
SENATE COMMITTEE ON NATURAL RESOURCES AND WATER

Senator Josh Becker, Chair

2025 - 2026 Regular

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Subject: Wildfire prevention: Office of Wildfire Technology Research and Development: wildfire mitigation program

SUMMARY

This bill would extend the authorization for both the Office of Wildfire Technology Research and Development and the California Wildfire Mitigation Financial Assistance Program for an additional two years, until January 1, 2031, and July 1, 2031, respectively.

BACKGROUND AND EXISTING LAW

Wildfire in California. Catastrophic and devastating wildfires have occurred repeatedly in the state in recent years. Thirteen of the 20 largest and 15 of the 20 most destructive wildland fires in state history have occurred since 2015. The 2020 August Complex Fire in northern California – the largest fire in California’s modern history – burned over one million acres, and the 2021 Dixie Fire was almost one million acres. Two wildland fires in recent years burned over the crest of the Sierras, which had not been previously observed. In the last several years, tens of thousands of structures – mostly homes – have been destroyed from wildland fire, insured losses incurred are in the billions of dollars, prime habitat has been destroyed or damaged, and, tragically, hundreds of lives have been lost. Last year, the Palisades and Eaton Fires in Los Angeles in January resulted in the loss of approximately 16,250 structures and 29 deaths.

While wildland fires have always been present in the state, the number of days with extreme fire risk has more than doubled in the last 40 years. This is likely to continue to increase. One of the impacts of climate change in the state is an increase in the frequency and intensity of wildfires. In forested regions, decades of fire suppression, historic logging practices, and drought have produced unhealthy forests; in some forests, the current tree density is up to an order of magnitude greater than the density a century ago. These conditions exacerbate the risk of an extreme wildfire developing when a fire occurs. Further, the proliferation of new homes in the wildland urban interface (WUI) magnify the threat and place substantially more people and property at risk than in preceding decades. More than 25 million acres of California wildlands are classified as under very high or extreme fire threat, extending that risk over one-quarter of the state.

Wildfire resilience strategies. Wildland fires in the state can be broadly separated into two different types: fuel-driven and wind-driven. In a fuel-driven fire, fire prevention efforts and fuels management, including prescribed fire, may be the most effective methods to reduce risk and promote healthier and more resilient forests. In a wind-driven fire, however, home and community-hardening, including maintaining a

defensible space buffer around a home are critical factors. Wildland fires may exhibit both wind-driven and fuel-driven behaviors.

Home hardening seeks to improve a home's chance of surviving a wildfire by retrofitting the home with ignition-resistant materials and preventing embers or flames from entering the house. Creating and maintaining defensible space seeks to slow or halt the progress of wildfire toward a building. It also can help to protect firefighters defending the area. Of note, there are multiple methods available to help reduce the risk wildland fire poses to communities across the state, and optimal resilience is achieved through coordinated implementation of those most suited for the particular location.

Office of Wildfire Technology Research and Development.

According to the Department of Forestry and Fire Protection (CAL FIRE) website, the Office of Wildfire Technology Research and Development (OWTRD) serves as the central organizing hub for the state government's identification of emerging wildfire technologies. OWTRD's goal is to drive meaningful advancements and tap innovation from the public and private sectors. Subject to review by the Wildfire Technology Research and Development Review Advisory Board (Advisory Board), OWTRD is focused on driving innovation and in constant search of the best and most effective technologies available in the ongoing battle against wildfire.

According to OWTRD's website, areas of focus include artificial intelligence (AI), last mile connectivity, and the Internet of Things (IoT). AI improves wildfire suppression by detecting fires early, predicting their occurrence, guiding firefighting efforts, and aiding in post-fire analysis and restoration. Last mile connectivity is crucial for effective wildland firefighting and enables real-time data collection and analysis, allowing first responders to communicate and coordinate their efforts. IoT technologies can play a critical role in wildland firefighting by improving situational awareness, enhancing firefighter safety, and optimizing resource management.

Interested parties with emerging technology that they feel may produce meaningful advancement in the prevention and suppression of wildfire may complete and submit a form online.

