

NATURAL RESOURCES

The Natural Resources Agency consists of 26 departments, boards, commissions, and conservancies responsible for administering programs to conserve, protect, restore, and enhance the natural, historical, and cultural resources of California. The Budget includes total funding of \$9.4 billion (\$2.9 billion General Fund) for all programs included in this Agency.

DROUGHT ENDS, BUT ADAPTATION TO CLIMATE CHANGE CONTINUES

The recent drought included the driest four consecutive years on record in California. As testament to California's extreme variability in precipitation, the winter and spring of 2016-17 have been the wettest on record in the northern Sierra Nevada Mountains. Nearly all of the state's major reservoirs hold above-average storage, and the water content of the snowpack—the source of one-third of the water Californians use—is currently nearly double the statewide average.

In April 2017, following unprecedented water conservation and plentiful winter rain and snow, the Governor ended the drought state of emergency in most of California. However, the long-term damage from the drought will continue for years in many areas. For example, a state of emergency still exists in Fresno, Kings, Tulare and Tuolumne—as the state continues to work on infrastructure projects to connect households with dry wells to water systems. Recent drought conditions have killed

an estimated 100 million trees as a result of an unprecedented bark beetle outbreak in drought-stressed forests.

The May Revision reflects a shift from immediate emergency drought actions to ongoing efforts to make the state more resilient to climate change and to continue water conservation.

CONCLUDING DROUGHT RESPONSE

Since the first emergency drought declaration in January 2014, the Administration has worked with the Legislature to appropriate \$3.9 billion to assist drought-impacted communities and provide additional resources for critical water infrastructure projects, wildfire suppression and wildlife emergencies.

In January, the Governor's Budget proposed an additional \$178.7 million to continue the state's emergency response to the drought, with the expectation that the Administration would continue to monitor conditions through the 2017 rainy season and reevaluate budget year needs.

The May Revision proposes \$62.9 million, a decrease of \$115.8 million, to address continuing drought legacy issues, such as tree mortality and groundwater shortages in the Central Valley. (See Figure RES-01).

Significant Adjustments:

- Department of Forestry and Fire Protection (CAL FIRE)—\$38.7 million General Fund and \$3 million State Responsibility Area Fund for expanded fire protection in the 2017 fire season in recognition of continuing tree mortality. These funds will support the continuation of firefighter surge capacity, California Conservation Corps fire crews, and exclusive use of one large air tanker. In addition, the May Revision includes additional ongoing firefighting resources for CAL FIRE to respond to the changes brought on by climate change, demographics, invasive species and forest health conditions. (See Climate Adaptation Extended Fire Season.)
- Department of Water Resources—\$8.5 million, including: (1) \$5 million General Fund to provide emergency drinking water supplies for small communities in the Central Valley still faced with dry private domestic wells, and (2) \$2.6 million General Fund and \$900,000 Harbors and Watercraft Fund to implement the state's Delta Smelt Resiliency Strategy such as aquatic weed control, adaptive food management and distribution, and wetlands flood and drain operations.

Figure RES-01
Concluding Drought Response
 (Dollars in Millions)

Investment Category	Department	Program	Governor's Budget Amount	May Revision Amount
Protecting Water Supplies and Water Conservation	Department of Water Resources	Local Assistance for Small Communities	\$5.0	\$5.0
	Water Board	Water Rights Management	\$5.3	\$0.6
	Department of Water Resources	Drought Management and Response	\$7.0	—
	Department of Water Resources	Save Our Water Campaign	\$2.0	\$1.0
Emergency Response	Department of Forestry and Fire Protection	Enhanced Fire Protection	\$91.0	\$41.7
	Office of Emergency Services	Emergency Water Tank Program/ Tree Mortality	\$52.7	\$8.5
	Office of Emergency Services	State Operations Center	\$4.0	—
Protecting Fish and Wildlife	Department of Fish and Wildlife	At-Risk Fish Monitoring	\$8.2	\$2.6
	Department of Water Resources	Delta Smelt	\$3.5	\$3.5
Total			\$178.7	\$62.9

