

STATE OF CALIFORNIA
Budget Change Proposal - Cover Sheet
 DF-46 (REV 08/15)

Fiscal Year 2016-17	Business Unit 3600	Department Fish and Wildlife	Priority No. 19
Budget Request Name 3600-100-BCP-DP-2015-GB		Program VARIOUS	Subprogram

Budget Request Description
 Augmentation for Drought Activities

Budget Request Summary

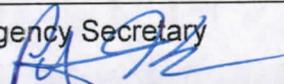
The California Department of Fish and Wildlife (Department) requests \$17.7 million (\$2 million Hatcheries and Inland Fisheries Fund and \$15.7 million General Fund) and a continuation of 13.0 limited-term positions, provided in Fiscal Year 2015-16 for emergency drought response, to respond to the Governor's drought proclamation issued on January 17, 2014 and continued on April 25, 2014.

Requires Legislation <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Code Section(s) to be Added/Amended/Repealed	
Does this BCP contain information technology (IT) components? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If yes, departmental Chief Information Officer must sign.</i>	Department CIO	Date

For IT requests, specify the date a Special Project Report (SPR) or Feasibility Study Report (FSR) was approved by the Department of Technology, or previously by the Department of Finance.

FSR SPR Project No. Date:

If proposal affects another department, does other department concur with proposal? Yes No
Attach comments of affected department, signed and dated by the department director or designee.

Prepared By	Date	Reviewed By	Date
Department Director 	Date 1/5/16	Agency Secretary 	Date 1/5/16

Department of Finance Use Only

Additional Review: Capital Outlay ITCU FSCU OSAE CALSTARS Dept. of Technology

BCP Type: Policy Workload Budget per Government Code 13308.05

PPBA	Original Signed by Amanda Martin	Date submitted to the Legislature 1-8-16
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BCP Fiscal Detail Sheet

BCP Title: Drought Response

DP Name: 3600-095-BCP-DP-2016-GB

Budget Request Summary

	FY16					
	CY	BY	BY+1	BY+2	BY+3	BY+4
Positions - Permanent	0.0	13.0	0.0	0.0	0.0	0.0
Total Positions	0.0	13.0	0.0	0.0	0.0	0.0
Salaries and Wages						
Earnings - Permanent	0	1,026	0	0	0	0
Overtime/Other	0	743	0	0	0	0
Total Salaries and Wages	\$0	\$1,769	\$0	\$0	\$0	\$0
Total Staff Benefits	0	563	0	0	0	0
Total Personal Services	\$0	\$2,332	\$0	\$0	\$0	\$0
Operating Expenses and Equipment						
5301 - General Expense	0	42	0	0	0	0
5302 - Printing	0	13	0	0	0	0
5304 - Communications	0	23	0	0	0	0
5306 - Postage	0	4	0	0	0	0
5320 - Travel: In-State	0	16	0	0	0	0
5322 - Training	0	56	0	0	0	0
5324 - Facilities Operation	0	78	0	0	0	0
5326 - Utilities	0	26	0	0	0	0
5340 - Consulting and Professional Services - Interdepartmental	0	14,902	0	0	0	0
5344 - Consolidated Data Centers	0	8	0	0	0	0
5346 - Information Technology	0	10	0	0	0	0
5368 - Non-Capital Asset Purchases - Equipment	0	104	0	0	0	0
539X - Other	0	36	0	0	0	0
Total Operating Expenses and Equipment	\$0	\$15,318	\$0	\$0	\$0	\$0
Total Budget Request	\$0	\$17,650	\$0	\$0	\$0	\$0
Fund Summary						
Fund Source - State Operations						
0001 - General Fund	0	15,650	0	0	0	0
3103 - Hatchery and Inland Fisheries Fund	0	2,000	0	0	0	0
Total State Operations Expenditures	\$0	\$17,650	\$0	\$0	\$0	\$0
Total All Funds	\$0	\$17,650	\$0	\$0	\$0	\$0

Program Summary

Program Funding

2590 - Biodiversity Conservation Program	0	9,850	0	0	0	0
2605 - Enforcement	0	800	0	0	0	0
2600019 - Hatcheries and Fish Planting Facilities	0	7,000	0	0	0	0
Total All Programs	\$0	\$17,650	\$0	\$0	\$0	\$0

Personal Services Details

Salary Information

Positions	Min	Mid	Max	CY	BY	BY+1	BY+2	BY+3	BY+4
TH00 - Temporary Help				0.0	0.0	0.0	0.0	0.0	0.0
VR00 - Various				0.0	13.0	0.0	0.0	0.0	0.0
Total Positions				0.0	13.0	0.0	0.0	0.0	0.0

