
SENATE COMMITTEE ON EMERGENCY MANAGEMENT

Senator Henry Stern

Chair

2025 - 2026 Regular

Bill No: SB 1079 **Hearing Date:** 4/21/2026
Author: Stern
Version: 2/13/2026 Introduced
Urgency: No **Fiscal:** Yes
Consultant: Cassie Royce

SUBJECT: Department of Forestry and Fire Protection: Fire Innovation Unit

SUMMARY: Formalizes the establishment of the Fire Innovation Unit (FIU) within the Department of Forestry and Fire Protection (CAL FIRE) to advance wildfire technology research, coordination, procurement, and deployment, as specified.

ANALYSIS:

Existing law:

- 1) Provides that CAL FIRE, in accordance with a plan approved by the Board of Forestry and Fire Protection, is responsible for the prevention and suppression of forest fires.
- 2) Establishes the Office of Wildfire Technology Research and Development (OWTRD) within CAL FIRE to serve as the central organizing hub for state government's identification of emerging wildfire technologies. The Office evaluates potential solutions, conducts research and field testing, documents results, and provides recommendations for adoption.
- 3) Establishes the Wildfire Forecast and Threat Intelligence Integration Center jointly led by the California Office of Emergency Services (Cal OES) and CAL FIRE to serve as the state's integrated central organizing hub for wildfire-related forecasting, weather information, and threat intelligence.

This bill:

- 1) Makes various findings and declarations for purposes of this bill.

- 2) Establishes the FIU within CAL FIRE, under the direction of a Deputy Director of Wildfire Innovation, to serve as CAL FIRE's innovation arm and as the state's principal hub for wildfire technology research, coordination, procurement, and deployment.
- 3) Specifies that the FIU consists of the OWTRD, the Innovation, Outreach, and Coordination Program (IOCP), and the Rapid Acquisition and Deployment Program (RADP).
- 4) Requires the OWTRD to do all of the following:
 - a) Perform scientific and technical evaluations of emerging wildfire technologies.
 - b) Conduct and participate in laboratory and field tests of wildfire technologies within CAL FIRE and in partnership with local, state, tribal, federal, and international fire agencies.
 - c) Document operational and technical results of laboratory, field, and operational evaluations of wildfire technologies.
 - d) Issue recommendations on wildfire technologies regarding adoption and performance standards
- 5) Provides that the IOCP shall do all of the following:
 - a) Coordinate with end users across local, state, tribal, federal, and international fire agencies.
 - b) Identify innovation gaps.
 - c) Serve as a liaison between technologists and frontline personnel.
 - d) Oversee collaborative development efforts between CAL FIRE and technology developers.
 - e) Implement the Wildfire Innovation Grant Program (WIGP), established by the bill.
 - f) Collaborate with public and private educational and research institutions.
 - g) Coordinate demonstration events in established testbeds.
 - h) Provide the requisite firefighting expertise necessary for field trials in operational environments.
- 6) Permits the RADP to do all of the following:
 - a) Pilot and scale wildfire technologies through use of flexible contracting authorities pursuant to this bill.
 - b) Manage the WIGP.
 - c) Enter into agreements with local governments, state and federal agencies, tribes, nonprofit and philanthropic organizations, utilities,

- public and private educational institutions, and private companies for purposes of this bill.
- d) Ensure that all projects carried out pursuant to this bill include clear objectives, performance metrics, and audit provisions.
- 7) Authorizes the FIU to enter into memoranda of understanding, cooperative research and development agreements, contracts, and grant agreements with public agencies, private sector entities, nonprofit organizations, educational and research institutions, tribal governments, and philanthropic partners for purposes of this bill.
- 8) Provides that the FIU may establish and administer a WIGP and specifies the WIGP may fund early-stage, mature, or dual-use technology projects that enhance wildfire readiness, mitigation, or response.
- 9) Requires all grants awarded pursuant to the WIGP to align with statewide resilience goals and include clear metrics for success that are informed by end-user input.
- 10) Authorizes the FIU to administer or monitor pilot, prototype, or demonstration projects involving specified partners to evaluate, mature, and validate wildfire-related technologies.
- 11) Requires the FIU to establish technical and operational criteria for formal validation and to consider if the wildfire-related technology meets the criteria for formal validation.
- 12) Allows the FIU to award a follow-on contract without a separate competitive solicitation process to a technology vendor that completes an FIU-administered or FIU-monitored pilot, prototype, or demonstration project and receives a formal validation, if specified conditions are met.
- 13) Provides that the FIU may use flexible contracting authorities as specified.
- 14) Allows the FIU to collaborate with public and private educational and research institutions, as specified, to support wildfire technology and innovation.
- 15) Specifies that the FIU may provide technical expertise, operational data, field testing environments, and appropriated funding to ensure the technologies developed in the collaborations are transitioned into wildfire

