The 2019-20 Budget:

Natural Resources and Environmental Protection

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Contents

Executive Summary

In this report, we assess several of the Governor's budget proposals in the natural resources and environmental protection areas. Based on our review, we recommend various changes, as well as additional legislative oversight. Below, we summarize our major findings and recommendations. We provide a complete listing of our recommendations at the end of this report.

Budget Provides $11 Billion for Programs

The Governor's budget for 2019-20 proposes a total of $11.3 billion in expenditures from various fund sources for programs administered by the Natural Resources ($6.7 billion) and Environmental Protection ($4.6 billion) Agencies. The budget plan for these programs is mostly similar to what was approved in 2018-19 with only a few major changes proposed.

Budget Includes Significant New Fiscal and Policy Proposals

Expansion of Wildfire Response Capacity. The Governor's budget includes $97 million—mostly from the General Fund—for several proposals to enhance CalFire's wildfire response capacity. We generally find these proposal to be reasonable given the increasingly severe wildfire seasons and, therefore, recommend the Legislature approve most of the Governor's proposals. We also recommend an assessment of existing state and local fire response capacity in order to better inform where additional resources could best be targeted in future years.

Cap-and-Trade Expenditure Plan. The Governor's budget includes a cap-and-trade expenditure plan that (1) assumes total Greenhouse Gas Reduction Fund (GGRF) revenue of $4.7 billion in the current and budget year and (2) proposes to spend a total of $2.4 billion in 2019-20. We estimate revenue will be roughly $800 million higher over the two-year period. While there is uncertainty about future revenue, we find that the Legislature likely could spend a somewhat higher amount in the budget year and still maintain a healthy fund balance.

Regarding proposed expenditures, we find that there is limited information provided by the administration on (1) expected programmatic outcomes, (2) necessary adjustments for certain programs to stay within proposed allocations, and (3) key details for the workforce development programs proposed. Based on these questions, we recommend that the administration provide additional information at budget hearings to inform budget decisions.

Safe and Affordable Drinking Water Program. The administration proposes to create a new program that would (1) impose charges on water customers and certain agricultural entities—with estimated annual revenues of at least $110 million when fully implemented—and (2) provide funding to address unsafe drinking water throughout the state. We find that the proposal is consistent with the state's human right to water policy. We also identify other issues for legislative consideration, including uncertainty about revenue and cost estimates and trade-offs with the proposed provisions to limit the state's authority to take certain enforcement actions against polluters.

Deferred Maintenance. The administration proposes $67 million—mostly General Fund—to implement deferred maintenance projects at six natural resources departments. While we find that additional investments in maintaining state assets is an important budget priority, we recommend that the Legislature require departments to report on what projects they intend to implement to ensure that they will focus on high-priority activities. We further recommend reporting requirements to enable oversight of (1) how departments maintain their facilities on an ongoing basis and (2) what projects are actually implemented with the funding.

Certain Proposals Highlight Need for Additional Legislative Oversight

Implementation of 2018 Wildfire Legislation. The Governor's budget includes $235 million—mostly GGRF—for proposals in several departments to implement the 2018 legislative package to increase wildfire prevention and forest health activities. Because we find that the proposals are consistent with the legislation, we recommend the Legislature approve them. We also recommend the Legislature conduct ongoing oversight to ensure effective implementation of the legislative package and offer specific questions to aid in those oversight activities.

Coastal Adaptation. The Governor proposes $3.3 million in ongoing funding (GGRF) for the San Francisco Bay Conservation and Development Commission and California Coastal Commission to assist local governments in their sea-level rise adaptation efforts. We recommend the Legislature adopt these proposals because of the potential future impacts of sea level rise. We also recommend that the Legislature continue to work with state and local entities to identify the most effective ways to support local communities' planning and response needs, including ongoing assessments of progress, how these efforts should be funded, and what additional research and data is needed.

Water Conservation. The Governor proposes $8 million from the General Fund in 2019-20 (over $2 million ongoing) for the Department of Water Resources and State Water Resources Control Board to implement recent water conservation legislation. We find that the proposals are consistent with legislative intent and recommend approval. We also recommend ongoing oversight to ensure that state and local entities are meeting the deadlines established in the legislation and that overall efficiency and drought resilience outcomes are being attained.

Implementation of AB 617. Chapter 136 of 2017 (AB 617, C. Garcia) made various changes to monitor and reduce criteria and toxic air pollutants that adversly effect some communities. The Governor's budget proposes $276 million—mostly GGRF—to continue the implementation of AB 617, including (1) $260 million for one-time funding to support local air district activities and incentive programs and (2) $16 million for state administrative activities. The proposal largely is consistent with AB 617 and past budgeted activities. However, we recommend that the Legislature reject a component of the proposal that would provide $3.8 million to the California Air Resources Board because it lacks workload justification. In addition, we recommend that the administration report on its expectations for future funding and expansion.

Exide Cleanup Activities. The Governor proposes $75 million in one-time General Fund loans—in addition to $177 million in previous loans—to fund the cleanup of residential properties contaminated by airborne lead from the Exide lead-acid battery recycling facility. This funding would support increased costs to clean up previously identified parcels, as well as clean up hundreds of additional parcels. We recommend the Legislature require the Department of Toxic Substances Control to report on the costs and time frame for completing the residential cleanup, as well as when Exide will begin to repay the state.

Implementation of Proposition 68. The Governor proposes about $1 billion in spending from Proposition 68 (2018 bond) for a number of programs in various departments. The proposals appear to be reasonable and consistent with the requirements of the bond, though the Legislature may want to adjust the funding amounts for particular programs to expedite or increase the effectiveness of program implementation based on input from stakeholders and the state departments.

OVERVIEW OF GOVERNOR'S BUDGET

In this section, we provide an overview of the Governor's 2019-20 budget plan for the state's natural resources and environmental protection departments, including a brief description of the main changes from the current year. Later in this report, we provide more detailed assessments of many of these specific proposals.

Overall Budget Plan Mostly Similar to Current Year

Total Spending of $11.3 Billion Proposed. California's Natural Resources and Environmental Protection Agencies oversee the activities of about 40 state departments, boards, and conservancies whose missions are to protect and restore the state's natural and environmental resources and to ensure public health and environmental quality. The Governor's 2019-20 budget proposes total funding of $11.3 billion from all sources—the General Fund, as well as special, bond, and federal funds—for these entities. As shown in **Figure 1**, this reflects a net reduction of $432 million (4 percent) compared to the current-year budgeted level. (Later in this section, we compare to revised estimates for the current year, which have been updated since the enactment of the budget.) While there is a net reduction in overall spending authority, the proposed budget is mostly consistent with what was approved in the current year and does not reflect significant programmatic reductions. Instead, the overall net spending reduction largely reflects the appropriation of one-time funding in the current year. For example, the current-year budget provided $255 million more in one-time bond funds from Proposition 68 (2018) than is proposed for the budget year.

Partially offsetting these reductions, the proposed 2019-20 budget also includes some proposals for increased funding, for example, to implement recent wildfire prevention legislation. We summarize the most significant budget adjustments below.

Summary of Budget Changes

Total of $6.7 Billion Proposed for Natural Resources Departments. As shown in **Figure 2** (see next page), the Governor's budget plan for entities within the Natural Resources Agency includes a total of $6.7 billion. Almost half of this funding (including most of the General Fund support) is for the California Department of Forestry and Fire Protection (CalFire) and to repay past natural resources-related general obligation bonds. Just over half of the total is proposed to be funded from the General Fund with the remainder mostly from special funds and bond funds. Of the total proposed, $5.1 billion (76 percent) is to administer state programs, and most of the remainder is for local assistance—generally grants to local governments and nonprofits to implement projects.

Total of $4.6 Billion Proposed for Environmental Protection Departments. As shown in **Figure 3** (see page 5), the Governor's budget plan for entities within the Environmental Protection Agency includes a total of $4.6 billion. Most of this supports three departments—the California Department of Resources Recycling and Recovery (CalRecycle), State Water Resources Control Board, and California Air Resources Board. Of the total budgeted, $3.7 billion (81 percent) is proposed to be funded from special funds, and $2.9 billion (63 percent) is for local assistance.

Figure 1

Proposed Spending Compared to 2018-19 Budgeted Level

(Dollars in Millions)

Agency	2018-19 Budgeted	2019-20 Proposed	Change: Amount	Change: Percent
Natural Resources	$7,212	$6,713	-$499	-7%
Environmental Protection	4,544	4,611	67	1
Totals	**$11,756**	**$11,324**	**-$432**	**-4%**

Spending Reductions Primarily Reflect Technical Changes. Compared to updated estimates of current-year expenditures, proposed 2019-20 spending for natural resources and environmental protection departments is lower by $2.9 billion (30 percent) and $1.7 billion (27 percent), respectively. These reductions include decreases in spending from the General Fund, as well as bond and special funds. However, these changes largely reflect the expiration of one-time funding provided in 2018-19, as well as technical budget adjustments made since the enactment of the *2018-19 Budget Act*, rather than significant programmatic changes.

- ***One-Time General Fund Spending in Current Year.*** Combined, General Fund spending by natural resources and environmental protection departments is estimated to decrease by $691 million compared to revised current-year estimates. This mostly reflects one-time funding provided in the current year, including higher estimated emergency firefighting costs of $245 million for CalFire, $170 million for flood protection projects by the Department of Water Resources, $154 million for CalRecycle to conduct debris cleanup activities following recent wildfires, and $100 million to support the construction of a new California Indian Heritage Center. (While the wildfire-related costs are budgeted as one-time in 2018-19, spending for these programs in 2019-20 could be higher than budgeted based on actual firefighting and debris cleanup activities associated with future fires.)
- ***Technical Adjustments to Special and Bond Fund Amounts.*** Under the Governor's proposed budget, spending from bond funds would decrease by a total of $2.8 billion, and special fund spending would decrease by

Figure 2

Natural Resources Budget Summary

(Dollars in Millions)

	2017-18 Actual	2018-19 Estimated	2019-20 Proposed	Change From 2018-19	
				Amount	Percent
Total	**$6,258**	**$9,565**	**$6,713**	**-$2,853**	**-30%**
By Department					
Forestry and Fire Protection	$1,727	$2,200	$2,027	-$173	-8%
General obligation bond debt service	968	1,022	1,145	123	12
Parks and Recreation	792	1,236	851	-384	-31
Water Resources	556	2,197	745	-1,452	-66
Fish and Wildlife	520	538	477	-60	-11
Energy Commission	426	867	402	-465	-54
Natural Resources Agency	136	371	223	-148	-40
Wildlife Conservation Board	496	196	196	—	—
Conservation Corps	109	155	143	-13	-8
Conservation	168	138	135	-3	-2
State Lands Commission	42	100	79	-21	-21
Other resources programs[a]	316	547	289	-258	-47
By Funding Source					
General Fund	$3,127	$3,968	$3,513	-$455	-11%
Special funds	1,693	2,124	1,703	-421	-20
Bond funds	1,122	3,171	1,207	-1,965	-62
Federal funds	316	302	290	-12	-4
By Purpose					
State operations	$4,687	$5,775	$5,108	-$667	-12%
Local assistance	1,044	2,874	1,248	-1,626	-57
Capital outlay	527	917	357	-560	-61

[a] Includes state conservancies, Coastal Commission, and other departments.

a total of $1.1 billion, compared to revised current-year estimates. Much of this apparent budget-year decrease is related to how certain bond and special funds are accounted for in the budget, making year-over-year comparisons difficult. Specifically, bond and special funds that were appropriated but not spent in prior years are often carried over to the current year. The 2018-19 amounts will be adjusted in the future based on actual expenditures.

Implements Several Key Legislative Measures. The proposed 2019-20 budget includes a number of proposals for increased funding to implement recent legislative measures. This includes $226 million for various natural resources and environmental protection departments to implement laws passed in 2018 designed to improve forest health and reduce the risk of catastrophic wildfires. The budget also proposes to begin or continue implementing other legislation passed in recent years, including to increase water conservation efforts by local water agencies, more sustainably manage groundwater, and improve air quality in communities with particularly high concentrations of toxic air pollution.

A Few Significant New Initiatives Proposed. The budget proposes some new programs and expansions of existing programs. The Governor proposes an increase of $97 million (mostly General Fund) to expand the state's capacity to respond to wildfires, including funding for additional CalFire firefighting crews and dedicated fire crews operated by the California Conservation Corps (CCC). (For comparison, the 2018-19 budget includes $1.1 billion for baseline wildfire suppression costs.) Other significant new proposals in the budget include (1) $75 million in General Fund loans to the Department of Toxic Substances Control to continue and expand environmental cleanup efforts around the Exide battery facility; (2) $27 million from the Greenhouse Gas Reduction Fund (GGRF) for workforce development programs; and (3) the creation of a new program to support the provision of safe drinking water mainly in small, disadvantaged communities.

Figure 3

Environmental Protection Budget Summary

(Dollars in Millions)

	2017-18 Actual	2018-19 Estimated	2019-20 Proposed	Change From 2018-19	
				Amount	Percent
Totals	**$4,482**	**$6,356**	**$4,611**	**-$1,745**	**-27%**
By Department					
Resources Recycling and Recovery	$1,626	$1,846	$1,575	-$271	-15%
Water Resources Control Board	1,206	2,222	1,358	-864	-39
Air Resources Board	1,267	1,799	1,176	-623	-35
Toxic Substances Control	238	336	349	13	4
Pesticide Regulation	104	107	109	2	2
Other departments[a]	40	46	45	-1	-2
By Funding Source					
General Fund	$162	$361	$125	-$236	-65%
Special funds	3,567	4,435	3,713	-722	-16
Bond funds	515	1,191	405	-786	-66
Federal funds	238	369	369	-1	—
By Purpose					
State operations	$1,400	$1,911	$1,698	-$212	-11%
Local assistance	2,928	4,445	2,913	-1,532	-34
Capital outlay	154	—	—	—	—

[a] Includes the Environmental Protection Agency, Office of Environmental Health Hazard Assessment, and general obligation bond debt service.

Summary of Significant Changes Proposed. Figure 4 lists the most significant funding and policy changes proposed for natural resources and environmental protection departments.

Figure 4

Significant Proposals for 2019-20

Natural Resources

Forestry and Fire Protection
- $210 million to implement 2018 wildfire prevention legislation.
- $97 million for enhanced fire protection.
- $25 million to initiate new capital projects.
- $13 million to continue previously approved capital projects.
- $10 million to increase base funding for facility maintenance.

Parks and Recreation
- $34 million for deferred maintenance projects.
- $16 million to continue previously approved capital projects.
- $5 million to initiate new capital projects.

Conservation Corps
- $9 million to continue previously approved capital projects.

Water Resources
- $5 million to implement water conservation legislation.

Environmental Protection

Toxic Substances Control
- $50 million to clean up additional sites contaminated by Exide facility.
- $25 million to continue cleaning up previously identified sites contaminated by Exide facility.

Water Resources Control Board
- $25 million for safe and affordable drinking water programs.
- $10 million for grants to clean up underground petroleum storage sites.

Air Resources Board
- $19 million for grants to replace trucks to improve air quality.

Various Departments—Natural Resources and Environmental Protection
- $995 million to continue implementing Proposition 68 (2018), including:
  - $170 million for clean drinking water projects.
  - $136 million for flood protection projects.
  - $112 million for groundwater management projects.
  - $93 million for multibenefit stormwater projects.
  - $74 million for water recycling projects.
  - $70 million to implement voluntary water agreements.

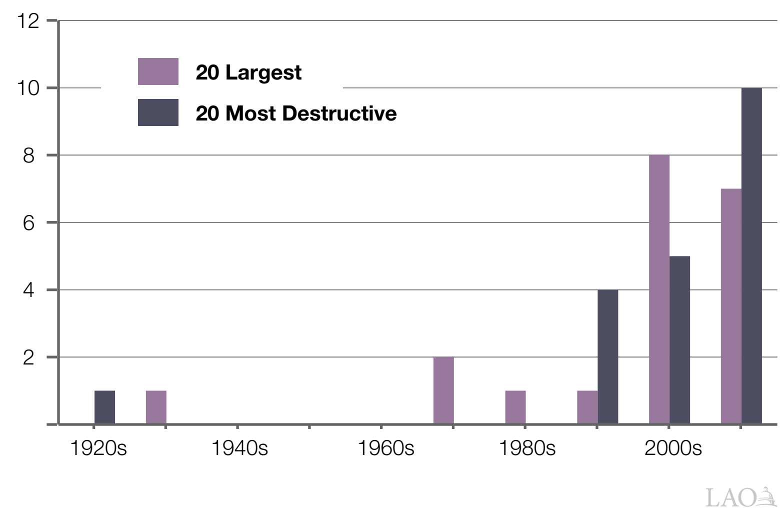
WILDFIRE PREVENTION AND RESPONSE

Steps Taken to Address Wildfires After Recent Catastrophic Fire Seasons. As shown in Figure 5, there is a trend of increasingly large and destructive wildfires in recent decades. This trend has been particularly acute in the last couple of years, which have seen some of the worst individual wildfires in the state's recorded history. The 2018 fire season included several particularly large and catastrophic fires, such as the Mendocino Complex Fire that was the largest in recorded state history at 459,123 acres. The 2018 fire season also included the Camp Fire in Butte County that became the most destructive wildfire in state history with nearly 19,000 structures destroyed and 86 fatalities, including the near-total destruction of the town of Paradise.

In recent years, the Legislature has taken a number of steps in response to these increasingly severe wildfire seasons, including augmenting funding for forest health, fire prevention, and wildfire response, as well as passing a package of wildfire-related legislation in 2018.

Figure 5

A Majority of the Largest and Most Destructive Wildfires Occurred in Recent Years



Governor's Budget Continues Recent State Efforts to Prevent and Respond to Wildfires. The Governor's 2019-20 budget plan includes a total of $654 million across numerous state departments to continue and expand recent efforts related to wildfires. As shown in Figure 6 (see next page), this includes $295 million to provide local and recovery assistance, $235 million to implement the 2018 wildfire legislative package, and $124 million to enhance fire response capacity. The amount for local and recovery assistance is proposed on a one-time basis. Most of the remainder is proposed as ongoing augmentations with some components growing in out-years.

In this section, we will focus primarily on the wildfire proposals for natural resources and environmental protection departments. First, we discuss proposals to implement the 2018 wildfire legislative package, and then we discuss the proposals to enhance fire response capacity.

IMPLEMENTATION OF 2018 LEGISLATIVE PACKAGE

The Governor's budget includes numerous proposals to implement the 2018 wildfire legislative package. In general, the proposals are consistent with the various pieces of legislation. We recommend the Legislature approve these proposals, as well as conduct ongoing oversight to answer key questions about the near- and long-term implementation of the legislative package.

Background

Recent Funding Increases for Forest Health and Fire Prevention. Until recently, CalFire's budget has included base funding of about $100 million annually for forest health and fire prevention. Beginning in 2014-15, the state budget has included a series funding augmentations, generally provided on a one-time basis, for various forest health and fire prevention programs. Figure 7 (see page 9) summarizes the major augmentations. In total, these augmentations have increased spending by more than $200 million annually in the current year and prior year above the $100 million base budget, resulting in total annual CalFire funding for forest health and fire prevention of over $300 million. Most of this funding has been from GGRF.

The largest increase in forest health and fire prevention funding in recent years has been to fund two grant programs—one each for forest health and fire prevention activities—as well as support fuels reduction projects implemented by CalFire staff. The forest health grant program funds projects by nonprofits and local governments that apply multiple treatments—such as prescribed fire, pest abatement, and reforestation—to a forested area. The fire prevention grant program provides funding to nonprofits, local governments, and local fire safe councils primarily for the development of fuel breaks—involving the removal of vegetation to form a clearing often about 300 feet wide and several miles long—to protect at-risk communities.

In addition, $30 million was provided beginning in 2018-19 to fund six dedicated prescribed fire crews at CalFire. Once established, these crews will develop and implement prescribed fire projects on a year-round basis. The rationale for establishing crews dedicated to year-round prescribed fire work was that the extended and increasingly severe fire seasons did not leave a long enough "off season" for regular CalFire crews to undertake prescribed

Figure 6

Governor's 2019-20 Wildfire-Related Budget Proposals

(In Millions)

Proposal	General Fund	Other Funds	Total
Local and Recovery Assistance			
Waive local share of debris removal costs[a]	$155.2	—	$155.2
HCD community development block grant	—	$108.8	108.8
Property tax backfill[b]	31.3	—	31.3
Subtotal, Local and Recovery Assistance	($186.5)	($108.8)	($295.3)
2018 Legislative Package—Forest Health and Fire Prevention			
CalFire (various bills)	—	$210.0	$210.0
PUC and Public Advocates Office (SB 901)	—	9.1	9.1
CCC (AB 2126)	$4.5	—	4.5
State Water Resources Control Board (SB 901)	2.6	1.8	4.4
Department of Fish and Wildlife (SB 901)	—	3.5	3.5
Air Resources Board (SB 1260)	—	3.4	3.4
Subtotal, 2018 Legislative Package	($7.1)	($227.8)	($234.9)
Enhanced Fire Protection			
CalFire—13 additional fire engines	$40.3	—	$40.3
OES—fire engine prepositioning	25.0	—	25.0
CalFire/CCC—5 dedicated fire crews	13.6	—	13.6
CalFire—air tankers	13.1	—	13.1
CalFire—heavy equipment operator staffing	10.6	—	10.6
CalFire—employee wellness	4.2	$2.4	6.6
CalFire—fire detection cameras	5.2	—	5.2
CalFire—situational awareness staffing	4.5	—	4.5
CalFire—mobile equipment replacement	3.0	—	3.0
Military Department—administrative support	1.7	—	1.7
Subtotal, Enhanced Fire Protection	($121.2)	($2.4)	($123.6)
State Lands Management			
CalFire—acquire demonstration forest lands	$0.4	—	$0.4
State Lands Commission—forest health inventory	—	$0.2	0.2
Subtotal, State Lands Management	($0.4)	($0.2)	($0.6)
Totals	**$315.2**	**$339.2**	**$654.4**

[a] Debris removal costs are scored in 2018-19.

[b] Property tax backfill amount is the total for a three-year period and is scored in 2018-19.

HCD = Department of Housing and Community Development; CalFire = California Department of Foresty and Fire Protection; PUC = Public Utilities Commission; CCC = California Conservation Corps; and OES = Governor's Office of Emergency Services.

Figure 7

CalFire Funding Augmentations for Forest Health and Fire Prevention

(In Millions)

Program/Activity	2014-15	2015-16	2016-17	2017-18	2018-19
Forest health, fire prevention, and fuels reduction	42	—	25	195	155
Prescribed fire crews	—	—	—	—	30
Urban and community forestry	—	—	15	20	20
Partnership with California Conservation Corps	—	—	0	5	5
Various other[a]	—	5	21	16	10
Totals	**42**	**5**	**61**	**236**	**220**

[a] Includes tree mortality funding, community-based fire prevention, and state responsibility area local assistance grants.

fire projects, which are an important forest health activity. Other recent augmentations have averaged roughly $40 million annually since 2016-17. This includes funding for (1) urban and community forestry grants for activities such as planting trees and creating urban forest management plans, (2) partnerships with CCC for fuels reduction projects, and (3) various other activities including grants to remove dead and dying trees and implement community-based fire prevention projects.

2018 Wildfire Legislative Package Builds on Recent Changes. The Legislature approved several pieces of legislation in 2018 to address the increasingly severe wildfire seasons. The legislative package builds on the recent budget augmentations and enacts numerous policy changes such as establishing new programs and regulatory processes to improve forest health and support fire prevention activities. While there were numerous bills related to wildfires (and disaster response more broadly), there were five bills in the package for which the administration has associated budget proposals for 2019-20. (We discuss those budget proposals later in this analysis.) Among other changes, the bills contain the following major provisions:

- ***SB 901—Funding for Forestry and Fire Prevention Activities.*** Chapter 626 of 2018 (SB 901, Dodd) includes several provisions intended to reduce the risk of catastrophic wildfires with a focus on forest health, expanding the use of prescribed fires, and reducing fuels. This includes a requirement that the annual state budget include two appropriations—$165 million for forest health and fire prevention grants and fuels reduction projects and $35 million for prescribed burn activities—beginning in 2019-20 and continuing for a total of five years. In aggregate, these amounts would be roughly the same as the amounts provided for these purposes in 2017-18 and 2018-19.
- ***SB 901—Streamlining Permitting Requirements.*** SB 901 also includes several changes to streamline the regulatory and approval processes related to timber harvesting activities to allow private landowners to remove trees and other vegetation from their property in order to reduce fuel available for forest wildfires. First, SB 901 creates a new exemption, known as the small timberland owner exemption, that allows owners of relatively small acreage forests—60 acres if near the coast or 100 acres elsewhere—to remove trees in order to reduce the continuity of fuels (such as in a densely forested area) if certain other criteria are met. Some examples of criteria to qualify for the exemption include limiting the harvest to certain size of trees harvested and prohibiting removal of the six largest trees in each acre harvested. Second, the legislation expands an existing exemption, known as the forest fire prevention exemption, which has allowed for tree removal or timber harvesting without an approved timber harvest plan in certain cases where the removal of fuels will help reduce the risk of severe wildfires and when the construction of temporary

roads are not needed to conduct the project. SB 901 expands the potential use of this exemption by allowing for the construction of temporary roads in certain cases. Third, SB 901 requires CalFire to develop a Wildfire Resilience Program to provide technical assistance to nonindustrial timberland owners to help them with the regulatory process when conducting fuel reduction projects. The legislation specifically requires the Wildfire Resilience Program to provide information on the state permits needed to conduct fuel reduction projects, best practices for wildfire resilience, and available grant programs.