Salaries and Wages	CY	BY	BY+1	BY+2	BY+3	BY+4
TH00 - Temporary Help	0	743	0	0	0	0
VR00 - Various	0	1,026	0	0	0	0
Total Salaries and Wages	\$0	\$1,769	\$0	\$0	\$0	\$0

Staff Benefits	CY	BY	BY+1	BY+2	BY+3	BY+4
5150350 - Health Insurance	0	152	0	0	0	0
5150450 - Medicare Taxation	0	26	0	0	0	0
5150500 - OASDI	0	110	0	0	0	0
5150600 - Retirement - General	0	258	0	0	0	0
5150800 - Workers' Compensation	0	17	0	0	0	0
Total Staff Benefits	\$0	\$563	\$0	\$0	\$0	\$0
Total Personal Services	\$0	\$2,332	\$0	\$0	\$0	\$0

Analysis of Problem

A. Budget Request Summary

The California Department of Fish and Wildlife (Department) requests \$17.7 million (\$2 million Hatcheries and Inland Fisheries Fund and \$15.7 million General Fund) and a continuation of 13.0 limited-term positions provided in Fiscal Year (FY) 2015-16 for emergency drought response. Anticipating continued drought conditions, the Department will focus FY 2016-17 efforts on the highest priority needs in the following areas:

- Provide emergency help for winter and Spring-run Chinook salmon on the Sacramento River and its tributaries;
- Apply 21st technology to monitoring salmon and smelt populations;
- Provide coverage for key 2014 statewide drought responses;
- Take preventive management actions to avoid commercial fishery impacts;
- Help ensure existing wildlife laws are enforced;
- Terrestrial Stressor Monitoring
- Respond to problems of human/wildlife conflict

Most elements of this request comprise the Department's immediate and short-term plan for responding to the extended drought. A few elements are an immediate investment in the capability to monitor and respond to drought conditions in the future. The Department will adapt its implementation of these actions as drought conditions change. This proposal complements and builds upon the immediate actions being implemented in the current year through the Governor's Drought Task Force and is consistent with the California Water Action Plan and the joint agency Drought Operations Plan.

B. Background/History

Governor Brown issued a proclamation on January 17, 2014, declaring a state of emergency due to prolonged drought conditions. The proclamation directs state agencies to take all necessary actions to prepare for the drought. Three sections of the proclamation contain specific direction for the Department, as follows:

Section 14. The Department of Fish and Wildlife will evaluate and manage the changing impacts of drought on threatened and endangered species and species of special concern, and develop contingency plans for state Wildlife Areas and Ecological Reserves to manage reduced water resources in the public interest.

Section 15. The Department of Fish and Wildlife will work with the Fish and Game Commission, using the best available science, to determine whether restricting fishing in certain areas will become necessary and prudent as drought conditions persist.

Section 16. The Department of Water Resources will take necessary actions to protect water quality and water supply in the Delta, including installation of temporary barriers or temporary water supply connections as needed, and will coordinate with the Department of Fish and Wildlife to minimize impacts to affected aquatic species.

In 2014, 2015, and again for 2016 the State Water Resources Control Board (SWRCB) has approved Temporary Urgency Change Petitions (TUCP) submitted by Department of Water Resources (DWR) and the U.S. Bureau of Reclamation (Reclamation) to temporarily adjust requirements in their water right permits and licenses for the State and Federal Water Projects (Projects). The orders allow relaxation of Delta outflow requirements, water quality parameters, and re-operations of the Delta Cross Channel gates while the Projects pump a minimal amount of water to maintain human health and safety requirements and reservoir cold water pool. The orders require a Real-Time Drought Operations Management Team (RTDOT) to meet no less than weekly to discuss current conditions and potential changes to operations to reasonably protect all beneficial uses of water. The Department is a collaborator on this and several other teams. The TUCPs has been modified several times since January 2014 and include requirements for

Analysis of Problem

development of a Drought Contingency Plan (DCP). The DCP further requires the Department to participate in the development and implementation of monitoring related to Project operations.

In January 2014 the California Natural Resources Agency, California Department of Food and Agriculture, and California Environmental Protection Agency finalized the California Water Action Plan. The California Water Action Plan identified challenges including uncertain water supplies, water scarcity, drought, and declining native fish species and loss of wildlife habitat.

The first increase in Department funding, due to the drought, began March 1, 2014 when Senate Bill (SB) 103 (Chapter 2, Statutes of 2014) was chaptered. SB 103 provided \$2.3 million to address urgent fish, stream, and conservation activities related to the extreme drought conditions.

