

FEBRUARY 5, 2021

# The 2021-22 Budget: Wildfire Resilience Package

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LEGISLATIVE ANALYST'S OFFICE

# Overview of This Analysis

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***Governor’s Budget Includes \$1 Billion Wildfire Resilience Package.***

The Governor proposes budget augmentations in 2020-21 and 2021-22 across multiple departments for more than 20 different programs intended to reduce the risk of severe and damaging wildfires.

***This Analysis Provides Our Initial Comments.*** Given the scale and complexity of the package, this analysis is designed to provide the Legislature with a clearer understanding of what is contained in the Governor’s package, as well as our initial thoughts to help guide legislative deliberations. The analysis is organized into three main sections. The key takeaways from each section are as follows:

- ***Background.*** Some of the largest and most severe wildfires in California’s recorded history have occurred in recent decades. Wildfires such as these have a number of negative impacts on communities, the environment, public health, the economy, and state and local budgets.
- ***Summary of Proposed Wildfire Resilience Package.*** The Governor’s proposed funding package includes a total of \$1 billion for a wide array of forest health, hazardous fuel reduction, workforce and market development, research, and community hardening programs. The package would be funded from a combination of General Fund and Greenhouse Gas Reduction Fund (GGRF) revenues. The General Fund would be provided on a one-time basis, whereas the Governor proposes to commit GGRF funding for these purposes for several years. About one-third of the funding is proposed as “early action” in 2020-21.



## Overview of This Analysis

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- ***Overarching Issues for Legislative Consideration.*** We offer our initial comments to inform the Legislature’s review. Specifically, we find the following:
  - Focus on wildfire prevention and mitigation has merit.
  - Myriad of wildfire-related risks warrants consideration of multiple strategies.
  - One-time General Fund spending does not address ongoing nature of problem.
  - Early action is more justified for some programs than others.
  - Limited evidence available on effectiveness of many programs.
  - Legislature could fund programs in different amounts based on its priorities.
  - Legislature could explore additional options to strengthen the state’s approach to wildfire prevention and mitigation.
  - Legislature could consider adding accountability measures where they do not already exist.

***Initial Comments on Individual Programs Provided in Separate Document.*** We have compiled more detailed information on each of the individual programs proposed for funding in the package in a separate publication. For each program, we include information on its current and proposed funding, implementation plan, and expected outcomes, as well offer comments specific to each proposal.



# Background



## Background

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**Severe Wildfires Have Myriad Impacts.** Since 2000, California has experienced many of the largest and most destructive wildfires in the state’s recorded history (displayed on the previous page). This pattern of increased wildfire risk is believed to be caused by multiple factors, including historical forest management practices, increased development in the wildlands, and climate change. Large, uncontrolled wildfires—particularly when near communities—can have a myriad of negative impacts.

- **Public Safety.** Wildfires can threaten the safety of local residents—and the fire fighters trying to protect them—particularly when the fires are intense and fast moving because of high winds and fuel loads in the forests. Some of the state’s deadliest fires have happened in recent years, including the Camp Fire near Paradise, which killed 85 people in 2018.
- **Public Health.** Wildfires can directly and indirectly affect public health. For example, a recent [study](#) estimated that wildfires account for up to 25 percent of small particulate matter air pollution in the U.S. in recent years, and even more in some western regions. This type of air pollution has been linked to a variety of health problems, including premature death in people with heart or lung disease, heart attacks, and respiratory problems. Children and older adults are among those most vulnerable to these effects.
- **Natural Resources.** Historically, wildfires have been a natural part of many ecosystems in California, important for clearing underbrush and contributing to regrowth of native plant species. However, many of the most intense wildfires experienced in recent decades have been so severe as to devastate natural habitats. Severe wildfires can also damage parks and other state-owned lands, as well as threaten water supply and quality because burned and denuded hillsides are prone to discharging large amounts of sediment into streams, rivers, and reservoirs during storms.



## Background

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- **Economic Costs.** When severe wildfires occur in and near populated areas, there can be significant economic costs due to property damage and disruption of economic activity. For example, wildfires damaged or destroyed over 10,000 structures in three of the past four years, resulting in insured property losses of over \$10 billion in each year. In addition, some efforts to prevent or mitigate the effects of wildfires can be costly. For example, utilities sometimes cut power during high wind events to reduce the likelihood of igniting a wildfire—referred to as a public safety power shutoff—which can disrupt economic activity in the affected region, sometimes for days.
- **Fiscal Costs.** Federal, state, and local governments incur significant costs for wildfire response and recovery. For example, the Governor’s budget estimates total additional state spending of over \$3 billion in 2020-21—including a net General Fund increase of \$1.3 billion after accounting for federal reimbursements—for response and recovery activities related to the 2020 wildfires. These costs reduce the amount of state funds available to meet other budgetary priorities.