- ***SB 901—Electric Utilities and Wildfire Mitigation Plans.*** SB 901 also contains provisions related to electric utilities because utility infrastructure is a common source of wildfire ignition. First, the legislation establishes procedures for wildfire cost financing for investor owned utilities (IOUs) to apply for recovery of costs incurred as a result of catastrophic wildfires. Second, SB 901 adds additional required elements for wildfire mitigation plans prepared by IOUs and reviewed by the California Public Utilities Commission (CPUC) in consultation with CalFire. Specifically, IOUs must describe their future plans related to deenergizing portions of the electrical distribution system, managing vegetation along utility corridors, inspecting infrastructure, and other steps they will take to modernize infrastructure and improve safety.
- ***SB 1260—Prescribed Fires.*** Among other things, Chapter 624 of 2018 (SB 1260, Jackson) supports the use of prescribed fires for forest health and wildfire prevention in two key ways. First, the legislation requires the California Air Resources Board (CARB) in coordination with local air districts to conduct enhanced air quality and smoke monitoring to provide air regulators with improved information when reviewing requests for conducting prescribed fires. Second, SB 1260 requires CalFire to develop a professional "burn boss" curriculum and certification program that would create a consistent standard for the education and skills needed for people to conduct prescribed fires. Under this program, CalFire staff members and private individuals or companies could become certified in order to increase the workforce capable of safely conducting prescribed fires.
- ***AB 2126—Forestry Corps Crews.*** Another component of the legislative package related to forest health is a requirement in Chapter 635 of 2018 (AB 2126, Eggman) that the CCC establish four "forestry corps" crews to develop and implement forest health projects, such as fuels reduction, tree planting, and cone and seed collection. CCC is also required to assist forestry corps members in obtaining forestry degrees or certificates.
- ***AB 2518—Wood Product Manufacturing Facilities.*** Chapter 637 of 2018 (AB 2518, Aguiar-Curry) requires CalFire and the Board of Forestry and Fire Protection (BFFP) to identify barriers to utilizing small trees and other woody biomass in the production of mass-timber and other innovative wood products after they are removed from forests in California. AB 2518 also requires the Forest Management Task Force, staffed by CalFire, to develop recommendations for where to site wood product manufacturing facilities.
- ***AB 2911—Building Standards and Surveys of High-Risk Communities.*** Chapter 641 of 2018 (AB 2911, Friedman) requires the Office of the State Fire Marshall (OSFM) within CalFire to (1) recommend updated building standards to better protect structures from wildfire risks, (2) develop a list of low-cost retrofits that could be implemented at existing structures to reduce the risks, and (3) provide this list to the public through education and outreach efforts. AB 2911 also requires BFFP, in consultation with OSFM, to survey local governments in certain high-risk fire areas to identify existing subdivisions having only one roadway to access the subdivision. For these communities identified, the board is required to make recommendations to reduce wildfire risks and track the extent to which recommendations are implemented.

Governor's Proposals

The Governor's budget includes $235 million (mostly from the GGRF) and 213 positions across five different natural resources and environmental protection departments, as well as the CPUC, to implement the major components of the 2018 wildfire legislative package.

CalFire Proposals. The majority of the funding and positions proposed—$210 million (GGRF) and 121 positions—is for CalFire, as described in greater detail below.

- ***Forest Health and Fire Prevention Grants ($165 Million).*** The Governor's budget includes $165 million, as required by SB 901, and 19 positions for forest health grants, fire prevention grants, and fuel reduction projects conducted directly by CalFire staff. (The 19 positions were established in 2018-19 on a one-time basis. This proposal provides ongoing funding for these positions.)
- ***Prescribed Fire Staffing Expansion ($35 Million).*** The budget includes $35 million, as required by SB 901, and 78 new positions to create four additional prescribed fire crews, as well as provide associated administrative and technical support. (The budget also reflects the continuation of 79 positions authorized in 2018-19 to staff the six initial crews and one research position, for total prescribed fire staffing of 157.)
- ***BFFP Regulatory Activities ($2.6 Million).*** The budget includes $2.6 million and two positions for the board to develop new regulations needed to implement various provisions of SB 901. For example, SB 901 requires new regulations for fuel breaks to protect certain types of communities. This funding includes $2 million to contract for technical and legal assistance to develop these regulations.
- ***Burn Boss Certification Development ($2.5 Million).*** The budget proposes $2.5 million and eight positions to conduct research, provide training, and monitor prescribed fire activity in the state. Under the proposal, CalFire would contract with California State University, Sacramento to develop the burn boss curriculum. The proposal also includes $100,000 for public outreach.
- ***Building Standards and Surveys of High-Risk Communities ($2.3 Million).*** The Governor's budget includes $2.3 million and six positions to evaluate wildfire risks for certain existing communities. Specific activities would include conducting surveys of existing subdivisions, making recommendations to local governments on how to reduce fire risks, researching evacuation standards and road design, and tracking whether recommendations are implemented by local communities.
- ***Wildfire Resilience Program Development ($2 Million).*** The budget proposes $2 million and seven positions to establish the Wildfire Resilience Program required by SB 901. The new positions would provide staff to conduct outreach to nonindustrial timberland owners throughout the state, create and maintain a list of permits required for fuels reduction and forest management projects, summarize research on wildfire resilience, and post information on state websites.
- ***Identification of Barriers for Wood Product Manufacturing Facilities ($400,000).*** The budget includes $400,000 (one time) for a consultant contract to assist CalFire and BFFP in developing a report on barriers to mass-timber production in California and barriers to other innovative wood product manufacturing that uses smaller trees or woody biomass removed in the course of completing fuels reduction activities.
- ***Utility Wildfire Mitigation Plan Reviews ($227,000).*** The budget proposes $227,000 to support one research analyst at CalFire to assist CPUC with the review of IOU wildfire mitigation plans. CalFire and CPUC have entered into a memorandum of understanding to facilitate data sharing and allow CalFire to provide technical assistance to CPUC. The research analyst would develop geographic information system data, generate maps, and conduct research and modeling to evaluate the effectiveness of wildfire mitigation plans submitted by IOUs.

Other Proposals. The remaining $25 million requested is for proposals at various other state departments.

- ***CPUC and Public Advocate's Office ($9.1 Million).*** The budget provides $6.6 million (Public Utilities Commission Utilities Reimbursement Account) and 34 positions to CPUC for ongoing workload related to SB 901, including reviewing IOUs' wildfire mitigation plans. In addition, the budget provides $2.5 million (Public Utilities Commission Public Advocates Office Account) and 14 positions to the Public Advocate's Office for safety-related and administrative workload, such as reviewing wildfire mitigation plans and for reviewing wildfire cost financing applications.
- ***CCC ($4.5 Million).*** The budget includes $4.5 million from the General Fund and two positions for the CCC to establish four forestry corps crews, as required by AB 2126. This includes the creation of two new crews, the conversion of an existing resource crew, and the establishment of one crew through a local corps grant.
- ***State Water Resources Control Board (SWRCB) ($4.4 Million).*** The budget includes $4.4 million ($2.6 million from the General Fund and $1.8 million from the Waste Discharge Permit Fund) and 22 permanent positions for SWRCB to implement various provisions in SB 901, including the development and implementation of a streamlined statewide permit to address water quality degradation that could result from increased removal of vegetation along utility corridors. The permit would provide a more streamlined process for utilities to receive necessary approvals before undertaking vegetation management projects that will be required by the new comprehensive utility wildfire mitigations plans. In addition, the budget request supports increased workload from the new small timberland owner timber harvest exemption and the expanded forest fire prevention exemption for the construction of temporary roads. Staff would be required to review exemption requests, inspect projects to ensure compliance, and develop recommendations to protect water quality.
- ***Department of Fish and Wildlife (DFW) ($3.5 Million).*** The Governor's budget includes $3.5 million ($2 million from the Timber Regulation and Forest Restoration Fund and $1.5 million from the General Fund) and 15 positions for DFW to handle an increase in environmental review and permitting workload related to SB 901. Most of the positions would handle workload related to the small timberland owner timber harvest exemption and the forest fire prevention exemption for the construction of temporary roads for timber harvesting. The remaining positions would address workload for DFW to assist CalFire in providing technical assistance through the new Wildfire Resilience Program.
- ***CARB ($3.4 Million).*** The budget provides CARB with $3.4 million (GGRF) for prescribed burn smoke monitoring, forecasting, modeling, and reporting activities consistent with the requirements of SB 1260. This total includes $2 million annually for three years for local assistance grants to local air districts to provide smoke management plan reviews, provide training on the use of smoke sensors and monitors, and support other activities related to prescribed fires. The proposal also includes funding for CARB to add five new positions, as well as $595,000 in one-time funding to purchase 10 air quality monitors and 21 smoke sensors.

LAO Assessment

Proposals Consistent With Legislation. The budget proposals to implement the 2018 legislative wildfire package appear consistent with the requirements of the various bills in the package. For example, the budget includes the two required appropriations of GGRF funds and includes funding to support legislative requirements on state agencies to implement other components of the package, such as developing new programs and regulations.

Details and Expected Outcomes for Some Proposals Are Limited. Some of the budget proposals lack important details to assist the Legislature in overseeing the ongoing implementation of the legislative package. For example, the budget proposes $165 million for forest health and fire prevention grants and related CalFire projects, but the budget details do not describe how funds would be allocated across various types of grants and programs. CalFire staff have indicated to us that the department likely will fund some direct CalFire projects and then split the remaining funding evenly between forest health and fire prevention grants. However, CalFire has also indicated that these allocations are subject to change.

Similarly, while the Governor's budget includes the $35 million for prescribed burn crews, CalFire did not submit a detailed budget document that provides important implementation details, such as (1) information about where crews would be located in the state; (2) a time frame for the new crews to be hired, trained, and implementing new projects; and (3) estimates of how many projects and acres are expected to be treated by the crews. The proposal for the CalFire Wildfire Resilience Program also lacks key details, such as how many nonindustrial timberland owners are estimated to receive technical assistance based on the proposed level of funding and staffing for the program.

While it is understandable that some details of these new programs are still under development, the limited information on some proposals could limit the Legislature's ability to ensure the intent of the legislative package is fully achieved and that implementation progresses along the time line assumed when the package was enacted.

Recent Electric Utility Bankruptcy Highlights Risks and Uncertainties. As mentioned above, electric utility infrastructure is often the ignition source of wildfires. As a result, IOUs have an important role in wildfire prevention, but can face financial stresses associated with wildfire risks. For example, in January 2019, Pacific Gas and Electric (PG&E) filed for bankruptcy in large part as a result of potential costs related to recent wildfires ignited by the utility's infrastructure. This bankruptcy raises various risks and costs for the state's utilities, as well as other entities. For example, the bankruptcy proceedings could affect future payments received by fire victims and insurance companies, as well as costs paid by PG&E ratepayers. At this time, the magnitude of the effects is unknown. In addition, it is unclear what impacts, if any, PG&E's bankruptcy could have on the implementation of the recent legislative package, particularly the wildfire mitigation plan required by SB 901. Moreover, the bankruptcy highlights wildfire risks and potential costs faced by other utilities in the state, as well as in other regions of PG&E's service area. Given the health of the state's forests, there continue to be significant wildfire risks that could be ignited by electric utility infrastructure. These risks and uncertainties further highlight the importance of ongoing legislative policy efforts and oversight.

LAO Recommendations

Approve Governor's Budget Proposals. Overall, the requests are consistent with the package of legislation and appear to fund reasonable first steps to implementing the package. Accordingly, we recommend that the Legislature approve the budget proposals to implement the 2018 wildfire legislative package.

Ensure Details of Implementation Consistent With Legislative Intent. In addition, because some of the proposals implement new programs or are continuing relatively new programs, some questions about the specific implementation of the legislative package are not answered in the detailed budget documents provided. While this may be understandable, the Legislature will want to ensure it has answers to key questions about the implementation of the legislative package in 2019-20 to ensure specific implementation decisions being made by the administration are in line with legislative intent. In particular, we recommend that the Legislature require the administration to report at spring budget hearings on the following questions:

- ***Forest Health and Fire Prevention Fund Allocation.*** How will the $165 million for forest health and fire prevention grants and fuels reduction projects be allocated among various programs? When will grants be awarded and projects underway?

- ***Implementation of Prescribed Burn Crews.*** How is CalFire progressing at hiring and training the prescribed burn crews approved in the 2018-19 budget? Where will crews be located? How will projects be selected and prioritized? How is CalFire ensuring these crews remain dedicated to prescribed fire work year-round without being pulled into assist with wildfire suppression?
- ***Wildfire Resilience Program.*** How many landowners are expected to receive technical assistance each year under the new program? How will the effectiveness of this program be assessed, and what outcomes does CalFire expect to achieve with the staffing level requested?
- ***PG&E Bankruptcy.*** How might the PG&E bankruptcy impact the implementation of the utility's wildfire mitigation plan? Does the PG&E bankruptcy impact other aspects of the administration's implementation of the legislative package?

Conduct Ongoing Oversight. Given the number of changes enacted in the legislative package, as well as the complex and long-term challenge of improving forest health and reducing wildfire risks, it likely will take many years to evaluate outcomes of the state's efforts. In addition, many of the requirements in the legislative package create new programs and regulatory requirements. So, it is unclear what specific implementation challenges state departments, local governments, and land owners might face in their efforts to achieve the goals of the legislation. In light of this, we recommend that the Legislature conduct ongoing oversight through future budget and policy committee hearings to monitor the state's progress. Some key questions for future oversight include the following:

- ***Measuring Outcomes.*** How will the state measure overall outcomes in the near term and the long term? Are there ways to track the effectiveness of specific programs and regulatory changes? How will the state monitor the change in fire risk or severity in areas that have received forest health and fire prevention treatments compared to non-treated areas?
- ***Allocation of Funds to Highest Priority Areas.*** What criteria is CalFire using to allocate funding among various regions of the state? To what extent is the department targeting dollars to the highest risk areas and/or those areas with the greatest potential public safety or environmental benefits? Is CalFire receiving a sufficient number of grant applications from the highest priority geographic areas? If not, what steps is CalFire taking to proactively work with high-risk areas to develop potential grant projects?
- ***Barriers to Completing Forest Health and Fire Prevention Projects.*** What implementation barriers or challenges are CalFire and grant recipients experiencing with completing forest health and fire prevention projects? Does sufficient workforce capacity exist to undertake forest health and fire prevention activities at the current funding levels? Do capacity concerns constrain the ability to expand programs in the future?
- ***IOU Fire Prevention Efforts.*** How quickly are utilities conducting vegetation management projects along utility corridors? To what extent are utilities implementing the portions of the plans requiring deenergizing of electrical distribution systems and what are the impacts and outcomes? What barriers, if any, impede the ability of utilities to effectively implement wildfire mitigation plans and the ability of state agencies to oversee the implementation of these plans?
- ***Outcomes for Timber Harvest Exemptions.*** How many timber harvest exemptions are state agencies—CalFire, SWRCB, and DFW—processing? To what extent are the streamlined exemption processes resulting in more fuels reduction?
- ***Prescribed Burns.*** To what extent are additional resources for CARB resulting in more approvals for prescribed fires? How are CARB and local air districts balancing the inherent greenhouse gas (GHG) and air quality trade-offs associated with approving prescribed burns that would have

near-term emissions? How has the burn boss certification program affected the ability of local and private entities to implement prescribed burns?

- ***Collaboration Across State and Local Entities.*** How is CalFire collaborating with other state and local entities to prioritize forest health and other wildfire reduction activities within key regions of the state? To what extent are regional planning efforts taking place, such as in key watersheds?
- ***Balancing Funding for Prevention Activities and Fire Response.*** How is the state balancing funding for forest health and fire prevention activities to reduce the risks associated with future wildfires with demands to increase funding for fire response resources necessary to respond when wildfires occur? How can the state determine where funding can be most effective? To what extent should funding priorities change in the future as wildfire risks change or if additional very severe and destructive wildfires occur?
- ***Overall Funding and Staffing Levels.*** Are funding and staffing levels sufficient to keep up with workload demands, such as for processing permit exemptions or burn boss certifications? To what extent is there ongoing or increased demand for forest health and fire prevention grants in high priority regions?

EXPANSION OF FIRE RESPONSE CAPACITY

The concept of increasing CalFire fire response capacity is reasonable given the increasingly severe wildfire seasons experienced in the state. We recommend the Legislature approve the Governor's proposals, with the exception of the proposal for C-130 air tankers. While the overall concept of the air tanker proposal is reasonable, CalFire has not provided the necessary budget details needed to fully evaluate this proposal. As such, we recommend that the Legislature have CalFire provide additional details at budget hearings before taking an action on the request for new air tankers. In addition, we recommend that the Legislature require the administration to conduct an assessment of existing state and local fire response capacity in order to inform a multiyear approach to increasing fire response resources.

Background

The state responds to wildfires in the state responsibility area by utilizing CalFire resources (such as state and contracted fire crews, fire engines, helicopters, and air tankers), mutual aid resources (such as local fire fighters and engines), and other state resources (such as equipment and staff from the California Military Department). CalFire is currently funded to operate 343 fire engines, as well as 234 fire stations, 12 air attack bases, and 10 helitack bases.

Recent Budgets Have Augmented CalFire Response Resources. In recent years, CalFire's base budget for wildfire response has been about $1 billion. In response to the increasingly severe fire seasons and the general need to update and modernize equipment over time, recent state budgets have increased CalFire's wildfire response resources. For example, in 2017-18 CalFire received $42 million to increase the availability of 42 of its fire engines into year-round engines and extend the length of the season that helitack ground crews work. More recently, the 2018-19 budget provided CalFire with several significant funding augmentations bringing CalFire's base budget for fire response is $1.1 billion (mostly from the General Fund) in 2018-19. These augmentations include:

- $315 million over multiple years to replace all 12 of CalFire's helicopters.
- $10.9 million for heavy equipment mechanics and vehicle maintenance funding to address greater wear and tear from the lengthening fire seasons.
- $9.6 million to add five CCC crews dedicated to CalFire work, resulting in a total of seven dedicated CCC crews.
- $3 million in one-time funding for mobile equipment (such as fire engines and bulldozers) replacements due to increased wear and tear.

Governor's Proposals

The Governor's budget proposes $124 million for enhanced fire response capacity across multiple departments in 2019-20. The largest share of this proposed funding is $96.9 million almost entirely from the General Fund for CalFire (offset by $1.8 million in reduced reimbursement authority for CCC) to implement several proposals as described below. Under the proposals, this funding for CalFire would increase to over $120 million in subsequent years.

- ***Additional Fire Engines ($40.3 Million).*** The budget supports adding 13 new fire engines to CalFire's fleet, as well as 131 additional positions to staff those engines. This would bring the total size of the fleet to 356 fire engines. Under the proposal, these 13 new engines would be operated on a year-round basis bringing the total number of fire engines operated on a year-round basis to 65 engines.
- ***Increased Staffing ($15.1 Million).*** The budget includes two proposals to increase CalFire's fire response staffing. First, the budget includes $10.6 million and 34 heavy equipment operator positions in order have a total of three heavy equipment operators for each of CalFire's 58 bulldozers to provide 24 hours a day, seven days a week staffing. Second, the budget includes $4.5 million to support 13 positions to provide situational awareness staffing—dedicated staff to provide real-time intelligence to decision makers during a wildfire.
- ***CCC Crews Dedicated to CalFire ($13.6 Million).*** The budget proposes to add five CCC crews dedicated to CalFire for fire response and prevention activities. This includes converting four existing CCC reimbursement crews into crews dedicated full-time to CalFire work and creating one new crew dedicated to CalFire work. Under the proposal, the total number of CCC crews dedicated to CalFire will increase to 12.
- ***C-130 Air Tankers and Related Capital Outlay ($13.1 Million).*** The budget includes funding and six positions to implement the first year of a plan to accept seven used C-130 air tankers from the federal government to replace CalFire's existing fleet of aircraft, with the first air tanker scheduled to be received in 2020-21. The state will receive the aircraft for free, but the department's costs will increase over the next several years for operating and maintenance costs. CalFire estimates annual costs will rise steadily over the next five years reaching $50 million in increased annual costs by 2023-24. In addition, the proposed 2019-20 funding level includes $1.7 million for the first phase of three capital outlay projects to construct barracks to accommodate the new larger flight crews needed to operate the C-130 aircraft. These three projects along with a fourth barracks project expected to be initiated next year are estimated to cost a total of $26 million over several years.
- ***Employee Wellness ($6.6 Million).*** The budget proposes to expand two employee wellness programs. First, the budget would expand an existing health and wellness pilot program to a statewide program. The health and wellness pilot program involves conducting voluntary wellness screenings to test for health conditions common to firefighters, such as heart disease and certain types of cancer. Second, the budget increases staffing for CalFire's Employee Support Services program that provides mental health support to CalFire employees and family members. The proposal would allow CalFire to provide more services to firefighters at the location of major fires and provide additional education and information related to post-traumatic stress disorder.
- ***Fire Detection Cameras ($5.2 Million).*** The administration proposes to join an existing network of wildfire detection cameras and to expand the network by 100 additional cameras in locations determined by CalFire. Specifically, the funding will support a contract between CalFire and ALERTWildfire—a consortium of the University of Nevada, Reno; the University of California, San Diego; and the University of Oregon—to allow CalFire to access and control ALERTWildfire's existing network of wildfire detection cameras.

- ***Mobile Equipment Replacement ($3 Million).*** The budget proposes to continue on an ongoing basis a one-time 2018-19 funding augmentation to CalFire's budget for replacement of mobile equipment, such as bulldozers and fire engines. Funding would be used to replace additional mobile equipment that has experienced additional wear and tear from the extended fire seasons in recent years.

LAO Assessment

Increasing Fire Response Resources Is Reasonable in Concept. The magnitude and severity of recent fire seasons suggest that severe wildfires could be a worsening problem. Moreover, ongoing impacts from the drought, bark beetle infestations, tree mortality, climate change, and effects of decades of fire suppression activities all contribute to increased risks of severe wildfires. Given the recent fire conditions and the likelihood that conditions persist or even worsen, it is reasonable to increase the state's fire response resources.

C-130 Air Tanker Proposal Lacks Detail. As discussed later in this report, the administration typically submits detailed budget documents that provide background, justification, and fiscal details for each budget proposal. While the administration submitted these budget documents for the proposals to increase CalFire's fire response resources, the documents lack certain details necessary to evaluate specific components of the proposals and to fully understand future costs and expected outcomes. This is particularly the case for the proposed C-130 air tankers. For example, it is unclear why funding for maintenance and operations contracts is needed in 2019-20 when the state is not scheduled to receive the first C-130 air tanker until 2020-21. Similarly, it is unclear whether current costs related to operating and maintaining CalFire's existing air fleet (which will be decommissioned) are being netted out from the total amount of funding being requested for the new air tankers. Given the significant cost, especially in future years, to operate and maintain the C-130 air tankers, it is important for the Legislature to have the detail necessary to understand all of the components and costs of the proposal and why each component is needed. While CalFire staff have been helpful and responsive in providing additional details on the proposals, questions regarding the air tanker proposal remain outstanding.

Administration Has Not Conducted Assessment to Inform Future Budget Decisions. In light of the state's increasingly severe fire seasons and the trend of increasing wildfire response resources in recent budgets, we expect there will be continued pressure to expand fire response funding in the future. Having more information on existing fire response capacity and gaps in capacity would help the Legislature in its consideration of future budget proposals to increase fire response resources. However, the administration has not completed a recent assessment of state, mututal aid, and federal wildfire response capacity; potential gaps; and where additional resources would be most beneficial. Without such an assessment it is difficult to know the extent to which the specific fire response augmentations proposed address the highest priorities, fill the most critical gaps in response coverage, and take the most cost-effective approach to addressing fire response challenges. In addition, an assessment of response capacity, gaps, and benefits could help inform future budget decisions, as well as better allow the state to develop longer-term funding plans for the deployment of future resources to ensure that additional resources approved in the future are used in the most beneficial and cost-effective manner.

LAO Recommendations

Approve Most of the Governor's Budget Proposals. We recommend that the Legislature approve the Governor's requests for additional fire response resources in CalFire, with the exception of the proposal to support additional C-130 air tankers. We find these proposals reasonable given the recent severe fire seasons and ongoing wildfire risks in many areas of the state.

Require CalFire to Provide Additional Information on C-130 Air Tankers. As discussed above, the proposal for the C-130 air tankers lacks important details, including the rationale for funding maintenance and operations contracts before the new air tankers are delivered. Accordingly, we recommend that the Legislature require CalFire to provide additional details on the air tanker proposal at spring budget hearings before determining what action to take on the proposal. While the overall concept of replacing CalFire's air fleet with the C-130 air tankers is reasonable, we think the Legislature will want to fully understand the costs of implementing this proposal before taking action on this item. To the extent the department is unable to provide sufficient justification for some components of this proposal, we would recommend the Legislature reject those components of the proposal in 2019-20. Doing so would not impede the department's ability to accept the C-130s in future years or to begin the related capital projects proposed.

Require an Assessment to Inform Future Budget Decisions. In order to guide potential increases in fire response resources in future years, we recommend that the Legislature adopt supplemental reporting language to require CalFire, in coordination with the Governor's Office of Emergency Services, to provide an assessment of existing state, mututal aid, and federal fire response capacity; gaps in capacity; and where additional resources would be most beneficial. Such an assessment should evaluate state and local responsibilities, and include all types of fire response including fire engines, air attack, and other resources. The assessment should evaluate the cost-effectiveness of increasing CalFire resources compared to increasing other resources, appropriate funding sources, goals for fire response, and expected outcomes and benefits from addressing gaps in capacity. In addition, the assessment should identify potential capital outlay needs, such as adding fire stations or helitack bases. Lastly, the assessment should prioritize identified gaps in coverage or identified demands for additional resources. We recommend that the Legislature require CalFire to submit this assessment by April 1, 2020 in order to inform potential future budget decisions related to increasing fire response capacity.

CLIMATE CHANGE

CAP-AND-TRADE: REVENUE AND FUND CONDITION

The Governor's budget (1) assumes cap-and-trade revenue of $2.6 billion in 2018-19 and $2.1 billion in 2019-20; (2) proposes to spend a total of $2.4 billion in 2019-20, including roughly $1.1 billion in discretionary expenditures; and (3) leaves less than $100 million in the GGRF at the end of 2019-20. We estimate revenue will be roughly $800 million higher over the two-year period and, as a result, about $450 million would remain unspent at the end of 2019-20. There continues to be uncertainty about future revenue, making it appropriate to remain cautious when determining the overall amount of spending. However, under our revenue estimates, the Legislature could spend a somewhat higher amount in the budget year—a couple hundred million dollars, for example—and still maintain a healthy fund balance. We recommend the Legislature ensure multiyear discretionary spending commitments do not exceed $900 million annually—the maximum amount that could be supported by future revenue if recent trends in allowance prices continue. We also recommend the Legislature modify the proposed budget bill language to ensure the Legislature's highest priorities are funded if revenue falls below projections.