On April 8, 2014, the U.S. Bureau of Reclamation and DWR in coordination with the U.S. Fish and Wildlife Service, National Marine Fisheries Service, California Department of Fish and Wildlife (collectively the Five Agencies), and California State Water Resources Control Board, released a drought operations plan to cover the operations of the federal Central Valley Water Project (CVP) and State Water Project (SWP) through November. This Drought Operations Plan reflects consideration of water supply, fisheries, human health and safety, salinity control, agricultural, refuge, and other issues. The plan seeks to maximize the beneficial uses of water in this exceptional drought.

On April 25, 2014 the Governor issued another Executive Order to Redouble the State Drought Actions and further directed, in part, the Department to take actions to minimize harm from the drought. Three sections of the proclamation contain specific direction for the Department, as follows:

Section 6. The Department of Fish and Wildlife will immediately implement monitoring of winter-run Chinook salmon in the Sacramento River and its tributaries, as well as several runs of salmon and species of smelt in the Delta as described in the April 8, 2014 Drought Operations Plan.

Section 7. The Department of Fish and Wildlife will implement projects that respond to drought conditions through habitat restoration and through water infrastructure projects on property owned or managed by the Department of Fish and Wildlife or the Department of Water Resources for the benefit of fish and wildlife impacted by the drought.

Section 8. The Department of Fish and Wildlife will work with other state and federal agencies and with landowners in priority watersheds to protect threatened and endangered species and species of special concern and maximize the beneficial uses of scarce water supplies, including employment of voluntary agreements to secure instream flows, relocation of members of those species, or through other measures.

In FY 2014-15 the Department received \$37 million to further enhance drought response activities. These activities are linked to the Executive Order section items that identified actions by the Department above including:

1. Early implementation of habitat restoration projects; [7]
2. Emergency help for salmon and smelt; [14,16, 6]
3. Increased investment of San Joaquin River restoration projects; [14,7]
4. Lasting legacy for public wildlife refuges through improved water conveyances efficiencies; [14,7]
5. Applying state of the art monitoring technology to evaluate real-time fish populations in the Central Valley rivers, streams and the Delta; [14,16,6]
6. Key 2014 drought response activities; [14,15,16,6,7] Specific actions here included fish rescues, improvements to hatcheries to address poor water quality due to drought, increased law enforcement effort related to Commission actions and other drought-related resource protection concerns, and providing for improved response to increased permitting requests in response to drought.
7. Leveraging existing funding programs for salmon and steelhead restoration; [7]
8. Taking steps to avoid a commercial fishery impact; [6, 7]
9. Ensuring existing wildlife protection laws are enforced, [14, 15]

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10. Use of Timber Regulations and Forest Restoration Fund to implement aquatic restoration related to timber harvest plans.

On March 27, 2015 Assembly Bill 91 (Chapter 1, Statutes of 2015) was chaptered, which provided additional funding to address the drought. Over \$18.7 million for projects planned for FY 2015-16 were accelerated beginning in FY 2014-15. An additional \$1.6 million was provided to monitor and enhance instream water flows statewide. This funding has allowed the Department to:

1. Conduct fish rescues
2. Evacuate salmonids from the San Joaquin, American River, and Nimbus hatcheries
3. Monitor fish and wildlife drought stressors
4. Respond to problems of human/wildlife conflict from animals seeking food and water
5. Address stream diversions and obstructions to fish passage associated with marijuana cultivation
6. Support several water delivery systems
7. Remove rock barriers and take similar actions to minimize impacts of the barriers on affected aquatic species in the Sacramento-San Joaquin Delta
8. Enhance instream flows in at least five stream systems that support critical habitat for anadromous fish
9. Provide grant funding for habitat restoration

In the FY 2015-16 the Department received \$14.7 million to continue several drought activities, including:

1. Emergency help for salmon and smelt
2. Applying state-of-the-art technology to monitoring fish populations
3. Covering the key 2014 statewide drought response needs
4. Taking steps to avoid a commercial fishery impact
5. Ensuring existing wildlife protection laws are enforced

In addition, two new drought response activities, focused on terrestrial species and habitat, were initiated:

6. Terrestrial Stressor Monitoring
7. Human/Wildlife Conflict

The proposed drought actions for 2016 will build on 2014 and 2015 accomplishments, incorporate newly identified responsibilities for 2016 (e.g., wildlife drought activities) and ensure the Department's participation in the interagency drought activities associated with the projects.

