

AMENDMENT NO. \_\_\_\_\_ Calendar No. \_\_\_\_\_

Purpose: In the nature of a substitute.

**IN THE SENATE OF THE UNITED STATES—118th Cong., 2d Sess.**

**S. 2991**

To improve revegetation and carbon sequestration activities  
in the United States, and for other purposes.

Referred to the Committee on \_\_\_\_\_ and  
ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT IN THE NATURE OF A SUBSTITUTE intended  
to be proposed by \_\_\_\_\_

Viz:

1 Strike all after the enacting clause and insert the fol-

2 lowing:

3 **SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

4 (a) **SHORT TITLE.**—This Act may be cited as the

5 “America’s Revegetation and Carbon Sequestration Act of

6 2024”.

7 (b) **TITLE OF CONTENTS.**—The table of contents for

8 this Act is as follows:

Sec. 1. Short title; table of contents.

Sec. 2. Definitions.

**TITLE I—REVEGETATION**

Sec. 101. Climate adaptation and resilient forests and rangeland measures.

Sec. 102. National revegetation effort.

Sec. 103. Experimental forests and ranges.

Sec. 104. Long-term contracts for tree and seed planting.

## 2

- Sec. 105. Revegetation workforce.  
 Sec. 106. Revegetation on abandoned mine land.

TITLE II—CARBON SEQUESTRATION THROUGH FOREST  
 MANAGEMENT AND INNOVATION

- Sec. 201. Forest management from carbon credits.  
 Sec. 202. Recovery and restoration treatments following stand-replacing disturbances.  
 Sec. 203. Eradication of invasive grasses.

TITLE III—RESEARCH

- Sec. 301. Longevity of forest products.  
 Sec. 302. Forest inventory and analysis.  
 Sec. 303. Bioeconomy research and technology transfer.  
 Sec. 304. Forest health threat centers.  
 Sec. 305. Joint mass timber science and education program.

TITLE IV—MISCELLANEOUS

- Sec. 401. Designation of Patsye Crites Forest.

1 **SEC. 2. DEFINITIONS.**

2 In this Act:

3 (1) CARBON SEQUESTRATION.—The term “car-  
 4 bon sequestration” means the capture and long-term  
 5 storage of atmospheric carbon dioxide.

6 (2) FEDERAL LAND.—The term “Federal land”  
 7 means—

8 (A) National Forest System land; and

9 (B) land under the jurisdiction of the Sec-  
 10 retary.

11 (3) NATIONAL FOREST SYSTEM.—

12 (A) IN GENERAL.—The term “National  
 13 Forest System” has the meaning given the term  
 14 in section 11(a) of the Forest and Rangeland  
 15 Renewable Resources Planning Act of 1974 (16  
 16 U.S.C. 1609(a)).

1 (B) EXCLUSION.—The term “National  
2 Forest System” does not include any forest re-  
3 serve not created from the public domain.

4 (4) SECRETARIES.—The term “Secretaries”  
5 means the Secretary of the Interior and the Sec-  
6 retary of Agriculture, acting through the Chief of  
7 the Forest Service.

8 (5) SECRETARY.—Except as provided in sec-  
9 tions 103, 201, 202, 303, and 305, the term “Sec-  
10 retary” means the Secretary of the Interior.

11 (6) SECRETARY CONCERNED.—The term “Sec-  
12 retary concerned” means the Secretary of the Inte-  
13 rior or the Secretary of Agriculture, acting through  
14 the Chief of the Forest Service.

## 15 **TITLE I—REVEGETATION**

### 16 **SEC. 101. CLIMATE ADAPTATION AND RESILIENT FORESTS** 17 **AND RANGELAND MEASURES.**

18 (a) IN GENERAL.—Not later than 2 years after the  
19 date of enactment of this Act, the Secretaries shall each  
20 revise applicable regulations of the Secretary concerned to  
21 require the consideration and assessment of resiliency and  
22 adaptation factors in developing strategies and efforts for  
23 revegetation, including reforestation and rangeland plant-  
24 ing, carried out by the Secretary concerned, including in  
25 selecting species for planting.

