

118TH CONGRESS
2D SESSION

S. 4191

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

IN THE SENATE OF THE UNITED STATES

APRIL 18, 2024

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

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 2024”.

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;

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 United States Forest Service.

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

1 ecutive Order 13976 (43 U.S.C. 1748b note; relating
2 to establishing the Wildland Fire Management Pol-
3 icy Committee).

4 (7) FEDERAL SCIENCE AGENCY.—The term
5 “Federal science agency” has the meaning given
6 that term in section 103(f) of the America COM-
7 PETES Reauthorization Act of 2010 (42 U.S.C.
8 6623(f)).

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

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

17 (10) LAND-GRANT COLLEGES AND UNIVER-
18 SITIES.—The term “land-grant colleges and univer-
19 sities” has the meaning given that term in section
20 1404 of the National Agricultural Research, Exten-
21 sion, and Teaching Policy Act of 1977 (7 U.S.C.
22 3103).

23 (11) MINORITY-SERVING INSTITUTION.—The
24 term “minority-serving institution” means an insti-
25 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) REGIONAL CENTER.—The term “regional
4 center” means a regional wildland fire research cen-
5 ter established under section 3.

6 (13) SEASONAL.—The term “seasonal” means
7 a time range between 3 months and 2 years.

8 (14) SECRETARY.—The term “Secretary”
9 means the Secretary of Commerce.

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

12 (16) TRIBAL ORGANIZATION.—the term “Tribal
13 organization” has the meaning given that term in
14 section 4 of the Indian Self-Determination and Edu-
15 cation Assistance Act (25 U.S.C. 5304).

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

21 (18) WILDLAND FIRE MANAGEMENT AGEN-
22 CIES.—The term “wildland fire management agen-
23 cies” means—

24 (A) the Forest Service;

25 (B) the Bureau of Land Management;

1 (C) the National Park Service;

2 (D) the United States Fish and Wildlife
3 Service; and

4 (E) the Bureau of Indian Affairs.

5 (19) WILDLAND FIRE RESEARCH.—The term
6 “wildland fire research” means research to better
7 understand—

8 (A) the causes and consequences of
9 wildland fires, including antecedent and con-
10 temporaneous factors that increase the risk of
11 catastrophic events;

12 (B) the spread and behavior of wildland
13 fires, including fires in the wildland-urban
14 interface;

15 (C) the efficacy of mitigation strategies for
16 wildland fires;

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

19 (E) the rehabilitation and restoration of
20 affected ecosystems after wildland fires; and

21 (F) the development of mitigation strate-
22 gies and techniques to improve the safety of
23 wildland fire managers and firefighters.

1 **SEC. 3. ESTABLISHMENT OF REGIONAL WILDLAND FIRE**
2 **RESEARCH CENTERS.**

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

8 (b) SELECTION AND ESTABLISHMENT OF REGIONAL
9 CENTERS.—

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

15 (2) CRITERIA FOR SELECTION.—

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

23 (i) Have existing programs of record
24 in wildland fire research.

25 (ii) Have existing partnerships with
26 research institutions of the Federal Gov-

ernment and other academic institutions
and entities relating to wildland fire re-
search.

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

(iv) Are a minority-serving institution.

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

(i) Alaska.

(ii) California.

(iii) The Northern Rockies.

(iv) The Pacific Northwest.

(v) The Pacific Islands.

(vi) The Southeast.

(vii) The Southwest.

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

(A) to the extent practical, coordinate re-
search with other wildland fire research entities,
such as other academic institutions, the Envi-
ronmental Protection Agency, the National
Science Foundation, the National Aeronautics
and Space Administration, the Department of

1 Energy, the United States Geological Survey,
2 and State research organizations;

3 (B) improve the understanding of wildland
4 fire through wildland fire research that can be
5 applied by wildland fire management agencies;

6 (C) develop technologies and other tools to
7 understand, monitor, and predict wildland fire,
8 including—

9 (i) models to predict fire potential and
10 the spread and behavior of wildland fire
11 and smoke;

12 (ii) models to predict how vegetation
13 will respond to changes in the environment
14 and wildland fire;

