

119TH CONGRESS  
1ST SESSION

# S. 647

To require the Secretary of Commerce to create regional wildland fire research centers, and for other purposes.

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## IN THE SENATE OF THE UNITED STATES

FEBRUARY 20, 2025

Mr. LUJÁN (for himself, Mr. SULLIVAN, Mr. SHEEHY, and Mr. PADILLA) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

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## A BILL

To require the Secretary of Commerce to create regional wildland fire research centers, and for other purposes.

1       *Be it enacted by the Senate and House of Representa-*  
2       *tives of the United States of America in Congress assembled,*

3       **SECTION 1. SHORT TITLE.**

4       This Act may be cited as the “Regional Leadership  
5       in Wildland Fire Research Act of 2025”.

6       **SEC. 2. DEFINITIONS.**

7       In this Act:

8               (1) ADMINISTRATOR.—The term “Adminis-  
9       trator” means the Administrator of the National  
10       Oceanic and Atmospheric Administration.

1           (2) APPROPRIATE COMMITTEES OF CON-  
2       GRESS.—The term “appropriate committees of Con-  
3       gress” means—

4           (A) the Committee on Commerce, Science,  
5       and Transportation, the Committee on Energy  
6       and Natural Resources, and the Committee on  
7       Appropriations of the Senate;

8           (B) the Committee on Science, Space, and  
9       Technology, the Committee on Natural Re-  
10      sources, and the Committee on Appropriations  
11      of the House of Representatives; and

12          (C) any other committee of Congress with  
13      the authority to facilitate the development of  
14      wildland fire research.

15          (3) BOARD.—The term “Board” means the Na-  
16      tional Center Coordination Board established by sec-  
17      tion 3(c)(1).

18          (4) CAREER PATHWAY.—The term “career  
19      pathway” has the meaning given that term in sec-  
20      tion 3 of the Workforce Innovation and Opportunity  
21      Act (29 U.S.C. 3102).

22          (5) CHIEF.—The term “Chief” means the Chief  
23      of the Forest Service.

24          (6) COUNCIL.—The term “Council” means the  
25      Wildland Fire Leadership Council established by the

1 Secretary of the Interior and the Secretary of Agri-  
2 culture.

3 (7) FEDERAL SCIENCE AGENCY.—The term  
4 “Federal science agency” has the meaning given  
5 that term in section 103(f) of the America COM-  
6 PETES Reauthorization Act of 2010 (42 U.S.C.  
7 6623(f)).

8 (8) INDIAN TRIBE.—The term “Indian Tribe”  
9 has the meaning given the term in section 4 of the  
10 Indian Self-Determination and Education Assistance  
11 Act (25 U.S.C. 5304).

12 (9) INSTITUTION OF HIGHER EDUCATION.—The  
13 term “institution of higher education” has the  
14 meaning given that term in section 101(a) of the  
15 Higher Education Act of 1965 (20 U.S.C. 1001(a)).

16 (10) LAND-GRANT COLLEGES AND UNIVER-  
17 SITIES.—The term “land-grant colleges and univer-  
18 sities” has the meaning given that term in section  
19 1404 of the National Agricultural Research, Exten-  
20 sion, and Teaching Policy Act of 1977 (7 U.S.C.  
21 3103).

22 (11) MINORITY-SERVING INSTITUTION.—The  
23 term “minority-serving institution” means an insti-  
24 tution defined in any of paragraphs (1) through (7)

1 of section 371(a) of the Higher Education Act of  
2 1965 (20 U.S.C. 1067q(a)).

3 (12) NATIONAL LABORATORY.—The term “Na-  
4 tional Laboratory” has the meaning given that term  
5 in section 2 of the Energy Policy Act of 2005 (42  
6 U.S.C. 15801).

7 (13) REGIONAL CENTER.—The term “regional  
8 center” means a regional wildland fire research cen-  
9 ter established under section 3.

10 (14) SEASONAL.—The term “seasonal” means  
11 a time range between 3 months and 2 years.

12 (15) SECRETARY.—The term “Secretary”  
13 means the Secretary of Commerce.

14 (16) SUBSEASONAL.—The term “subseasonal”  
15 means a time range between 2 weeks and 3 months.