1 (b) EFFECT.—Nothing in this section affects—

2 (1) the reforestation requirements under section  
3 3 of the Forest and Rangeland Renewable Resources  
4 Planning Act of 1974 (16 U.S.C. 1601); or

5 (2) the use of the forest plan revision process  
6 to make changes to reforestation approaches in an  
7 individual unit of the National Forest System.

8 **SEC. 102. NATIONAL REVEGETATION EFFORT.**

9 (a) REFORESTATION REPORTS SUBMITTED TO ADDI-  
10 TIONAL COMMITTEES.—Section 70303 of the Infrastruc-  
11 ture Investment and Jobs Act (16 U.S.C. 1601 note; Pub-  
12 lic Law 117–58) is amended, in the matter preceding  
13 paragraph (1), by striking “Senate” and inserting “Sen-  
14 ate, the Committee on Energy and Natural Resources of  
15 the Senate, the Committee on Natural Resources of the  
16 House of Representatives,”.

17 (b) REFORESTATION REPORT FROM THE DEPART-  
18 MENT OF THE INTERIOR.—

19 (1) DEFINITIONS.—In this subsection:

20 (A) APPROPRIATE CONGRESSIONAL COM-  
21 MITTEES.—The term “appropriate congress-  
22 sional committees” means—

23 (i) the Committee on Appropriations  
24 of the Senate;

1 (ii) the Committee on Appropriations  
2 of the House of Representatives;

3 (iii) the Committee on Energy and  
4 Natural Resources of the Senate;

5 (iv) the Committee on Natural Re-  
6 sources of the House of Representatives;

7 (v) the Committee on Agriculture,  
8 Nutrition, and Forestry of the Senate; and

9 (vi) the Committee on Agriculture of  
10 the House of Representatives.

11 (B) FRRRPA TERMS.—The terms “nat-  
12 ural regeneration”, “reforestation”, and “un-  
13 planned event” have the meanings given those  
14 terms in section 3(e)(4)(A) of the Forest and  
15 Rangeland Renewable Resources Planning Act  
16 of 1974 (16 U.S.C. 1601(e)(4)(A)).

17 (C) PRIORITY LAND.—The term “priority  
18 land” means historically forested land under  
19 the jurisdiction of the Secretary concerned that,  
20 due to an unplanned event—

21 (i) requires reforestation to meet the  
22 objectives described in an applicable land  
23 use plan; and

24 (ii) is unlikely to experience natural  
25 regeneration.

1           (2) REFORESTATION REPORT.—Not later than  
2           1 year after the date of enactment of this Act, the  
3           Secretary shall prepare and submit to the appro-  
4           priate congressional committees a report containing  
5           estimates of—

6                   (A) the number of acres of priority land;  
7           and

8                   (B) the amounts necessary to be appro-  
9           priated, in addition to amounts available from  
10          other sources, to implement reforestation  
11          projects on all priority land not later than 10  
12          years after the date of submission of the report,  
13          including amounts necessary—

- 14                   (i) to secure seed;
- 15                   (ii) to grow seedlings;
- 16                   (iii) to prepare sites for reforestation;
- 17                   (iv) to plant trees;
- 18                   (v) to conduct thinning;
- 19                   (vi) to remove deleterious growth and  
20          underbrush;
- 21                   (vii) to build fencing to exclude live-  
22          stock and adverse wildlife from reforest-  
23          ation areas; and
- 24                   (viii) to otherwise establish and im-  
25          prove growing forests.

1           (3) ANNUAL UPDATES.—Not later than 1 year  
2 after the date of submission of the report under  
3 paragraph (2), and annually thereafter for the sub-  
4 sequent 8 years, the Secretary shall prepare for in-  
5 clusion in the budget of the United States Govern-  
6 ment required to be submitted by the President  
7 under section 1105 of title 31, United States Code,  
8 an update to the report required under paragraph  
9 (2).