- Department of Fish and Wildlife—\$2.6 million General Fund to sustain resilient systems for protection of fish and wildlife affected by future drought and climate change. During the recent drought, significant investments have been made to ensure that the state is better prepared to mitigate the harmful effects of future droughts on fish and wildlife resources. These resiliency measures include installation of filtration equipment at fish hatcheries, improved water use efficiency at wildlife areas, and a network of fish and wildlife monitoring systems throughout the state.
- Office of Emergency Services—\$8.5 million General Fund, including \$2 million for local agencies to remove dead or dying trees and \$6.5 million to continue providing through the next year water tanks, periodic refills of tanks, and tank storage and sanitization to nine counties that continue to experience the effects of the recent drought.
- State Water Resources Control Board—\$600,000 General Fund to conclude water curtailment compliance and enforcement actions.

MAKING WATER CONSERVATION A WAY OF LIFE

A key priority in the California Water Action Plan—the Administration’s priorities for addressing water policies—is to make conservation a way of life. Improving water conservation is essential for a more reliable water supply and to make the state more resilient to future droughts, particularly given population increases and climate change.

While declaring the end to the drought emergency, the Governor directed the Water Board to maintain urban water use reporting requirements and prohibitions on wasteful practices, such as hosing off sidewalks. At the same time, the Department of Water Resources, Energy Commission, Public Utilities Commission, Department of Food and Agriculture, and the Water Board issued a final report with recommendations to (1) use water more wisely, (2) eliminate water waste, (3) establish permanent water use and conservation reporting requirements, (4) strengthen local drought resilience, and (5) improve agricultural water use efficiency and drought planning. The recommendations were developed through a public process and implementation will require new legislation to establish new water efficiency standards and additional drought planning requirements.

The May Revision supports these efforts to make conservation a way of life through the following adjustments:

- Water Board—An additional five positions to be funded within existing resources to implement the Administration’s proposed legislation, released in early April, which would (1) establish new urban water use efficiency standards, (2) enhance state and local enforcement of these standards, (3) establish permanent water use and conservation reporting requirements, and (4) implement new urban water shortage contingency plans and agricultural water management plans.
- Department of Water Resources—\$1 million General Fund to support the Save Our Water campaign, which will continue public outreach to encourage water conservation.

PURSuing COLLABORATIVE SOLUTIONS TO WATER SUPPLY RELIABILITY AND WATERSHED HEALTH

The Bay-Delta Water Quality Control Plan establishes water quality control measures needed to protect municipal, industrial, agricultural, and environmental uses of water in the watershed of the Sacramento-San Joaquin Delta and San Francisco Bay.

This watershed, comprising millions of acres of farmland, is a source of drinking water for two-thirds of the state's population. The waterways of the Bay-Delta estuary and its tributaries also provide critical habitat for numerous threatened and endangered species and recreationally and commercially important species. The Water Board is currently in the process of updating the Plan.

The Water Board relies on a regulatory approach to balance competing demands for water in the Delta. As directed by the Governor, the Natural Resources Agency is leading negotiations with water districts and environmental groups to develop voluntary agreements to achieve similar goals. These agreements would improve ecological flows and habitat for species, create water supply and regulatory certainty for water users, and facilitate a collaborative approach to the Water Board's update to the Plan. If sufficient, voluntary agreements could be accepted by the Water Board in lieu of a regulatory proceeding to amend water right permits and licenses.

