the State board's ability to manage water rights. These systems will include, but not be limited to, digitizing and making available the 10 million pages of paper records on water rights within the State board and in other repositories and the creation of a digital repository for water diversion and use data.

(c) The sum of ten million dollars (\$10,000,000) is appropriated to the Water Data Administration Fund established pursuant to Section 12420, to be used by the department in consultation with the State board for the purpose of making California water information interoperable, consistent with Part 4.9 of Division 6 of the Water Code.

(d) The sum of twenty million dollars (\$20,000,000) is appropriated as follows:

(1) Five million dollars (\$5,000,000) is appropriated to the University of California for its multi-campus Water Security and Sustainability Research Initiative to develop core elements of a water resources information system, in cooperation with the department and the State board.

(2) Five million dollars (\$5,000,000) is appropriated to the California Water Institute at California State University, Fresno to undertake research leading to improvement and conservation of water supplies and improved water quality in California.

(3) Five million dollars (\$5,000,000) is appropriated to the Irrigation Training and Research Center at California Polytechnic State University San Luis Obispo to undertake research leading to improvement and conservation of water supplies and improved water quality in California.

(4) Five million dollars (\$5,000,000) is appropriated to the Office of Water Programs at California State University, Sacramento to undertake research leading to improvement and conservation of water supplies and improved water quality in California.

(5) The institutions of higher education receiving funds pursuant to this paragraph shall work together to assure that their efforts do not conflict or overlap, but are complementary to each other.

Watershed restoration research

86080 (a) Two hundred million dollars (\$200,000,000) to the Sierra Nevada Conservancy for the protection, restoration and improvement of Sierra Nevada watersheds, pursuant to Division 23.3 (commencing with Section 33300) of the Public Resources Code and including the purposes outlined in Section 33320 of the Public Resources Code. Funds shall also be spent for the implementation and to further the goals and purposes of the Sierra Nevada Watershed Improvement Program. **Projects eligible for funding under the Sierra Nevada Watershed Improvement Program may include research and monitoring to measure the impact of forest restoration work on water supply, climate and other benefits, including long-term air quality, water quality and quantity, greenhouse gas emissions, carbon storage, habitat, recreational uses, and community vitality.** Projects funded under the Sierra Nevada watershed Improvement Program shall be based on the best available science regarding forest restoration and must be undertaken to improve water supply and quality, protect and restore ecological values and to promote forest conditions that are more resilient to wildfire, climate change, and other disturbances. The Sierra Nevada Conservancy may make grants to federal agencies if it determines such grants are the most efficient way to implement the intent of this division on federally managed lands.

UC Natural Reserve research

86080 (w) The sum of twenty-five million dollars (\$25,000,000) to the University of California for the Natural Reserve System for matching grants for land acquisition and for the construction and development of facilities that will be used for research and training to improve the management of aquatic ecosystems, natural lands and the preservation or conservation of California's wildlife resources. Priority shall be given to projects that advance research on the impacts of climate change, reduction of greenhouse gas emissions, and adaptation of natural systems to the impacts of climate change.

Groundwater sustainability research by DWR

86111 (b) Of the funds authorized by this section, the sum of five million dollars (\$5,000,000) shall be available for research to guide investments made pursuant to this section. Research activities may include, but are not limited to, geophysical surveys, system-level modeling and analysis, development of novel methods and tools that can be applicable to local decision-making, cross-sector economic and policy analysis of novel recharge methods, and development of new approaches to significantly enhance groundwater recharge and fit-for-purpose water treatment and reuse.

All programs can spend up to 1% of the funds allocated to research

86161. (c) Up to one percent (1%) of funds allocated for each program funded by this division may be expended for research into methods to improve water supply, water related habitat, and water quality relevant to that program, in addition to any other amounts provided for in this division.

All programs must promote advanced technology

86178. Agencies implementing this division shall give special consideration to projects that employ new or innovative technology or practices, including decision support tools that support the integration of multiple strategies and jurisdictions, including, but not limited to, water supply, wildfire reduction, habitat improvement, invasive weed control, flood control, land use, and sanitation.

Wastewater recycling advanced technology

86020. The sum of four hundred million dollars (\$400,000,000) is appropriated from the Fund to the State board to award grants and loans to eligible entities as defined in subdivision (a) of Section 86166 on a competitive basis for wastewater recycling projects. Grants pursuant to this section may be made for all of the following:

(a) Water recycling projects, including, but not limited to, treatment, storage, conveyance, brine disposal, and distribution facilities for potable and nonpotable recycling projects.

(b) Dedicated distribution infrastructure to serve residential, commercial, agricultural, fish and wildlife habitat, and industrial end-user retrofit projects to allow use of recycled water.

(c) Pilot projects for new potable reuse and contaminant removal technology.

(d) Multi-benefit recycled water projects that improve water quality.

(e) Multi-benefit recycled water projects that protect, conserve and restore wetland and other wildlife habitat.

(f) Technical assistance and grant writing assistance related to specific projects for disadvantaged communities and economically distressed areas.

Water conservation technology research

86031. The sum of fifteen million dollars (\$15,000,000) is appropriated from the Fund to the California Energy Commission for the Water Energy Technology Program to accelerate the deployment of innovative water and energy saving technologies and help continue to make water conservation a California way of life.

Promotion of advanced technology

86178. Agencies implementing this division shall give special consideration to projects that employ new or innovative technology or practices, including decision support tools that support the integration of multiple strategies and jurisdictions, including, but not limited to, water supply, wildfire reduction, habitat improvement, invasive weed control, flood control, land use, and sanitation.