10       (c) SUPPORTING THE REFORESTATION PIPELINE IN  
11 THE UNITED STATES.—

12           (1) IN GENERAL.—The Secretaries shall joint-  
13 ly—

14               (A) not later than 90 days after the date  
15 on which the report is submitted under sub-  
16 section (b)(2), conduct—

17                       (i) an inventory of orchards and nurs-  
18 eries capable of supporting reforestation  
19 (as defined in section 3(e)(4)(A) of the  
20 Forest and Rangeland Renewable Re-  
21 sources Planning Act of 1974 (16 U.S.C.  
22 1601(e)(4)(A))) on priority land (as de-  
23 fined in subsection (b)(1));

1                   (ii) an assessment of the capacity of  
2                   the orchards and nurseries listed in the in-  
3                   ventory under clause (i); and

4                   (iii) a comparison of available planting  
5                   stock in each region in which orchards and  
6                   nurseries listed in the inventory under  
7                   clause (i) are located, as determined by the  
8                   Secretaries; and

9                   (B) based on the estimates contained in  
10                  the report submitted under subsection (b)(2)  
11                  and the estimates submitted under section  
12                  3(e)(2) of the Forest and Rangeland Renewable  
13                  Resources Planning Act of 1974 (16 U.S.C.  
14                  1601(e)(2))—

15                  (i) prepare an estimate of the capacity  
16                  of orchards and nurseries that would be  
17                  necessary to implement reforestation  
18                  projects on all priority land (as defined in  
19                  section (b)(1)) within 10 years, including  
20                  identifying the species and types of plant-  
21                  ing stock needed for that reforestation;  
22                  and

23                  (ii) develop a plan for increasing the  
24                  capacity of orchards and nurseries such



1                   that the necessary capacity described in  
2                   clause (i) is achieved.

3                   (2) SEED COLLECTING.—The Secretaries shall  
4           each—

5                   (A) assess whether the current workforce  
6                   capacity and infrastructure capacity to locally  
7                   collect, process, and store seed is sufficient to  
8                   implement reforestation projects on all priority  
9                   land within 10 years;

10                   (B) if the Secretary concerned determines  
11                   that workforce capacity or infrastructure capac-  
12                   ity is insufficient under subparagraph (A), de-  
13                   velop and carry out a plan for increasing work-  
14                   force capacity, infrastructure capacity, or both,  
15                   as applicable; and

16                   (C) in developing and carrying out the  
17                   plan under subparagraph (B), coordinate with  
18                   any Job Corps program established under sec-  
19                   tion 105(a) regarding the development and hir-  
20                   ing of the workforce for orchards and nurseries.

21                   (3) AVAILABILITY OF PLANT MATERIAL.—

22                   (A) IN GENERAL.—In carrying out a re-  
23                   vegetation project on Federal land, the Sec-  
24                   retary concerned may submit to the other Sec-  
25                   retary concerned a request for plant material

1 purchased, owned, grown, or managed by the  
2 other Secretary concerned.

3 (B) PROVISION.—The Secretary concerned  
4 to which a request is submitted under subpara-  
5 graph (A) shall provide the requested plant ma-  
6 terial, to the extent practicable.

7 (C) REIMBURSEMENT.—The Secretary  
8 concerned that submits a request under sub-  
9 paragraph (A) shall reimburse the other Sec-  
10 retary concerned for any plant material pro-  
11 vided under the request.

12 (d) PARTNERSHIPS.—The Secretary concerned may  
13 enter into an agreement with a non-Federal entity to carry  
14 out any activity described in subsection (b) or (c).