In this section of the report, we assess the administration's cap-and-trade revenue estimates and the overall condition of the GGRF based on total estimated expenditures in 2018-19 and proposed expenditures in 2019-20. In the following section, we provide a more detailed description of the Governor's proposed cap-and-trade spending plan and our assessment of those specific proposals.

Background

Cap-and-Trade Part of State's Strategy for Reducing GHGs. The Global Warming Solutions Act of 2006 (Chapter 488 [AB 32, Núñez/Pavley]) established the goal of limiting GHG emissions statewide to 1990 levels by 2020. Subsequently, Chapter 249 of 2016 (SB 32, Pavley) established an additional GHG target of reducing emissions by at least 40 percent below 1990 levels by 2030. One policy the state uses to achieve these goals is cap-and-trade. The cap-and-trade regulation—administered by CARB—places a "cap" on aggregate GHG emissions from large emitters, such as large industrial facilities, electricity generators and importers, and transportation fuel suppliers. Capped sources of emissions are responsible for roughly 80 percent of the state's GHGs. To implement the program, CARB issues a limited number of allowances, and each allowance is essentially a permit to emit one ton of carbon dioxide equivalent. Entities can also "trade" (buy and sell on the open market) the allowances in order to obtain enough to cover their total emissions. (For more details on how cap-and-trade works, see our February 2017 report *The 2017-18 Budget: Cap-and-Trade*.)

Auction Revenue Has Been Volatile in Past, but Stable Since Program Extension. About half of the allowances are allocated for free to utilities and certain industries, and most of the remaining allowances are sold by the state at quarterly auctions. The allowances offered at quarterly auctions are sold for a minimum price—set at $15.62 in 2019—which increases annually at 5 percent plus inflation. Revenue from the auctions is deposited in the GGRF.

Figure 8 shows quarterly state auction revenue since 2015. Quarterly revenue has been relatively consistent, except in 2016 and early 2017 when auction revenue dropped substantially in a few auctions. This was because very few allowances offered by the state were purchased. Several factors likely contributed to this decrease in allowance purchases, including (1) an oversupply of allowances in the market because emissions were well below program caps and (2) legal uncertainty about the future of the program. The Legislature subsequently passed Chapter 135 of 2017 (AB 398, E. Garcia), which effectively eliminated legal uncertainty about the future of the program by extending CARB's authority to continue cap-and-trade through 2030. Since then, quarterly auction revenue has consistently exceeded $600 million—reaching about $800 million in the most recent auctions.

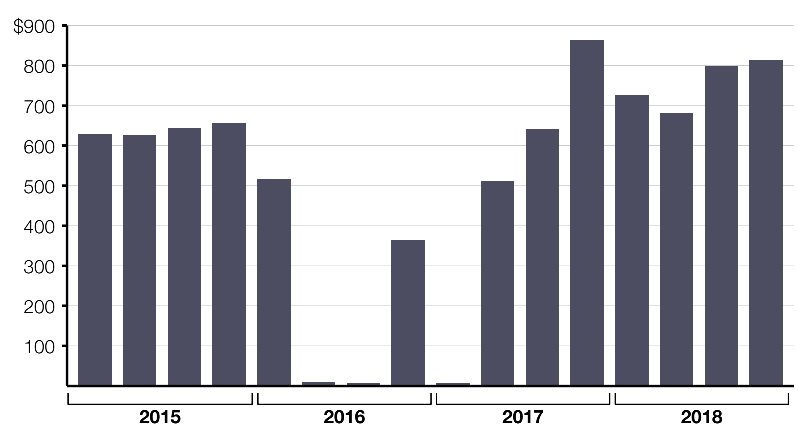
Current Law Allocates Over 60 Percent of Annual Revenue to Certain Programs. Over the last several years, the Legislature has committed to ongoing or multiyear funding for a variety of programs, including:

- ***"Off-the-Top" Allocations to Backfill Certain Revenue Losses.*** AB 398 and subsequent legislation allocates GGRF to backfill state revenue losses from (1) expanding a manufacturing sales tax exemption and (2) suspending a fire prevention fee that was previously imposed on landowners in State Responsibility Areas (SRA fee). Under current law, both of these backfill allocations

Figure 8

Auction Revenue Has Been Volatile in the Past, But Stable in Recent Years

(In Millions)



are subtracted—or taken off the top—from annual auction revenue before calculating the continuous appropriations discussed below. These allocations are roughly $100 million annually.

- ***Continuous Appropriations.*** Several programs are automatically allocated 60 percent of the remaining annual revenue. State law continuously appropriates annual revenue (minus the backfills taken off the top) as follows: (1) 25 percent for the state's high-speed rail project, (2) 20 percent for affordable housing and sustainable communities grants (with at least half of this amount for affordable housing), (3) 10 percent for intercity rail capital projects, and (4) 5 percent for low carbon transit operations.

The remaining revenues—sometimes referred to as "discretionary"—are allocated through the annual budget process, and funds generally support activities intended to facilitate GHG reductions. Historically, some of these expenditures have been allocated on a one-time basis, while other programs have been allocated funding on a multiyear basis.

Proposal

Budget Assumes $2.1 Billion of Revenue in 2019-20. Figure 9 summarizes the Governor's proposed framework for GGRF revenue and expenditures. The budget assumes cap-and-trade auction revenue of about $2.6 billion in 2018-19 and $2.1 billion in 2019-20. According to the Department of Finance (DOF), the 2018-19 amount continues the revenue assumption used when the budget was adopted last year. The 2019-20 amount is based on an assumption that all allowances offered by the state will sell at the minimum auction price.

$2.4 Billion Expenditure Plan Spends Most of Available Funds. Based on Governor's revenue estimates, the budget allocates a total of about $2.4 billion GGRF in 2019-20 for various programs—including off-the-top backfills, continuous appropriations, and discretionary spending. (We discuss the details of the expenditure plan in more detail below.) This spending comes from anticipated 2019-20 revenue, plus some unspent funds that carryover from 2018-19. Under the Governor's proposal and revenue assumptions, about $80 million would remain unallocated at end of 2019-20.

Budget Includes About $500 Million in Multiyear Discretionary Spending. Of the $1.1 billion in proposed discretionary spending in 2019-20, almost $500 million consists of multiyear discretionary spending commitments made in past years—such as the Clean Vehicle Rebate Project (CVRP) ($200 million), forest health ($165 million), prescribed fire and fuel reduction ($35 million), and administrative costs ($60 million). Most of the remaining discretionary allocations would be on a one-time basis.

Budget Bill Language Provides DOF Authority to Reduce Certain Allocations. Similar to last year's budget, the administration proposes budget bill language (BBL) that (1) restricts certain discretionary programs from committing more than 75 percent of their allocations before the fourth

Figure 9

Summary of GGRF Fund Condition Under Different Auction Revenue Estimates

(In Millions)

	Governor's Estimates		LAO's Estimates	
	2018-19	2019-20	2018-19	2019-20
Beginning Balance	**$620**	**$272**	**$620**	**$518**
Revenue	**$2,675**	**$2,200**	**$3,200**	**$2,500**
Auction revenue	2,575	2,100	3,100	2,400
Investment income	100	100	100	100
Expenditures and Transfers	**$3,023**	**$2,390**	**$3,302**	**$2,569**
"Off-the-top" backfills[a]	71	130	71	130
Continuous appropriations	1,502	1,182	1,781	1,361
Discretionary expenditures[a]	1,450	1,078	1,450	1,078
End Balance	**$272**	**$82**	**$518**	**$448**

[a] Assumes Governor's 2019-20 spending proposals are adopted.
GGRF = Greenhouse Gas Reduction Fund.

auction of 2019-20 and (2) gives DOF authority to reduce these discretionary allocations after the fourth auction if auction revenues are not sufficient. In addition, DOF must notify the Joint Legislative Budget Committee (JLBC) of these changes within 30 days. This BBL is meant to ensure the fund remains solvent if revenue is lower than estimated. The allocations that DOF could reduce include air pollution reduction (AB 617) incentives, heavy-duty and freight equipment programs, transportation equity projects, Transformative Climate Communities Program, waste diversion grants and loans, and agricultural equipment upgrades. Other discretionary programs would continue to be funded at budgeted levels under this scenario.

LAO Assessment

Revenue Likely Somewhat Higher Than Budget Assumes . . . We estimate auction revenue will be about $3.1 billion in 2018-19 and $2.4 billion in 2019-20—or about $800 million higher over the two-year period. Our estimates assume that almost all allowances sell at the minimum auction price—consistent with recent market trends. Although the administration indicates that it makes a similar assumption in 2019-20, our estimates are about $300 million higher in that year. The difference is primarily because we estimate that about 16 million more allowances will be offered during the budget year based on updated estimates of available allowances.

. . . But Revenue Uncertainty Continues. There are a wide variety of factors that contribute to revenue uncertainty. Revenue is primarily driven by demand for allowances and market prices. The overall demand for allowances and prices will depend on economic conditions, technological advancements, future regulatory actions, and market expectations about these various factors. All of these factors are highly uncertain and, as a result, revenue could be higher or lower than our projections. For example, revenue could be lower if companies do not purchase all of the allowances offered at auctions. There will be more allowances available than companies need in order to comply with the regulation in the next few years. As a result, if a sufficient number of businesses do not want to purchase and hold onto allowances for future years (also known as "banking"), then some of the allowances offered in the near term might not be purchased. On the other hand, if businesses anticipate that prices will rise substantially in the future, this could increase demand for allowances and increase near-term prices. This could increase revenue substantially.

Revenue Likely Could Support Somewhat Higher Spending, but Reasons to Be Cautious. As shown in Figure 9, we estimate the Governor's spending plan would leave about $450 million in the fund at the end of 2019-20. Given the revenue uncertainty discussed above, we think the Legislature should be cautious when adopting a GGRF spending plan. However, based on our revenue projections, the Legislature could allocate some additional funds in 2019-20, while still leaving a healthy fund balance. For example, under our revenue assumptions, the Legislature could allocate an additional $200 million while also leaving about $250 million in the fund for future years. This fund balance would be about 25 percent of annual discretionary revenue. As a percentage of annual revenue, the fund balance is higher than many other state funds, which is prudent given the revenue uncertainty. As we discuss below, the Legislature will also want to consider the amount of revenue that will be available in future years when adopting its spending plan, particularly multiyear funding proposals.

Future Discretionary Revenue Might Not Exceed $900 Million Annually. If nearly all allowances continue to sell at the floor price, revenue over the next few years will be roughly $2.4 billion annually. After allocating funds for the off-the-top backfills and continuous appropriations, about $900 million annually would be left for discretionary programs. As discussed above, the Governor's budget includes about $500 million in multiyear discretionary spending.

Details of BBL Important, Particularly if Legislature Allocates More Money. If 2019-20 auction revenues are not sufficient to cover budget allocations, the Governor's proposed BBL would give DOF authority to reduce allocations for certain programs, while maintaining budgeted funding levels for other programs. This effectively prioritizes funding for certain programs over other programs if revenue is lower than expected. In concept, the budget language is a reasonable way to ensure the fund remains solvent. Such a strategy is particularly important if the Legislature allocates substantially more money than the Governor is proposing. However, the Legislature will want to adopt language that ensures that funding for its highest priority programs are prioritized if revenue comes in lower than projected. (Later in this report, we discuss some of the cap-and-trade spending priorities that the Legislature has identified in statute.)

Some of the specific details of how DOF will implement the BBL are unclear at the time of this report. For example, the BBL does not specify (1) what criteria DOF will use to determine whether there is insufficient revenue to cover the proposed allocations or (2) how it would reduce funding for the remaining programs that are not guaranteed to maintain their budgeted funding level.

LAO Recommendation

Ensure Multiyear Discretionary Expenditures Do Not Exceed $900 Million. If cap-and-trade allowance prices remain near the minimum over the next few years, annual auction revenue would not support annual discretionary spending above $900 million. As a result, we recommend the Legislature ensure its multiyear GGRF spending commitments do not exceed about $900 million annually. The Governor's budget includes about $500 million in multiyear discretionary GGRF spending commitments—substantially less than $900 million. However, although some of the discretionary programs are technically budgeted on a one-year basis, in some cases, these programs have received consecutive years of funding and the program activities are expected to continue into the future. For example, as we discuss later in this report, roughly $300 million annually has been allocated to AB 617 activities in prior years and many of the activities are expected to continue. This adds a long-term cost pressure on the fund that is not reflected in the $500 million multiyear allocations in the Governor's budget.

Modify BBL to Ensure Legislative Priorities Are Funded if Revenue Is Lower Than Expected. We recommend the Legislature adopt BBL that ensures the GGRF remains solvent even if revenue comes in lower than projected and that ensures funding goes to its highest priority programs under such a scenario. The Governor's proposal is a reasonable starting point for such a strategy. However, the Legislature could modify the proposed BBL in a way that maintains budgeted funding levels for a different mix of programs that are more consistent with its priorities.

In order to determine how best to modify the proposed BBL, we recommend that the Legislature direct DOF to report in budget hearings on what criteria it will use to determine when revenue is insufficient and how it plans to reduce allocations to various programs under that scenario. Based on this information, the Legislature could consider providing more specific direction to DOF. For example, for programs that would not maintain their budgeted funding levels, the Legislature could direct DOF to make proportional reductions. Another option would be for the Legislature to use funding "buckets" that designate which programs receive allocations first, and which programs receive allocations only if sufficient revenue is collected.

CAP-AND-TRADE: EXPENDITURES

The Governor's budget proposes a $2.4 billion expenditure plan, including over $1 billion in discretionary spending. We recommend the Legislature direct the administration to report on the following information at budget hearings: (1) expected outcomes that will be achieved with the proposed funding; (2) any programmatic adjustments to existing programs that might be needed in order to stay within their proposed allocations; (3) additional information on the proposal to expand workforce apprenticeship programs, including key outcomes of the apprenticeship programs and how it will ensure participants are connected to career jobs; and (4) additional information about the new worker transition pilot, including how the California Workforce Development Board (CWDB) plans to expand the program in the first several years and whether $5 million is the correct funding level during this initial ramp-up. Based on this

information, we recommend the Legislature allocate funds based on its highest priorities.

Background

Legislative Direction on GGRF Spending. Various statutes enacted over the last several years direct the use of cap-and-trade auction revenue. For example:

- Auction revenues must be used to further the purposes of AB 32 and facilitate GHG emission reductions.
- At least 35 percent must be spent on projects that benefits disadvantaged communities and/or low-income households. The California Environmental Protection Agency identifies disadvantaged communities based on various factors related to environmental quality and socio-economic characteristics.
- Roughly 60 percent of annual revenue is continuously appropriated to certain programs.
- AB 398 and subsequent legislation allocated funds to backfill revenue losses from expanding a manufacturing sales tax exemption and suspending the SRA fee.
- AB 398 also expressed the Legislature's intent that GGRF be used for a variety of priorities, including reducing toxic and criteria air pollutants, low carbon transportation alternatives, sustainable agriculture, healthy forests, reducing short-lived climate pollutants, climate adaptation, and clean energy research.

Proposal

$2.4 Billion Spending Plan Largely Continues Funding for Existing Programs. As shown in Figure 10 (see next page), the Governor's budget proposes a $2.4 billion 2019-20 cap-and-trade spending plan. The overall amount is about $650 million less than 2018-19, largely because estimated revenue is $475 million lower (discussed above). The large majority of funding would go to programs that the Legislature committed to funding. This includes:

- $130 million for the off-the-top revenue backfills for the AB 398 manufacturing sales tax exemption and SRA fee suspension.
- $1.2 billion for continuously appropriated programs.
- $486 million for discretionary programs where the Legislature previously indicated a commitment to providing a certain amount of funding—either in statute or in the budget.

The remaining $593 million would go to other discretionary programs—many of which received funding on a one-time basis in 2018-19. In a few instances, the budget includes funding to expand existing GGRF programs or provide funding for programs that did not previously receive GGRF. These include: (1) $27 million for a new workforce development program, (2) $18 million to expand the Healthy Soils Program, and (3) $13 million to implement various wildfire prevention bills passed in 2018. We describe the workforce development and Healthy Soils proposals below. (We discuss the wildfire prevention bills earlier in this report.)

Proposes $27 Million for New Workforce Training Programs. The plan provides $27 million in 2019-20—and similar amounts annually for the following four years—to CWDB to expand two existing pre-apprenticeship projects and to start a new worker transition initiative. Consistent with statewide workforce training policy, these pre-apprenticeship slots would be prioritized for disadvantaged job seekers. Disadvantaged workers are individuals with barriers to employment, including low-skill, low-wage workers, the long-term unemployed, and members of single-parent households. Specifically, the plan would fund the following programs:

- ***High Road Construction Careers (HRCC).*** Provides $10 million annually for five years to add a total of 3,000 pre-apprenticeship slots within the existing HRCC project. The HRCC project funds pre-apprenticeship slots that prepare disadvantaged workers for apprenticeship programs in construction and the building trades. Apprenticeships are paid on-the-job training programs that are intended to lead to careers in the building trades.

Figure 10

Cap-and-Trade Expenditure Plan

(In Millions)

Program	Department	2018-19	2019-20
Off-the-Top Allocations		**$71**	**$130**
SRA fee backfill	CalFire/Conservation Corps	31	87
Manufacturing sales tax exemption backfill	Not applicable	41	44
Continuous Appropriations		**$1,502**	**$1,182**
High-speed rail	High-Speed Rail Authority	626	492
Affordable housing and sustainable communities	Strategic Growth Council	501	394
Transit and intercity rail capital	Transportation Agency	250	197
Transit operations	Caltrans	125	98
Existing Discretionary Spending Commitments		**$465**	**$486**
Clean Vehicle Rebate Project	Air Resources Board	200	200
Forest health and fire prevention (SB 901)	CalFire	160	165
Various state administrative costs	Various	49	60
Prescribed fire and fuel reduction (SB 901)	CalFire	30	35
AB 617 air district implementation costs	Air Resources Board	20	20
Energy Corps	Conservation Corps	6	6
Other Discretionary Spending		**$989**	**$593**
AB 617 incentive programs	Air Resources Board	245	200
Heavy-duty vehicle and off-road equipment programs	Air Resources Board	180	132
Low-income light-duty vehicles and school buses	Air Resources Board	75	50
Transformative Climate Communities	Strategic Growth Council	40	40
Workforce development	Workforce Development Board	—	27
Agricultural diesel engine replacements	Air Resources Board	112	25
Methane reductions from dairies	Food and Agriculture	99	25
Waste diversion	CalRecycle	25	25
Healthy Soils	Food and Agriculture	5	18
Wildfire prevention package implementation costs	CalFire and Air Resources Board	—	13
AB 617 technical assistance grants	Air Resources Board	10	10
Climate and energy research	Strategic Growth Council	18	10
Low-income weatherization	Community Services and Development	10	10
AB 617 state implementation costs	Air Resources Board	4	4
Coastal adaptation	Various	5	3
Incentives for food processors	Energy Commission	64	—
Local fire response	Office of Emergency Services	25	—
Regional forest restoration projects	Natural Resources Agency	20	—
Urban greening	Natural Resources Agency	20	—
Low-carbon fuel production	Energy Commission	13	—
Urban forestry	CalFire	5	—
Wetland restoration	Fish and Wildlife	5	—
Agricultural renewable energy	Energy Commission	4	—
Woodstove replacements	Air Resources Board	3	—
Technical assistance for disadvantaged communities	Strategic Growth Council	2	—
Totals		**$3,027**	**$2,390**

SRA = state responsibility area; CalRecycle = California Department of Resources Recycling and Recovery; and CalFire = California Department of Forestry and Fire Protection.

- ***High Road Training Partnership (HRTP).*** Provides $10 million annually for five years to expand the training partnership by adding a total of 2,000 pre-apprenticeship slots. The HRTP is a pre-apprenticeship demonstration project for nonconstruction industries that have been affected by the state's efforts to reduce GHGs. The administration indicates that these industries include healthcare, manufacturing, public transit, water, and utilities. One example of an HRTP project is an apprenticeship that trains bus service technicians (who clean buses and do light maintenance) to become electric bus mechanics.
- ***Worker Transition Fund Initiative Pilot.*** The plan would also provide $5 million annually for five years to pilot a new worker transition initiative and begin a "Workgroup on the Future of Work." Through the Worker Transition Fund, the state would provide income support, retraining, and, in some cases, relocation assistance to workers in industries—such as oil, gas, and nuclear power—that have been affected by technology and the state's efforts to reduce GHGs. It is our understanding that the pilot phase would commence in one or two regions after the completion of a labor market study and community assessment. Additionally, the Workgroup on the Future of Work would be tasked with assessing how GHG reduction policies impact the labor market and making recommendations to address how automation, artificial intelligence, and other technological changes affect the state's labor markets.

Healthy Soils Program Expansion Consistent With Natural and Working Lands Plan. Chapter 545 of 2016 (SB 1386, Wolk) identified the protection and management of natural and working lands as an important strategy in meeting the state's GHG reduction goals. Natural and working lands include forests, wetlands, parks, agricultural lands, and rangelands. Chapter 545 also directed state agencies to consider carbon sequestration when establishing regulations and financial assistance to promote protection and management of natural and working lands. In addition, the 2017 Scoping Plan—in which CARB identifies the mix of policies that will be used to achieve the state's GHG reduction goals—established a goal to reduce GHG emissions from natural and working lands by at least 15 million metric tons of carbon dioxide equivalent by 2030. Subsequently, CARB worked with other state agencies to release a draft Natural and Working Lands Climate Change Implementation Plan in January 2019. The plan includes a variety of conservation and management goals intended to increase the amount of carbon sequestered in plants and soil, such as increasing the use of agricultural management practices that increase soil carbon on at least 42,000 acres each year. These management practices include (1) applying compost, (2) cover cropping, (3) no-till farming, and (4) mulching. For context, there are about 25 million acres of agricultural land in California.

The budget proposes $18 million on a one-time basis for the Healthy Soils Program. This is $13 million more than what was provided in 2018-19. The Healthy Soils Program funds incentives and demonstration projects for agricultural management practices that have potential to increase carbon sequestration and productivity. So far, most of this funding has gone to encourage compost application and cover cropping. Based on the average costs of incentives provided in past years, the administration estimates that about $18 million would be needed to encourage these alternative management practices on about 42,000 acres.

LAO Assessment

Basic Information About Expected Projects and Outcomes Still Lacking. As shown in Figure 11 (see next page), the administration has provided limited quantitative information about what outcomes it expects to accomplish with the proposed funding amounts. In the figure, we focus on the new discretionary spending proposals that are not discussed elsewhere in this report (including AB 617 and wildfire-related proposals). The amount of information varies by program. Some departments have provided estimates of the number of projects that would be funded and estimated outcomes—such as GHG reductions—from those projects. The administration has not provided quantitative information for other programs.

In some cases, departments provided an explanation for why they were unable to provide this information. For example, CARB indicated that the number of projects, and associated emission reductions, from its heavy-duty and freight programs depend on future CARB decisions about how it will allocate the funds between different subprograms (vouchers, demonstrations, and pilots). Also, CARB indicates that it does not have complete information about how past funding allocated to local air districts has been used, making it difficult to produce estimates for future spending. In other cases, departments did not provide an explanation for why it could not provide information on expected outcomes.

The lack of information about expected outcomes limits the Legislature's ability to evaluate the merits of each program, making it more difficult to ensure funds are allocated in a way that is consistent with its priorities and achieves its goals most effectively. By not having this information before programs are implemented, it also limits the Legislature's ability to hold departments accountable when evaluating the performance of these programs after they are implemented.

Program Adjustments Will Likely Be Needed Under Proposed Funding Amounts. Some departments will likely have to adjust the current structure of their programs to stay within their proposed budget allocations. For example, the budget proposes $132 million for CARB's heavy-duty vehicle and freight programs, which is $48 million less than what was provided in the current year. CARB's current heavy-duty incentive programs include vouchers for commercially available vehicles, as well as pilot and demonstration programs for technologies that are still being developed and tested. Under the proposed lower levels of funding, CARB will likely have to reprioritize funding among incentives, pilots, and demonstrations.

Figure 11

Selected New 2019-20 Spending Proposals—Number of Projects and Outcomes

Program	Expected Projects and/or Outcomes
AB 617 incentives	Not available.
Heavy-duty vehicle and off-road equipment programs	Not available.
Low-income light-duty vehicles and school buses	Not available.
Transformative Climate Communities	Community-proposed projects that reduce an estimated 40,000 tons of CO2e.
Workforce development	Add a total of 5,000 pre-apprenticeship slots in construction or other jobs in climate-impacted industries over a five-year period.
Agricultural diesel engine replacements	Not available.
Methane reductions from dairies	5 to 7 dairy digester projects to reduce an estimated total of 100,000 to 140,000 tons of carbon dioxide equivalent per year; 6 to 11 alternative manure management projects that reduce an estimated total of 15,000 to 27,500 tons of CO2e per year.
Waste diversion	Not available.
Healthy Soils	18,750 to 22,500 acres of agricultural land managed to sequester carbon to reduce an estimated 38,000 to 47,000 tons of CO2e per year.
Climate and energy research	Not available.
Low-income weatherization	Not available.

CO2e = carbon dioxide equivalent.

Also, the budget includes $200 million to CARB for the CVRP, which provides rebates for battery electric, plug-in hybrid, and hydrogen fuel cell vehicles. This amount is consistent with last year's budget agreement to provide $200 million annually to CVRP. However, CARB projects that $210 million to $280 million would be needed to meet demand for CVRP vehicle rebates in 2019-20. As a result, CARB might have to adjust the structure of the program in order to remain within the proposed funding amount. For example, it might have to reduce the amount of rebates or change the individuals or vehicles that are eligible for rebates. For both heavy-duty incentives and CVRP, CARB plans to use a public process over the next several months to determine how to prioritize these incentive funds and make necessary programmatic changes.