16 (17) TRIBAL ORGANIZATION.—The term “Trib-  
17 al organization” has the meaning given that term in  
18 section 4 of the Indian Self-Determination and Edu-  
19 cation Assistance Act (25 U.S.C. 5304).

20 (18) WILDLAND FIRE.—The term “wildland  
21 fire” means any non-structure fire that occurs in  
22 vegetation or natural fuels and includes wildfires  
23 originating from an unplanned ignition or prescribed  
24 fire.

1           (19) WILDLAND FIRE MANAGEMENT AGEN-  
2           CIES.—The term “wildland fire management agen-  
3           cies” means—

4                   (A) the Forest Service;

5                   (B) the Bureau of Land Management;

6                   (C) the National Park Service;

7                   (D) the United States Fish and Wildlife  
8           Service; and

9                   (E) the Bureau of Indian Affairs.

10          (20) WILDLAND FIRE RESEARCH.—The term  
11          “wildland fire research” means research to better  
12          understand—

13                   (A) the causes and consequences of  
14          wildland fires, including antecedent and con-  
15          temporaneous factors that increase the risk of  
16          catastrophic events;

17                   (B) the spread and behavior of wildland  
18          fires, including fires in the wildland-urban  
19          interface;

20                   (C) the efficacy of mitigation strategies for  
21          wildland fires;

22                   (D) the impact of wildland fires on public  
23          health, safety, and the environment;

24                   (E) the rehabilitation and restoration of  
25          affected ecosystems after wildland fires; and

1 (F) the development of mitigation strate-  
 2 gies and techniques to improve the safety of  
 3 wildland fire managers and firefighters.

4 **SEC. 3. ESTABLISHMENT OF REGIONAL WILDLAND FIRE**  
 5 **RESEARCH CENTERS.**

6 (a) IN GENERAL.—The Secretary, in coordination  
 7 with the Administrator and the Chief, shall establish a  
 8 competitive process for the selection and establishment of  
 9 regional wildland fire research centers in accordance with  
 10 subsection (b).

11 (b) SELECTION AND ESTABLISHMENT OF REGIONAL  
 12 CENTERS.—

13 (1) IN GENERAL.—The Secretary shall select  
 14 not fewer than 7 institutions of higher education or  
 15 land-grant colleges and universities at which to es-  
 16 tablish a regional center to coordinate the develop-  
 17 ment of wildland fire research.

18 (2) CRITERIA FOR SELECTION.—

19 (A) IN GENERAL.—In establishing a re-  
 20 gional center at an institution of higher edu-  
 21 cation or land-grant college or university under  
 22 this section, the Secretary shall prioritize the  
 23 selection of institutions, colleges, or universities  
 24 that meet not fewer than one of the following  
 25 criteria:

1 (i) Have existing programs of record  
2 in wildland fire research.

3 (ii) Have existing partnerships with  
4 research institutions of the Federal Gov-  
5 ernment and other academic institutions  
6 and entities relating to wildland fire re-  
7 search.

8 (iii) Participate in or lead a program  
9 under the Joint Fire Science Program.

10 (iv) Are a minority-serving institution.

11 (B) REGIONS.—The Secretary shall estab-  
12 lish not fewer than one regional center in each  
13 of the following regions of the United States:

14 (i) Alaska.

15 (ii) California.

16 (iii) The Northern Rockies.

17 (iv) The Pacific Northwest.

18 (v) The Pacific Islands.

19 (vi) The Southeast.

20 (vii) The Southwest.

21 (3) PURPOSE.—Each regional center, with re-  
22 spect to the region covered by the regional center,  
23 shall—

24 (A) to the extent practical, coordinate re-  
25 search with other wildland fire research entities,

1 such as other academic institutions, the Envi-  
2 ronmental Protection Agency, the National  
3 Science Foundation, the National Aeronautics  
4 and Space Administration, the Department of  
5 Energy, the United States Geological Survey,  
6 and State and regional research organizations;

7 (B) improve the understanding of wildland  
8 fire through wildland fire research that can be  
9 applied by wildland fire management agencies;

10 (C) develop technologies and other tools to  
11 understand, monitor, and predict wildland fire,  
12 including—

13 (i) models to predict fire potential and  
14 the spread and behavior of wildland fire  
15 and smoke;

16 (ii) models to predict how vegetation  
17 will respond to changes in the environment  
18 and wildland fire;