15 (e) REFORESTATION TRUST FUND.—Section 303 of  
16 Public Law 96–451 (16 U.S.C. 1606a) is amended—

17 (1) in subsection (c), by striking “(c)(1) It shall  
18 be” and all that follows through the period at the  
19 end of paragraph (1) and inserting the following:

20 “(c) ANNUAL REPORTS; INVESTMENTS.—

21 “(1) ANNUAL REPORTS.—The Secretary of Ag-  
22 riculture, in coordination with the Secretary of the  
23 Treasury, shall submit to Congress an annual report  
24 that contains a description of—

1           “(A) the deposits in, expenditures from,  
2           and balance of the Trust Fund;

3           “(B) the projects funded by the Trust  
4           Fund; and

5           “(C) projected deposits in, and any pro-  
6           jected expenditures from, the Trust fund for  
7           the next fiscal year.”;

8           (2) by conforming the margins of subsection  
9           (c)(2), and the margins of the subparagraphs within  
10          that paragraph, accordingly; and

11          (3) by striking subsection (d) and inserting the  
12          following:

13          “(d) OBLIGATION OF FUNDS.—The Secretary of Ag-  
14          riculture (referred to in this subsection as the ‘Secretary’)  
15          may obligate such sums as are available in the Trust  
16          Fund, including any amounts not obligated in previous fis-  
17          cal years, for—

18                 “(1) reforestation on National Forest System  
19                 land in accordance with section 3(e) of the Forest  
20                 and Rangeland Renewable Resources Planning Act  
21                 of 1974 (16 U.S.C. 1601(e));

22                 “(2) site preparation as needed to accomplish  
23                 reforestation described in paragraph (1);

24                 “(3) seed collection, preparation, and storage  
25                 necessary to support appropriate seed availability;

1           “(4) nursery construction or activities necessary  
2           to support appropriate seedling availability; and

3           “(5) properly allocable administrative costs for  
4           the activities described in paragraphs (1) through  
5           (4).”.

6           (f) AVOIDANCE OF DUPLICATION.—In carrying out  
7           this section and the amendments made by this section, the  
8           Secretaries shall—

9           (1) avoid duplicative efforts and, to the max-  
10          imum extent practicable, utilize existing efforts and  
11          personnel to develop and implement an activity re-  
12          quired under this section or an amendment made by  
13          this section; and

14          (2) avoid using personnel who would otherwise  
15          be engaged in forest management or wildfire mitiga-  
16          tion efforts.

17          (g) EFFECT.—Nothing in this section or an amend-  
18          ment made by this section establishes new, extends exist-  
19          ing, or otherwise affects any requirement under Federal  
20          law prohibiting or restricting grazing during post-wildfire  
21          rehabilitation.

22       **SEC. 103. EXPERIMENTAL FORESTS AND RANGES.**

23          (a) PURPOSES.—The purposes of this section are—

24               (1) to formally authorize the experimental for-  
25               ests and ranges of the Secretary of Agriculture (re-

1       ferred to in this section as the “Secretary”) existing  
2       on the date of enactment of this Act; and

3               (2) to require the Secretary—

4                       (A) to establish and manage a network of  
5                       experimental forests and ranges over timescales  
6                       that support long-term research; and

7                       (B) to continuously conduct within the net-  
8                       work described in subparagraph (A) long-term  
9                       research on changes in forest and range sys-  
10                      tems, including on the impacts of management,  
11                      climate change, and other stressors.

12       (b) ESTABLISHMENT OF NETWORK.—The Secretary  
13 shall establish and manage a network of experimental for-  
14 ests and ranges (referred to in this section as the “net-  
15 work”) on—

16               (1) as practicable, National Forest System  
17       land;

18               (2) other Federal land; or

19               (3) other land that may be managed by the  
20       Secretary under a long-term agreement.

21       (c) MANAGEMENT PURPOSES.—The Secretary shall  
22 manage the network for the purposes of—

23               (1) research;

24               (2) technology transfer; and

25               (3) education.