Apprenticeship Programs Focus on Access to Careers Rather Than Reductions in GHG Emissions. The Governor's proposal to expand workforce training programs would expand the number of pre-apprenticeship slots intended to lead to new careers in construction. It would also expand the number of nonconstruction training programs that teach existing staff new skills that could be used to meet to the state's efforts to reduce GHGs. Due to this focus, and unlike most programs that are funded in the expenditure plan, the workforce proposals would not likely have the effect of reducing GHG emissions directly. That said, the proposal's focus on access to career jobs for disadvantaged workers is generally consistent with other legislative direction regarding workforce development and climate policy. For example, AB 398 requires CWDB to report to the Legislature on the need for increased education, job training, and workforce development resources to help transition to economic and labor-market changes related to statewide GHG goals. According to CWDB, this report is expected to be finalized soon and the budget proposal is consistent with the findings of the report.

Some additional information about the existing pre-apprenticeship programs could be helpful for the Legislature as it evaluates the merits of this proposal. For example, it is unclear what key outcomes the programs have achieved, such as the number of trainees enrolled, trained, and hired into careers. In addition, it is currently unclear (1) how much funding might be needed to ensure there is an adequately trained workforce in light of changes caused by the state's climate policies and (2) whether there is adequate capacity within communities to expand the apprenticeship programs in the budget year consistent with the amount being proposed. The apprenticeship programs are administered by local partnerships—typically community-based organizations—and it might be a challenge to build the capacity to substantially expand the number of those partnerships in the budget year.

Five-Year Funding for Worker Transition Pilot Could Be Premature. The CWDB is developing its plan for the worker transition initiative pilot. Based on our understanding of the pilot, funding would initially be used to identify potential sites and partner organizations, after which a labor market study would be prepared for each site. The pilot project would begin in selected sites after the completion of the study component. As such, it may be several years before the pilot begins. It is also unclear whether $5 million is the right level at which to fund the pilot, since the sites have not yet been identified and the study has not been completed. Given that the pilot may not begin for one or more years, funding the pilot with $5 million annually for five years could be premature.

LAO Recommendations

Direct Administration to Provide Additional Information on Spending Proposals. We recommend the Legislature direct the administration to report on the following information at spring budget hearings:

- ***Expected Outcomes.*** We recommend the Legislature direct the administration to report on key metrics and outcomes it expects to achieve with new proposed discretionary spending. This information could help the Legislature evaluate the merits of these proposals and, in the future, hold departments accountable by comparing the projected outcomes to the actual outcomes achieved. We recognize that it may be difficult for some departments to accurately predict some of the key outcomes at this point. However, in our view, even basic information—such as the expected number of different projects funded—could provide the Legislature with helpful information as it weighs its different GGRF spending priorities. If the administration is unable to provide such information for certain programs, the Legislature could consider adjusting allocations to those programs downward accordingly.

- ***Necessary Funding Adjustments.*** We recommend the Legislature direct the administration to report on key adjustments to existing programs it is considering in 2019-20. For example, how will CARB prioritize funding between heavy-duty vehicle vouchers, pilots, and demonstrations? How will CARB adjust the CVRP program to ensure spending does not exceed the proposed budget? Based on this information, the Legislature could consider providing more specific direction on these program changes to ensure they are consistent with legislative priorities, or adjusting funding amounts provided to different programs.
- ***Expanding Apprenticeship Programs.*** We recommend that the Legislature require the CWDB to report at budget hearings on the key outcomes of the HRCC and HRTP programs to date. Key outcomes include the number of trainees enrolled, trained, and hired into careers. The Legislature may also wish to ask the CWDB about the challenges it expects to face in regard to local capacity to expand these programs. Additionally, the Legislature should ask the CWDB how it plans to ensure that (1) apprenticeship and pre-apprenticeship participants represent disadvantaged communities, (2) participants are connected to career jobs in construction and other fields following training, and (3) regular updates regarding the outcomes of these efforts are provided to the Legislature.
- ***Worker Transition Pilot.*** Given the preliminary nature of the worker transition fund initiative, we recommend that the Legislature seek additional information about how the CWDB plans to move forward with the pilot and whether it will be able to expend the $5 million annually, especially in the first several years. If the Legislature wishes to move forward with the pilot project, it may want to consider funding a lower amount for planning efforts for the pilot over the next one or two years so that it can maintain closer oversight. Once presented with the results of the labor market study and the community assessments, the Legislature could determine the right level of funding to begin the pilot. We also encourage the Legislature to seek additional details about how the pilot fits within the CWDB's vision for the state's workforce goals as efforts to reduce GHGs continue, and the overall state needs. Finally, we would suggest that the Legislature require the CWDB to provide an update annually on the planning, progress, and results of the pilot at budget hearings in future years.

Allocate Funds According to Legislative Priorities. When allocating funds among different programs, we recommend the Legislature first consider its highest priorities. These priorities could include such things as GHG reductions, improved local air quality, forest health and fire prevention, and climate adaptation. Once the Legislature has identified it priorities, it can then attempt to allocate the funds to the programs that achieve those goals most effectively.

For example, to the extent the Legislature considers GHG emission reductions the highest priority use of the funds, the Legislature will want to allocate funding to programs that achieve the greatest GHG reductions. As we have discussed in previous reports, determining which programs achieve the greatest amount of net GHG reductions is challenging for a variety of reasons. For example, many of the spending programs interact with other regulatory programs in ways that make it complicated to evaluate the net GHG effects of any one program. However, even with this uncertainty, the Legislature might want to consider focusing on spending strategies that are generally more likely to reduce emissions in a cost-effective way. This includes focusing on reductions from sources of emissions that are not subject to the cap-and-trade regulation and targeting other "market failures" that are not addressed by carbon pricing, such as expanding research and development activities.

In addition, since California represents only about 1 percent of global GHG emissions, some of the most significant impacts California programs will have on global GHGs could depend on the degree to which state programs influence the adoption of policies and programs in other parts of the country and world. As a result, the Legislature might want to evaluate each program, in part, based on its assessment of its potential effects on actions elsewhere. For example, state programs that effectively serve as policy demonstrations for other jurisdictions and programs that promote advancements in GHG-reducing technologies that can be used in other jurisdictions are likely to have a more substantial effect on GHG emissions

COASTAL ADAPTATION

Because the proposed funding would assist local governments in their sea-level rise (SLR) adaptation efforts, we recommend the Legislature adopt the Governor's proposals to provide $1.8 million to the San Francisco Bay Conservation and Development Commission (BCDC) and $1.5 million to the California Coastal Commission in ongoing funding from the GGRF. We also recommend continuing work to identify the most effective ways for the state to help local communities adapt to the impacts of rising seas.

Background

California's Coast Faces Threat of Rising Seas and Tides. Climate scientists have developed a consensus that one of the effects of a warming planet is that global sea levels will rise. The degree of SLR, however, is still uncertain, and depends in part upon whether global GHG emissions and temperatures continue to increase. Recent estimates project that compared to 2000, sea levels along the California coast south of Mendocino will rise between 1.5 inches and 1 foot by 2030, between 5 inches and 2 feet by 2050, and between 1.4 feet and 5.5 feet by 2100. These changes will impact both human and natural resources along the coast, as they increase the risk of flooding and inundation of buildings, infrastructure, wetlands, and groundwater basins. Climate change is also projected to contribute to more frequent and extreme storms, which will bring tides further ashore and exacerbate flood risk. A SLR report by the scientific organization Climate Central in 2014 estimated that a five-foot increase in water levels along California's coast due to SLR, storms, and tides would affect roughly 500,000 people, 645,000 acres, 210,000 homes, and $105 billion of property value. Rising seas will also erode coastal cliffs, dunes, and beaches—affecting shorefront houses, businesses, infrastructure, and recreation. The state's *Safeguarding California Plan* cites that for every foot of SLR, 50 to 100 feet of beach width could be lost.

Multiple State Departments Charged With Helping Protect Coastal Resources. While responsibility to prepare for and respond to the impacts of SLR lies primarily with the affected local communities, a number of state departments are engaged in these activities as well. The primary state departments working on coastal issues and their major SLR-related roles are:

- ***California Coastal Commission.*** Regulates the use of land and water in the coastal zone, excluding the San Francisco Bay Area. (The coastal zone generally extends 1,000 yards inland from the mean high tide line.) Reviews and approves Local Coastal Programs (LCPs, discussed below). Maintains permitting authority over proposed projects in areas in the coastal zone with no approved LCP and for state-managed lands such as state parks.
- ***BCDC.*** Reviews and issues regulatory permits for projects that would fill or extract materials from the San Francisco Bay, and works to preserve public access along the Bay's shore. Leads the Bay Area's ongoing multiagency regional effort to address the impacts of SLR on shoreline communities and assets, including multiple adaptation planning efforts.
- ***Ocean Protection Council.*** Coordinates the activities of ocean-related state departments. Allocates grants for SLR and climate adaptation projects and research. Conducts

and distributes data and information to help local jurisdictions and state departments plan for SLR, including developing the guidance document discussed below.

- ***State Coastal Conservancy.*** Allocates grants for and undertakes projects to preserve, protect, and restore the resources of the California coast and the San Francisco Bay Area. Provides grants for planning and projects through its Climate Ready Program explicitly to increase the resilience of coastal communities and ecosystems to climate change impacts such as SLR.
- ***State Lands Commission.*** Stewards sovereign state lands, including those located between the ordinary high water mark of tidal waters and the boundary between state and federal waters three miles offshore. Monitors sovereign state lands the Legislature has delegated to local municipalities to manage in trust for the people of California. (These "trust grants" stipulate how cities and counties can use these waterfront and submerged lands, such as for piers, ports, harbors, airports, or recreation.) Oversees assessments that grant trustees are required to conduct for how they plan to adapt to SLR, pursuant to Chapter 592 of 2013 (AB 691, Muratsuchi).

State Has Been Engaged in SLR Planning and Data Collection. The state has published a number of comprehensive and helpful reports in recent years concerning SLR projections and steps the state and local governments might take to respond. Among these is the *State of California Sea-Level Rise Guidance Document*, which was initially adopted in 2010 and most recently updated in 2018. This document—developed by the Ocean Protection Council in coordination with other partner agencies—provides (1) a synthesis of the best available science on SLR projections and rates for California, (2) a stepwise approach for state agencies and local governments to evaluate those projections and related hazard information in their decision-making, and (3) preferred coastal adaptation approaches. Other SLR-related plans and reports the state has released in recent years include several iterations of the *Safeguarding California Plan* (each of which consists of multiple companion reports), the *California State Hazard Mitigation Plan*, and *Paying It Forward: The Path Toward Climate-Safe Infrastructure in California*.

State Law Encourages Coastal Communities to Develop LCPs. Enacted in 1976, the California Coastal Act encourages the 76 cities and counties along the coast to develop plans—known as LCPs—to guide development in the coastal zone. The LCPs specify the appropriate location, type, and scale of new or changed uses of land and water, as well as measures to implement land use policies (such as zoning ordinances). The Coastal Commission reviews and approves ("certifies") these plans to ensure they protect coastal resources in ways that are consistent with the goals and policies of the Coastal Act. Local governments have incentives to complete certified LCPs, as they can then handle development decisions themselves (although stakeholders can appeal such decisions to the Coastal Commission). In contrast, any project undertaken in the coastal zone in communities without certified LCPs must attain a permit from the Coastal Commission. As of June 2018, nearly 90 percent of the applicable geographic area was covered by a certified LCP. Most of these LCPs, however, were developed around 30 years ago—long before the need to account for the potential effects of climate change and SLR. As such, some coastal communities are beginning to work on updating their LCPs, including by conducting SLR vulnerability assessments, undertaking adaptation planning, and updating their land use policies.

State Has Provided Some GGRF for Coastal Planning and Adaptation. In both 2017-18 and 2018-19, the state provided GGRF to three state departments for coastal adaptation activities—Coastal Conservancy, Coastal Commission, and BCDC. As shown in **Figure 12**, a total of $6 million was provided in 2017-18 and $5 million in 2018-19. In each year, the funds were provided on a one-time basis, and were not included in the Governor's original proposals but rather were added by the Legislature through the course of budget negotiations. The funded programs and activities at each department have the primary goal of assisting coastal communities in assessing their SLR vulnerability, planning for rising tides, and implementing adaptation projects.

Figure 12

Greenhouse Gas Reduction Funds for Coastal Adaptation Activities

(In Millions)

	2017-18	2018-19	2019-20 Proposed
Coastal Conservancy—Climate Ready Program	$4.0	$3.0	—
Coastal Commission—completing and updating LCPs	1.5	1.5	$1.5
Bay Conservation and Development Commission—regional adaptation planning	0.5	0.5	1.8
Totals	**$6.0**	**$5.0**	**$3.3**

LCP = Local Coastal Program.

Coastal Adaptation Activities Also Funded From Other State Sources. The recent GGRF appropriations supplemented other funding at these three departments for similar activities. For example, over the past five years the Coastal Commission has awarded $6 million in grants for vulnerability assessments and LCP updates, funded through appropriations from the General Fund and bonds. Similarly, between 2013 and 2015 the Coastal Conservancy awarded $7.3 million in grants through its Climate Ready Program using state bonds and special funds. Additionally, many of the other programs and activities at these departments are related to SLR adaption. For example, the Coastal Conservancy's governing board adopted a comprehensive climate change policy and amended its project selection criteria to require that *all* Coastal Conservancy projects must be designed with climate change in mind—even those funded by other Coastal Conservancy grants and programs apart from its Climate Ready Program. The state has also provided funding for the Ocean Protection Council to conduct SLR preparation activities including research and data dissemination. For example, in 2018-19 the Legislature appropriated $10 million from Proposition 68 for the Ocean Protection Council to dedicate to projects that assist coastal communities, including grants for local SLR adaptation projects.

Governor's Proposals

Proposes Two Ongoing Appropriations From GGRF for Coastal Adaptation Planning. As shown in Figure 12, the Governor's budget proposes ongoing funding for two of the departments that received GGRF appropriations in prior years—$1.8 million for BCDC and $1.5 million for the Coastal Commission. Additionally, the proposal would establish four new positions for BCDC. The proposed GGRF would be used as follows:

- ***BCDC ($1.8 Million).*** This increase from previous GGRF funding levels of $500,000 is proposed to grow BCDC's capacity to support the region's SLR planning efforts. The agency would use the funding for 4 new positions and 12 existing positions in part to help develop the Bay Area's first Regional Shoreline Adaptation Plan. Additional activities would include increased outreach to disadvantaged communities, enhanced technical support to cities and counties that are undertaking adaptation projects, and increased capacity to implement BCDC's regulatory role in reviewing and permitting projects and ensuring that they adequately incorporate SLR adaptation.
- ***Coastal Commission ($1.5 Million).*** The Coastal Commission would use funds consistently with the previous GGRF appropriations of the same amount. Specifically, it would use $750,000 to provide grants to local jurisdictions to help update their LCPs, including by conducting SLR vulnerability assessments and updating their land use policies. Based on prior years, this likely would fund about five grants per year. The other $750,000 would fund Coastal Commission staff to provide technical assistance, document review, and support for those efforts.

Does Not Propose GGRF for Coastal Conservancy. In contrast to the current and prior years, the Governor's budget would not provide GGRF for the Coastal Conservancy in 2019-20. According to the administration, this is because the Coastal Conservancy has other available funding—primarily from Propositions 1 (2014) and 84 (2006)—for purposes consistent with the Climate Ready Program. The administration states that significant overlap exists between the Climate Ready Program's objectives and other bond-funded programs the Coastal Conservancy is undertaking, such that additional GGRF is not essential.

LAO Assessment

Governor's Proposals Meet Important Needs. While the magnitude and timing of SLR still are unknown, scientists are confident that some level of rise is certain. To moderate the severity of the impacts these changes will bring, California's coastal communities need to begin planning now for how they will respond over the coming decades. As such, we find the Governor's proposals to be worthwhile. The proposed funding would allow BCDC and the Coastal Commission to assist local governments in their adaptation efforts. While most of the SLR adaptation actions must be undertaken by local jurisdictions, the state can help by facilitating regional collaboration and coordination (as with the BCDC funding) and by providing funds to encourage communities to assess their vulnerability and plan their responses (as with the Coastal Commission funding). Additionally, these allocations are consistent with the uses and priorities for which the Legislature has directed funds in previous years.

State Has Vested Interest in Preparing Coastal Assets for SLR. We do not have concerns with the Governor's choice of GGRF to fund the proposed activities because climate adaptation is one of the priorities for GGRF expenditures listed in statute. While the funds are supporting efforts that benefit individual communities, these activities also have statewide value. Although most of the development along the coast is owned by either private entities or local governments—not the state—the state has a strong rationale for helping ensure that local jurisdictions plan and take action to adapt to SLR in order to minimize costly and traumatic damage for state residents and their property. Additionally, serious public health and safety impacts could occur if proper steps are not taken to prepare for how SLR will affect certain coastal infrastructure. This includes threats to drinking water (from impacts to coastal groundwater aquifers and water treatment plants), sewage treatment, local transportation infrastructure, and essential facilities such as hospitals and schools. The state also owns and is directly responsible for maintaining certain coastal highways that face significant risk from SLR. Moreover, the economy and tax base—both local and statewide—would be negatively affected by significant damage to certain key coastal infrastructure and other assets, such as ports, airports, railway lines, beaches and parks used for recreation, as well as high-technology companies located along the San Francisco Bay. The state also is charged with overseeing natural resources on behalf of the public trust, and thus is responsible for protecting public access to the coast and the health of coastal wetlands, wildlife, and habitats. Because of this broad statewide interest, we believe GGRF, general obligation bonds, and General Fund all would be reasonable funding sources for coastal adaptation activities.

Additional State Assistance to Local Communities Likely Will Be Needed in Future Years. Local governments along the coast face costly challenges and difficult decisions for how they will respond to the impacts of SLR. They will need to grapple with which existing properties, infrastructure, and natural resources to try to protect from the rising tides (and how they might do so), which to modify or move, and which may be unavoidably affected. As described earlier, state departments are making efforts to assist coastal communities in these efforts by providing research, data and guidance, as well as grants for planning and projects. Given the magnitude of the challenges SLR will bring in the coming decades, however, coastal communities likely will look to the state for more help in future years—including additional fiscal resources, policy guidance, and statutory changes.

LAO Recommendations

Adopt Governor's Proposals. Because the proposed funding would assist local governments in their SLR adaptation efforts, we recommend the Legislature adopt the Governor's proposals to provide $1.8 million to BCDC and $1.5 million to the Coastal Commission in ongoing GGRF. The state has a vested interest in ensuring local jurisdictions are prepared to protect coastal resources from rising seas. Facilitating regional collaboration and providing funds for local adaptation planning are appropriate supporting roles for state departments to play.

Explore Additional Ways to Assist Local Communities in Adapting to Rising Sea Levels. While the Governor's proposals represent helpful and justifiable activities for state departments to undertake, additional steps likely will be needed to help support local communities' significant planning and response needs in the coming years as threats from SLR become more pressing. We recommend the Legislature continue to work with state departments, local governments, and coastal residents to identify the most effective ways for the state to help adapt to the impacts of rising seas. These could—and likely will—include additional data collection and research, policy changes, and funding appropriations. For example, the state may want to provide more funding for and/or enact additional requirements around local adaptation planning—whether through the LCP process or some other approach. The recent state-produced reports mentioned earlier contain data and recommendations that can help guide state and local actions in the coming years. Additionally, the Legislature can continue to convene experts—as it has with several policy and select committee hearings in recent years—to help solicit input as to the progress of local adaptation planning and how the state can most effectively contribute to SLR preparation efforts. Some of the key questions for the Legislature to explore in the coming months and years could include:

- ***State vs. Local Role.*** Which activities are appropriate for the state to undertake, and which should be local responsibilities? Are there decisions that have traditionally been made at the local level in which the state should become involved to protect public safety and statewide interests?
- ***Adaptation Progress.*** What is the status and pace of local governments' progress in preparing for SLR? Are there certain high-risk regions that are not making sufficient progress? Are there steps the state should take to help facilitate, expedite, or compel additional progress?
- ***Funding.*** What are the most effective uses of state funding to address SLR? What fund sources are available and appropriate for state-level SLR efforts? Are there additional tools that the state or local governments could use to generate additional funding for these efforts, and does the Legislature need to take steps to authorize such tools?
- ***Research and Data.*** Is there additional information the state should collect and provide to assist local governments in their SLR planning? How are scientific understandings and projections of SLR evolving, and how should this change the guidance the state is providing to local governments?
- ***State Assets.*** What steps should the state take to protect assets for which the state has primary responsibility—such as highways and state-owned buildings—from the effects of SLR? Does the state have a long-term adaptation plan—including time lines, cost estimates, and identified funding—for these assets? Has a state entity been identified to help coordinate and oversee these actions?
- ***Current LCP Process.*** Why are certain jurisdictions opting not to update their LCPs, (or, in some cases, not to have an LCP certified in the first place)? Do particular barriers exist within the LCP process that the Legislature can help address? Are there ways the state should modify the LCP process to better regulate planning, development, and decision-making in the coastal zone?

WATER

SAFE AND AFFORDABLE DRINKING WATER

The administration proposes budget trailer legislation to implement a significant new policy that would impose new charges on water system customers and certain agricultural entities to implement a new financial assistance program to address unsafe drinking water. We identify various issues for the Legislature to consider as it deliberates on the proposal, including (1) consistency with the state's human right to water policy, (2) uncertainty about the estimated revenues that would be generated and the amount of funding needed to address the problem, (3) comparing the beneficiaries of the program with those who would pay the new charges, and (4) trade-offs associated with the proposal's safe harbor provisions.

Background

Safe and Affordable Drinking Water (SADW) a Human Right. In response to concerns about the prevalence of unsafe drinking water in California, the Legislature passed Chapter 524 of 2012 (AB 685, Eng). This law declares the state's policy that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. Under Chapter 524, state agencies are required to consider this policy when revising, adopting, or establishing policies, regulations, and grant criteria. Chapter 524 clarifies that it does not expand the state's obligations to provide water or require the state to fund water infrastructure.

Multiple Causes of Unsafe Drinking Water. The causes of unsafe drinking water can generally be separated into two categories: (1) contamination caused by human action and (2) naturally occurring contaminants. In some areas, there are both human caused and natural contaminants in the drinking water.

There are about 9,000 water systems in California regulated by the state and counties (generally those with four or more service connections—usually the point of access between a water system's service pipe and a user's piping). In addition, there are an unknown number of individual wells and water systems serving four or fewer connections. Of that total, there were 459 larger water systems (referred to as "public water systems" and generally with 15 or more service connections) that were out of compliance because they incurred at least one water quality violation in 2017. These affected systems served almost 600,000 Californians. Two of the most commonly detected pollutants in contaminated water are arsenic and nitrates. In 2017, State Water Resources Control Board (SWRCB) found 133 public water systems out of compliance for arsenic standards and 114 public water systems out of compliance for nitrate standards. High concentrations of nitrate in groundwater are primarily caused by human activities including fertilizer application (synthetic and manure), animal operations such as dairies, industrial sources (wastewater treatment and food processing facilities), and septic systems. Agricultural fertilizers and animal wastes applied to croplands are by far the largest regional sources of nitrate in groundwater, although other sources can be important in certain areas.

SWRCB Administers Programs to Provide Safe Drinking Water. The SWRCB administers the Drinking Water State Revolving Fund (DWSRF), which provides continuously appropriated funding for low- and zero-interest loans, debt refinancing, and principal forgiveness to public water systems for infrastructure improvements to correct system deficiencies and improve drinking water quality. Eligible projects include the planning, design, and construction of drinking water projects such as water treatment systems, distribution systems, and consolidation with another water system that has safe drinking water. In order to receive funding, water systems generally must demonstrate the ability to generate sufficient revenue to perform operations and maintenance (O&M) on new capital infrastructure, as well as repay any loans. The program is funded by annual capitalization grants from the U.S. Environmental Protection Agency and a federally required 20 percent state match (usually from bond funds). The federal and state funds are then used to provide financial assistance for eligible projects. In 2017-18, SWRCB estimates the DWSRF disbursed about $301 million in new DWSRF financing for 26 planning and construction projects to address drinking water issues.

SWRCB also administers other temporary programs to improve access to safe and affordable drinking water. For example, SWRCB administers:

- ***Drinking Water for Schools.*** Recent budgets provided $10 million General Fund in 2016-17 and another $6.8 million in 2018-19 for grants to local education agencies to improve access to, and the quality of, drinking water in public schools. Schools serving small disadvantaged communities are the highest priority for this program.
- ***Household Drinking Water Well Replacement Program.*** The 2017-18 state budget provided $8 million in one-time General Fund support for grants to assist individual households and small water systems with less than 15 connections to replace failed drinking water wells for disadvantaged households. These funds are administered by two nonprofit organizations.
- ***Household Drinking Water and Wastewater Needs.*** The 2018-19 budget includes $10 million from the General Fund on a one-time basis for relief grants to households to fund well replacement, septic system replacement, permanent connections to public systems, treatment and cleanup of abandoned wells and septic tanks, certain water treatment systems, and debt relief for households who have financed well replacement as a result of the drought emergency.
- ***Lead at Licensed Day Care Centers.*** The budget provides $5 million in one-time General Fund support in 2018-19 for grants to test drinking water for lead at licensed child care centers and to remediate lead in plumbing and drinking water fixtures.

The board has also administers funds approved by the voters through various bond measures for capital investments, as well as some O&M costs aimed at providing safe drinking water. For example, Proposition 68 authorized $250 million for safe drinking water. Some of this funding supports the DWSRF.

Lack of O&M Funding an Obstacle for Some Systems. Some water systems—often those in disadvantaged communities—are unable to access the funding for capital improvements available through DWSRF because they cannot demonstrate the ability to generate sufficient revenue to perform O&M on new capital infrastructure. The challenge in these systems is often a product of a combination of factors, including the high costs of the investments required, low income of the customers, and the small number of customers across whom the costs would need to be spread.

Legislature Considered Safe and Affordable Drinking Water Proposal in 2018. In 2018, the Governor proposed to establish the Safe and Affordable Drinking Water Fund (SADWF) and temporarily fund it with a $4.7 million loan from the Underground Storage Tank Cleanup Fund. Under the proposal, charges would have been imposed on water system rate payers and various agricultural entities that would have been administered by SWRCB and the California Department of Food and Agriculture (CDFA), respectively. The proceeds from the charges were to be deposited in SADWF where they were to be prioritized to fund O&M costs, as well as capital costs associated with water system consolidation and service extensions. Although the Legislature did not approve the Governor's proposal, under Chapter 449 of 2018 (SB 862, Committee on Budget and Fiscal Review), the Legislature signaled its interest in continuing to work on this issue by providing SWRCB with $3 million to develop a refined estimate of the total cost associated with bringing drinking water systems that are currently unable to meet water quality standards into compliance. Based on our conversations with SWRCB, it has begun this analysis and anticipates that it will take two years to complete the estimate.