Existing law requires the Advisory Board to provide findings and recommendations in an annual report, with the first report due to the Legislature by January 1, 2024. According to the 2023 annual report, OWTRD prioritized recruitment, hiring, and training of personnel, and created a database and management system to support its work. OWTRD conducted internal outreach with CAL FIRE and external outreach with federal and local agencies, private vendors, academic institutions, and other relevant entities to raise awareness of its mission. OWTRD conducted evaluations and field tests in focus areas including last mile connectivity, dismounted firefighter location, enhanced situational awareness, firefighter health and safety, and data availability and integration. The 2024 report covered the OWTRD's continued focus on consulting with public, private, and non-profit entities working on emerging technologies for the wildfire community. OWTRD continued its focus on last-mile connectivity, dismounted firefighter location, enhanced situational awareness, firefighter health and safety, and data availability and integration. The 2025 report includes updates on the areas of focus, a summary of activities of OWTRD and its Advisory Board, and other

technological efforts in the wildfire community, a summary of the Dismounted Firefighter/Dismounted Resources Tracking Proof of Concept pilot, an overview of the FireStat Protoflight launch, and a description of upgrades to the CAL FIRE website.

California Wildfire Mitigation Financial Assistance Program.

Created in 2019 by AB 38 (Wood, Chapter 391, Statutes of 2019), the California Wildfire Mitigation Financial Assistance Program, also known as the California Wildfire Mitigation Program, or CWMP, is a partnership between CAL FIRE and the Governor's Office of Emergency Services (Cal OES). AB 38 directed Cal OES to enter into a joint powers agreement (JPA) with CAL FIRE to develop and implement this program. The JPA provides that CWMP is administered by a governing board consisting of two members selected by CAL FIRE and two members selected by Cal OES. The purpose of the CWMP is to provide neighborhood or communitywide benefits against wildfire by retrofitting and hardening buildings, including homes and businesses, and facilitating vegetation management, including defensible space. CWMP also provides community and homeowner education on wildfire home hardening and is creating a wildfire home hardening framework that communities can use to create their own home hardening initiatives.

Pursuant to AB 38, CWMP developed criteria and scoring methodology to prioritize financial assistance to areas and communities based on criteria such as vulnerability to wildfire; impact of future climate risk factors on area and community wildfire vulnerability assessments; and factors that lead some populations to experience greater risk of wildfire, adverse health outcomes, or an inhibited ability to respond to wildfire. All 58 counties were ranked on nine factors and each county received a Wildfire Risk Ranking and Social Vulnerability Ranking based on the sum of their respective factors. Each county also received a Final Ranking based on the sum of the Wildfire Risk Ranking and Social Vulnerability Ranking.¹ CWMP appears to be working with six counties in implementation: El Dorado (Final Rank 5), Lake (Final Rank 1), San Diego (Final Rank 6), Shasta (Final Rank 4), Siskiyou (Final Rank 2), and Tuolumne (Final Rank 3) Counties. According to the CWMP dashboard, the program has completed 383 home assessments (which inform what retrofits will be implemented). Seventeen projects are in progress and 161 have been completed.

In 2024, AB 2469 (Committee on Emergency Management, Chapter 402, Statutes of 2024) added a report, to be submitted to the Legislature by July 1, 2028, and extended the program's repeal date by another four years, from July 1, 2025, to July 1, 2029.

Existing law:

- 1) Establishes, until January 1, 2029, the OWTRD within CAL FIRE to study, test, and advise regarding procurement of emerging technologies and tools to more effectively prevent and suppress wildfires in the state. (Government Code (GOV) §8586.8(b))
 - a) Requires OWTRD to develop a balanced, multimodal research and development program designed to identify, research, test, and evaluate emerging technologies and tools to improve the state's preparation for, and response to, wildfires; to

¹ See CWMP's County Selection Methods, published January 29, 2025, for more information. <https://www.caloes.ca.gov/wp-content/uploads/Recovery/CWMP-County-Selection-Methods-01.29.2025.pdf>