1 (d) CRITERIA.—The network shall include—

2 (1) each of the forest cover types that occur in  
3 the United States, as defined under the forest inven-  
4 tory and analysis program established under section  
5 3(e) of the Forest and Rangeland Renewable Re-  
6 sources Research Act of 1978 (16 U.S.C. 1642(e));

7 (2) an experimental forest that contains forest  
8 cover types found in the State of Hawaii;

9 (3) an experimental forest that contains forest  
10 cover types found in the territories of the United  
11 States; and

12 (4) experimental ranges that represent range-  
13 land vegetation types in the United States.

14 (e) CLIMATE RESILIENCY RESEARCH.—Within the  
15 network, the Secretary shall conduct research, including  
16 research on—

17 (1) seedling establishment, site suitability, and  
18 revegetation schedules and designs to inform and as-  
19 sist efforts undertaken in the United States to es-  
20 tablish forests and ranges that are resilient in future  
21 climate conditions;

22 (2) the sources, sinks, and transport mecha-  
23 nisms of carbon to construct and improve models of  
24 carbon responses to land management practices and  
25 under changing climate conditions;

1           (3) vegetation changes and ecosystem conver-  
2           sion; and

3           (4) hydrologic changes associated with vegeta-  
4           tion or climatic changes.

5           (f) TRADITIONAL ECOLOGICAL KNOWLEDGE.—To  
6 the extent practicable and consistent with other Federal  
7 laws (including regulations), the Secretary shall integrate  
8 indigenous perspectives and traditional ecological knowl-  
9 edge in the development and research plans for forests and  
10 ranges within the network.

11          (g) PUBLIC ACCESS.—Consistent with other laws (in-  
12 cluding regulations), the Secretary shall make readily ac-  
13 cessible to the public any collected data and research find-  
14 ings from projects within the network.

15          (h) PARTNERS.—The Secretary may enter into an  
16 agreement with a State (including a State forestry agen-  
17 cy), an Indian Tribe, a Tribal organization, an educational  
18 institution, or a third party to fund or conduct research  
19 on the network.

20          (i) REPORT.—Not later than 18 months after the  
21 date of enactment of this Act, the Secretary shall submit  
22 to the Committee on Energy and Natural Resources of  
23 the Senate and the Committee on Natural Resources of  
24 the House of Representatives a report describing, with re-  
25 spect to the network—

- 1           (1) the location of forests and ranges;
- 2           (2) the forest cover types included in the net-
- 3           work and any forest cover types not included in the
- 4           network; and
- 5           (3) any additional resources needed—
- 6                 (A) to establish or maintain infrastructure
- 7                 in an established experimental forest or range;
- 8                 (B) to expand the network to additional
- 9                 forest cover types not included in the network;
- 10            or
- 11                 (C) to conduct the research described in
- 12                 subsection (e).
- 13         (j) SAVINGS CLAUSE.—Nothing in this section—
- 14                 (1) modifies, limits, or repeals the applicability
- 15                 of any other provision of law (including regulations)
- 16                 to National Forest System land; or
- 17                 (2) precludes the Secretary from authorizing
- 18                 multiple-use activities, including livestock grazing
- 19                 and other authorized uses on land included within
- 20                 the network.
- 21         (k) AUTHORIZATION OF APPROPRIATIONS.—There
- 22         are authorized to be appropriated to the Secretary such
- 23         sums as are necessary to carry out this section.



1 **SEC. 104. LONG-TERM CONTRACTS FOR TREE AND SEED**  
2 **PLANTING.**

3 (a) IN GENERAL.—The Secretary concerned may  
4 enter into a contract or cooperative agreement for re-es-  
5 tablishing vegetation on Federal land under the jurisdic-  
6 tion of the Secretary concerned.

7 (b) TERM.—Notwithstanding the time limit for  
8 multiyear contracts in section 3903 of title 41, United  
9 States Code, a contract or cooperative agreement de-  
10 scribed in subsection (a) may be for a term of not more  
11 than 10 years.