19 (iii) the integration of technologies to  
20 predict the spread and behavior of wildland  
21 fire and smoke in as near-real-time as pos-  
22 sible; and

23 (iv) other innovations to be integrated  
24 into operational decision support systems  
25 relating to wildland fire;

1 (D) develop technologies and other tools to  
 2 safely support land treatments to reduce the se-  
 3 verity of wildland fire;

4 (E) leverage predictive capabilities to re-  
 5 duce the impact of smoke on communities and  
 6 wildland firefighters;

7 (F) improve the understanding of post-fire  
 8 risk to the landscape, including flash flooding  
 9 potential and watershed impacts;

10 (G) test and operate models to support  
 11 land management decision-making, including  
 12 through—

13 (i) operating models to support man-  
 14 agement of wildland fire and vegetation;

15 (ii) the demonstration of integration  
 16 technologies to support management of  
 17 wildland fire in as near-real-time as pos-  
 18 sible; and

19 (iii) the incorporation of decision  
 20 science and social science that examines  
 21 the perception and adoption of information  
 22 related to wildland fire risk;

23 (H) develop a career pathway training pro-  
 24 gram with respect to carrying out wildland fire  
 25 research;

(I) develop data management protocols to allow for full and open exchange of data pursuant to the principles of findability, accessibility, interoperability, and reusability (commonly referred to as the “FAIR principles”) and archive and access that data; and

(J) make its work and data fully and openly available.

(c) NATIONAL CENTER COORDINATION BOARD.—

(1) ESTABLISHMENT.—There is established a coordination board, to be known as the “National Center Coordination Board”.

(2) COMPOSITION.—

(A) MEMBERS.—

(i) IN GENERAL.—The Board shall be composed of one member representing each regional center.

(ii) APPOINTMENT.—Each member under clause (i) shall be selected by the relevant regional center.

(B) CHAIR.—The Administrator and the Chief shall serve as the Co-Chairs of the Board.

(3) DUTIES.—The Board shall—

(A) establish wildland fire science, data management, and sharing protocols, and tech-

1 nological research priorities in cooperation with  
2 each regional center and informed by the oper-  
3 ational needs of wildland fire management  
4 agencies;

5 (B) coordinate data collection efforts sup-  
6 porting the efforts of each regional center, in-  
7 cluding—

8 (i) building data layers across each re-  
9 gion described in subsection (b)(2)(B); and

10 (ii) providing updates on the develop-  
11 ment of wildland fire research models;

12 (C) ensure the coordination of, and avoid  
13 unnecessary duplication of, the activities of the  
14 regional centers and the activities of institutions  
15 of higher education, land-grant colleges and  
16 universities, Federal science agencies, and State  
17 research organizations with respect to wildland  
18 fire research, including—

19 (i) the National Oceanic and Atmos-  
20 pheric Administration;

21 (ii) the National Laboratories;

22 (iii) the National Aeronautics and  
23 Space Administration;

24 (iv) the Environmental Protection  
25 Agency;

1 (v) the United States Fire Adminis-  
 2 tration;

3 (vi) the United States Geological Sur-  
 4 vey; and

5 (vii) any other relevant entity with  
 6 specialized expertise in wildland fire re-  
 7 search; and

8 (D) support end-to-end applications that  
 9 assist wildland fire management agencies in  
 10 adopting technologies and incorporating re-  
 11 search findings produced by the regional cen-  
 12 ters.

13 (4) MEETINGS.—

14 (A) BOARD MEETINGS.—The Board shall  
 15 meet quarterly.

16 (B) PUBLIC MEETINGS.—

17 (i) IN GENERAL.—The Board shall  
 18 hold public meetings with affected stake-  
 19 holders to solicit information from the gen-  
 20 eral public regarding the development and  
 21 implications of wildland fire research.

22 (ii) FREQUENCY.—Not less frequently  
 23 than annually, the Board shall hold at  
 24 least one public meeting in each State cov-

1                   ered by a region described in subsection  
2                   (b)(2)(B).