The May Revision includes the following proposals to reach voluntary agreements with federal, state, local, and non-governmental organizations:

- Department of Fish and Wildlife—An increase of \$1.1 million General Fund and five positions for the Department of Fish and Wildlife to provide legal, scientific, and other expertise. Voluntary efforts are needed to integrate watershed restoration projects with updated river flow regimes to help salmon and other fisheries thrive. Agreements would describe additional water flows and habitat restoration and other measures in the major rivers that flow to the Delta.
- Department of Water Resources—An increase of \$50 million Proposition 1 to support Central Valley multi-benefit flood management projects that include, but are not limited to, actions identified by voluntary agreements. State funding would incentivize and complement additional contributions from local public agencies, federal agencies, and others. This proposal is a component of the \$387.1 million acceleration of Proposition 1 flood control investments (see Enhancing Dam Safety and Flood Control).

In addition, the Administration proposes \$21 million Proposition 13 water bond funds over the next five years for the Department of Water Resources to provide scientific and engineering expertise and construction funds to support salmon habitat restoration actions on the San Joaquin River and its tributaries.

CLIMATE ADAPTION EXTENDED FIRE SEASON

Calendar year 2016 was the state’s hottest on record. This is the third consecutive year such a record has been set. Climate change has and will continue to lengthen the fire season in California. In 2016, CAL FIRE responded to nearly 1,000 more fires than average. Furthermore, half of California’s 20 largest wildfires on record have occurred in the last 10 years. With warming temperatures, California can expect droughts to occur in the future with greater frequency and intensity.

Recent drought conditions have resulted in millions of acres of forestland becoming vulnerable to bark beetle infestation. With approximately 100 million dead and dying trees statewide, forests face a higher risk of destructive wildfires.

Significant adjustment:

- CAL FIRE—\$42 million General Fund and \$309,000 various special funds and reimbursements to expand the state’s firefighting capabilities and extend the fire season. Specifically, this proposal will: (1) add 42 year-round engines, (2) staff CAL FIRE engines and helitack bases one month earlier in spring, and (3) extend peak staffing in fall by approximately two weeks. These additional resources will allow CAL FIRE to complete a greater number of fuel reduction projects during the off-peak season, helping to reduce the fire risk from climate change, drought and tree mortality. The General Fund cost of this proposal will be offset through lower expenditures in CAL FIRE’s Emergency Fund.

STATE FIRE MARSHAL

The Office of the State Fire Marshal is responsible for regulating hazardous liquid pipelines, developing and reviewing regulations and building standards, providing training and education in fire protection methods and enforcing fire and life safety laws and regulations in all state-owned and state-occupied buildings. Specific activities include the review of plans and construction inspections of all state-occupied facilities, as well as regular periodic inspections after occupancy.

Currently, the State Fire Marshal has a high vacancy rate, which is delaying the review of construction plans and the completion of inspections. CAL FIRE is actively working with the Department of Human Resources to improve recruitment and retention for State Fire Marshal classifications. Once the employee compensation issues have been resolved

and the vacancy rate has been reduced, the Administration will work with the State Fire Marshal to provide additional resources as needed.

ENHANCING DAM SAFETY AND FLOOD CONTROL

The Department of Water Resources' Division of Safety of Dams is nationally recognized and inspects 1,250 public and private dams annually. Over the last ten years, the Department has prioritized review of existing dams for seismic risk, an effort that has led to more than \$1 billion in modernization and seismic safety retrofits.

The February 2017 spillway event at Oroville Dam illustrated the public safety importance of investing in the state's water infrastructure and emergency preparedness. After both the gated flood control spillway and emergency spillway at Oroville Dam eroded during operations, the Governor directed state dam inspectors to conduct more detailed evaluations of dam structures, including spillways. The Governor ordered this new review to be expedited for dams with spillways similar to Oroville before the next flood season.

Furthermore, in recognition of the additional pressure that had been placed on flood control systems in the Central Valley as a result of several atmospheric river storms in January and February, the Administration redirected up to \$50 million of existing General Fund for emergency preparedness, response, and flood risk reduction project implementation. These resources were initially utilized to (1) support flood fight specialists to work on flood protection activities like sandbagging boil rings and overtopping protection, (2) pre-position and deploy flood fighting supplies to numerous counties in anticipation of high water, and (3) complete emergency repairs such as rip-rap erosion protection, seepage berms, and breach closures. It is anticipated that remaining funds will be used for emergency rehabilitation projects to repair damages in the Sacramento and San Joaquin flood control systems as a result of this year's high flows.