operations.

- 16) Authorizes the FIU to establish testbeds to test or evaluate emerging technologies and provides that the FIU shall establish or designate testbeds where technologies can be safely deployed and evaluated under real-world conditions.
- 17) Permits the FIU to provide technical assistance to local, state, federal, and international fire agencies to facilitate deployment of wildfire-related technologies.
- 18) Establishes that private entities participating in FIU-authorized research, testing, or pilot programs are not restricted from future business with the state, as specified.
- 19) Deems data, information, or preliminary decision materials exchanged during activities conducted under this bill to be “nonprocurement sensitive,” meaning that the materials are not considered confidential for purposes of procurement bids.
- 20) Directs CAL FIRE, on or before January 1, 2028, and annually thereafter, to submit to the Governor and the appropriate fiscal and policy committees of the Legislature a report summarizing specified information relating to the performance of the FIU.
- 21) Requires the Director of CAL FIRE to implement the bill upon an appropriation by the Legislature for its purposes in the annual Budget Act or another statute.
- 22) Authorizes CAL FIRE to reorganize existing positions and resources to fulfill the purposes of the bill.
- 23) Sunsets these provisions on January 1, 2033.

Background

Author’s statement. According to the author, “Last year, Angelenos experienced firsthand that California wildfires are becoming more destructive and deadlier with increasingly extreme weather. It is critical we prioritize programs with innovative technology and research to properly equip our emergency management personnel who keep our communities safer in the face of disaster. SB 1079 creates the Fire Innovation Unit (FIU) under CAL FIRE,

giving California a formal mechanism to identify firefighter needs, source technologies, prototype solutions, and move successful technologies from pilot to scale. By establishing a robust and permanent unit to test and deploy new firefighting technology, protecting Californians from future megafire disasters becomes not just an aspiration, but a coordinated priority for the state.”

Current CALFIRE programs. According to the CAL FIRE website, the current FIU is a partnership with FireWERX supported by philanthropic organizations to serve as CAL FIRE’s hub for innovation to advance solutions that enhance firefighter safety and operational efficiency. The Innovation, Outreach & Coordination (IOC) Unit engages directly with CAL FIRE programs, units, and regions to define operational needs and gather technical requirements. IOC staff work closely with partners to ensure that new technologies address true field challenges, leveraging operational experience to guide research and development efforts. Lastly, the OWTRD was established through SB 109 (Dodd), Chapter 239, Statutes of 2021, to serve as the central organizing hub for the state government’s identification of emerging wildfire technologies. The OWTRD ensures that every innovation meets CAL FIRE’s operational standards, supports its mission, and is ready for practical deployment across the state. This bill places CAL FIRE’s FIU and IOC programmatic structure in statute, creates a new RADP, and requires the IOC to implement a new WIGP.

OTWRD. This bill also seeks to build upon the work of the OTWRD. According to the OTWRD’s 2025 annual report, “many new and emerging technologies in the wildfire industry fall short across several critical areas: they often lack reliability, interoperability with other systems, and costeffectiveness. Many do not scale and require significant time and effort to implement and train personnel. Additionally, many solutions are designed without a meaningful human oversight component, limiting their practical utility in high-risk, dynamic environments. Of the many individuals and organizations that submit ideas to the OWTRD, a small number are feasible for further study or engagement by the fire industry. To ensure developing technology is helpful for end users, technology innovators must engage with end users to fully understand current challenges related to cost, scale, interoperability, training, and useful impact on current practices to make useful technology for the wildfire community.” The additional authorities and parameters established in this bill are intended to align with the work of OTWRD by further accelerating deployment of effective and innovative technology in the state’s evolving wildfire threat environment.