3                   (5) TERM.—A member of the Board shall be  
4                   appointed for a term of 4 years, except that of the  
5                   members first appointed, the Secretary shall ensure  
6                   that approximately—

7                   (A)  $\frac{1}{3}$  of members are appointed for a  
8                   term of 4 years;

9                   (B)  $\frac{1}{3}$  of members are appointed for a  
10                  term of 3 years; and

11                  (C)  $\frac{1}{3}$  of members are appointed for a  
12                  term of 2 years.

13                  (6) VACANCIES.—

14                  (A) IN GENERAL.—A vacancy on the  
15                  Board—

16                   (i) shall not affect the powers of the  
17                   Board; and

18                   (ii) shall be filled in the same manner  
19                   as the original appointment was made by  
20                   not later than 180 days after the date on  
21                   which the vacancy occurs.

22                  (B) FILLING UNEXPIRED TERM.—An indi-  
23                  vidual chosen to fill a vacancy shall be ap-  
24                  pointed for the unexpired term of the member  
25                  replaced.

1           (7) RECOMMENDATIONS.—Not less frequently  
 2           than annually, the Board shall submit to the Sec-  
 3           retary and the Council recommendations to improve  
 4           wildland fire research to be included in the report  
 5           described in subsection (e).

6           (d) ADVISORY BOARDS.—

7           (1) IN GENERAL.—There is established an advi-  
 8           sory board at each regional center, to be known as  
 9           the “Regional Advisory Board”.

10          (2) COMPOSITION.—

11           (A) IN GENERAL.—Each Regional Advi-  
 12           sory Board shall consist of members from, or  
 13           with responsibility covering, the region covered  
 14           by the relevant regional center, including at  
 15           minimum—

16                   (i) one regional representative from  
 17                   each wildland fire management agency, ap-  
 18                   pointed by that agency;

19                   (ii) one representative from the Coun-  
 20                   cil, appointed by the Council;

21                   (iii) one representative from a State  
 22                   government agency from each State lo-  
 23                   cated in that region, appointed by the Gov-  
 24                   ernor of that State;

(iv) one representative from an Indian Tribe or Tribal organization from that region, elected under subparagraph (B)(i)(II); and

(v) additional representatives elected under subparagraph (B)(ii)(II).

(B) ELECTED MEMBERSHIP.—

(i) TRIBAL MEMBERSHIP.—

(I) SUBCOMMITTEE.—Each Regional Advisory Board shall solicit and approve, on at least an annual basis, nominations for individuals from organizations specified in subparagraph (A)(iv) to serve as a representative on a subcommittee to the Regional Advisory Board for the purposes of subclause (II).

(II) ELECTION.—The subcommittee described in subclause (I) for a Regional Advisory Board shall elect, on an annual basis, one member of the subcommittee to serve as a member of the Regional Advisory Board under subparagraph (A)(iv) for an annual term.

1 (ii) ADDITIONAL MEMBERS.—

2 (I) SUBCOMMITTEE.—Each Re-  
3 gional Advisory Board shall solicit and  
4 approve, on at least an annual basis,  
5 nominations for individuals with oper-  
6 ational expertise in wildland fire miti-  
7 gation and management to serve as a  
8 representative on a subcommittee to  
9 the Regional Advisory Board for the  
10 purposes of subclause (II), including  
11 representatives from, as applicable—

12 (aa) institutions of higher  
13 education or land-grant colleges  
14 and universities;

15 (bb) nongovernmental orga-  
16 nizations;

17 (cc) private industry;

18 (dd) the wildland firefighter  
19 community, including organiza-  
20 tions that represent the interests  
21 of wildland firefighters; and

22 (ee) Southwest Ecological  
23 Restoration Institutes established  
24 under section 5(a) of the South-  
25 west Forest Health and Wildfire

1 Prevention Act of 2004 (16  
2 U.S.C. 6704(a)).

3 (II) ELECTION.—The sub-  
4 committee described in subclause (I)  
5 for a Regional Advisory Board may  
6 elect a member or members of the  
7 subcommittee to serve as a member of  
8 the Regional Advisory Board under  
9 subparagraph (A)(v) for an annual  
10 term.

11 (3) COMPENSATION.—Each member of a Re-  
12 gional Advisory Board shall serve on a voluntary  
13 basis without compensation.