- consult with public, private, and nonprofit entities in identifying new technologies tools, software, and other advances in wildfire preparedness and response; and make recommendations on effective and useful technologies and tools for procurement. (GOV §8586.8(d))
- b) Subjects OWTRD to review by the Advisory Board. (GOV §8586.8(e))
- i) Requires the Advisory Board to meet at least four times annually to review, analyze, and assess the activities and progress of OWTRD. (GOV §8586.8(f))
- ii) Requires the Advisory Board's findings and recommendations be reported to the Governor and Legislature by January 1, 2024, and annually thereafter. (GOV §8586.8(f)(1))
- 2) Establishes Cal OES to be responsible for the state's emergency and disaster response services for natural, technological, or man-made disasters and emergencies. (GOV §8585)
- 3) Pursuant to the CWMP, contingent upon appropriation and operative until July 1, 2029: (GOV §§8654.2 *et seq.*)
- a) Requires Cal OES to enter into a JPA with CAL FIRE for the creation of a joint powers authority (Authority) that would develop and administer a comprehensive wildfire mitigation program that would (1) encourage cost-effective structure hardening and retrofitting that creates fire-resistant homes, businesses, and public buildings, and (2) facilitate vegetation management, the creation of defensible space, and other fuel modification activities that provide neighborhood or communitywide benefits against wildfire. (GOV §8654.4(a))
- b) Requires CAL FIRE to delegate its duties and responsibilities for this program to the Office of the State Fire Marshal (SFM). (GOV §8654.4(b))
- c) Requires SFM, in consultation with CAL FIRE and the Director of Housing and Community Development, to identify building retrofits and structure hardening measures eligible for financial assistance under this program that are cost effective and provide site or structure fire risk reduction. (GOV §8654.5)
- d) Designates local responsibility areas within very high fire hazard severity zones, state responsibility areas located within any fire hazard severity zones, and any other land designed by the Authority as areas eligible for financial assistance under this program. (GOV §8654.6)
- e) Requires the Authority to develop eligibility criteria for property owners, community organizations, and local governments who receive financial assistance under this program. (GOV §8654.8)
- f) Authorizes the Authority to enter into cooperative agreements with specified entities to perform actions eligible for financial assistance under this program.

(GOV §8654.9)

- g) Requires the Authority, no later than July 1, 2028, to submit a report to the Legislature regarding implementation of the program. (GOV §8654.10)

PROPOSED LAW

This bill would extend the authorization for both OWTRD and CWMP for an additional two years, until January 1, 2031 and July 1, 2031, respectively.

ARGUMENTS IN SUPPORT

According to the author, “Assembly Bill 441 is a crucial step in strengthening California's wildfire mitigation efforts. By extending the sunset date of the Office of Wildfire Technology Research and Development and the California Wildfire Mitigation Program, the bill ensures continued access to cutting-edge technologies and financial assistance for high-risk communities. With increasing disaster frequency and intensity, home retrofitting and fire-hardening initiatives are essential to protecting vulnerable residents, particularly in rural areas. Strengthening these programs guarantees that Californians will have the support needed to mitigate wildfire impacts.”

ARGUMENTS IN OPPOSITION

None received.

COMMENTS

This bill is double-referred. This bill has been referred to both the Senate Committee on Government Organization and this Committee for hearing. This Committee is the second Committee of referral. This bill was heard in the Senate Committee on Governmental Organization on June 24, 2025, and passed out with a vote of 15 - 0. Elements of this bill under the jurisdiction of the Senate Committee on Government Organization are included here for completeness and context only.

What does the Legislature lose when it extends a sunset too early? Under existing law, OWTRD is authorized until January 1, 2029. This bill proposes to extend the sunset until January 1, 2031. As discussed above, the OTWRD governing board has released 3 annual reports so far – for 2023, 2024, and 2025. Under the existing sunset date in 2029, the Legislature will be able to additionally utilize the annual reports for 2026 and 2027, before considering a sunset extension in 2028. At that time, the Legislature, based on those reports, will be given the opportunity to modify the OWTRD and make any other related legislative changes to the program.