12 **SEC. 105. REVEGETATION WORKFORCE.**

13 (a) JOB CORPS PROGRAM.—The Secretary of Labor,  
14 in coordination with the Secretaries, shall—

15 (1) develop a career and technical education  
16 and training program focused on tree planting and  
17 revegetation, tree maintenance, nursery manage-  
18 ment, or seed collection; and

19 (2) offer the program as part of the Job Corps  
20 program.

21 (b) DIRECT HIRE AUTHORITY.—

22 (1) IN GENERAL.—The Secretary concerned  
23 may appoint, without regard to subchapter I of  
24 chapter 33 of title 5, United States Code, other than  
25 sections 3303 and 3328 of that title, a graduate of  
26 the program developed and offered under subsection

1 (a) directly to a position within, as applicable, the  
2 Department of Agriculture or the Department of the  
3 Interior—

4 (A) for which the candidate meets Office of  
5 Personnel Management qualification standards;  
6 and

7 (B) of which the primary duties relate di-  
8 rectly to the training the graduate received  
9 under the program developed and offered under  
10 subsection (a).

11 (2) LIMITATION.—The Secretary concerned  
12 may exercise the direct hire authority under para-  
13 graph (1) with respect to a specific qualified can-  
14 didate not later than 1 year after the date on which  
15 the candidate completed the program developed and  
16 offered under subsection (a).

17 **SEC. 106. REVEGETATION ON ABANDONED MINE LAND.**

18 (a) PILOT PROGRAM.—

19 (1) ESTABLISHMENT.—Using funding available  
20 to the Secretary, including funding provided under  
21 section 40804(b)(8) of the Infrastructure Investment  
22 and Jobs Act (16 U.S.C. 6592a(b)(8)), the Sec-  
23 retary shall establish a pilot program to establish  
24 native trees, shrubs, or grasses (referred to in this

1 section as “vegetation”) on eligible mined land de-  
2 scribed in paragraph (6).

3 (2) FINANCIAL ASSISTANCE.—In carrying out  
4 the pilot program established under paragraph (1),  
5 the Secretary shall—

6 (A) in coordination with the Secretary of  
7 Agriculture, establish vegetation on eligible  
8 mined land located on Federal land;

9 (B) offer financial assistance to States to  
10 establish native vegetation on eligible mined  
11 land located on State land;

12 (C) offer financial assistance to Indian  
13 Tribes to establish native vegetation on eligible  
14 mined land located on Tribal land or land held  
15 in Trust for an Indian Tribe; and

16 (D) establish vegetation or offer financial  
17 assistance to States or other entities to estab-  
18 lish native vegetation on eligible mined land lo-  
19 cated on private land.

20 (3) COMPATIBILITY WITH EXISTING OPER-  
21 ATIONS.—

22 (A) CONSULTATION.—Prior to selecting a  
23 project for funding under the pilot program es-  
24 tablished under paragraph (1), the Secretary  
25 shall consult with, as applicable, the relevant

1 Office of Surface Mining Reclamation and En-  
2 forcement abandoned mine land program office  
3 to confirm that the proposed project is compat-  
4 ible with any current mining, exploration, or  
5 reclamation activities.

6 (B) RESTRICTION.—The Secretary shall  
7 not provide financial assistance under para-  
8 graph (2) to a person or entity with an ongoing  
9 legal obligation to revegetate the land in a  
10 project area.

11 (4) ACTIVITIES.—The following activities asso-  
12 ciated with a project to establish vegetation on eligi-  
13 ble mined land shall be eligible for financial assist-  
14 ance under paragraph (2):

15 (A) Site preparation, including ripping  
16 compacted soils and incorporating soil amend-  
17 ments.

18 (B) Vegetation planting.

19 (C) Maintenance, including watering, to  
20 the extent necessary to establish vegetation  
21 under this section.

22 (D) Managing competing vegetation.