Governor's Proposal

In the 2019-20 budget plan, the administration proposes to establish the SADW program to increase access to safe drinking water for Californians. Similar to last year's proposal, the program would provide certain local water agencies—particularly ones in disadvantaged communities—with grants, loans, contracts, or services to help support their O&M costs. This funding would be supported by new charges proposed by the Governor on water system ratepayers, fertilizer sales, and certain agricultural entities. For 2019-20, the administration requests $4.9 million General Fund in one-time funding for state administration costs at the SWRCB and CDFA to begin implementation of the program. Below, we provide additional details about key aspects of the administration's proposal.

Imposes Various Charges. In total, the administration estimates that the various proposed charges would generate roughly $110 million to $140 million annually when fully implemented. Charges on fertilizer and agricultural entities would sunset 15 years after they go into effect. Specifically the administration proposes budget trailer legislation to implement the following charges:

- ***Charge on Water System Customers ($100 Million to $110 Million).*** Beginning July 2020, the administration proposes imposing monthly charges on most water system customers ranging from $0.95 to $10 per month based on the size of the customers' water meter. According to a recent report by a private consulting firm, the average monthly residential water bill across the state typically falls between $40 to $80. SWRCB estimates these charges would generate between $100 million and $110 million annually when fully implemented. Beginning July 2022, SWRCB could reduce the amount consumers are charged. Customers would be exempted from the charges if (1) they self-certify that their household income is equal to or less than 200 percent of the federal poverty level ($25,100 for a family of four in 2019) or (2) receive service from a water system with fewer than 200 connections. Local water systems would be authorized to retain 4 percent of the revenue to cover costs associated with the collection of the charges until July 2022 when the amount the water systems could retain would decline to 2 percent.
- ***Fertilizer Mill Fee ($14 Million to $17 Million).*** The administration proposes a mill fee of six "mills" (equal to six-tenths of a cent) per dollar on the sale of fertilizer. This would be in addition to the current mill fee of three mills. This fee would go into effect upon enactment of the budget trailer legislation. According to CDFA, this charge is estimated to generate $14 million to $17 million per year when fully implemented.
- ***Charges on Milk Producers ($5 Million).*** The administration proposes to impose charges on milk producers beginning January 2022. In total these charges are estimated to generate $5 million per year when fully implemented. We note that the dairy industry in California generated $6.6 billion in cash receipts in 2017.
- ***Charge on Confined Animal Facilities (Amount Not Estimated).*** Beginning January 2022, the administration proposes to impose a charge on confined animal facilities—excluding dairies—such as poultry and other livestock operations. A workgroup would be convened by the administration to establish a charge commensurate with the risk to groundwater confined animal facilities create by discharging nitrates. The charges are capped at $1,000 per facility.

Requires SWRCB to Administer New SADW Program. The proposal includes a number of administrative requirements, particularly for SWRCB. The board is required to adopt a fund implementation plan and policy handbook with priorities and guidelines for expenditures from the SADWF. In addition, SWRCB staff would be required to annually develop and present to the board an assessment of the total annual funding needed to assist water systems in the state to secure the delivery of safe drinking water. By January 2021, SWRCB—in consultation with local health officers—would also have to make available a map of aquifers that are at high risk of containing contaminants that are used or likely to be used as a source of drinking water for certain smaller water systems and domestic wells. This would include identification of water systems potentially in need of assistance to address water contamination issues.

Under the Governor's proposal, beginning July 2022, SWRCB may expend up to 5 percent of revenues collected by water systems and deposited into the SADWF for costs associated with its administration. Based on current estimates, this could be up to about $5 million annually. In addition, CDFA may retain up to 4 percent of the monies collected from the charges on agricultural entities for its costs associated with implementation and enforcement, such as to establish a charge collection program and perform outreach to affected agricultural entities. This amount would decrease to 2 percent beginning July 2022.

Provides Disadvantaged Communities With Funding for O&M. Under the administration's proposal, SWRCB would prioritize the use of funds to assist disadvantaged communities and low-income households served by a water system with less than 14 connections. Funding would be prioritized to support O&M costs, as well as capital costs associated with water system consolidation and service extensions. Allowable uses would include providing replacement water on a short-term basis, as well as the development, implementation, maintenance, and operation of more permanent solutions (such as water treatment systems). The charges on agricultural entities would be targeted towards nitrate mitigation activities.

Shields Certain Agricultural Entities From Regulatory Actions. In accordance with current law, SWRCB and regional water boards issue various permits and waivers that regulate agricultural practices that contribute to water contamination, such as nitrate contamination of groundwater. Agricultural entities that contribute to water quality contamination are subject to enforcement actions that can include cleanup and abatement orders. For example, SWRCB can issue cleanup and abatement orders when a discharger has caused waste—such as pesticides, chemicals, or nitrates—to be discharged into bodies of water or has deposited waste where it is likely to cause pollution. Under the cleanup and abatement order, the discharger typically must clean up the waste and reimburse SWRCB and regional boards for oversight costs. Under the Governor's proposal, if an agricultural operation meets certain requirements—such as implementing the best practicable treatment control or other requirements of their applicable permits and waivers—and pays the charges required by this proposal, the operation generally would not be subject to certain enforcement actions, such as cleanup and abatement orders. These are sometimes referred to as "safe harbor" provisions.

2019-20 Budget Proposals. For 2019-20, the administration requests a total of $24.9 million in one-time General Fund support as follows:

- ***SWRCB ($3.4 Million).*** The budget proposes $3.4 million in one-time funding for 23 positions for SWRCB to (1) map high-risk aquifers and process water quality data from small water systems, (2) develop an assessment of the total annual funding needed to assist water systems in the state to deliver safe drinking water, (3) develop an implementation plan that includes funding priorities and guidelines, and (4) process fees that will be deposited into a new fund and perform accounting work.
- ***CDFA ($1.4 Million).*** The budget proposes $1.4 million in one-time funding for seven positions for CDFA to (1) establish a new registration and fee collection system for dairies, farms, and ranches and (2) administer the fertilizing materials mill assessments augmentation.
- ***Grants and Contracts ($10 Million).*** The budget proposes $10 million for grants and contracts to provide administrative, technical, operational, or managerial services to water systems—mainly in disadvantaged communities—to support compliance with current drinking water standards. At the time this analysis was prepared, the Legislature was considering a bill—AB 72 (Committee on Budget)—to provide this augmentation in 2018-19.

- ***Water Emergencies ($10 Million).*** The budget proposes $10 million to fund the emergency provision of safe drinking water where it is not available. At the time this analysis was prepared, the Legislature was considering a bill—AB 72—to provide this augmentation in 2018-19.

Issues for Legislative Consideration

The Legislature faces a policy decision about whether to increase charges on different products, livestock operations, and drinking water consumers in order to implement a new program. The new program funded by these charges would address a critical gap in the state's existing safe drinking water program structure by providing funding for O&M, as well as technical assistance to small water systems. Below, we raise some issues for the Legislature to consider as it deliberates this proposal.

Proposal Is Consistent With Human Right to Water Policy. The Governor's proposal is consistent with the state's statutory policy that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption. The proposal would make safe and affordable drinking water more widely available throughout the state largely by providing funding for O&M activities for water treatment systems. Based on the information available, the estimated $110 million to $140 million in additional funding could move the state significantly forward towards its goal of providing safe affordable drinking water to all of its citizens, particularly those in disadvantaged communities.

Uncertain Extent to Which Proposed Revenues Will Fully Address Problems. The administration has not completed an estimate of the total cost associated with bringing drinking water systems that are currently unable to meet water quality standards into compliance on an ongoing basis. As noted above, the SWRCB study funded under Chapter 449 is not expected to be completed until the fall of 2020. However, a private consulting firm estimated the total annual cost to address contaminated drinking water at roughly $140 million ($30 million for nitrate treatment and $110 million for other contaminants). However, this estimate is highly uncertain given the lack of data, especially regarding the number of smaller water systems and domestic wells that fail to provide safe drinking water. It is possible that actual costs could be significantly higher or lower.

There is also uncertainty about the amount of revenue that will be generated under this proposal, particularly from the agricultural entities. The budget trailer legislation allows SWRCB to adjust ratepayer charges downward if the funding provided exceeds future demand for the funds (as identified in the annual funding needs assessment the SWRCB would be required to prepare). If the demand exceeds funding in the future, any increase in charges would require approval by the Legislature.

Most Charged Payers Would Not Be Beneficiaries of Program . . . The main beneficiaries of this new program would be people in disadvantaged communities and those served by smaller water systems. These water customers should get access to clean drinking water at lower cost to them than would otherwise be available to them without this program. The largest share of program costs, however, would be paid by water system ratepayers across the state (with certain exceptions for low-income persons and customers of systems with less than 200 connections). The majority of these ratepayers are served by systems that already provide safe affordable drinking water. Therefore, ratepayers of these water systems are unlikely to benefit from the new program.

. . . Or Be at Fault for the Contamination Being Mitigated. The vast majority of nitrate contamination is caused by agricultural activities such as fertilizer applications and animal operations, such as dairies. The administration's proposal to have agricultural entities pay charges to address the effects of nitrate contamination creates a link between the agricultural operations that are the main source of the nitrate contamination and the entities that would pay charges to mitigate it. However, it is worth noting that some of the current nitrate contaminants in groundwater are not from current agricultural operations. Instead, some of these nitrates are legacy contamination that could be from as much as decades ago.

In addition, the CDFA estimates the charges on dairies, fertilizer, and confined animal operations combined would total about $19 million per year when fully implemented. (At the time this analysis was prepared, the administration had not completed a revenue estimate for the charge on confined animals.) Consequently, if the costs to mitigate nitrate-related contamination in drinking water exceeds the revenues generated by charges on agricultural entities, then nitrate-related contamination in drinking water could be addressed from revenues generated by the charge on water system customers rather than from agricultural entities.

Alternative Sources of Funding Are Limited. Generally, we find that alternative funding sources to pay for the Governor's SADW proposal are limited. The SADW program will require a steady ongoing funding stream to meet the state's commitment to provide long-term support for O&M for water systems. General Fund is an alternative funding source for the program. However, SADW would have to compete with other programs for funding from a limited amount of General Fund. To the extent that there are any reductions in General Fund support for the program, it could result in potentially serious threats to public health if the water systems benefiting from the program fall out of compliance with drinking water standards due to neglect. In contrast, the Governor's proposal would provide a dedicated revenue source for the program.

In addition, we find that bond funding would not be appropriate for this program because bonds provide a one-time fund source and should not be relied on as an ongoing fund source. Moreover, general obligation bonds are repaid from the General Fund with interest and, therefore, would cause this approach to be somewhat more expensive than direct appropriations from the General Fund. We also note that we have not identified any existing special funds that would be appropriate to support this program and would have sufficient available funds.

Safe Harbor Provisions Would Affect Enforcement Authority. The proposal's safe harbor provisions involve some policy trade-offs compared to the state's current enforcement approach. On the one hand, the proposal is structured to better ensure that significant funding is available for water quality mitigation throughout the state rather than to limited areas in the state. This is because the state's current enforcement approach generally relies on targeting individual or groups of polluters in a limited geographic area, and these enforcement actions can be administratively difficult to complete. For example, the state rarely issues a cleanup and abatement order for nitrate contamination (though it has reached settlements in two regions). On the other hand, under the proposal, the state would relinquish its authority to take certain enforcement actions—such as cleanup and abatement orders—against polluters if they are otherwise complying with their applicable permits and waivers. This would limit the SWRCB's authority, and the Legislature will want to ensure that it is okay with this trade-off before approving the proposal.

WATER CONSERVATION

Because we find them to be well aligned with the responsibilities assigned by recent water conservation legislation, we recommend adopting the Governor's budget proposals to provide $5.1 million for the Department of Water Resources (DWR) and $2.7 million for SWRCB in 2019-20 from the General Fund, and more than $2 million ongoing in future years. We recommend the Legislature conduct ongoing oversight to ensure the deadlines established in the legislation are being met, and that overall efficiency and drought resilience outcomes are being attained.

Background

Recent Multiyear Drought Increased State's Focus on Water Conservation. California experienced extreme drought conditions between 2012 and 2016—the driest consecutive four-year stretch since statewide precipitation record-keeping began in 1896. These conditions had various effects across the state, including contributing to domestic wells going dry and loss of drinking water in certain communities. The state undertook numerous activities in response to these exceptionally dry conditions, including requiring that beginning in June 2015, urban water agencies had to reduce their water usage by 25 percent compared to their usage in 2013. The SWRCB implemented these requirements through emergency regulations in an attempt to conserve water in case the drought continued and water became even scarcer. The restrictions were modified in June 2016 and then ended in 2017 when statewide water conditions improved.

2018 Legislation Enacted Framework for New Water Conservation Requirements. Previous legislation—Chapter 4 of 2009 (SB7X 7, Steinberg)—established a goal of reducing *statewide* urban water use by 20 percent between 2009 and 2020. However, the recent drought spurred increased efforts to improve both the efficiency of statewide water use and local resilience to future droughts. Consequently, in 2018 the Legislature enacted legislation intended to surpass those targets and better position local water agencies to withstand future dry periods. The nearby box summarizes the major components contained in the companion bills establishing these new requirements, Chapters 14 (SB 606, Hertzberg) and 15 (AB 1668, Friedman) of 2018.

Major Components of 2018 Water Conservation Legislation

Major components of Chapters 14 (SB 606, Hertzberg) and 15 (AB 1668, Friedman) of 2018 include (1) improving urban water use efficiency, (2) improving agricultural water use efficiency, and (3) strengthening drought resilience.

Improve Urban Water Use Efficiency

- ***Requires Development of New Efficiency Standards for Urban Water Agencies.*** Requires the State Water Resources Control Board (SWRCB), in consultation with the Department of Water Resources (DWR), to develop new standards that define efficient water use for different categories, including for (1) indoor residential water use; (2) outdoor residential water use; (3) outdoor irrigation of landscape areas with dedicated irrigation meters in connection with commercial, industrial, and institutional (CII) use; and (4) water system losses, such as leaks. The standards will be designed to take into account unique local conditions—such as climate—so that they can be applied in different regions. Requires each urban retail water supplier to calculate and report its local objective for its water use in these categories based on those standards. The water use objective established by each local agency will be calculated based on the aggregate of these categories and its full service area, not individual categories or households. Allows agencies that have water recycling facilities to increase their water use objectives by a share of their developed potable reuse water.
- ***Requires Agencies to Achieve Local Efficiency Objectives Over Time.*** Requires each urban water supplier to compare its actual water use with its established objective and to annually report its progress towards meeting that objective. Establishes state technical assistance and enforcement processes for agencies that fail to meet reporting requirements or to make progress towards meeting their water use objectives. Requires local agencies to meet their objectives by 2027.
- ***Requires Development of New Performance Measures for CII Water Users.*** Requires SWRCB, in consultation with DWR, to develop new standards governing CII water management. For CII customers of larger size or volume of water use, such performance measures could include requirements to install dedicated irrigation meters for outdoor use, conduct water audits, or develop water management plans.

As described, these statutes include a requirement that urban water agencies develop and meet new water use efficiency objectives based on their local conditions. Additionally, while previous law required both urban and agricultural water supply agencies to conduct and submit water management plans every five years, the new legislation adds new components to those planning activities.

Legislation Assigned Significant Implementation Responsibilities to Two State Agencies. While local water agencies ultimately are responsible for meeting their new water use objectives and planning requirements, SB 606 and AB 1668 designated numerous responsibilities to the state as well, particularly for initial implementation. Specifically, DWR and SWRCB must undertake a number of tasks to develop the new urban water use efficiency standards upon which local efficiency objectives will be based, as well as provide data, tools, and templates to help local agencies comply with the legislation. Figure 13 (see next page) summarizes the major activities assigned to the two departments in the coming years.

Improve Agricultural Water Use Efficiency

- ***Establishes New Agricultural Water Use Planning Requirements.*** Expands existing water management planning requirements for large agricultural water suppliers to include: (1) an annual water budget that quantifies the amount of water that is applied in the supplier's service area, as well as the amount that is discharged; (2) water management objectives including increasing efficiency, and actions to meet those objectives; (3) quantification of current water use efficiency; and (4) a drought plan that would identify strategies for how to adapt during periods of limited water supply.
- ***Requires Agencies to Comply With New Planning Requirements.*** Requires large agricultural water suppliers to adopt and submit complete water management plans every five years. Authorizes DWR to contract with an outside entity to complete the plan at the supplier's expense if a supplier fails to meet this requirement. Allows the state to assess fines if the supplier does not make the necessary data available for that entity to prepare the report.

Strengthen Drought Resilience

- ***Establishes New Urban Drought Contingency Planning Requirements.*** Expands existing water management planning requirements for urban water suppliers to include (1) a Water Shortage Contingency Plan that describes the response actions that would be taken in six levels of water shortage conditions, (2) a Drought Risk Assessment that evaluates water supply reliability and vulnerability for five consecutive years of drought (rather than three consecutive years, as previously required), and (3) an annual assessment of local water supply and demand.
- ***Seeks Improvements for Small Rural Communities.*** Requires DWR to develop recommendations and guidance for how best to address the drought planning needs of small water systems and rural communities.

Figure 13

Water Conservation Legislation Tasks DWR and SWRCB With Numerous Responsibilities

Deadlines for Tasks Pursuant to SB 606 and AB 1668[a]

2020

DWR

- Identify small water communities at risk of water shortage vulnerability and make recommendations to address their drought planning needs.
- Update urban and agricultural water management plan tools, guidelines, and templates.
- Make recommendations on potential water loss reporting requirements for urban wholesale water suppliers.

SWRCB

- Adopt water loss standards for urban retail water suppliers.

2021

DWR

- Make recommendations on: (1) indoor residential use standards; (2) outdoor residential use standards; (3) use standards for commercial, industrial, and institutional (CII) outdoor landscape areas with dedicated irrigation meters; (4) adjustment factors for unique water uses and local conditions; and (5) guidelines and methodologies for calculating urban water use objectives.
- Make recommendations on CII performance measures.
- Provide data to local agencies on residential irrigable landscape area and on unique water uses and local conditions.

2022

DWR

- Submit status update reports on urban and agricultural water management plans to Legislature.

SWRCB

- Identify potential effects of long-term water use efficiency standards on local wastewater management, parks, and urban trees.
- Adopt (1) outdoor residential use standards, (2) use standards for CII outdoor landscape areas with dedicated irrigation meters, (3) adjustment factors for unique water uses and local conditions, and (4) guidelines and methodologies for calculating urban water use objectives.
- Adopt standards for CII performance measures.

[a] Chapters 14 (SB 606, Hertzberg) and 15 (AB 1668, Friedman) of 2018.
DWR = Department of Water Resources and SWRCB = State Water Resources Control Board.

Governor's Proposals

Proposes $7.8 Million General Fund in 2019-20 to Begin Implementing Legislation. The Governor's budget includes funding for both DWR and SWRCB to begin implementing SB 606 and AB 1668.

- ***DWR ($5.1 Million).*** Funding proposed for DWR is to conduct 14 detailed studies and investigations; provide parcel-level landscape area data to urban water suppliers; develop standards, guidelines, and methodologies; research and report to the Legislature on potential changes to indoor water efficiency standards; and provide support to SWRCB in developing new regulations. The department plans to contract with other entities to undertake most of these activities, although a portion of the funding ($379,000) would support three existing positions to oversee and support this work.
- ***SWRCB ($2.7 Million).*** The budget provides $2 million on a one-time basis for SWRCB to study and report—consistent with the California Environmental Quality Act (CEQA)—on the potential environmental impacts of the water conservation regulations the board must adopt. The remainder of the requested

funding ($717,000) is proposed on an ongoing basis for four new positions who will help the board meet its assigned responsibilities, including evaluating the recommendations contained in DWR's reports and subsequently adopting new standards and regulations.

Proposes Over $2 Million General Fund Annually in Future Years for Ongoing Activities. The Governor's budget also proposes funding for implementation of SB 606 and AB 1668 in future years, as shown in Figure 14. Most of this funding is for ongoing activities at both DWR and SWRCB. For example, DWR will have to provide technical assistance to urban suppliers that fail to meet their water use objectives, as well as review the new water management planning reports submitted by urban and agricultural agencies to ensure their completeness. The budget proposes ongoing funding for three additional existing positions at DWR beginning in 2020-21 (for a total of six). Ongoing responsibilities for SWRCB include undertaking enforcement actions for urban water suppliers that fail to comply with reporting requirements or meet their water use objectives.

LAO Assessment

Governor's Proposals Consistent With Water Conservation Legislation. To meet the requirements established by SB 606 and AB 1668, DWR and SWRCB must successfully undertake a significant number of activities in a relatively short period of time. Based on our review, the Governor's funding proposal seems appropriately aligned with the activities required by the legislation. Both departments based their planned approach and cost estimates on previous experiences, including DWR's development of the SB7X 7 water efficiency standards in 2009 and SWRCB's previous CEQA analyses of projects with similar scope and complexity. Given the large number of technical studies DWR must undertake within a relatively short time frame, we believe the department's plan to contract with outside entities to conduct most of this work makes sense.

LAO Recommendations

Adopt Governor's Budget Proposals. Effective implementation of SB 606 and AB 1668 will help local agencies around the state use water more efficiently and better prepare for future droughts. We recommend adopting the Governor's budget proposals for DWR and SWRCB in 2019-20 and the coming years, as we find them to be well aligned with the responsibilities assigned by the legislation.

Conduct Continued Oversight to Monitor Implementation and Ensure Legislative Goals Are Met. While we believe adopting the Governor's budget proposals will help DWR and SWRCB implement the water conservation legislation, funding is not the only factor required to successfully achieve the goals contained in SB 606 and AB 1668. The Legislature will want to conduct ongoing oversight to ensure that the deadlines established in the legislation are being met, and that overall efficiency and drought resilience outcomes are being attained. The legislation included several reporting and status update requirements, but the Legislature may also want to hold oversight hearings to monitor implementation and solicit input from stakeholders over the coming years. Some of the key oversight issues and questions to monitor include:

Figure 14

Proposed Funding to Implement Water Conservation Legislation

General Fund (In Millions)

	2019-20	2020-21	2021-22	2022-23	2023-24 and Thereafter
Department of Water Resources	$5.1	$2.1	$2.0	$1.7	$1.5
State Water Resources Control Board	2.7	0.7	0.7	0.7	0.7
Totals	**$7.8**	**$2.8**	**$2.7**	**$2.4**	**$2.2**

- ***Implementation Progress.*** Are DWR and SWRCB meeting required deadlines? Has the data necessary to proceed with implementation been collected and provided as anticipated? Are the findings of the studies conducted by DWR and the subsequent regulations developed by SWRCB consistent with the Legislature's intentions? Once SWRCB has established efficiency standards, are local agencies making progress towards meeting their local water use objectives?
- ***Implementation Barriers.*** Are departments or local agencies encountering notable challenges in meeting the requirements contained in SB 606 and AB 1668? Did the CEQA analysis raise any unforeseen issues? Is any additional action by the Legislature needed to clarify its policy intent or to address barriers?
- ***State-Level Capacity.*** As implementation proceeds, do DWR and SWRCB continue to have the appropriate level of staff and funding to meet their responsibilities? Do notably more- or fewer-than-anticipated numbers of water suppliers require state-level intervention such as technical assistance and/or enforcement actions?
- ***Local-Level Capacity.*** What feedback are local agencies providing about their experiences complying with the new requirements? Do they have the requisite technical, managerial, and financial resources to meet their new obligations? Are there additional steps the state should take to facilitate their success in achieving the goals established by SB 606 and AB 1668?
- ***Lessons Learned.*** Have some urban or agricultural agencies identified particularly effective strategies towards improving efficient water use, and can these be propagated elsewhere? Has implementation of SB 606 and AB 1668 revealed strategies, incentives, or consequences that the Legislature should consider adopting through additional legislation?
- ***Long-Term Outcomes.*** How will statewide water use change upon full implementation of SB 606 and AB 1668? How will cumulative water use compare to the 20 percent reduction goal established by SB7X 7? When the next drought occurs, can local communities sustain prolonged water shortages without major health and safety impacts? How well do agricultural entities withstand sustained dry periods?

ENVIRONMENTAL QUALITY

AB 617 IMPLEMENTATION

The Governor's budget proposes $276 million to continue implementation of Chapter 136 of 2017 (AB 617, C. Garcia). We recommend that the Legislature (1) reject the Governor's proposal to provide $3.8 million to the California Air Resources Board (CARB) for administrative costs because it lacks adequate workload justification, (2) direct the administration to develop a long-term funding plan for first year communities to help facilitate more effective program implementation, and (3) direct CARB to report at budget hearings on its plan to expand the program to additional communities. Based on the information provided by CARB on potential program expansion, the Legislature might want to consider options to ensure it has an opportunity to evaluate program effectiveness and the costs of expanding before CARB selects additional communities.

Background

Air Quality Regulation Divided Between CARB and Regional Air Districts. In California, CARB and 35 regional air pollution control and air quality management districts (air districts) share responsibility for the regulation of air quality.

Historically, regulatory efforts have largely focused on reducing "criteria" pollutants that affect regional air quality, such as nitrogen oxides that contribute to smog. Regional air districts generally manage the regulation of *stationary sources* of pollution (such as factories) and prepare regional implementation plans to achieve compliance with federal and state air quality standards. CARB is responsible primarily for the regulation of *mobile sources* of pollution (such as cars and trucks) and for the review of regional air district programs and plans. (Regional air districts also administer some mobile source incentive programs.) Over the last few decades, the state has also developed various programs intended to reduce local toxic air pollution—such as diesel particulate matter and hexavalent chromium—and global pollution that contributes to climate change, such as carbon dioxide.