# Summary of Proposed Wildfire Resilience Package

<i>(In Millions)</i>					
Program	Department	Amount Proposed			Fund Source
		2020-21	2021-22	Total	
<b>Resilient Forests and Landscapes</b>		<b>\$139</b>	<b>\$373</b>	<b>\$512</b>	
Forest Health Program	CalFire	70	100	170	GF/GGRF
Stewardship of state-owned lands	Parks	10	75	85	GF
Project implementation in high-risk regions	SNC	20	50	70	GF
Forest Improvement Program	CalFire	10	40	50	GF/GGRF
Stewardship of state-owned lands	CDFW	9	36	45	GF
Urban forestry	CalFire	10	13	23	GF
Tribal engagement	CalFire	1	19	20	GF
Forest Legacy Program	CalFire	6	8	14	GF
Stewardship of state-owned lands	SLC	—	12	12	GF
Project implementation in high-risk regions	TC	1	11	12	GF
Restoration nursery	CalFire	2	9	11	GF
<b>Wildfire Fuel Breaks</b>		<b>\$100</b>	<b>\$235</b>	<b>\$335</b>	
Fire prevention grants	CalFire	50	80	130	GGRF
Regional Forest and Fire Capacity	DOC	25	60	85	GF
Fire prevention projects	CalFire	10	40	50	GF
Prescribed fire and hand crews	CalFire	15	35	50	GF/GGRF
Forestry Corps projects	CCC	—	20	20	GF/GGRF
<b>Forest Sector Economic Stimulus</b>		<b>\$56</b>	<b>\$20</b>	<b>\$76</b>	
Climate Catalyst Fund	IBank	47	2	49	GF
Workforce training and business development	CalFire	6	18	24	GF
Market development	OPR	3	—	3	GF
<b>Science-Based Management</b>		<b>\$3</b>	<b>\$36</b>	<b>\$39</b>	
Ecological monitoring, research, and management	CalFire	3	17	20	GF
Remote sensing	CNRA	—	15	15	GF
Prescribed fire permit efficiencies	CARB	—	2	2	GF
Permit efficiencies	SWRCB	—	2	2	GF
<b>Community Hardening</b>		<b>\$25</b>	<b>\$13</b>	<b>\$38</b>	
Home hardening	CalOES, CalFire	25	—	25	GF
Land use planning and education	CalFire, UC	—	7	7	GF
Defensible space inspectors	CalFire	—	6	6	GF
<b>Totals</b>		<b>\$323</b>	<b>\$677</b>	<b>\$1,000</b>	
<b>By Fund Source</b>					
General Fund (GF)		\$198	\$477	\$675	
Greenhouse Gas Reduction Fund (GGRF)		125	200	325	

CalFire = California Department of Forestry and Fire Protection; Parks = Department of Parks and Recreation; SNC = Sierra Nevada Conservancy; CDFW = California Department of Fish and Wildlife; SLC = State Lands Commission; TC = Tahoe Conservancy; DOC = Department of Conservation; CCC = California Coastal Commission; IBank = California Infrastructure and Economic Development Bank; OPR = Office of Planning and Research; CNRA = California Natural Resources Agency; CARB = California Air Resources Board; SWRCB = State Water Resources Control Board; CalOES = California Office of Emergency Services; and UC = University of California.



# Summary of Proposed Wildfire Resilience Package

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- **Provides \$1 Billion Over Current and Budget Years.** The administration proposes \$323 million in early action funding in 2020-21 and \$677 million in 2021-22. This funding would support roughly two dozen different programs managed by 15 departments.
- **Includes Mix of General Fund and GGRF.** Of the total, \$675 million would be from the General Fund and \$325 million from GGRF. The amounts from GGRF are intended to bring total GGRF spending on forest health and prescribed fire activities to \$200 million annually, consistent with requirements in Chapter 626 of 2018 (SB 901, Dodd). (The 2020-21 Budget Act provided less than the statutory direction because of uncertainty about the amount of GGRF revenues at the time the budget act was adopted.)
- **General Fund Would Be One Time, but GGRF Ongoing.** All General Fund proposals are requested on a one-time basis, though in many cases departments anticipate expending the funds over multiple years. In addition, the Governor proposes to extend the \$200 million GGRF commitment for forest health and prescribed fires for an additional five years beyond the current 2023-24 sunset.
- **Largest Share of Funds for Forest Resilience and Fuel Breaks.** Over half of the funds—\$512 million—would support programs designed to promote healthy forests and landscapes, generally by removing hazardous fuels. Another one-third of the funds—\$335 million—would support installation and maintenance of wildfire fuel breaks. The remaining funds—totaling \$153 million—are proposed for projects to encourage forest sector economic stimulus, science-based forest management, and community hardening.
- **Most Funding Targeted to Existing Programs.** Only a few of the programs proposed for funding are new, including tribal engagement, the Climate Catalyst Fund, and home hardening.