The Administration proposed a comprehensive Dam Safety and Emergency Flood Response package for enactment in the current fiscal year. Since this package has not yet been enacted, the May Revision reflects this comprehensive proposal for implementation in 2017-18.

ENHANCING DAM SAFETY

The current dam inspection program includes a visual evaluation of appurtenance structures (like the spillway that eroded at Oroville). Over 100 dams have spillways and structures that are relatively old and pose a potential hazard to life, property,

and environment in the event of failure. Although 70 percent of high hazard dams have emergency action plans (including Oroville), these plans are not currently required for all dams regulated by the Department. Furthermore, inundation maps are only created at the time a dam is built or enlarged and such maps are limited to a complete dam failure scenario.

Significant Adjustments:

- **Emergency Action Plans and Inundation Maps**—The Administration is proposing legislation to: (1) require dams to have an emergency action plan that is updated every ten years, or more frequently as needed, with limited exceptions for low hazard dams, (2) require all dams and critical appurtenant structures to have updated inundation maps and to update the maps every ten years, or sooner if local development patterns change, and (3) provide regulatory tools for the Department to support the above requirements, ranging from monetary fines to operational restrictions for failure to comply.
- **Improvements to Emergency Action Plans**—An increase of \$3.5 million Dam Safety Fund for the Department and \$1.8 million General Fund for the Office of Emergency Services to review and approve required inundation maps and coordinate the review of emergency action plans for incorporation into all-hazard emergency plans.
- **Enhanced Dam Evaluations**—An increase of \$3 million Dam Safety Fund for the Department to conduct more extensive evaluations of appurtenant structures, such as spillways, gates, and outlets, than the current visual inspections. The inspections will include additional geological and hydrological evaluations as well as structural evaluations based on current design and construction standards. By October 1, 2017, the Department will perform this more comprehensive review of the 108 largest spillways under its jurisdiction. By January 1, 2018, the Department will have dam owners complete a thorough site investigation and evaluation of those spillways found to be potentially at risk, and take immediate action as needed to reduce the risk of any spillway identified to be in poor condition. By January 1, 2019, the Department will complete evaluations of the remaining spillways and direct dam owners to make required repairs or restrict reservoir operations as needed.

ACCELERATION OF FLOOD CONTROL INVESTMENTS

The state has a unique role in flood protection in the Central Valley. The Central Valley Flood Protection Plan, adopted in June 2012, describes a system-wide approach considering the interaction of all flood system components. In particular, the Plan looks

beyond the traditional project-by-project approach and justification and incorporates actions on both flood system improvement and proactive floodplain management. Integrated flood management is an approach to flood risk reduction that recognizes the interconnection of flood management actions with water resources management and land use planning, including the value of coordinating across geographic and agency boundaries, integrating environmental stewardship, and promoting sustainability.

Significant Adjustment:

- Flood Management Allocation of 2014 Water Bond—An increase of \$387.1 million Proposition 1 for the Department to accelerate a balanced portfolio of flood control projects over the next two fiscal years. These new funds, provided from the flood management allocation of Proposition 1, will complement existing Proposition 1E and Proposition 84 bond funds that have already been appropriated. Over the next two years, more than \$1 billion will be allocated to enhance flood protection in the Central Valley, the Sacramento-San Joaquin Delta, and in other areas of the state with significant flood risk. Consistent with the system-wide approach identified in the Central Valley Flood Protection Plan, these funds will help meet the urgent needs of urban, small community, and rural areas throughout the Central Valley, Delta, and beyond.