AB 617 Established New Program Focusing on Heavily Polluted Communities. Passed in 2017, AB 617 made a variety of changes that are intended to help monitor and reduce criteria and toxic air pollutants that have adverse effects on heavily polluted communities. Importantly, these changes focus on pollution at the *community* level, rather focusing primarily on *global* or *regional* effects. Community-level effects include the cumulative pollution from regional criteria pollutants, as well local toxic air pollutants. The changes are implemented by both CARB and air districts, in consultation with community groups and other state agencies. The major requirements and implementation time frames include:

- ***Community Air Monitoring Systems.*** AB 617 required CARB, by October 1, 2018, to (1) develop a statewide plan for monitoring community air pollution and (2) select the highest priority locations to deploy monitoring systems, based on their exposure to toxic and criteria pollutants. The purpose of the statewide monitoring plan is to provide guidance to air districts that will be deploying the monitoring systems in the selected communities. Once the initial communities (also known as "first year" communities) are selected, air districts must deploy the monitoring systems in those communities by July 1, 2020. Each year thereafter, CARB must select additional communities to deploy monitoring systems, as it deems appropriate, and the regional air districts must deploy systems in those communities within one year.
- ***Community Emission Reduction Plans.*** AB 617 also required CARB to develop, by October 1, 2018, a statewide strategy to reduce toxic and criteria emissions in communities with high pollution, and to update the strategy every five years. As part of the statewide strategy, CARB is also required to select communities with high cumulative exposure to air pollutants that will develop emission reduction programs (also known as first year communities). Within one year of selecting the communities, air districts—in consultation with local community groups and other stakeholders—must develop community emission reduction plans for each selected community and submit them to CARB for review. The plans must include emission reduction targets, specific reduction measures, a schedule for implementation, and an enforcement plan. CARB must select additional communities for emission reduction plans annually thereafter, as it deems appropriate.
- ***Other AB 617 Changes.*** AB 617 made a variety of other changes to air quality monitoring and regulation, including requirements that (1) CARB establish a uniform statewide system of reporting annual emissions of criteria pollutants from stationary sources, (2) CARB establish a clearinghouse that identifies best available technologies for pollution control, and (3) air districts adopt expedited schedules for requiring industrial facilities that are subject to the state's cap-and-trade regulation to install updated pollution control technologies if they have not done so since 2007. It also required CARB to provide grants to community-based organizations for technical assistance and to support community participation in the AB 617 process.

AB 617 Implementation Update

Prior Budgets Provided Limited-Term Funding for AB 617 Implementation. As shown in Figure 15, the budget (including the proposed 2019-20 budget, as described below) has included roughly $300 million annually—typically GGRF on a limited-term basis—to support AB 617 implementation. Specifically, for the following programs and costs:

- ***Air District Incentive Programs.*** Most funding has gone to air districts for incentive programs to replace older diesel equipment with newer, less polluting equipment. Generally, the money has been allocated through existing programs for mobile emission sources, such as the Carl Moyer Program. In adopting the 2018-19 budget, the Legislature provided authority for air districts to provide incentives for emission reductions from stationary sources. Chapter 714 of 2018 (AB 2453, E. Garcia) also allowed air districts to use these funds for projects to improve air quality at schools, including for air filter upgrades and vegetation buffers.
- ***Air District Administrative Costs.*** Air district activities include (1) purchasing and maintaining monitoring equipment; (2) analyzing new emissions data; (3) coordinating, preparing, and implementing emission reduction plans; and (4) developing new regulations for stationary sources.
- ***CARB Administrative Costs.*** CARB implementation activities include (1) developing and updating the statewide monitoring plan, (2) analyzing new emissions data, (3) selecting communities for monitoring and emission reduction programs, (4) providing guidance and reviewing emission reduction plans, and (5) developing a statewide uniform emission reporting system.
- ***Community Technical Assistance Grants.*** The Legislature allocated funding to CARB to help community-based organizations participate in the AB 617 process and build their capacity to identify, evaluate, and reduce exposure to air emissions in their neighborhoods. CARB has allocated $10 million to 28 different community groups and Native American Tribes for such things as community outreach, hiring consultants and/or technical experts, logistical support for meetings, supporting community-operated air monitoring, and community-based research projects.

Effects of Air District Incentive Funding Still Being Evaluated. The 2017-18 budget allocated incentive funding to the air districts as follows: 43 percent ($107.5 million) to South Coast, 32 percent ($80 million) to the San Joaquin Valley, 20 percent ($50 million) to the Bay Area, and 5 percent ($12.5 million) to the rest of the air districts. CARB required that at least 70 percent of funds allocated to each air district go to disadvantaged communities. The 2018-19 budget did not specify how the funding would be split between air districts. Air districts and CARB are still finalizing how this funding will be allocated.

Air districts recently provided initial data to CARB on how they have spent their 2017-18 incentive

Figure 15

Summary of AB 617 Implementation Funding

(In Millions)

Activity	2017-18	2018-19	2019-20 (Proposed)	Fund Source
Air district incentive programs	$250	$245	$200	GGRF
Air district administrative costs	27	50	50	GGRF and APCF
CARB administrative costs	12	15	16	GGRF
Community technical assistance grants	5	10	10	GGRF
Totals	**$294**	**$320**	**$276**	

GGRF = Greenhouse Gas Reduction Fund; APCF = Air Pollution Control Fund; and CARB = California Air Resources Board.

funds, and CARB staff is still reviewing the data. (Districts have two years to encumber these funds.) As a result, detailed information about the types of equipment being replaced or estimated emission reductions is unavailable at this time. However, CARB staff indicates that the mix of incentive programs supported by the air districts generally is as follows:

- ***South Coast.*** Divided roughly equally among on-road trucks, construction equipment, agricultural equipment, and marine and other projects.
- ***San Joaquin.*** Agricultural equipment is the largest category, followed by locomotives, then trucks and school buses.
- ***Bay Area.*** Primary focus is on projects at Port of Oakland, including cargo handling, heavy-duty vehicles, marine vessels, and locomotives.

CARB plans to propose guidelines for the 2018-19 allocation in the coming months, including new guidance on which stationary source projects could qualify for incentive funding.

CARB Selected First Year Communities in September 2018. In September 2018, CARB adopted its Community Air Protection Blueprint (the blueprint). In the blueprint, CARB selected ten first year communities for air monitoring and/or emission reduction plans. These communities are shown in Figure 16. Communities were selected based on such things as exposure to air pollution, poverty levels, high prevalence of sensitive populations (children, for example), and selecting a mix of communities with varying sources of air pollution and regional diversity. These first year communities were selected from a longer list of over 100 communities nominated by air districts and community groups, including 16 communities that were specifically recommended by air districts. For communities that were selected for only air monitoring, CARB plans to collect more pollution information prior to requiring emission reduction plans for those communities in future years.

Blueprint Also Established Requirements for Monitoring and Emission Reduction Programs. The blueprint also included CARB's statewide plan for monitoring community air pollution and

Figure 16

First Year Communities Selected for AB 617 Programs

Community	Air District	Air Monitoring Program	Emission Reduction Program
Richmond	Bay Area	✓	
West Oakland	Bay Area		✓
Calexico, El Centro, Heber	Imperial	✓	✓
South Sacramento/Florin	Sacramento	✓	
Barrio Logan, West National City, Logan Heights, Sherman Heights	San Diego	✓	
Shafter	San Joaquin Valley	✓	✓
South Central Fresno	San Joaquin Valley	✓	✓
East Los Angeles, Boyle Heights	South Coast	✓	✓
Muscoy, San Bernardino	South Coast	✓	✓
Wilmington, West Long Beach, Carson	South Coast	✓	✓

statewide strategy for emission reductions in heavily impacted communities, as required by AB 617. The blueprint established requirements for air districts developing community air monitoring systems. For example, air district monitoring plans that are submitted to CARB must describe (1) the reason for conducting community air monitoring and establish specific roles and responsibilities; (2) how monitoring will be conducted, such as methods and equipment, monitoring areas, and quality control procedures; and (3) how data will be analyzed and used in a way that supports future action.

The statewide strategy for emission reductions identifies a list of new CARB actions, as well as guidance for air districts. Proposed CARB actions to reduce emissions include freight-related regulatory changes, additional heavy-duty in-use engine testing, and additional incentive funding for state programs. CARB's requirements for community emission reduction plans developed by air districts include (1) establishing a community steering committee to help develop the plan; (2) establishing emission reduction targets, with specific goals to reduce exposure at sensitive locations; (3) defining clear actions and implementation strategies over the next five years, including regulatory strategies, audits, enforcement strategies, incentives, and land use strategies; and (4) identifying annual metrics that will be used to track progress.

Air Districts in Early Stages of Implementing Monitoring and Emission Reduction Efforts. Air districts must begin implementing the monitoring systems for first year communities by July 1, 2019, and they are required to adopt emission reduction plans by September 2019 (one year after first year communities were selected by CARB). Air districts are currently in the process of developing the emission reduction plans and air monitoring systems, including establishing community steering committees, convening and staffing steering committee meetings, and conducting various outreach activities.

Governor's Budget

Proposes $276 Million, Mostly on a Limited-Term Basis. As shown in Figure 15, the Governor's 2019-20 budget proposes $276 million funding for AB 617 implementation. The vast majority of the funding—$260 million—is proposed on a one-time basis. This limited-term funding includes (1) $200 million on a one-time basis for incentive programs administered by air districts; (2) $50 million—$30 million from the Air Pollution Control Fund and $20 million from GGRF—to support air district implementation activities, which continues a two-year funding proposal approved in the 2018-19 budget; and (3) $10 million on a one-time basis for community technical assistance grants.

Proposes to Extend CARB Limited-Term Funding and Add New Positions. The only spending that would extend beyond 2019-20 is $16 million from GGRF to support CARB administrative costs and 72 positions. This amount includes base funding of $12 million for 50 positions that were approved on an ongoing basis in 2017-18. In addition, the Governor proposes $3.8 million to extend funding for 22 CARB positions that were also approved in 2017-18, but on a two-year limited-term basis. The Governor's proposal would extend funding for these 22 positions for an additional three years. Four positions would work on the Technology Clearinghouse and 18 positions would work on selecting communities for future action. The proposal would also provide $405,000 to add three new permanent human resources positions.

LAO Assessment

Funding to Extend 22 CARB Positions Lacks Adequate Justification. At the time of this report, CARB had not provided adequate information to justify the proposed $3.8 million to extend funding for the above 22 positions. As discussed later in this report, the proposal was originally submitted as part of a group of "technical" changes for California Environmental Protection Agency departments, with no description of the proposed activities or workload justification. Subsequently, after we requested information, CARB submitted a description of the type of AB 617 activities it will be conducting, plus workload information for the three new positions. However, for the 22 existing positions the information provided does not include a quantification of the amount of workload that the positions would complete, such as the estimated number of staff hours needed to complete different AB 617 activities. As a result, it is unclear how many positions will be needed to perform the work.

In 2017-18, the Legislature originally approved 22 of the 72 positions on a limited-term basis because AB 617 was a new program and there was significant uncertainty about ongoing workload. It was unclear how CARB's staffing needs would change as program activities transitioned from initial regulatory development to program implementation, much of which is done by local air districts. For example, CARB has now developed a statewide strategy and guidance for air monitoring systems and emission reduction plans, but the implementation of monitoring and emission reduction activities largely will be done by air districts and local communities. The information provided by the administration so far does not adequately explain why the 22 positions are still needed as CARB's AB 617 responsibilities and workload evolve.

No Long-Term Funding Plan for Certain Ongoing Activities in First Year Communities. The Governor's budget does not include an ongoing funding plan for incentives, air district implementation, or technical assistance grants to the first year communities selected by CARB. Many of these activities are likely to be ongoing, and we do not anticipate that air districts will be able to fund many of the activities from local revenues. Consequently, it is unclear how state costs for this program might change in future years. For example, for the ten first year communities selected by CARB, local air districts will have ongoing costs related to air monitoring and implementing emission reduction plans, but the implementation details of these activities and associated costs are still under development by the air districts. In addition, incentive funding is a key component of CARB's statewide emission reduction strategy and likely will be a key part of air districts' community emission reduction plans. Finally, there is no sunset date on the AB 617 requirement that CARB provide technical assistance grants to communities.

The lack of an ongoing funding plan can create implementation challenges. For example, the uncertainty in ongoing state funding makes it difficult for air districts to determine how many ongoing staff they can hire for various regulatory and monitoring activities. In addition, the lack of certainty around how much incentive funding will be available in future years could make it difficult for air districts and communities to determine the mix of actions—such as incentives, regulations, and land use changes—that might be needed to meet their emissions targets. These cost uncertainties also make it difficult for the Legislature to know how much in state resources will need to be devoted on an ongoing basis to effectively implement these programs.

CARB Authority to Expand Program Raises Budget and Oversight Considerations. The authority AB 617 gives to CARB to expand to other communities without requiring additional legislative action raises important oversight and budget considerations. First, an expansion into more communities would create additional costs, including air district implementation costs, CARB administrative costs, and likely incentive programs spending. Under current law, CARB could expand to additional communities before the Legislature has an opportunity to evaluate the costs, identify a potential source of funding, and weigh the merits of an expansion against other state funding priorities. Second, CARB could expand the program to other communities without clear direction from the Legislature about the scope and structure of any expanded programs based on its assessment of the effectiveness of programs that have already been implemented.

LAO Recommendations

Reject CARB Proposal to Extend Limited-Term Funding for 22 Positions. We do not have concerns with the vast majority of the administration's proposed funding to continue implementation of AB 617. However, we recommend the Legislature reject the proposed $3.7 million to extend CARB funding for 22 positions. At the time of this report, there is inadequate workload justification to support the requested funding. If the administration provides additional workload information in the coming months, we will review the information and update the Legislature accordingly. We note that even under our recommendation to reject these positions, CARB would still retain funding for 50 positions approved in the 2017-18 budget on an ongoing basis, plus three new positions.

Direct Administration to Develop Long-Term Funding Plan for First Year Communities. We recommend the Legislature direct the administration to develop a long-term funding plan for AB 617 implementation in first year communities. Specifically, we recommend the Legislature adopt supplemental report language requiring the administration to include a long-term funding plan in the Governor's proposed budget for 2020-21. The plan should include estimated multiyear funding for local air district administrative activities that cannot be covered by local revenue sources, incentive programs, and community technical assistance grants. The plan should also identify a long-term funding source. Potential options include GGRF, General Fund, and revenue from new charges on polluters.

A long-term plan would help provide greater funding certainty to air districts and community groups which, in turn, could improve program implementation. For example, with additional funding certainty, air districts might be better able to determine how many ongoing staff they can hire. In addition, community groups and air districts could develop community emission reduction plans with a better understanding of how much ongoing funding will be available for technical assistance and incentives to help achieve the reductions. It would also inform the Legislature's long-term budget planning. For example, the Legislature could have a better understanding of the amount of GGRF going towards AB 617 in future years when determining how much funding might remain available for new multiyear spending proposals. (We discuss multiyear GGRF funding commitments earlier in this report.)

Direct CARB to Report at Budget Hearings on its Plan to Expand Program. We recommend the Legislature direct CARB to report at budget hearings on how it intends to approach future expansions of this program to additional communities. Specifically, CARB should report on (1) how it will assess the success of first year communities, (2) what criteria it will be using to determine how many communities it will add, (3) how it will evaluate potential costs of such an expansion, and (4) the process it envisions for seeking legislative input and funding when making these decisions. While AB 617 clearly envisions potential program expansion into additional communities after the first year, the additional information provided by the administration might help the Legislature determine whether any additional actions are necessary to ensure it has adequate oversight over the decision to expand. For example, the Legislature might want to consider making CARB's authority to expand to additional communities dependent on future legislative direction and budget allocations. This would give the Legislature a clear opportunity to evaluate the merits of existing programs and the costs of expanding before CARB selects additional communities.

EXIDE CLEANUP EFFORTS CONTINUE

The Legislature has already provided a $176.6 million one-time General Fund loan to fund the cleanup of residential properties contaminated by airborne lead from the Exide lead-acid battery recycling facility. The Governor proposes $74.5 million in additional one-time General Fund loans to pay for cleanup activities. We recommend the Legislature require the Department of Toxic Substances Control (DTSC) to report at budget hearings on the time frame for completing the residential cleanup, the total estimated cost of the cleanup, and when Exide will begin to repay the state for the costs of the cleanup.

Background

Lead Contamination Is a Serious Public Health Risk. Lead exposure can be toxic to humans and animals and cause negative health effects. For example, when children are exposed to lead it can cause slowed growth, hearing problems, anemia, lower IQs, and other health and learning problems. Exposure to lead can come from a variety of sources including emissions from some types of industrial facilities and past use of lead paint in homes. When lead is released into the air from industrial sources, such as lead smelters, it may travel long distances before settling to the ground where it is usually embedded in the soil. Lead is especially dangerous to children because their growing bodies absorb more lead than adults, and their brains and nervous systems are more sensitive to the damaging effects of lead. Babies and young children can also be more likely to be exposed to lead because they often put their hands and other objects into their mouths that could have been exposed to lead. A pregnant woman's exposure to lead is of particular concern because it can result in exposure to her developing baby.

Exide Technologies Facility Closed in 2015 When DTSC Denied Its Permit. Exide Technologies Inc. (Exide), headquartered in Georgia, is a worldwide producer, distributor, and recycler of lead-acid batteries. In 2000, Exide purchased a facility—first opened in 1922—in an industrialized area in the City of Vernon, a few miles southeast of downtown Los Angeles, and operated the facility until its closure in 2015. The facility's operations included recycling scrap materials from lead-acid batteries.

In November of 2014, DTSC announced an enforcement order against Exide's Vernon facility because of the emission of airborne lead contamination, as well as on-site contamination. The order required, among other things, that the company sample the soil for lead contamination and undertake the cleanup of contaminated properties in an initial assessment area in nearby residential neighborhoods. The enforcement order also required the company to place $9 million in the Exide Residential Off-Site Corrective Action Trust Fund (Trust Fund) for cleanup of contaminated residential properties in the areas identified as having the highest likelihood of being impacted by airborne lead emissions coming from the Exide facility. Exide subsequently made this deposit in 2014 to satisfy its initial residential cleanup obligations. DTSC later required Exide to place an additional $5 million into the Trust Fund beginning in November 2018. Exide made the first payment of $1.5 million in November of 2018 and is required to pay an additional $1.5 million by March 2019 and $2 million by March 2020.

In March 2015, DTSC informed Exide that its hazardous waste permit application would be denied, and Exide permanently closed the facility. The facility had been operating under a temporary permit for more than two decades. DTSC's enforcement order requires Exide to submit a Residential Corrective Measures Study in May 2019. This study must identify all off-site residential contamination, evaluate alternatives to remediate it, and recommend a remedy. (Exide is also required to submit reports to identify and remediate all on-site contamination at the Exide facility and in the industrialized areas surrounding it.) DTSC will review the validity of this study and has the authority to dispute Exide's methodology and findings. DTSC will select a corrective action remedy after it approves the Residential Corrective Measures Study. Exide will be required to start making payments to fund costs (in addition to the $14 million Exide has already been required to pay) of an approved corrective action remedy, which could occur over ten annual payments. Exide has challenged DTSC's requirement that Exide complete the Residential Corrective Measures Study. At this time, it is unclear when these issues will be resolved. Funds from the Trust Fund must be used for implementing the final residential corrective action remedy selected.

Legislature Has Provided Funds for Exide Cleanup. In order to expedite the cleanup of contamination in the residential neighborhoods surrounding Exide to address the public health threat posed, the Legislature has provided the following funding for cleanup and enforcement activities:

- ***Exide Enforcement Order ($1.7 Million).*** In 2015-16, the Legislature provided $734,000 (Hazardous Waste Control Account) annually for two years, and in 2018-19, the Legislature provided an additional $1 million from the Lead-Acid Battery Cleanup Fund (LABCF) annually for two years to continue overseeing the Exide enforcement order.
- ***Emergency Funding ($7 Million).*** In 2015-16, the Legislature provided $7 million (special

funds) in emergency funding to (1) sample up to 1,500 residential properties around the Exide facility, (2) develop a comprehensive cleanup plan, and (3) begin cleanup of the 50 highest-priority properties based on the extent of lead contamination and the potential for exposure.

- ***General Fund Loan to Toxic Substances Control Account (TSCA) ($176.6 Million).*** Chapter 10 of 2016 (AB 118, Santiago) and Chapter 9 of 2016 (SB 93, de León) provided a one-time $176.6 million General Fund loan to the TSCA for Exide-related cleanup of residential properties. DTSC has committed all of the $176.6 million to cleanup activities and anticipates fully expending it by June 2021.
- ***Third-Party Quality Assurance Contractor ($1.4 Million).*** In 2017-18, the Legislature provided $1.4 million annually for three years from a loan from LABCF to the Hazardous Waste Control Account for a third-party quality contractor to monitor Exide cleanup activities.
- ***Parkways Cleanup Funding ($6.5 Million).*** In 2018-19, the Legislature provided $6.5 million ($5 million General Fund and $1.5 million California Environmental License Plate Fund) on a one-time basis to sample soil and clean up parkways in the communities around Exide.

Cleanup Activities Are Underway. As of February 2019, lead removal has been completed at roughly 600 parcels. This includes 330 parcels that have been cleaned up based on initial work plans and orders. For example, DTSC ordered Exide to clean up 186 properties in the initial assessment areas between August 2014 and November 2015.

In addition, cleanup activities have been completed at an additional 275 parcels consistent with DTSC's July 2017 cleanup plan and final environmental impact report for the cleanup of lead-impacted soil in neighborhoods around the Exide recycling facility. In total, the cleanup plan calls for removing lead contamination from approximately 2,500 properties within 1.7 miles of the former battery recycling facility—known as the preliminary investigation area (PIA)—over a two-year period. Properties were initially prioritized for cleanup based on properties sampled prior to release of the cleanup plan, and DTSC has entered into contracts to conduct the cleanup activities. At that time, soil samples had been collected and analyzed for more than 8,200 parcels out of an estimated total of 10,173 in the PIA. DTSC had indicated that it might identify additional properties for cleanup if funding permits.

Legislature Established LABCF. Chapter 666 of 2016 (AB 2153, C. Garcia) created new fees on lead-acid battery manufacturers and purchasers, with the resulting revenue deposited into the LABCF. The fund may be used (among other purposes) for repayment of the $177 million loan made from the General Fund for activities related to the Exide cleanup. Payments of $16.7 million from LABCF to the General Fund are budgeted for this purpose in 2018-19.

Governor's Proposal

The Governor's budget proposes to provide an additional $74.5 million in one-time General Fund loans for cleanup activities associated with the Exide facility. (Combined with the $176.6 million one-time General Fund loan already approved by the Legislature, this would bring the total of one-time General Fund loans for the Exide cleanup to $251 million.) The 2019-20 proposal includes two components—(1) $24.5 million for increased costs to complete the cleanup of up to 2,500 parcels that have been prioritized under DTSC's cleanup plan and (2) $50 million to cleanup an additional 700 properties not previously included in the cleanup plan. (The budget also includes another $16.7 million loan repayment from LABCF to the General Fund.)

Higher Cleanup Costs for Previously Identified Parcels ($24.5 Million). In 2016, DTSC estimated average per-parcel cleanup costs of $50,000. However, according to the administration a few factors have caused the per-parcel cleanup cost estimate to increase to $60,000 to $80,000 per parcel. These factors include:

- ***Prevailing Wages and Bonding Requirements.*** Initial estimates did not assume prevailing wages and underestimated the costs of bonding requirements for contractors.

- ***Change in Anticipated Contract Type.*** DTSC initially anticipated procuring a fixed maximum price contract for the cleanup work. Under this arrangement contractors would have agreed to clean up a specified number of parcels for an agreed upon amount. However, contractors would not agree to this type of contract due to the unknown extent of the contamination and the unknown amount of soil requiring clean up.
- ***Sample Storage.*** Due to potential cost recovery litigation with Exide and other responsible parties, DTSC must comply with evidence preservation requirements by, among other things, storing and retaining all soil samples collected.

Cleanup of Additional Parcels ($50 Million). The Governor's budget plan proposes $50 million to cleanup approximately 700 parcels (in addition to the 2,500 prioritized in the cleanup plan) with high lead contamination levels by June 2021.

LAO Assessment

State Has an Interest in Accelerating Exide Cleanup. Due to the public health risks from lead contamination, the state has a clear and immediate interest in cleaning up the residential parcels contaminated with lead by the Exide facility. As described earlier in this analysis, Exide may take up to ten years or more to pay for the cleanup after DTSC's approval of the Residential Corrective Measures Study and implementation of a cleanup plan. If the state waited for this process to unfold, residents within the PIA would potentially be exposed to unhealthy levels of lead contamination for up to a decade or more compared to the accelerated approach adopted by the state.

Uncertainty Remains About Total Cost of the Cleanup and When Loans Will Be Repaid. DTSC has not provided an estimate of the total cost for the Exide cleanup, or the time frame for completing the cleanup. Under the Governor's proposal, DTSC would be provided an additional $74.5 million in one-time loans to complete the cleanup of 3,200 parcels out of about 10,173 parcels in the PIA. However, DTSC is still in the process of sampling some of the parcels in the PIA for lead contamination, and obtaining permission from property owners to sample other parcels. Therefore, it is uncertain how many parcels will ultimately need to be cleaned up and what the total cleanup cost may be.

There is also uncertainty about when Exide will begin to pay for cleanup costs in addition to the $14 million it was already required to deposit into the Trust Fund. The administration has expressed its intent to recover all the cleanup costs the state incurs from Exide in keeping with the polluter pays principle that the responsible party should bear the costs of the cleanup. However, as discussed above, Exide is contesting DTSC's requirement to complete the study. Moreover, according to the department, moneys deposited into the Trust Fund cannot be used to reimburse DTSC for costs it has incurred in implementing the interim residential cleanup work. According to DTSC, it is working with the Attorney General's Office to ensure that all necessary steps are taken to hold Exide responsible. Consequently, it is unclear how much of the cleanup costs the company ultimately will pay and when they will be received by the state.

LAO Recommendation

Approve Additional General Fund Loans to Continue Cleanup Efforts. We recommend the Legislature approve the Governor's proposals to provide a total of $74.5 million in one-time General Fund loans to TSCA for the cleanup of residential parcels contaminated by the Exide facility. Due to the serious public health threat posed by lead contamination in the soil, we believe the state should move forward with the cleanup as expeditiously as possible.