15 (iii) the integration of technologies to
16 predict the spread and behavior of wildland
17 fire and smoke in as near-real-time as pos-
18 sible; and

19 (iv) other innovations to be integrated
20 into operational decision support systems
21 relating to wildland fire;

22 (D) develop technologies and other tools to
23 safely support land treatments to reduce the se-
24 verity of wildland fire;

1 (E) leverage predictive capabilities to re-
 2 duce the impact of smoke on communities and
 3 wildland firefighters;

4 (F) improve the understanding of post-fire
 5 risk to the landscape, including flash flooding
 6 potential and watershed impacts;

7 (G) test and operate models to support
 8 land management decision-making, including
 9 through—

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

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

16 (iii) the incorporation of decision
 17 science and social science that examines
 18 the perception and adoption of information
 19 related to wildland fire risk;

20 (H) develop a career pathway training pro-
 21 gram with respect to carrying out wildland fire
 22 research;

23 (I) develop data management protocols to
 24 allow for full and open exchange of data pursu-
 25 ant to the principles of findability, accessibility,

1 interoperability, and reusability (commonly re-
 2 ferred to as the “FAIR principles”) and archive
 3 and access that data; and

4 (J) make its work and data fully and open-
 5 ly available.

6 (c) NATIONAL CENTER COORDINATION BOARD.—

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

10 (2) COMPOSITION.—

11 (A) MEMBERS.—

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

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

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

20 (3) DUTIES.—The Board shall—

21 (A) establish wildland fire science, data
 22 management, and sharing protocols, and tech-
 23 nological research priorities in cooperation with
 24 each regional center and informed by the oper-

ational needs of wildland fire management agencies;

(B) coordinate data collection efforts supporting the efforts of each regional center, including—

(i) building data layers across each region described in subsection (b)(2)(B); and

(ii) providing updates on the development of wildland fire research models; and

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

(i) the National Oceanic and Atmospheric Administration;

(ii) the National Laboratories;

(iii) the National Aeronautics and Space Administration;

(iv) the Environmental Protection Agency;

(v) the United States Fire Administration;

1 (vi) the United States Geological Sur-
 2 vey; and

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

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

11 (4) MEETINGS.—

12 (A) BOARD MEETINGS.—The Board shall
 13 meet quarterly.

14 (B) PUBLIC MEETINGS.—

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

20 (ii) FREQUENCY.—Not less frequently
 21 than annually, the Board shall hold at
 22 least one public meeting in each State cov-
 23 ered by a region described in subsection
 24 (b)(2)(B).

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

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

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

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

11 (6) VACANCIES.—

12 (A) IN GENERAL.—A vacancy on the
13 Board—

14 (i) shall not affect the powers of the
15 Board; and

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

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

24 (7) RECOMMENDATIONS.—Not less frequently
25 than annually, the Board shall submit to the Sec-

retary and the Council recommendations to improve wildland fire research to be included in the report described in subsection (e).

(d) ADVISORY BOARDS.—

(1) IN GENERAL.—There is established an advisory board at each regional center, to be known as the “Regional Advisory Board”.

(2) COMPOSITION.—

(A) IN GENERAL.—Each Regional Advisory Board shall consist of members from, or with responsibility covering, the region covered by the relevant regional center, including at minimum—

(i) one regional representative from each wildland fire management agency, appointed by that agency;

(ii) one representative from the Council, appointed by the Council;

(iii) one representative from a State government agency from each State located in that region, appointed by the governor of that State;

(iv) one representative from an Indian Tribe or Tribal organization from that re-

1 gion, elected under subparagraph
 2 (B)(i)(II); and

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

5 (B) ELECTED MEMBERSHIP.—

6 (i) TRIBAL MEMBERSHIP.—

7 (I) SUBCOMMITTEE.—Each Re-
 8 gional Advisory Board shall solicit and
 9 approve, on at least an annual basis,
 10 nominations for individuals from orga-
 11 nizations specified in subparagraph
 12 (A)(iv) to serve as a representative on
 13 a subcommittee to the Regional Advi-
 14 sory Board for the purposes of sub-
 15 clause (II).