23 (5) PREFERENCE.—Under the pilot program  
24 established under paragraph (1), the Secretary shall,

1 to the maximum extent practicable, seek to establish  
2 vegetation that—

3 (A) is ecologically appropriate; and

4 (B)(i) has a high capacity to sequester and  
5 store carbon;

6 (ii) serves to reconnect established land-  
7 scapes or enhance habitat connectivity; or

8 (iii) would establish wildlife habitat that is  
9 underrepresented in the State in which the  
10 project is located.

11 (6) ELIGIBLE MINED LAND.—To be eligible for  
12 financial assistance under paragraph (2), a tree  
13 planting project shall be located on—

14 (A) land that was mined prior to the date  
15 of enactment of this Act;

16 (B) in the case of State land or private  
17 land, land that is accessible to the public for  
18 not less than 1 day per year; and

19 (C) in the case of private land, land owned  
20 by a person, or a nongovernmental organiza-  
21 tion, that has submitted to the Secretary a re-  
22 quest seeking to participate in the pilot pro-  
23 gram under this section.

24 (7) TERMINATION.—The pilot program estab-  
25 lished under paragraph (1) shall be in effect for the

1 8-year period beginning on the date of enactment of  
2 this Act.

3 (b) REPORT.—Not later than 5 years after the date  
4 of enactment of this Act, the Secretary shall submit to  
5 the Committee on Energy and Natural Resources of the  
6 Senate and the Committee on Natural Resources of the  
7 House of Representatives a report describing the accom-  
8 plishments of the pilot program established under sub-  
9 section (a)(1), including—

10 (1) jobs created or supported in rural areas;

11 (2) increases in the abundance of wildlife spe-  
12 cies, including game species and song birds;

13 (3) opportunities for hunting and other compat-  
14 ible outdoor recreation; and

15 (4) an estimate of—

16 (A) carbon sequestered during the 5-year  
17 period beginning on the date on which the pilot  
18 program is established; and

19 (B) projected additional carbon sequestra-  
20 tion and storage during the 15-year period be-  
21 ginning on the last day of the period described  
22 in subparagraph (A).

1 **TITLE II—CARBON SEQUESTRA-**  
2 **TION THROUGH FOREST MAN-**  
3 **AGEMENT AND INNOVATION**

4 **SEC. 201. FOREST MANAGEMENT FROM CARBON CREDITS.**

5 (a) DEFINITIONS.—In this section:

6 (1) BUFFER POOL.—The term “buffer pool”  
7 means additional sequestered carbon or greenhouse  
8 gas held in reserve beyond the carbon or greenhouse  
9 gas represented by a carbon credit to serve as an  
10 offset in the event of nonpermanence or carbon se-  
11 questration reversal for a carbon credit.

12 (2) CARBON CREDIT.—The term “carbon cred-  
13 it” means a credit, offset, or other defined unit of  
14 carbon or a greenhouse gas that—

15 (A) represents additional carbon or green-  
16 house gas sequestered or carbon or greenhouse  
17 gas emissions mitigated, compared to such se-  
18 questration or mitigation without the financial  
19 support embodied in the credit, offset, or other  
20 defined unit;

21 (B) is approved by a credible, third-party  
22 entity;

23 (C) is generated from the implementation  
24 or funding of a covered activity; and

1 (D) is identifiable, measurable, and trace-  
2 able.

3 (3) CARBON CREDIT PROGRAM.—The term  
4 “carbon credit program” means a voluntary program  
5 or market that issues, assigns, trades, or sells car-  
6 bon credits.