Require DTSC to Report at Budget Hearings on Estimated Cleanup Cost and Time Line. The Legislature would benefit from additional information to assess anticipated time lines and costs for cleanup activities. This information would allow the Legislature to assess what additional costs the state is likely to incur for the Exide cleanup beyond what is requested in 2019-20, and also when Exide will begin to bear the costs of the cleanup. We recommend the Legislature require DTSC to respond at budget hearings to the following questions:

- When does DTSC anticipate it will complete the sampling of the 10,173 parcels within the PIA and the cleanup of parcels contaminated by lead?
- How much does DTSC estimate it will cost to complete the sampling and cleanup of all of the parcels that require cleanup within the PIA? Should the Legislature expect to see additional requests for one-time General Fund loans in future budgets?
- When does DTSC estimate Exide will begin to repay the state for the cleanup costs it has incurred and how are these payments likely to be scheduled over time?
- What authority does DTSC have to ensure Exide will ultimately bear the costs of the cleanup?

DTSC SPECIAL FUND CONDITIONS

According to DTSC, the TSCA and the Hazardous Waste Control Account (HWCA) have faced structural imbalances in recent years. DTSC needs to complete its reconciliation of both accounts for fiscal years 2015-16 through 2017-18, and the Department of Finance (DOF) needs to certify the reconciliation in order to accurately assess the condition of these funds in the current year and the budget year. Once this process is completed, we will analyze their condition and report our findings to the Legislature.

Bulk of DTSC's Funding Comes From Two Special Funds. The Governor's budget plan proposes $363 million ($41 million from the General Fund) for DTSC in 2019-20. Almost two-thirds of this funding—$234 million—comes from two special funds—TSCA and HWCA. The budget includes $168 million in expenditure authority from TSCA, which was created to provide funding for responses to releases of hazardous substances, such as airborne lead, and cleanup of hazardous waste sites, such as abandoned mines, that pose a threat to public health or the environment. For example, TSCA is a major source of funding ($43 million, or 30 percent) for DTSC's Site Mitigation and Restoration (SMR) program. The SMR program implements federal and state laws regarding the cleanup of hazardous waste sites. This includes the investigation, cleanup, and ongoing maintenance of state-orphan and federal Superfund sites. TSCA also is a major source of funding ($13.4 million, or 87 percent) for the Safe Consumer Products Program, which encourages manufacturers to reduce human and environmental exposure to toxic chemicals by promoting the adoption of "green chemistry" practices. (Green chemistry focuses on designing products and processes that minimize the use and generation of hazardous substances such as certain chemicals.) Major sources of revenue for TSCA include (1) fees on organizations that use, generate, or store hazardous waste; (2) fines and penalties; and (3) moneys received from responsible parties who are required to pay for cleanup at a hazardous waste site.

The 2019-20 budget proposes $66 million for DTSC from HWCA, which was created to provide funding for DTSC and other agencies (such as the Attorney General) to administer the rules and regulations for the disposal of hazardous wastes. HWCA is a major source of funding ($65 million or 76 percent) for the Hazardous Waste Management program, which regulates the generation, storage, transportation, treatment, and disposal of hazardous waste to minimize risks to public health and the environment. The program oversees permitting and compliance at facilities that manage and transport hazardous waste. The program also supports and oversees local agencies that perform regulatory functions related to hazardous waste. Major sources of revenue for HWCA include fees or charges paid by operators of hazardous waste disposal, storage, and treatment sites.

DTSC Has Stated That TSCA and HWCA Face Structural Imbalances. DTSC has stated that in recent years the growth in expenditures from TSCA and HWCA has outpaced growth in revenues, transfers, and other adjustments (such as for investment income), creating structural imbalances in each fund. The magnitude of the structural imbalances is unclear, however, because the administration has not completed its budget reconciliation for the past few years, as discussed in more detail below. To the extent there has been a structural imbalance in each fund, this would result in drawing down the funds' reserves. To mitigate this, recent budgets have used other funding mechanisms (such as fund transfers from the penalty accounts of other funds) in order to ensure the funds' solvency.

DTSC has stated that over the next few years, the structural imbalances could affect its ability to fund key program functions. For example, the state's share of cost for the remediation and operations and maintenance costs at federal Superfund sites is projected to increase over the next few years because more projects are scheduled to be undertaken and the state will have to fund more O&M costs for projects. To the extent that TSCA is structurally imbalanced, DTSC may not be able to meet its obligations to pay these costs without redirecting funding from other sources. Similarly, to the extent that HWCA is structurally imbalanced and no actions are taken to reduce costs or increase revenues to the fund, DTSC's ability to effectively regulate the transportation, treatment, and disposal of hazardous waste could be compromised.

DTSC Is in the Process of Reconciling HWCA and TSCA. At the time this analysis was prepared, DTSC is still in the process of finalizing its accounting of the revenues and expenditures for HWCA and TSCA over the prior three years. This corrected accounting is important because having an accurate year-end balance is necessary in order to accurately assess the funds' condition and determine what resources are available for the 2019-20 budget. Once this reconciliation is completed through 2017-18, and DOF has certified it, we will assess the condition of TSCA and HWCA and report our findings to the Legislature.

RESOURCES CAPITAL OUTLAY

DEFERRED MAINTENANCE

The administration proposes $67 million—mostly from the General Fund—to implement deferred maintenance projects at six natural resources departments. Prior to approving this funding, we recommend the Legislature require all of the departments to report on what projects they intend to implement—if they have not done so already—to ensure that they will focus on high-priority maintenance activities. We further recommend adoption of reporting requirements that will better enable legislative oversight of (1) how departments maintain their facilities on an ongoing basis and (2) what deferred maintenance projects are actually implemented with the proposed funding.

Background

Recent Budgets Have Provided Funding for Deferred Maintenance Projects. Facilities require routine maintenance, repairs, and replacement of parts to keep them in acceptable condition and to preserve and extend their useful lives. When such maintenance is delayed or does not occur, we refer to this as deferred maintenance. Since 2015-16, the annual state budgets have included a combined total of $1.3 billion—mostly from the General Fund—to address backlogs of deferred maintenance at state facilities—such as prisons, parks, and universities—as well as a few local facilities, such as community colleges. Of this total, $318 million has been allocated to natural resources departments, including $200 million to the Department of Water Resources for flood protection infrastructure, $80 million for state parks, and $15 million for facilities operated by the Department of Fish and Wildlife (DFW).

Proposition 68 Allocated Bond Funding for Deferred Maintenance. State voters approved Proposition 68 in June 2018. Among other allocations, this bond measure provides a total of $100 million—$50 million for state parks and $50 million for DFW—for deferred maintenance projects at facilities owned by these two departments.

Governor's Proposal

Budget Provides $67 Million for Deferred Maintenance at Six Departments. The

Governor's 2019-20 budget plan proposes $67 million—$45 million from the General Fund and $21.6 million from Proposition 68—for deferred maintenance projects at six natural resources departments. As shown in **Figure 17**, most of this funding would be for projects at the Department of Parks and Recreation (Parks). The budget also includes provisional language allowing up to three years—until June 30, 2022—for departments to expend or encumber these funds.

Funding Represents Relatively Small Share of Identified Deferred Maintenance Projects. Based on the most recent information available, the six departments proposed to receive deferred maintenance funding in 2019-20 have lists of deferred maintenance projects worth $1.4 billion, including $1.2 billion in state parks. Therefore, the proposals would allow these departments to implement projects representing 5 percent of the departments' estimated backlogs. This share, however, varies by department with the California Conservation Corps (CCC) being able to address just over half of its estimated need, while state parks and the California Department of Forestry and Fire Protection (CalFire) would each be able to address about 4 percent of their estimated need.

LAO Assessment

Properly Maintaining State Facilities Is Important Practice. The deferred maintenance funding proposed in 2019-20 reflects the continuation of an important commitment by the state to tackle its deferred maintenance backlog. The state has invested many billions of dollars to build its infrastructure assets, which play critical roles in the state's economy and the provision of services to Californians. Moreover, when repairs to key building and infrastructure components are put off, facilities can eventually require more expensive investments, such as emergency repairs (when systems break down), capital improvements (such as major rehabilitation), or replacement. Thus, while deferring regular maintenance lowers costs in the short run, it often results in substantial costs in the long run. For example, failure to implement a relatively inexpensive maintenance project to patch a leaking roof can result in structural damage, mold, and roof replacement projects costing hundreds of thousands of dollars or more.

A Few Departments Have Not Identified How They Would Prioritize Funding. At the time of this analysis, each of the six natural resources departments proposed to receive deferred maintenance funding in 2019-20 had provided our office with a list of deferred maintenance projects. Three of these departments—DFW, CalFire, and CCC—have provided information specifying which of these projects they would prioritize for the limited funding provided. (CCC's prioritization is somewhat limited because it prioritizes projects at each of its facilities, but does not show how it would prioritize projects across the whole department.) For the other departments, however, the absence of a prioritized list of projects makes it impossible for the Legislature to determine whether the proposed funding would go to the projects that it thinks are most important. We note that some departments have provided our office with explanations of how they intend to prioritize projects if they receive the proposed funding. For example, Parks has said that it intends to score each project based on five criteria—such as whether it would address a health or safety need, increase park revenues, and meet regulatory requirements.

Figure 17

2019-20 Deferred Maintenance Funding Proposed for Natural Resources Departments

(In Millions)

Department	Amount	Fund Source
Parks and Recreation	$45.6	General Fund and Proposition 68
Fish and Wildlife	10.0	Proposition 68
Forestry and Fire Protection	6.0	General Fund
Exposition Park	3.0	General Fund
Conservation Corps	1.0	General Fund
Tahoe Conservancy	1.0	General Fund
Total	**$66.6**	

The lack of clear prioritization by some departments makes evaluation of their budget proposals difficult for a couple of reasons, especially for Parks. First, the Parks list of deferred maintenance backlog is particularly long—over 200 pages—and there is no reasonable way for the Legislature to evaluate that list, especially given the limited level of detail provided on each project. Second, in a few cases the lists include projects that that could be needed, but are not typically considered maintenance. For example, the Parks list includes studies, plans, Americans with Disabilities Act improvements, and habitat restoration projects. However, because the projects often are not prioritized, it is not possible to tell whether departments intend to use their funding for those types of activities. Third, some of the lists include large, multimillion dollar projects that might deserve greater scrutiny as would typically be done for a major capital outlay project. For example, the list for Parks includes over 200 projects estimated to cost at least $1 million each, including two projects estimated to cost over $20 million each. Yet, without knowing how the department would prioritize projects, the Legislature cannot know which of these large projects deserves particular attention.

Several Departments Have Not Initiated Efforts to Reduce Future Deferred Maintenance. Providing one-time funding for deferred maintenance is only a short-term response to the underlying problem—the failure to consistently maintain state assets on an ongoing basis. It is important that departments have adequate resources and plans for how they will maintain the state assets under their jurisdiction on an ongoing basis. To this end, it is worth noting that three of the six natural resources departments proposed to receive deferred maintenance funding have budget proposals in the current or budget years to increase their capacity to maintain facilities on an ongoing basis. Specifically, the *2018-19 Budget Act* included $8.5 million to add 103 facilities and maintenance positions for Parks. The current-year budget also included about $1 million for CCC to add seven additional facilities staff—mostly maintenance mechanics. CalFire's proposed budget for 2019-20 includes $9 million and 22 new positions (growing to $27 million and 63 positions in out-years) to support its facilities maintenance program. While it is unclear whether these staffing increases will ensure that the further accumulation of deferred maintenance backlogs is fully prevented in the future, they demonstrate a commitment to better maintain facilities on an ongoing basis.

The other departments—DFW, Exposition Park, and Tahoe Conservancy—have not proposed additional resources for maintenance, nor have they developed plans on how they will more effectively maintain facilities with existing resources. Therefore, it is unclear how these departments will ensure better maintenance of their facilities on an ongoing basis and address the underlying causes of their deferred maintenance backlogs to ensure that the problems do not get worse.

Administration Does Not Propose Way to Track Outcomes of Spending Plan. Under the Governor's proposal, departments would have authority to change projects without legislative notification. We find that it is reasonable for departments to have some flexibility to change projects after the approval of the budget. Urgent maintenance needs may emerge after the completion of the budget process, which may necessitate a reevaluation of which projects to pursue. However, the administration's proposals do not include any future reporting requirements. Without a reporting mechanism, the Legislature lacks access to the information on which projects are ultimately undertaken. This information would be important for the Legislature to assess what departments accomplished with deferred maintenance funds and ensure that they complete projects that are consistent with legislative directives.

LAO Recommendations

Ensure Departments Prioritize Most Important Projects. We recommend that the Legislature use its budget hearings this spring to gather more information from individual departments. First, we recommend that the Legislature require that all six natural resources departments report at budget hearings on the approach they are taking to prioritize projects. This would enable the Legislature to ensure that it is comfortable that the department's approach would result in the selection of projects that are consistent with legislative priorities.

Second, we recommend that the Legislature require that all of the departments report at budget hearings with lists of the specific projects they plan to undertake, if they have not done so already. These lists are important for the Legislature to have in order to assess whether the specific proposed projects are consistent with its priorities—such as projects that prevent future costs or address fire, life, or safety risks. If the lists include projects that it deems to be of lower priority, we recommend that the Legislature direct the department to reprioritize projects or adjust the funding levels proposed for departments accordingly. If departments fail to provide lists of proposed projects or are unable to justify their proposed projects to the Legislature's satisfaction, we recommend that the Legislature reject the administration's proposed funding for those specific departments. We note that it should generally not be difficult for departments to provide lists of proposed projects since DOF issued a budget letter in July 2018 directing departments to provide prioritized lists of projects by September 2018 in preparation for the 2019-20 budget process. (DOF also provided departments with similar direction in previous years.)

Ensure Departments Have Plan to Reduce Accumulation of Deferred Maintenance. For departments without plans or proposals to address ongoing deferred maintenance (DFW, Exposition Park, and Tahoe Conservancy), we recommend that the Legislature seek additional information at budget hearings on how each department plans to address the accumulation of deferred maintenance on an ongoing basis. For example, this could include information on the level of resources that the department currently devotes to maintenance, as well as an estimate of the ongoing level of maintenance funding that would be needed to prevent the future accumulation of deferred maintenance. This would provide the Legislature with additional information on the status of the department's ongoing efforts to maintain their facilities.

Additionally, we recommend that the Legislature adopt Supplemental Report Language (SRL) requiring that, no later than January 1, 2023, each department that is receiving deferred maintenance funding in 2019-20 identify how their deferred maintenance backlog has changed since 2019. We further recommend that the SRL require that, to the extent that its backlog has grown in the intervening years, the department identify (1) the reasons for the increase and (2) specific steps it plans to take to improve its maintenance practices on an ongoing basis. This is because, if a department experienced a large increase in its backlog, it might suggest that its actual routine maintenance activities are insufficient to keep up with its annual needs and that it should improve its maintenance program to prevent the further accumulation of deferred maintenance. In such cases, it will be important for the Legislature to understand this so it can direct departments to take actions to improve their maintenance programs. Adoption of the following language would be consistent with this recommendation:

> Item xxxx-xxx-xxxx. No later than January 1, 2023, [insert department name] shall submit to the fiscal committees of the Legislature and the Legislative Analyst's Office a report identifying the total size of its deferred maintenance backlog as of the 2018-19 fiscal year and September 2022. To the extent that the total size of the deferred maintenance backlog has increased over that period, the department's report shall also identify the reasons for the increase in the size of the backlog and the specific steps the department plans to take to improve its maintenance practices on an ongoing basis.

Require Future Reporting of Projects Completed. In our budget report, *The 2019-20 Budget: Deferred Maintenance*, we recommend that the Legislature adopt additional SRL requiring DOF to report, no later than January 1, 2023, on which deferred maintenance projects all departments undertook with 2019-20 funds. This would provide greater transparency and accountability of the funds by ensuring that the Legislature has information on what projects were ultimately implemented and that the funds were spent consistent with any legislative directive given.

SEVERAL NEW CAPITAL OUTLAY PROJECTS

The Governor's budget includes $29.6 million to begin 11 new capital outlay projects for departments within the California Natural Resources Agency (CNRA). As shown in Figure 18, these proposals include nine projects to expand, replace, or relocate CalFire facilities and two improvement projects in state parks. The total costs for completion of the proposed projects is estimated to be $336 million. All of this funding would come from the General Fund, with the exception of the Colusa-Sacramento River State Recreation Area boat launching improvement project that would be funded from the Harbors and Watercraft Revolving Fund.

CALFIRE FUNDING FOR CONTRACT COUNTIES

The concept of the Governor's proposal to provide some funding for capital outlay for contract counties is reasonable. However, the specific formula proposed to determine funding levels will result in significant fluctuations in funding from year to year, which could make planning difficult for contract counties. In addition, the proposed formula is not tied to actual capital outlay needs. If providing contract county capital outlay funding is a legislative priority, we recommend setting a consistent level of ongoing funding rather than utilizing the formula proposed by the Governor.

Background

CalFire contracts with six counties (Kern, Los Angeles, Marin, Orange, Santa Barbara, and Ventura) to fulfill its responsibilities related to wildfires on state responsibility areas (SRAs) within each county. These six counties are known as the "contract counties." The annual budget includes General Fund resources—about $79 million in 2018-19—to support contract counties' wildfire operations. Prior to 2012-13, CalFire also provided funding to the contract counties for capital outlay. This capital outlay funding was determined by a formula based on a percentage—about 19 percent—of annual state expenditures on CalFire capital outlay projects. Capital outlay

Figure 18

Summary of New Natural Resources Capital Outlay Projects

(In Millions)

Project	2019-20 Phase	2019-20 Funding	Total Project Cost
CalFire			
Humboldt-Del Norte Unit Headquarters: relocation	A	$1.9	$61.4
Butte Fire Center: replacement	P	2.7	59.7
Growlersburg Conservation Camp: replacement	P	3.1	59.3
Hollister Air Attack Base/Bear Valley Helitack Base: relocation	A	12.2	53.6
Hemet-Ryan Air Attack Base: replacement	P	1.9	37.5
Elsinore Fire Station: relocation	A	1.8	14.7
Ramona Air Attack Base: new barracks	P,W	0.9	5.8
Paso Robles Air Attack Base: new barracks	P	0.3	3.9
Fresno Air Attack Base: new barracks	P,W	0.6	3.8
Subtotals		($25.2)	($299.7)
Parks			
Fort Ross SHP: visitor and educational improvements	P	$4.0	$29.5
Colusa-Sacramento River state recreation area: boat launching improvements	P	0.4	6.5
Subtotals		($4.4)	($36.0)
Totals		**$29.6**	**$335.6**

A = acquisition; P = preliminary plans; W = working drawings; and SHP = state historic park.

funding for contract counties was eliminated beginning in 2012-13 due to General Fund budget constraints. Since that time, the annual budget has not included capital outlay funding for contract counties with the exception of $250,000 provided on a one-time basis in 2016-17.

Governor's Proposal

Reinstates Capital Outlay Funding for Contract Counties. The Governor's budget proposes to reinstate capital outlay funding for contract counties on an ongoing basis. Under the proposal, CalFire would determine annual funding levels for this purpose utilizing its historic formula based on state spending on CalFire capital outlay projects. For 2019-20, this results in $3.3 million from the General Fund for contract county capital outlay. The proposal does not include estimates of future costs.

LAO Assessment

Providing Funding for Contract County Capital Outlay Is Reasonable in Concept. In our view, the concept of providing some funding for capital outlay for contract counties is reasonable. Contract counties are providing a service to CalFire, and counties have to build and maintain infrastructure, such as fire stations, in order to provide this service effectively.

Funding Formula Proposed Likely to Result in Planning Challenges. As described above, the proposed funding formula is linked to annual spending on state capital outlay projects. State expenditures on CalFire projects can vary considerably from year to year based on the number, type, and phase of capital projects funded in a particular year. Consequently, the proposed formula is likely to result in significant fluctuations in the annual funding level provided to contract counties for capital outlay. For example, if this funding had not been removed from the budget in 2012-13, the annual amount provided since then would have fluctuated from a low of $97,000 in 2018-19 to a high of $9.3 million in 2013-14. Fluctuations of this magnitude could make it difficult for counties to plan for how they would use the funds.

Funding Formula Not Based on Specific Capital Outlay Needs. The formula that the Governor proposes to reinstate is based on two factors (1) the annual spending level for CalFire capital outlay projects, and (2) the ratio of contract county fire stations to CalFire fire stations. However, these two factors do not account for actual capital outlay needs for contract counties. Instead, the factors that are most likely to affect local costs to build and maintain wildland fire protection facilities are the age of existing facilities and changes in demands on facilities. In addition, counties sometimes operate fire stations that serve both their wildland fire protection responsibilities, as well as their responsibilities to respond to local structure fires, making it more challenging to determine what share of capital costs should be attributed to the SRA responsibilities. Currently, the state does not have data on actual local capital outlay needs associated with wildland fire protection. Moreover, obtaining such accurate information and updating it regularly could be relatively expensive compared to the total level of funding proposed.

LAO Recommendation

Select Different Approach to Determining Funding Level if Funding Is Reinstated. The concept of providing funding to contract counties for capital outlay is reasonable. However, because this funding generally has not been provided in several years, the Legislature may wish to weigh whether reinstating this funding is as high of a priority for the General Fund as other programs.

If providing this funding is a legislative priority, we recommend that the Legislature simply designate the funding amount for this program in the 2019-20 budget and ongoing based on its General Fund priorities. This would provide counties with a more consistent level of funding for counties than under the Governor's proposal. It would also be simpler to administer than the proposed formula.

We note that there is probably not a "right" level of funding to provide contract counties for capital outlay. So, we offer a couple of different approaches the Legislature could consider. One approach would be to establish the Governor's proposed level of $3.3 million as the ongoing annual funding level. Alternatively, the ongoing funding level could be based on the average amount that would have been provided over the last decade—about $2.2 million. Additionally, the Legislature could consider mechanisms for adjusting the level of funding over time to account for factors such as inflation or changes in the share of SRA contract counties, such as if an additional county became a contract county. In the future, if better information were available about actual capital outlay costs associated SRA responsibilities, the Legislature could revisit the funding level provided.

BOND ADMINISTRATION

PROPOSITION 68

We believe the Governor's Proposition 68 proposals are reasonable, however the Legislature may want to provide more or less funding for particular bond categories to expedite or increase the effectiveness of program implementation. We recommend the Legislature adopt a Proposition 68 package that reflects its priorities. To inform these decisions, we recommend using the spring budget subcommittee process to solicit feedback from stakeholders and implementing departments on information such as current program demand and available funding from other sources.

Background

Proposition 68 Provides $4.1 Billion in General Obligation Bonds. In June 2018, voters passed Proposition 68, authorizing the state to sell a total of $4.1 billion in general obligation bonds for natural resources-related purposes, including parks, habitat restoration, and water projects. (The Legislature placed this bond on the ballot through Chapter 852 of 2018 [SB 5, de León].) This total includes $4 billion in new bonds and a redirection of $100 million in unsold bonds that voters had previously approved for natural resources activities. The bond also includes several provisions designed to assist "disadvantaged communities" (with median incomes less than 80 percent of the statewide average) and "severely disadvantaged communities" (with median incomes less than 60 percent of the statewide average). For example, it requires that for each use specified in the bond, at least 15 percent of the funds be spent to assist severely disadvantaged communities.

State in Initial Year of Implementing Proposition 68. As shown in Figure 19 (see next page), Proposition 68 provides funding for multiple types of activities. (Because the bond has over 75 discrete categories for how funds must be used, the figure provides a consolidated summary.) The bond measure includes a number of requirements designed to control how these funds are administered and overseen by state agencies. For example, most of these funds must be used for local assistance—typically allocated through a competitive grant process to local governments, nonprofits, and other organizations to implement projects. Bond funds will be distributed across 20 state departments (including ten state conservancies). As shown in the figure, the 2018-19 budget included $1.3 billion from Proposition 68, leaving $2.8 billion available for future appropriation.

Governor's Proposals

Appropriates $1 Billion From Proposition 68. Figure 19 also displays the Governor's various Proposition 68 proposals for 2019-20. As shown, these proposals total about $1 billion across multiple departments and programs, representing just over one-third of the total bond funding still available for appropriation. Major proposals include:

- ***Safe Drinking Water Projects ($170 Million).*** Funding for an established SWRCB program that allocates grants and loans to local agencies for projects to improve water quality and access to safe drinking water. This program has previously been funded by Proposition 1 (2014 water bond). The focus of these funds would be to support the construction of drinking water projects in disadvantaged communities.

- ***Flood Protection Projects ($136 Million).*** Funding for DWR to increase flood protection through four programs. This includes the Systemwide Flood Improvement Program ($73 million), which would fund portions of eight projects in the Central Valley (including five in the Yolo Bypass) that are intended to

Figure 19

Proposition 68 Overview

(In Millions)

Program	Implementing Department	Bond Allocation	2018-19 Budgeted	2019-20 Proposed
Natural Resources Conservation and Resiliency		**$1,497**	**$406**	**$310**
Restoration and conservation projects	Conservancies	$345	$100	$48
Restoration and conservation projects	WCB	265	70	127
Voluntary agreements	CNRA	200	—	70
Salton Sea management	CNRA	200	30	—
Habitat restoration and protection	DFW	95	24	3
Los Angeles River watershed	RMC/SMMC	75	17	14
Various specified projects	CNRA	71	68	<1
Deferred maintenance	DFW	50	—	10
Restoration and conservation projects	CCC	40	10	12
Healthy coastal and marine ecosystems	OPC	35	10	<1
Watershed Improvement Program	SNC	25	23	<1
Forest management and urban forestry	CalFire	25	15	9
Projects that assist coastal communities	OPC	21	10	<1
Working lands and riparian corridors	DOC	20	2	15
Multibenefit green infrastructure	CNRA	20	19	<1
Healthy Soils	CDFA	10	9	<1
Parks and Recreation		**$1,323**	**$496**	**$105**
Improve and expand local parks	Parks	$1,035	$463	$54
Improve and expand state parks	Parks	170	19	16
Lower cost coastal accommodations	SCC/Parks	60	—	—
Trails, greenways, and river parkways	CNRA	40	10	28
Deferred maintenance at fairgrounds	CDFA	18	4	7
Water		**$1,280**	**$357**	**$578**
Flood protection and repair	DWR	$460	$99	$136
Sustainable groundwater management	DWR	240	62	112
Safe drinking water	SWRCB	220	36	170
Sustainable groundwater management	SWRCB	160	142	-8[a]
Multibenefit stormwater	CNRA	100	<1	93
Water recycling	SWRCB	80	—	74
Water efficiency and enhancement	CDFA	20	18	1
Totals[b]		**$4,100**	**$1,260**	**$995**

[a] Governor proposes to revert some funding from the current-year appropriation.
[b] Includes funding for bond administration.