16 (II) ELECTION.—The sub-
 17 committee described in subclause (I)
 18 for a Regional Advisory Board shall
 19 elect, on an annual basis, one member
 20 of the subcommittee to serve as a
 21 member of the Regional Advisory
 22 Board under subparagraph (A)(iv) for
 23 an annual term.

24 (ii) ADDITIONAL MEMBERS.—

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

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

14 (bb) nongovernmental orga-
 15 nizations;

16 (cc) private industry; and

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

21 (II) ELECTION.—The sub-
 22 committee described in subclause (I)
 23 for a Regional Advisory Board may
 24 elect a member or members of the
 25 subcommittee to serve as a member of

1 the Regional Advisory Board under
2 subparagraph (A)(v) for an annual
3 term.

4 (3) COMPENSATION.—Each member of a Re-
5 gional Advisory Board shall serve on a voluntary
6 basis without compensation.

7 (4) DUTIES.—Each Regional Advisory Board
8 shall—

9 (A) ensure and support the coordination of
10 wildland fire research between the relevant re-
11 gional center and Federal and State land man-
12 agement agencies in that region;

13 (B) communicate the operational needs of
14 Federal and State land management agencies
15 and wildland fire management agencies in that
16 region to the relevant regional center and to the
17 Board;

18 (C) advise, in coordination with the rel-
19 evant regional center, on research goals and ob-
20 jectives; and

21 (D) assist the relevant regional center with
22 the dissemination of research outputs and data
23 to Federal and State land management agencies
24 and wildland fire management agencies in that
25 region.

1 (5) MEETINGS.—Each Regional Advisory Board
2 shall meet quarterly in conjunction with the Board
3 meeting under subsection (c)(4)(A).

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

7 (7) VACANCIES.—

8 (A) IN GENERAL.—A vacancy on a Re-
9 gional Advisory Board—

10 (i) shall not affect the powers of the
11 Regional Advisory Board; and

12 (ii) shall be filled in the same manner
13 as the original appointment was made by
14 not later than 180 days after the date on
15 which the vacancy occurs.

16 (B) FILLING UNEXPIRED TERM.—An indi-
17 vidual chosen to fill a vacancy shall be ap-
18 pointed for the unexpired term of the member
19 replaced.

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

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

3 (2) recommendations to improve wildland fire
4 research.

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

7 (1) Federal science agencies;

8 (2) the Office of Science and Technology Policy;
9 and

10 (3) the Council.

11 (g) AUTHORIZATION OF APPROPRIATIONS.—

12 (1) IN GENERAL.—

13 (A) REGIONAL CENTERS.—For estab-
14 lishing and administering the regional centers
15 established under subsection (a), there is au-
16 thorized to be appropriated—

17 (i) \$60,000,000 for fiscal year 2024;

18 (ii) \$61,000,000 for fiscal year 2025;

19 (iii) \$62,000,000 for fiscal year 2026;

20 (iv) \$63,000,000 for fiscal year 2027;

21 and

22 (v) \$64,000,000 for fiscal year 2028.

23 (B) BOARD.—For the Board established
24 under subsection (c), there is authorized to be

1 appropriated \$1,000,000 for each of fiscal years
2 2024 through 2028.

3 (2) ELIGIBLE USE OF FUNDS.—A regional cen-
4 ter may use amounts appropriated pursuant to an
5 authorization of appropriations under paragraph
6 (1)(A) for construction or the acquisition of equip-
7 ment necessary to carry out the requirements of this
8 Act.

9 (3) FLEXIBILITY.—

10 (A) IN GENERAL.—Subject to subpara-
11 graph (B), the Secretary shall adjust appropria-
12 tions under paragraph (1) between the regional
13 centers established under subsection (a) as
14 needed to account for differences in administra-
15 tive costs and research challenges specific to a
16 particular region.

17 (B) NOTICE.—Before adjusting appropria-
18 tions under subparagraph (A) for a fiscal year,
19 the Administrator shall—

20 (i) include that adjustment in the
21 budget request of the Administrator and
22 the Chief for that fiscal year; and

23 (ii) provide notice of that adjustment
24 to the appropriate committees of Congress.

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

○