If the sunset date is extended until 2031, the Legislature might not review the implementation of the OWTRD until 2030, potentially missing an opportunity to evaluate the efficacy of the office and make any adjustments, as deemed appropriate.

To provide the Legislature with an earlier “check-in” with the program and an opportunity to ensure effective implementation of the office, the committee may wish to remove the proposed sunset extension from the bill. *See Amendment 1.*

Back so soon? In 2024, AB 2469 (Committee on Emergency Management, Chapter 402, Statutes of 2024) added a report, to be submitted to the Legislature by the JPA no

later than July 1, 2028. To accommodate this new report, the bill also extended the program's operation from July 1, 2025, until July 1, 2029. Two years later, this bill seeks to extend the program's operation for an additional 2 years, until July 1, 2031.

A question arises whether this extension is premature because (1) the Legislature will not receive the Authority's report on program implementation until July 1, 2028, and (2) the program does not become inoperative until July 1, 2029. The report may provide the Legislature with helpful insight into the program and ways that the program could be improved. Would it be prudent to extend the program before having the opportunity review the report?

By extending the program sunset until 2031, the Legislature may miss out on an earlier opportunity learn from the Authority's report and adjust the program as necessary.

However, if the Legislature does not receive the Authority's report until July 1, 2028, it is likely that a bill proposal containing appropriate program modifications based on the report, if any, will not be introduced until the following year – 2029. Unless enacted as an urgency bill, that bill would not take effect until January 1, 2030 – 6 months after the program is set to sunset under existing law.

In order to give the Legislature the opportunity to review and incorporate the Authority report before extending the program's sunset and give such bill enough time to proceed through the normal legislative process, the committee may wish to amend the bill to sunset the program on January 1, 2030. *See Amendment 2.*

Related legislation

SB 1079 (Stern), of the current legislative session, would establish the Fire Innovation Unit within CAL FIRE to serve as CAL FIRE's innovation arm and as the state's principal hub for wildfire technology research, coordination, procurement, and deployment for technologies that improve ecosystem and landscape scale resilience, community risk reduction, ignition reduction, early detection, fast fire suppression, and decision support tools until January 1, 2033. The Fire Innovation Unit which would consist of OWTRD, the Innovation, Outreach, and Coordination Program, and the Rapid Acquisition and Deployment Program. SB 1079 is pending before the Assembly Natural Resources Committee.

SB 1270 (Richardson), of the current legislative session, would have required the CWMP to provide financial assistance to additional counties with the greatest combined risk of wildfire and social vulnerability, based on eligibility criteria determined by the administering joint powers authority and contingent upon appropriation or receipt of additional federal funding. SB 1270 was held in the Senate Appropriations Committee.

AB 1531 (Committee on Emergency Management, Chapter 204, Statutes of 2025) requires the California Department of Insurance to be added to the CWMP governing board by July 1, 2026.

AB 2469 (Committee on Emergency Management, Chapter 402, Statutes of 2024) extended CWMP operation from July 1, 2025 to July 1, 2029, and added an implementation report due July 1, 2028.

SB 74 (Dodd, 2024) would have extended the authorization for OWRTRD indefinitely. SB 74 was held in the Assembly Appropriations Committee.

AB 609 (Papan, 2023) would have required OWTRD to submit a report to the Legislature that assesses the feasibility of CAL FIRE and California Office of Emergency Services to conduct an evaluation of innovative new aerial firefighting technologies and whether any new technologies exist that might meet CAL FIRE standards of water retardant and delivery systems. AB 609 was held in the Senate Appropriations Committee.

SUGGESTED AMENDMENTS

AMENDMENT 1

Strike Section 1 from the bill.

AMENDMENT 2

Amend Government Code §8654.10(c) as follows:

8654.10(c) This article shall remain in effect only until ~~July 1, 2031~~, **January 1, 2030**, and as of that date is repealed.

SUPPORT

California State Association of Counties (CSAC)
Emergency Medical Services Administrators' Association of California (EMSAAC)
Orange County Fire Authority
Rural County Representatives of California (RCRC)

OPPOSITION

None Received

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