NATURAL RESOURCES AND PARKS PRESERVATION FUND

General Obligation Bond measures have been a main funding source for natural resources programs for almost two decades. Prior to 2000, bond funding was relatively modest, totaling \$4.1 billion from 1976-1996. However, California voters have authorized a total of \$26.7 billion for seven resources bond measures from 2000-2014. These bonds, for instance, have allowed California's substantial investments in land acquisitions over the last 16 years (1.2 million acres in fee title and 950,000 acres in easements).

While bond funding allows the state to spread payments over time, an overreliance on bond funding for natural resources programs comes with a high price. General Fund costs for debt service for natural resources bonds have increased from \$200 million in 2000 to more than \$1 billion in 2016-17. The debt service of the bonds ultimately costs the state more than double the initial value as interest accrues over 30 years. Furthermore, this debt service cost limits the amount of General Fund resources available for operational costs of natural resources programs and other policy priorities.

Significant Adjustment:

- Natural Resources and Parks Preservation Fund—Establish a “pay as you go” special fund to support natural resources programs previously funded by bond measures, such as water and flood management, parks, forestry, land preservation, wildlife habitat, and climate adaptation. This Fund will be established with an initial transfer of \$65 million General Fund from previous appropriations for deferred maintenance at state parks. This new approach will be cost effective, as the state will get double the value for each dollar compared to bond financing. The amount of funding allocated for this Fund will be determined on a year-to-year basis.

DEPARTMENT OF PARKS AND RECREATION

The Department of Parks and Recreation protects and preserves significant cultural and natural resources while providing recreational opportunities, including hiking, camping, mountain climbing, horseback riding, boating and off-highway vehicle activities. The Department achieves its mission through grant programs and a network of 280 parks, which includes beaches, trails, wildlife areas, open spaces, off-highway vehicle areas, and historic sites.

Under the Road Repair and Accountability Act of 2017 (SB 1), the Department of Parks and Recreation will receive additional revenues which will support state parks, including off-highway vehicle and boating programs. These funds derive from traditional allocation formulas for gas tax revenues and supplement the existing allocation. The Department is developing an overall spending plan for inclusion in the 2018-19 Governor’s Budget. The May Revision includes an initial investment of \$54 million State Parks and Recreation Fund from 2017-18 revenues:

- Fix Our Parks—An increase of \$31.5 million to repair and maintain the aging infrastructure of the state park system and repair the recent damage sustained from the severe winter storms. These funds will be used to fix roads, bridges, buildings, aging water treatment systems, campgrounds, interpretive signage and archeological sites, as well as to manage forests, native habitats, plant and animal species. These projects will help mitigate future increases to the deferred maintenance backlog. A portion of these funds will provide the state’s matching share to receive Federal Emergency Management Agency funding to address storm-damaged areas, including Big Sur State Park.

- Establish Partnerships to Improve Access to Parks—An increase of \$1.5 million to establish a pilot project to provide transportation to Parks from urban areas and schools. This pilot program could be expanded through philanthropic support and new partnerships.
- Support Off-Highway Vehicle Recreation—An increase of \$1 million for increased law enforcement, environmental monitoring, and maintenance grants supporting federal off-highway vehicle recreation. While State Parks manages nine State Vehicular Recreation Areas, which provide for off-highway vehicle recreation, nearly 80 percent of the state’s off-highway vehicle recreation occurs on federal lands, supported through the grants program. This increase is in addition to the \$4 million Off-Highway Vehicle Fund increase to this program included in the Governor’s Budget.
- Reduce Boating Hazards—An increase of \$1 million for the Abandoned Watercraft Abatement grant program to remove abandoned watercraft from California’s waterways. Submerged water vessels pose a hazard to boating recreation throughout the state.
- Establish a Recruitment and Training Program—An increase of \$1 million to establish a recruitment and training program for hard-to-fill classifications, including park rangers, lifeguards, maintenance workers, administrators and managers. The program also will develop strategies to better reach candidates from diverse communities.
- Fund Jurupa Parks—An increase of \$18 million for the Jurupa Area Recreation and Park District.