# Overarching Issues for Legislative Consideration

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In this section of the analysis, we offer our initial comments to inform the Legislature's budget deliberations.

## **Focus on Wildfire Prevention and Mitigation Has Merit**

We find that increased budget support for programs that attempt to reduce the risks associated with wildfires is merited given the increasing pattern of severe wildfires in recent decades and the major consequences for communities, the environment, and the economy.

- ***Package Builds on Prioritization Established in SB 901.*** The Legislature established its intent to focus additional state resources on wildfire prevention and mitigation in SB 901. This package would restore GGRF funding for such programs in the current and budget years, as well as expand on these and other programs. By comparison, most budget augmentations related to forests and wildfires have been for wildfire response in recent years, rather than prevention or mitigation. For example, recent budgets have included one-time and ongoing funding to replace the California Department of Forestry and Fire Protection's helicopter fleet, expand the number of state fire engines, and increase the number of state fire fighters.

## **Myriad of Risks Warrants Consideration of Multiple Strategies**

The package includes a mix of programs designed to reduce future wildfire risks and damages, and many of these programs could be useful in addressing the varied contributors to wildfire risk. For example, forest health and fuel break programs could reduce the risk of rapid wildfire spread, community hardening could reduce the number of properties severely damaged when wildfires do occur, and research could help better target future funding decisions to the most effective strategies and/or where risks are determined to be greatest.



# Overarching Issues for Legislative Consideration

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## **One-Time General Fund Spending Does Not Address Ongoing Nature of Problem**

It is understandable that the administration is proposing that the General Fund augmentations be provided on a one-time basis given the projected out-year General Fund structural deficit. Moreover, much of the funding is intended to be spent over multiple years or have multiyear benefits. For example, some state agencies propose to use a portion of the proposed one-time funding to purchase equipment which can be used on fuels reduction work for many years. However, the one-time nature of these proposals presents some significant challenges. Accordingly, the Legislature may want to direct the administration to present at budget hearings on its longer-term plan to sustain the projects and activities proposed in the package.

- ***Addresses Only Small Share of Estimated Need.*** For example, while this package could result in substantial benefits by treating hundreds of thousands of additional acres of forestlands over the next few years, the state's [Forest Carbon Plan](#) estimates that 20 million acres of the state's forests would benefit from treatment. In addition, with millions of California homes in areas at risk of wildfires, it likely would cost billions of dollars to ensure that basic home hardening modifications were made on all of them.
- ***Many Funded Projects Could Require Ongoing Support to Be Effective.*** For example, even where effective forest treatment occurs, it is often necessary to do additional maintenance and retreatments in subsequent years to prevent too much vegetation regrowth, particularly of invasive species. Other programs areas—such as defensible space inspections and research—should be considered ongoing efforts.



# Overarching Issues for Legislative Consideration

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## Early Action More Justified for Some Programs

While there could be legitimate rationales for approving some funding early, in our view it is incumbent upon the administration to present clear justification for such action. Appropriating funds in the current year reduces the Legislature's time to deliberate the merits and trade-offs associated with each proposal, as well as reduces its ability to consider the proposed costs in the context of its broader state budget plan.

- **Reasons Early Action Might Be Justified.** If the Legislature decides to adopt a current-year GGRF expenditure plan, we find that it would be reasonable to include the funding proposed in the wildfire resilience package since it is consistent with existing statutory direction in SB 901, and only partial funding was provided in the enacted 2020-21 budget. Early action might also be reasonable if the administration can demonstrate that the added implementation time available to departments would ensure that certain high-priority projects could be in place in advance of an additional fire season (usually encompassing most of the summer and fall). The administration should provide detailed time lines to justify any such claims.
- **Reasons Early Action Might Be Less Warranted.** While timing likely is critical to the success of certain proposals, we do not believe early action necessarily is warranted solely to complete projects a few months earlier than would be the case if the funding were provided in the 2021-22 budget. In particular, early action would not be warranted if the administration has not yet provided sufficient detail to inform the Legislature about the program's implementation plan and expected outcomes. In addition, some might think that providing early funding would help stimulate the economy. However, as we discuss in our recent report, [A Framework for Evaluating State-Level Green Stimulus Proposals](#), state spending is limited in its ability to generate stimulus, in part because the amount of additional spending would be quite small relative to the overall state economy.