14 (4) DUTIES.—Each Regional Advisory Board  
15 shall—

16 (A) ensure and support the coordination of  
17 wildland fire research between the relevant re-  
18 gional center and Federal and State land man-  
19 agement agencies in that region;

20 (B) communicate the operational needs of  
21 Federal and State land management agencies  
22 and wildland fire management agencies in that  
23 region to the relevant regional center and to the  
24 Board;

1 (C) advise, in coordination with the rel-  
 2 evant regional center, on research goals and ob-  
 3 jectives; and

4 (D) assist the relevant regional center with  
 5 the dissemination of research outputs and data  
 6 to Federal and State land management agencies  
 7 and wildland fire management agencies in that  
 8 region.

9 (5) MEETINGS.—Each Regional Advisory Board  
 10 shall meet quarterly in conjunction with the Board  
 11 meeting under subsection (c)(4)(A).

12 (6) TERM.—Unless specified otherwise, a mem-  
 13 ber of a Regional Advisory Board shall serve for a  
 14 term of 4 years.

15 (7) VACANCIES.—

16 (A) IN GENERAL.—A vacancy on a Re-  
 17 gional Advisory Board—

18 (i) shall not affect the powers of the  
 19 Regional Advisory Board; and

20 (ii) shall be filled in the same manner  
 21 as the original appointment was made by  
 22 not later than 180 days after the date on  
 23 which the vacancy occurs.

24 (B) FILLING UNEXPIRED TERM.—An indi-  
 25 vidual chosen to fill a vacancy shall be ap-

1           pointed for the unexpired term of the member  
2           replaced.

3           (e) REPORT ON WILDLAND FIRE RESEARCH.—Not  
4 later than each of 2 years and 4 years after the date of  
5 the enactment of this Act, the Secretary and the Council,  
6 in consultation with the Board, shall submit to the appro-  
7 priate committees of Congress a report describing—

8           (1) the progress each regional center has made  
9           in the development of wildland fire research; and

10          (2) recommendations to improve wildland fire  
11          research.

12          (f) CONSULTATION.—In carrying out the require-  
13 ments of this section, the Secretary shall consult with—

14          (1) Federal science agencies;

15          (2) the Office of Science and Technology Policy;

16          and

17          (3) the Council.

18          (g) AUTHORIZATION OF APPROPRIATIONS.—

19          (1) IN GENERAL.—

20                (A) REGIONAL CENTERS.—For estab-  
21                lishing and administering the regional centers  
22                established under subsection (a), there is au-  
23                thorized to be appropriated—

24                       (i) \$60,000,000 for fiscal year 2026;

25                       (ii) \$61,000,000 for fiscal year 2027;

1 (iii) \$62,000,000 for fiscal year 2028;

2 (iv) \$63,000,000 for fiscal year 2029;

3 and

4 (v) \$64,000,000 for fiscal year 2030.

5 (B) BOARD.—For the Board established  
6 under subsection (c), there is authorized to be  
7 appropriated \$1,000,000 for each of fiscal years  
8 2026 through 2030.

9 (2) ELIGIBLE USE OF FUNDS.—A regional cen-  
10 ter may use amounts appropriated pursuant to an  
11 authorization of appropriations under paragraph  
12 (1)(A) for construction or the acquisition of equip-  
13 ment necessary to carry out the requirements of this  
14 Act.

15 (3) FLEXIBILITY.—

16 (A) IN GENERAL.—Subject to subpara-  
17 graph (B), the Secretary shall adjust appropria-  
18 tions under paragraph (1) between the regional  
19 centers established under subsection (a) as  
20 needed to account for differences in administra-  
21 tive costs and research challenges specific to a  
22 particular region.

23 (B) NOTICE.—Before adjusting appropria-  
24 tions under subparagraph (A) for a fiscal year,  
25 the Administrator shall—

1                   (i) include that adjustment in the  
2                   budget justification materials submitted by  
3                   the Administrator and the Chief in support  
4                   of the budget of the President (as sub-  
5                   mitted to Congress under section 1105 of  
6                   title 31, United States Code) for that fiscal  
7                   year; and

8                   (ii) provide notice of that adjustment  
9                   to the appropriate committees of Congress.

10               (4) TRANSFER OF FUNDS.—A Federal science  
11               agency may transfer, as necessary, additional appro-  
12               priated amounts to a regional center for the purpose  
13               of carrying out wildland fire research described in  
14               subsection (b)(3)(B).

○