Proposed amendments. To further clarify various provisions of this bill, the author is proposing amendments to do the following: 1) remove the reference

to a Deputy Director position; 2) add clarity to the technology scope of the FIU; 3) encourage information sharing with local fire agencies and relevant state agencies; 4) allow for cross-agency technology collaboration with Cal OES and other relevant state agencies; 5) further clarify the purpose of the WIGP and the entities eligible to apply; and, 6) ensure technologies are tested across diverse operational environments. These amendments will be accepted by the author in committee and are described below:

Amend SEC. 2. as follows:

Article 4. Fire Innovation Unit

785. (a) *There is hereby established within the department a Fire Innovation Unit (FIU), under the direction of a Deputy Director of Wildfire Innovation who shall report to the director.*

(b) *The FIU shall serve as the department'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.*

786. (b) (9) Facilitate information sharing with local fire agencies and other relevant state agencies, including the California Governor's Office of Emergency Services, regarding wildfire technologies evaluated, piloted, or deployed through the FIU. The department may maintain a publicly accessible resource, such as information bulletins, providing visibility into such technologies and opportunities for participation in demonstrations, pilot programs, and field testing, and shall seek operational feedback from participating fire agencies and, where appropriate, state agencies.

787. (a) *The FIU may enter into memoranda of understanding, cooperative research and development agreements, contracts, and grant agreements with public agencies, private sector entities, nonprofit organizations, educational and research institutions, tribal governments, and philanthropic partners for purposes of this article.*

(b) In carrying out activities pursuant to this article, the department may consult with and invite participation from other relevant state agencies, including the California Governor's Office of Emergency Services, where technologies under evaluation may support their

operational missions or have implications for cross-agency technology integration.

788. (a) *The FIU may establish and administer a Wildfire Innovation Grant Program. In administering the grant program, the FIU may issue solicitations, conduct a merit-based award process, and oversee grant performance. The grant program ~~may~~ **shall** fund early-stage, mature, or dual-use technology projects that enhance wildfire readiness, mitigation, or response.*

(c) Eligible entities may include government agencies—local, state, federal, and tribal—as well as nonprofit organizations, public and private academic and research institutions, and private-sector technology developers.

(d) In administering the Wildfire Innovation Grant Program, the department shall, to the extent practicable, encourage projects that evaluate technologies across diverse operational environments and geographic conditions within the state to assess performance under varying terrain, fuel types, and weather conditions.

FISCAL EFFECT: Appropriation: No Fiscal Com.: Yes Local: No

SUPPORT:

Megafire Action (sponsor)
 California Fire Safe Council
 California Forestry Association
 California Forward
 California Special Districts Association
 Climate Resolve
 Del Norte Fire Safe Council
 Fire Aside
 FireWERX
 Muon Space
 Napa Communities Firewise Foundation
 Net-Zero California
 Orange County Fire Authority
 Pacific Forest Trust
 Rain
 Rockrose Risk
 Safe Community Project
 Tahoe Fund
 One Individual

OPPOSITION:

None on file

ARGUMENTS IN SUPPORT: In support of this bill, the sponsor, Megafire Action writes that, “California's megafire crisis demands more than incremental improvements to the status quo. The devastating 2025 wildfire season have made clear that the state needs a systematic, innovation-driven approach to getting the best available technologies into the hands of firefighters on the ground. Today, promising tools too often stall between the research stage and real-world deployment, leaving CAL FIRE without the full suite of resources it needs to combat increasingly severe and fast-moving fires. SB 1079 directly addresses this gap....Together, these programs would create a formal, end-to-end pipeline, from identifying operational needs in the field, to co-developing solutions with firefighters, to rigorously evaluating emerging technologies at designated testbeds, to scaling what works across the state. The FIU would also be empowered to... [leverage] California's world-class academic and innovation ecosystems in service of wildfire response.”

DUAL REFERRAL: Senate Natural Resources and Water and Senate Emergency Management