# Overarching Issues for Legislative Consideration

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## Limited Evidence Available on Effectiveness of Many Programs

Many of the activities proposed for funding in the package are widely considered good practices to reduce wildfire risks, particularly reduction of hazardous fuels, defensible space, and home hardening. However, the available research on the effectiveness of programs is somewhat limited in a couple of ways, making it difficult for the Legislature to know whether the proposed package represents the most effective way to allocate funds for wildfire prevention and mitigation.

- **Research Base Not Well Developed for Many Types of Programs.** Among other findings, a recent [report](#) from the California Council on Science and Technology found that activities such as vegetation management, defensible space, and home hardening can be effective wildfire mitigation measures. However, the costs and cost-effectiveness of these measures is not systematically tracked, making it unclear the degree to which they might reduce suppression and other costs, as well as making it difficult to compare costs and benefits across strategies.
- **Limited Outcome Data for Specific Programs in the Package.** Administering departments have been mixed in whether they have provided information on the specific outcomes they expect to achieve with the proposed funding, such as number of acres treated, cost per acre, or homes protected. The Legislature likely will want to direct the administration to provide such information where possible before deciding what level of funding to provide for each program.



# Overarching Issues for Legislative Consideration

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## Legislature Could Fund Programs in Different Amounts Based on Its Priorities

In addition to not consistently having clear evidence regarding the effectiveness of different mitigation and prevention activities, the state also lacks a comprehensive statewide strategy, such as what we recommended in our report, [The 2020-21 Budget: Governor's Wildfire-Related Proposals](#). (We note that the administration recently released the [Wildfire and Forest Resilience Action Plan](#), which includes a large number of prevention and mitigation goals for the coming years.) In combination, these two factors make it very difficult for the Legislature to determine whether this package represents the “best” mix of funding to address wildfire risks. The Legislature could consider a different total level of funding for prevention and mitigation, as well as a different mix among programs. Some different evaluation criteria the Legislature could use include the following:

- **Which Harms Would Be Mitigated.** For example, to the extent protecting homes and reducing economic costs are high priorities, the Legislature could consider dedicating more funding to community hardening.
- **Which Groups of Californians Are Most Impacted.** The Legislature might want to consider how wildfires affect different communities, how past funding has been directed, and the extent to which the proposed strategies could more equitably target new spending. For example, the Governor’s plan includes funding dedicated to forest health projects on tribal lands, and the home hardening program is intended to go to lower-income households that might otherwise be less able to implement these safety improvements on their own.
- **Whether it Protects State Assets and Responsibilities.** For example, some funding in the package is targeted to addressing risks on state-owned lands, such as state parks. The Legislature could also consider whether more funding should be spent in ways that better ensure protection of other state assets, such as highways and state buildings, or the watersheds that provides most of the water flows for the State Water Project.



# Overarching Issues for Legislative Consideration

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## Explore Additional Options to Strengthen Prevention and Mitigation

The Legislature may want to use budget hearings to consider other prevention and mitigation options. This could include hearing from stakeholders—including tribes, community and business groups, local governments, and researchers—about other program ideas, as well as discussion of other potential funding mechanisms.

- **Other Mitigation and Prevention Strategies.** While the strategies contained in the administration’s plan might represent a reasonable package of proposals, hearing directly from other stakeholders could illuminate other beneficial programmatic options. For example, local governments have significant responsibilities related to mitigation and prevention, including land use planning and development decisions, enforcement of local defensible space ordinances, and hazardous fuels management projects. In addition, there are activities the state has undertaken in the past that might be worthy of consideration again, such as the provision of air filtration systems to mitigate public health impacts and assistance to households and businesses to respond to public safety power shutoffs.
- **Other Potential Funding Sources.** Particularly if the Legislature is interested in exploring ongoing funding options to support some of these activities, it might want to consider funding sources that could be used in place of or in addition to the General Fund. For example, the state used to charge a fee on all properties in the State Responsibility Area to help fund certain mitigation and prevention activities. As another example, in our report, [Improving California’s Forest and Watershed Management](#), we recommended several steps to increase financial investment in forest management projects by water supply and hydropower agencies.



## Overarching Issues for Legislative Consideration

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### **Could Consider Adding Accountability Measures Where They Do Not Exist**

Given the importance of the programs involved and the level of spending proposed, future reporting on outcomes will be important for holding the administration accountable for delivering results, learning what's effective to improve future implementation, and informing possible future spending decisions. Moreover, the proposed appropriation of one-time funds that will be spent over multiple years reduces legislative oversight of programs compared to if that funding was appropriated on an annual basis. Therefore, the Legislature may want to consider requiring the administration to report on specific metrics and outcomes for each program that ultimately receives funding.