WCB = Wildlife Conservation Board; CNRA = California Natural Resources Agency; DFW = Department of Fish and Wildlife; RMC = San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy; SMMC = Santa Monica Mountains Conservancy; CCC = California Conservation Corps; OPC = Ocean Protection Council; SNC = Sierra Nevada Conservancy; CalFire = California Department of Forestry and Fire Protection; DOC = Department of Conservation; CDFA = California Department of Food and Agriculture; SCC = State Coastal Conservancy; Parks = Department of Parks and Recreation; DWR = Department of Water Resources; and SWRCB = State Water Resources Control Board.

provide both flood control and ecosystem benefits. (The budget also proposes $19 million from Proposition 1 to supplement Proposition 68 funds for these projects.) The Stormwater, Mudslide, Flash-Flood Protection Program ($30 million) would undertake projects and allocate grants to protect people and property in California's alluvial fan, coastal, and riverine floodplains. The Urban Flood Risk Reduction Program ($25 million) would fund portions of five projects intended to provide both flood control and ecosystem benefits in urban areas in the Central Valley for which the state has special flood management responsibilities and liabilities.

- ***Sustainable Groundwater Management Act (SGMA) Implementation ($112 Million).*** Funding for DWR to allocate competitive grants to local Groundwater Sustainability Agencies for projects that implement their Groundwater Sustainability Plans ($88 million). Current- and prior-year budgets have funded SGMA planning grants from Propositions 1 and 68, but this would be the first appropriation for implementation grants. Would also fund various state-level activities for DWR to assist in SGMA implementation, including providing technical assistance as well as collecting and disseminating data ($24 million).
- ***Multibenefit Stormwater Projects ($93 Million).*** Funding for CNRA to initiate a new program that allocates competitive grants for multibenefit projects to address flooding in urbanized areas. Pursuant to the bond, eligible projects might include stormwater capture and reuse, planning and implementation of low-impact development, restoration of urban streams and watersheds, and increasing permeable surfaces to help reduce flooding.
- ***Water Recycling Projects ($74 Million).*** Funding for an established SWRCB program that allocates grants to local agencies for the planning, design, and construction of water recycling projects that offset or augment fresh water supplies. This program has previously been funded by Proposition 1.
- ***Implementation of Voluntary Agreements ($70 Million).*** Funding for CNRA to implement projects developed through voluntary agreements among federal and state agencies, local governments, water districts and agencies, and nongovernmental organizations. Pursuant to the bond, the funds must be used for projects that facilitate implementation of SWRCB's Bay-Delta Water Quality Control Plan, improve ecological flows and habitat for species, and create water supply and regulatory certainty for water users.

Establishes 15.5 New Positions to Implement Programs. The Governor's proposal also includes establishing 15.5 new positions to implement Proposition 68-funded programs and activities. (These would add to the 80.5 positions established as part of the 2018-19 budget.) These consist of nine new positions for DWR to implement SGMA. The other positions are to administer Proposition 68 grant programs: three positions for the Department of Food and Agriculture, four positions for the Tahoe Conservancy, one position for the San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy, and a half position for the Coastal Conservancy.

Certain Activities Not Proposed to Be Funded in 2019-20. The Governor's proposal would fund nearly every category of Proposition 68 in either 2018-19 and/or 2019-20. However, a few exceptions exist. Under the Governor's proposal, seven specific bond categories would not receive funding in either year. The administration provides two reasons for this approach. First, some programs have funding remaining from earlier bonds. These include (1) two Coastal Conservancy-administered programs (Proposition 68 provides $63.8 million for coastal restoration and $16 million for the Santa Ana River Conservancy program), (2) $30 million for the Salton Sea Authority to conduct air quality and habitat projects at the Salton Sea (out of $200 million total in Proposition 68 for CNRA to conduct Salton Sea activities), and (3) San Joaquin River Conservancy projects (Proposition 68 provides $6 million). The administration plans to propose Proposition 68 funds for these efforts in future years after previously approved bond resources are depleted. Second, some bond categories are not yet ready to expend funds because departments need to undertake additional work to prepare for effective implementation. These include a new program to develop lower-cost overnight accommodations along the coast, for which Proposition 68 provides $30 million each for Parks and the Coastal Conservancy. (This would help implement a program established through Chapter 838 of 2017 [AB 250, Gonzalez Fletcher].) The administration states that it wants to use an assessment of existing low-cost coastal accommodations to help guide the rollout of this program, and that report was not completed before the Governor's budget was prepared. (The Coastal Conservancy published a draft copy of this assessment in November 2017.) The final funding category for which the administration is still determining how best to use Proposition 68 funds before requesting appropriations is $4.8 million for the Coastal Conservancy to fund a conservation program at West Coyote Hills.

LAO Assessment

Governor's Proposals Appear Consistent With Legislative and Voter Intent. We find the Governor's Proposition 68 proposals to be reasonable. The Legislature and voters structured the bond around specific priorities. In proposing to begin implementing most bond categories in the current and budget years, the administration is taking steps to address those identified issues. In leaving almost one-half of total funding for future appropriations, the Governor helps ensure some funding is reserved to meet needs that may emerge in future years. We also find merit in the Governor's plan to delay appropriating Proposition 68 funds for certain programs, either because they are still in the process of utilizing funds from previous bonds, or because they are not yet ready to expend the funds effectively.

Lack of Detail Makes it Difficult to Assess Specific Proposals. While we did not identify any concerns with the overall structure of the Governor's Proposition 68 proposals, our review was somewhat hindered by a lack of information for certain proposals. As described later in this report, the administration presented its Proposition 68 proposals in a consolidated form without the level of budget detail typically provided to the Legislature and public. This is particularly problematic for programs that are essentially being initiated for the first time in 2019-20. In contrast, the administration provided more detailed information as part of the 2018-19 budget process for programs proposed to receive significant new funding from Proposition 68. (Additionally, certain programs—like SWRCB's Safe Drinking Water Program—were first established through prior bonds and the Legislature reviewed relevant implementation details in prior years.) Activities that will receive significant Proposition 68 funding for the first time in 2019-20 and represent substantively new state efforts include funding for (1) CNRA to allocate grants for multibenefit stormwater projects ($93 million); (2) DWR to allocate grants to local groundwater agencies to implement sustainable Groundwater Management Plans ($88 million); (3) CNRA to implement voluntary agreements ($70 million); (4) Parks to allocate grants to local agencies for generating revenues ($37 million); and (5) DWR to initiate new efforts to protect people and property in California's alluvial fan, coastal, and riverine floodplains ($30 million). While the Governor's proposals are consistent with bond language directing funding to these broad categories of activities, assessing the merits and efficacy of the administration's specific plans for *how* it will implement these new efforts is difficult without additional information. The administration has been forthcoming in providing detail on these proposals to us upon request, however such information has not been made available to the broader public. We discuss this in greater detail in the "Budget Transparency" section of this report.

Legislature May Want to Modify Timing of Bond Appropriations. Although the Governor's Proposition 68 proposals generally are reasonable and consistent with the bond language the Legislature adopted, they do not represent the only approach to appropriating funding. The Legislature could opt to provide more or less funding for particular bond categories based on its priorities and feedback from stakeholders and implementing departments. The Legislature could use budget subcommittee hearings this spring to solicit such information. For example, the 2018-19 budget provided $277 million for competitive grants to create and expand parks in park-poor neighborhoods, but the Governor proposes only $2 million for this program in 2019-20—leaving nearly $450 million in this category for future appropriations. If the Legislature discovers that there is unmet demand for these funds in communities that are ready to submit applications in the budget year and begin spending grants right away, it might want to increase the appropriation for this funding category beyond the Governor's proposed amount. In contrast, if the Legislature learns that certain other programs have large amounts of uncommitted funding from prior bonds, it could choose to delay providing Proposition 68 funds for those categories for a few more years.

LAO Recommendation

Adopt Proposition 68 Package That Reflects Legislative Priorities. We recommend the Legislature adopt a Proposition 68 package that reflects its priorities. We believe adopting the Governor's proposals would be a reasonable approach, however the Legislature may want to provide more or less funding for particular bond categories to expedite or increase the effectiveness of program implementation. To inform these decisions, we recommend using the spring budget subcommittee process to solicit feedback from stakeholders and implementing departments on information such as current program demand and available funding from other sources.

BUDGET TRANSPARENCY

SEVERAL PROPOSALS LACK TYPICAL SUPPORT INFORMATION

The Governor's administration presented a number of its 2019-20 resources and environmental protection budget proposals using an approach that lacks public transparency, detailed explanation, and sufficient workload justification. We recommend (1) legislative staff and members request additional information about any of the proposals for which they believe additional detail and rationale is needed, and (2) the Legislature direct the administration to revert to the long-standing practice of providing detailed justification documents for budget proposals that involve new, expanded, or extended activities and/or positions. This will better enable the Legislature to exercise its oversight role over how state funds are used and ensure that funds are spent effectively and for well-justified purposes.

Background

Budget Development Process Includes Documents to Justify Proposals. Pursuant to the State Constitution, each January the Governor's administration proposes a budget bill to the Legislature to serve as a starting place for budget negotiations. Along with the budget bill, the administration prepares and publishes a number of other documents to explain and justify its budget proposals. These include budget change proposal (BCP) documents, which provide detailed descriptions of proposed budget modifications for the coming fiscal year, as well as justification for why new activities should be funded or existing activities discontinued. If the administration is proposing that new state employee positions be established or funded, the BCP usually describes the new workload, the proposed position classifications, and the estimated amount of staff time that would be spent on each task needed to complete the workload. These documents typically also include an analysis of other alternatives that the administration considered and a rationale for why the proposed approach is preferable.

Legislative members and staff use these documents to help evaluate the merits of the administration's proposals, and they are publicly available to facilitate stakeholders' ability to track and engage in the budget process.

In Last Year's Budget Process, Administration Combined Multiple Technical Adjustments Into One BCP. As part of the 2018-19 budget development process, the administration used a somewhat new approach of combining multiple proposed budget changes for the natural resources policy area into one BCP—rather than providing separate BCPs. Specifically, for multiple departments under CNRA, a single BCP contained "requests for various technical reappropriations, reversions, reversions with associated new appropriations, and baseline appropriation adjustments to continue implementation of previously authorized programs."

Governor's Proposals

Governor's Budget Combines Numerous Proposals Into a Few Consolidated BCPs. For the 2019-20 budget, the administration has again taken the approach of consolidating multiple proposals into single BCPs. This year, however, the administration has expanded this practice to three distinct consolidated BCPs—one for departments under CNRA, one for departments under the California Environmental Protection Agency (CalEPA), and one for all 2019-20 proposals funded by Proposition 68 (the water and parks bond authorized by voters in June 2018). (While this report focuses on proposals related to the Natural Resources and Environmental Protection Agencies, the administration used a similar consolidated approach for other areas of the budget as well, including the Health and Human Services Agency and the Department of General Services.) According to DOF, this is to lessen administrative workload for departments for proposals they believe are repeat versions of similar activities the Legislature has already approved in prior years. Each individual proposal is presented as one line in a spreadsheet with the dollar amount, funding source, and sometimes a brief (one to two sentence) description of how the funding would be used. The proposals included in these consolidated BCPs are primarily for funding from various bonds, although certain General Fund and special fund proposals are also included. Specifically, these three consolidated BCPs include:

- ***CNRA.*** 72 proposals totaling $92 million and 0.5 new positions.
- ***CalEPA.*** 14 proposals totaling $29 million and 6 new positions.
- ***Proposition 68.*** 124 proposals totaling about $890 million and 96 positions (15.5 of which are proposed to be newly established and 80.5 of which were first established in 2018-19).

As we discuss below, the Governor's budget also includes certain other new funding proposals for which detailed BCPs were not prepared or provided.

LAO Assessment

Consolidated Budget Documents Include New Proposals, Not Just Technical Adjustments. The administration's consolidated BCPs for 2019-20 represent a significant expansion of the approach used in 2018-19. While some of the proposals contained in these 2019-20 BCPs are similarly technical in nature—such as reversions of minor funding amounts that had been appropriated in previous years for similar projects—the documents also include several proposals to fund new activities and provide significant levels of new funding. In our view, these types of proposals should not be considered technical, but rather represent fresh initiatives meriting a dedicated justification. Such proposals include (1) newly authorized and funded positions; (2) funding for new activities; and/or (3) extensions of funding, activities, and/or positions that the Legislature previously had authorized only on a limited-term basis. Some examples include:

- ***CARB: AB 617 Program Implementation.*** Proposes $4.2 million from the GGRF to (1) support 3 new human resources positions and (2) extend funding for 22 positions for three additional years that the Legislature previously authorized on two-year basis.

- ***CNRA: Voluntary Agreements.*** Proposes $70 million in Proposition 68 funds to implement voluntary agreements with local agencies or nongovernmental organizations for projects that facilitate implementation of SWRCB's Bay-Delta Water Quality Control Plan. This is an example of a program for which this is the first year that Proposition 68 funds are proposed.
- ***DWR: SGMA Implementation.*** Proposes $112 million from Proposition 68 for (1) implementation grants for local agencies, (2) technical assistance to local agencies, and (3) nine new positions to conduct state-level activities. This is the first year the department plans to allocate funding under the SGMA implementation grant program.
- ***Parks: Revenue Enhancement Activities.*** Proposes $37 million in Proposition 68 funds to provide grants to local agencies for revenue enhancement measures aimed at improving and enhancing local or regional park infrastructure. This is the first time the department has undertaken this program.
- ***DFW: Trout Hatchery Improvements.*** Proposes a one-time increase of $2.5 million from the Hatchery and Inland Fisheries Fund to replace aged fish transport vehicles and tanks, purchase additional fish food to increase trout production, and for efforts to enhance public outreach and visitation.
- ***Tahoe Regional Planning Agency (TRPA): Employee Salaries and Benefit Increases.*** Proposes $411,000 ongoing from the Environmental License Plate Fund to provide merit salary increases and retirement benefits to TRPA employees.

Lack of Typical Justification Inhibits Legislature's Ability to Evaluate Proposals. As noted above, typically these types of new proposals would be presented in standalone BCPs with detailed descriptions of program activities to be undertaken and explanations for why the administration believes the level of funding and positions requested are needed. The Legislature uses this information to determine whether the Governor's proposals are worthy of adoption, modification, or rejection. In addition, information provided in BCPs also can be the basis for the Legislature to conduct oversight of department programs to ensure that currently funded activities are performing effectively before providing additional resources. For example, if the administration provided individual BCPs for the following proposals that were instead presented in the consolidated BCPs, the Legislature would be able to answer certain types of questions, such as:

- ***CARB: AB 617 Program Implementation.*** The Legislature allocated $12 million in 2017-18 to CARB to implement AB 617, including ongoing funding for 50 positions and two years of funding for 22 positions. What work are the positions that were funded on a limited-term basis currently performing and how might their workload change over the next three years? Why do the 22 limited-term positions need to be extended for an additional three years? What specific tasks will the three new positions perform? How will CARB's AB 617 activities differ from work being done by local air districts to implement AB 617?
- ***CNRA: Voluntary Agreements.*** How specifically will the proposed funds be spent? Are there specific projects already identified? How will projects be prioritized and selected for funding? Why is this amount being proposed for 2019-20 rather than a larger or smaller amount (out of the $200 million total available from Proposition 68 for these activities)? How much funding is still available to execute these agreements from previous appropriations from earlier bonds?
- ***DWR: SGMA Implementation.*** The state provided six new positions for this program in 2018-19. Why has staff workload increased? Why are additional positions needed? What activities will they undertake? What is the justification for nine new positions being proposed as opposed to some other amount? What is the status of the SGMA planning grants that were funded in the current and prior years? What is the demand for implementation grants from local agencies

and what is the justification for why this additional funding is needed now (as opposed to in future years)? How many local grants will the proposed level of funding for 2019-20 support? What prioritization criteria will be used for allocating grants across applicants?

- ***Parks: Revenue Enhancement Activities.*** What is the structure of this new program? How will grantees be identified and how much funding will each grantee receive? What types of reporting requirements must grantees meet? How will the department evaluate the effectiveness of local agencies' revenue generation proposals?
- ***DFW: Trout Hatchery Improvements.*** How specifically will the proposed funds be spent? How much will be spent for each proposed activity and at which facilities? What are current trout production levels and how might those increase by purchasing additional food? What types of public outreach and visitation enhancement activities will be undertaken and why is it appropriate to fund these on a one-time basis when this seems like an ongoing need?
- ***TRPA: Employee Salaries and Benefit Increases.*** What is the origin of and rationale for these proposed salary and benefit increases? What is TRPA's base budget and why is it unable to accommodate these employee increases with existing funding? Why are state funds an appropriate source for these increases when TRPA staff are not considered employees of the state?

Absent the information to answer these types of questions, the Legislature is left with little basis for determining whether the proposals are reasonable or appropriate. This impedes the Legislature's ability to exercise its oversight role over how state funds are used, or to ensure that funds are spent effectively and for well-justified purposes.

Lack of BCPs Also Increases Difficulty of Holding Administration Accountable. The absence of public documentation for exactly how the administration proposes to expend funding will also make it difficult in future years for stakeholders and the Legislature to hold departments accountable for meeting these expectations. Assuming the Legislature approves a BCP as proposed, a public record of *intended* spending facilitates the Legislature's ability to monitor whether such commitments ultimately are completed. This is because a BCP provides something for the Legislature to compare against *actual* expenditures to identify instances where funds may have been spent for unauthorized purposes. Absent this documentation, legislators, staff, and stakeholders may struggle in future years to understand what expectations were set when the budget was approved.

Certain Other Proposals Also Lack BCPs and Adequate Detail. Our review of the Governor's budget revealed a couple additional examples of new proposals for which detailed BCPs and justification was not provided, apart from those contained within the three aforementioned consolidated BCPs. These include:

- ***Coastal Commission Increased Lease Costs.*** The budget proposal includes $1.3 million in new ongoing General Fund for higher rent costs in the new office location to which the Coastal Commission is moving in the budget year. This would be in addition to the $1.4 million ongoing that the Legislature approved in 2018-19 for such costs. The administration, however, did not submit a formal proposal or justification for why additional funds are needed and what alternatives were considered. Rather, the new funds were simply built into the department's base budget.
- ***San Francisco Bay Conservation and Development Commission (BCDC) Regional Climate Change Adaptation Planning.*** As discussed earlier in this report, the budget proposes $1.8 million in GGRF and to establish four new positions for BCDC to support regional sea-level rise planning efforts in the San Francisco Bay Area. This is an increase of $1.3 million compared to prior one-time appropriations and includes new and expanded activities, but the GGRF BCP did not include any justification for or detail as to what those activities would be or what

workload the proposed new positions would undertake.

Administration Has Been Forthcoming With Additional Detail Upon Request. To its credit, when we raised concerns about the lack of detail provided with budget documents and requested additional information, the administration has been very responsive. In most cases, departments have been able to provide us with descriptions of and justifications for their budget proposals in response to our individual requests. Based on those justifications, we find the proposals contained in these consolidated BCPs generally reasonable. Such information, however, has not been made publicly available (as BCP documents are), and therefore still is not broadly accessible to legislative members, legislative staff, or stakeholders. This makes it difficult for the public to understand and evaluate the Governor's budget proposals now, or in future years to hold the administration accountable for meeting intended expenditure plans.

LAO Recommendation

Ensure Administration Provides Sufficient Justification Prior to Approving New Budget Proposals for 2019-20. The Legislature must feel comfortable that the proposals contained in the consolidated BCPs and elsewhere in the budget are justified before approving them. Our office has requested certain information from the administration and will share it with legislative staff and others who may request it from us, but there might be individual issues for which members require additional information. To that end, we recommend legislative staff and members request additional information about any of the proposals for which they believe additional detail and rationale are needed. This should not be difficult or time-consuming for the administration, as presumably the individual departments had to prepare similar justification for DOF before their requests were included in the Governor's budget.

Direct Administration to Provide BCPs When Proposing New or Extended Positions and Activities in the Future. We recommend the Legislature direct the administration to revert to the long-standing practice of providing standalone BCPs specifically for proposals that include (1) new positions; (2) funding for new activities; and/or (3) extensions of funding, activities, and/or positions that the Legislature previously had authorized only on a limited-term basis. This will better enable the Legislature to exercise its oversight role over how state funds are used and ensure that funds are spent effectively and for well-justified purposes. We note, however, that the consolidated BCP approach makes sense for proposals that are truly technical in nature, such as reversions and reappropriations for similar purposes.

SUMMARY OF RECOMMENDATIONS

Issue	Governor's Proposal	LAO Recommendation
Wildfire Prevention and Response		
Implementation of 2018 legislative package	$235 million (mostly from the Greenhouse Gas Reduction Fund [GGRF]) for several departments to implement the major components of a package of 2018 legislation designed to improve forest health and reduce wildfire risks.	Adopt the Governor's proposals. Ensure administration is implementing proposals consistent with legislative intent. Conduct ongoing oversight to monitor the state's progress at addressing wildfire risks.
Expansion of fire response capacity	$96.9 million (mostly General Fund)—growing to $120 million in out-years—for CalFire to implement several proposals to increase the state's capacity to respond to wildfires. Includes additional fire engines and crews, operating costs for newly acquired air tankers, and new fire detection and response equipment.	Adopt most of the Governor's proposals, but ensure that amount requested for new air tankers is reasonable. Require assessment of statewide wildfire response capacity and needs to better inform future budget decisions.
Climate Change		
Cap-and-Trade: revenue and fund condition	Assumes cap-and-trade revenue of $2.6 billion in 2018-19 and $2.1 billion in 2019-20, proposes to spend a total of $2.4 billion in 2019-20, and leaves less than $100 million GGRF balance at the end of 2019-20.	Estimate revenue will be roughly $800 million higher over the two-year period and, as a result, about $450 million would remain unspent at the end of 2019-20. Under our assumptions, Legislature could spend somewhat higher amount and still maintain healthy fund balance. Recommend the Legislature ensure multiyear discretionary spending commitments do not exceed $900 million annually.
Cap-and-Trade: expenditures	$2.4 billion expenditure plan, including over $1 billion in discretionary spending.	Direct the administration to report at budget hearings on (1) expected outcomes that will be achieved with the proposed funding, (2) programmatic adjustments to existing programs that might be needed in order to stay within their proposed allocations, and (3) additional information on the proposal to expand workforce apprenticeship programs and establish new worker transition pilot.
Coastal adaptation	$1.8 million to San Francisco Bay Conservation and Development Commission and $1.5 million to the California Coastal Commission in ongoing GGRF funding for local sea-level rise adaptation efforts.	Adopt Governor's proposals and continue working to identify how the state can help local communities adapt to the impacts of rising seas.
Water		
Safe and affordable drinking water	$24.9 million in one-time General Fund support to establish the Safe and Affordable Drinking Water Program including (1) $3.4 million for State Water Resources Control Board (SWRCB) and $1.4 million for the California Department of Food and Agriculture to administer the new program and (2) $20 million for grants.	Consider various issues including (1) consistency with the human right to water policy, (2) uncertainty about the estimated revenues that would be generated and the amount of funding needed to address the problem, (3) comparing the beneficiaries of the program with those who would pay the new charges, and (4) trade-offs associated with the proposal's safe harbor provisions.
Water conservation	$5.1 million for Department of Water Resources and $2.7 million for SWRCB from the General Fund in 2019-20, and over $2 million ongoing in future years, to implement recent water conservation legislation.	Adopt Governor's proposals and conduct ongoing oversight to ensure deadlines are being met and overall efficiency and drought resilience outcomes are being attained.

(Continued)

Issue	Governor's Proposal	LAO Recommendation
Environmental Quality		
AB 617 implementation	$276 million to continue AB 617 implementation, including incentives for emission reductions, local air district implementation costs, California Air Resources Board (CARB) implementation costs, and community technical assistance grants.	Reject component of proposal to extend $3.8 million for CARB administrative costs. Direct the administration to develop a long-term funding plan for first year AB 617 communities, and direct CARB to report at budget hearings on its plan to expand the program to additional communities.
Exide cleanup efforts continue	$74.5 million in one-time General Fund loans to fund the cleanup of residential properties contaminated by airborne lead from the Exide lead-acid battery recycling facility.	Require the Department of Toxic Substances Control (DTSC) to report at budget hearings on the time frame for completing the residential cleanup, the total estimated cost of the cleanup, and when Exide will begin to repay the state for the costs of cleanup
DTSC special fund conditions	According to DTSC, the Toxic Substances Control Account (TSCA) and the Hazardous Waste Control Account (HWCA) have faced structural imbalances in recent years.	Await DTSC and the Department of Finance reconciliation of the TSCA and HWCA accounts for fiscal years 2015-16 through 2017-18. Once available, we will analyze their condition and report our findings to the Legislature.
Resources Capital Outlay		
Deferred maintenance	$67 million from the General Fund and Proposition 68 bond funds to implement deferred maintenance projects at six natural resources departments.	Require departments to identify the projects they intend to implement to ensure they will focus on high-priority activities. Adopt reporting requirements to enable legislative oversight of how departments maintain their facilities on an ongoing basis and what projects are actually implemented with this funding.
CalFire funding for contract counties	$3.3 million from the General Fund to reinstate capital outlay funding formula for contract counties on an ongoing basis.	Designate an ongoing amount of funding—rather than relying on the proposed formula—to provide a more consistent funding level for counties and be simpler to administer.
Bond Administration		
Proposition 68	$1 billion from Proposition 68 across multiple departments for various projects and programs.	Solicit feedback from stakeholders during spring budget process and adopt a spending package that reflects legislative priorities.
Budget Transparency		
Several proposals lack typical support information	Multiple new budget proposals presented using an approach that lacks public transparency, detailed explanation, and sufficient workload justification.	Request additional information about proposals for which additional detail and rationale are needed, and direct the administration to provide detailed justification documents for future budget proposals that involve new, expanded, or extended activities and/or positions.

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LAO PUBLICATIONS

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