C. State Level Considerations

This proposal supports the Administration's direction to provide a quick and thorough response to the drought. The Department will work closely with other state departments, including the DWR and the SWRCB, as well as federal agencies, to provide the most appropriate and effective drought response. This proposal is also consistent with the Department's strategic plan, which requires the Department to develop collaborative approaches and create partnerships to restore, enhance, manage, and protect wildlife and their habitats.

D. Justification

The suite of actions funded by this proposal will focus on threatened and endangered species, as required by the Governor's proclamations and the California Water Action Plan.

Emergency help for winter run and spring run Chinook on the Sacramento River and Delta Native Fishes per Drought Operations Plan **\$3.5 million**

Analysis of Problem

The State and Federal Water Project Drought Contingency Plan (DCP) describes the risk of federally and state listed winter-run and spring-run Chinook salmon on the Sacramento River and its tributaries. These fish depend on cold water stored in Shasta Reservoir and sufficient cold water releases from other upstream dams to maintain downstream temperature thresholds. The drought and difficult water and reservoir management decisions combine to put the spawning areas for these two runs in the upper Sacramento River and tributaries at significant risk.

The DCP also identifies a suite of existing monitoring studies to assess effects of modified operations upon federally and state listed delta and longfin smelt. These species depend on conditions that fluctuate seasonally with a balance between outflow and tidal influences. Modified operations have the potential to exacerbate water quality conditions that could impact these fish.

The Department received \$1.2 million in FY 2015-2016 for these activities, most of which was directed at two very important habitat and management projects on Sacramento River tributaries. An additional \$3.5 million is needed to intensify existing monitoring via enhanced sampling regimes at key locations in the Delta and its tributaries and assessing habitat responses in relation to modified drought operations. These actions include:

- Continue monitoring upper Sacramento River winter-run Chinook salmon river temperatures
- Continue conducting juvenile winter-run and spring-run Chinook salmon acoustic reconnaissance surveys
- Continue enhanced aerial surveys of winter-run Chinook salmon populations.
- Conduct enhanced adult salmon trapping, tagging, and monitoring, including fall-run.
- Continue assessing drought effects on delta smelt and long-fin smelt
- Continue real-time analyses of fish and water data from the delta and Sacramento and San Joaquin rivers.

Water Infrastructure and Conveyance Improvements on Department Wildlife Areas and Ecological Reserves **\$3.0 million**

The State initiated action in FY 2014-2015 to improve water efficiencies on key Department lands. This action will expand the 2014 Water Action Plan's objective of implementing wetland and waterfowl land management and efficiencies on Department lands and in collaboration with private and federal Central Valley refuges to secure reliable and affordable water for managed wetlands statewide. Department activities under this Action will address the effects of drought on State Wildlife Areas and Ecological Reserves and private lands through projects that improve water supply or water use efficiency for the benefit of wetland habitat and ecological processes and the wildlife communities they support, including migratory species and threatened and endangered species.

Covering The Key 2016 Statewide Drought Response Needs **\$3.6 million**

The Governor's January 2014 emergency drought proclamation requires the Department to evaluate and manage the changing impacts of drought on threatened and endangered species and species of special concern, and develop contingency plans for state Wildlife Areas and Ecological Reserves to manage reduced water resources in the public interest. The Department received \$4.1 million in FY 2014-15 and \$3.3 million in FY 2015-2016 for key drought response actions, and some of these will continue to address the needs of fish and wildlife threatened by the continuing drought. The continued are statewide in scope:

- Continue Department relocations or rescues of the most at-risk fish populations to prevent extirpation or extinction.
- Continue collection of stream and river fish and habitat data to evaluate the environmental stresses on at-risk salmon and trout species contributing to State fisheries and the most at-risk threatened and endangered fish species.

Analysis of Problem

Complete Essential Water Treatment Systems to Support State Hatcheries \$4.0 million

In FY 2014-2015 and FY 2015-2016, the Department and its partnering fish agencies implemented actions to avoid impacts to California's Chinook salmon fisheries. These actions have included trucking all or part of the Sacramento River hatcheries salmon to net pens downstream of the Delta; water filtration, chiller, and ultra-violet sterilization systems improvements at Iron Gate, Nimbus Fish, Merced hatcheries; acquisition of modern fish-transport trailers; and equipment in infrastructure improvements at several salmon hatcheries, including Feather River, Mokelumne River, and Nimbus hatcheries.

The funding for FY 2016-2017 is to focus resources that would improve trout hatchery facilities, similar to what has been done for salmon facilities to both address current drought impacts (e.g., decreased water supply and quality, increased pathogens, decreased survival) and rebuild the trout recreational fishery affected by drought-related disease outbreaks and fatality.

One of the diseases this proposal will help eliminate is the fatal whirling disease. Two million dollars will be used for micro-filtration and ultraviolet disinfection of spring water as well as high-pressure cleaning and epoxy coating of fish rearing raceways. The proposed treatment has proven effective in removing whirling disease from trout production facilities in several western states. The remediation would re-establish this hatchery as a major producer of trout for the department's statewide hatchery system. Without the proposed project, California could suffer the same consequences seen in other western states. In recent decades, whirling disease outbreaks at fish hatcheries in several states, particularly Wyoming and Colorado, severely impacted fish production, and subsequently recreational angling and the associated economic benefit to local communities. The improvements being proposed by the Department were performed at these other facilities and eliminated whirling disease from the fish production facilities in those States. The result was effectively re-establishing fish production and distribution capabilities and the associated angling and economic activities.

Ensuring existing wildlife protection laws are enforced \$0.8 million

This proposed action provides for the necessary overtime to sustain increased field presence of the Department's enforcement staff in the parts of the state where drought impacts combined with illegal activities are likely to prove most harmful for fish and wildlife. This proposal continues enforcement funding in FY 2016-17 at the same level provided in FY 2015-16.

Terrestrial Stressor Monitoring \$1.8 million

The Department will continue monitoring of the most at-risk terrestrial threatened and endangered species initiated in FY 2015-2016. Department scientific staff will conduct assessment and monitoring on up to 48 Priority 1 species affected by drought. Priority 1 species were determined after a thorough review of all state and federally listed terrestrial species information and the likelihood of action being needed to conserve the species.

Human/Wildlife Conflict \$0.95 million

Due to extended drought conditions, the Department's Wildlife Management and Law Enforcement staff are responding to problems of human wildlife conflict and animals seeking food and water above and beyond what would occur in normal year. The number of human/wildlife conflict incidents in 2014 highlighted that additional resources are necessary for the Department's response team. Many of these incidents can result in public safety concerns as wildlife interacts with the urban-wildlands interface. It is likely that drought conditions will remain or worsen, and the numbers of incidents increase thereby creating the continued need for additional staff time to respond.

Actions will continue to include field response, public education, and care/handling/placement of animals. The care and placement of these animals can require monitoring possibly 24 hours per day, 7 days per week.

E. Outcomes and Accountability

This proposal will reduce the adverse impacts of the drought on fish and wildlife throughout the state. The proposal includes control measures such as monitoring of project effectiveness to ensure that the proposed actions are achieving their intended objectives. In addition, the Department will monitor expenditures to ensure that the funds are spent appropriately and consistent with the intent of this proposal.

Analysis of Problem

F. Analysis of All Feasible Alternatives

Alternative 1: Approve \$17.7 million (\$2 million Hatcheries and Inland Fisheries Fund and \$15.7 million General Fund) and a continuation of 13.0 limited-term positions provided in Fiscal Year (FY) 2015-16 for emergency drought response.

Advantage: This alternative will provide the resources necessary to mitigate the drought.

Disadvantage: This alternative will require additional General Fund.

Alternative 2: Redirect \$15.7 million Fish and Game Preservation Fund (FGPF) and Proposition 1 bond fund resources for drought response.

Advantage: No General Fund would be required.

Disadvantage: The FGPF would not be an appropriate source of funding because drought response is primarily focused on threatened and endangered species. Also, Proposition 1 bond funds are dedicated to specific actions identified in the bond act. The redirection would take away resources from other Departmental programs.

Alternative 3: Phase in \$17.7 million (\$2 million Hatcheries and Inland Fisheries Fund and \$15.7 million General Fund) and a continuation of 13.0 limited-term positions over three FYs.

Advantage: General Fund would not be required all in one year.

Disadvantage: The total cost for drought mitigation would not change over Alternative 1. Additionally, resources are needed in 2016-17; habitats and wildlife would be negatively impacted.

Alternative 4: Provide no additional resources to the Department for drought response.

Advantage: General Fund and Hatcheries and Inland Fisheries Fund would not be required.

Disadvantage: This alternative would not support the Governor's direction contained in the proclamation and would not allow the Department to conduct priority drought response actions.

G. Implementation Plan

Resources requested in this proposal would be available July 1, 2016, to increase response efforts, maintain actions commenced in January, and provide a more comprehensive plan and actions for responding to a prolonged drought.

H. Supplemental Information

Equipment: Water chillers, filtration, and UV sterilization units will be required for up to three trout hatcheries

I. Recommendation

Alternative 1 is recommended to provide \$17.7 million (\$2 million Hatcheries and Inland Fisheries Fund and \$15.7 million General Fund) and a continuation of 13.0 limited-term positions provided in FY 2015-16 for emergency drought response.