7 (4) COVERED ACTIVITY.—The term “covered  
8 activity” means a forest revegetation activity that—

9 (A) is ecologically appropriate;

10 (B) is carried out on National Forest Sys-  
11 tem land;

12 (C) is designed, in accordance with the  
13 best available science—

14 (i) to increase rates of carbon or  
15 greenhouse gas sequestration;

16 (ii) to increase the quantity of seques-  
17 tered carbon or greenhouse gas; or

18 (iii) to mitigate or avoid carbon or  
19 greenhouse gas emissions;

20 (D) to the extent practicable, is accom-  
21 plished using plants native to the landscape or  
22 to adjacent landscapes;

23 (E) to the maximum extent practicable, re-  
24 vegetates the area in a manner and at a sched-



1           ule that minimizes the threat of stand-replacing  
2           wildfire; and

3                   (F) is carried out by—

4                           (i) the Secretary; or

5                           (ii) a non-Federal entity authorized by  
6           the Secretary under any other provision of  
7           law.

8           (5) INTRAGOVERNMENTAL REVOLVING FUND.—

9           The term “intragovernmental revolving fund” means  
10          a Federal account that receives a portion of funds  
11          received through a carbon credit program for use for  
12          covered activities in the event of nonpermanence or  
13          carbon sequestration reversal for a carbon credit.

14          (6) RESILIENCE.—The term “resilience” means  
15          the ability of an area of the National Forest System  
16          to retain its inherent ecological structure, composi-  
17          tion, and functional integrity in response to histor-  
18          ical and anticipated stresses for the forest type of  
19          the area, at any level from the ecosystem to the  
20          landscape scale, over the age span of the dominant  
21          trees of the area.

22          (7) SECRETARY.—The term “Secretary” means  
23          the Secretary of Agriculture, acting through the  
24          Chief of the Forest Service.

1 (b) FUNDS ASSOCIATED WITH CARBON CREDITS  
2 FOR FOREST MANAGEMENT.—

3 (1) IN GENERAL.—The Secretary may expend  
4 funds received from a non-Federal entity from a car-  
5 bon credit program for a carbon credit, without fur-  
6 ther appropriation or fiscal year limitation, to sup-  
7 port the implementation of covered activities.

8 (2) SUPPLEMENT, NOT SUPPLANT.—Amounts  
9 made available to the Secretary under paragraph (1)  
10 shall supplement, and not supplant, any other  
11 amounts made available for covered activities.

12 (3) EXCLUSIVE USE.—Amounts made available  
13 to the Secretary under paragraph (1) shall only be  
14 used for—

15 (A) the implementation of covered activi-  
16 ties; and

17 (B) any properly allocable administrative  
18 costs.

19 (c) MANAGEMENT OF CARBON CREDIT TRANS-  
20 ACTIONS BY NATIONAL FOREST FOUNDATION.—

21 (1) IN GENERAL.—The National Forest Foun-  
22 dation shall receive and distribute any funds received  
23 under subsection (b)(1).

24 (2) OTHER PARTNERS.—The National Forest  
25 Foundation and the Secretary may work with other

1 entities that use funds received through a carbon  
2 credit program or for a carbon credit to design,  
3 manage, account for, implement, or monitor a cov-  
4 ered activity.

5 (3) METHODOLOGY.—For the management of  
6 transactions described in this section, the National  
7 Forest Foundation and the Secretary shall jointly  
8 develop and use a methodology that calculates the  
9 value of a carbon credit, based on—

10 (A) the reestablishment or retention of for-  
11 est cover;

12 (B) carbon sequestration rates before and  
13 after the implementation of the covered activity;  
14 and

15 (C) such other considerations as are nec-  
16 essary to accurately calculate the value of the  
17 carbon credit.

18 (4) LIMITATIONS.—A carbon credit—

19 (A) shall not be construed to constrain,  
20 limit, or otherwise affect the authority of the  
21 Secretary to carry out activities within the Na-  
22 tional Forest System; and

23 (B) shall be limited in value to the amount  
24 necessary to represent the carbon or greenhouse  
25 gas sequestered by vegetation with a stand den-

1           sity index of not greater than the stand density  
2           index necessary for resilience of the forest cover  
3           type in the area where the carbon credit is gen-  
4           erated.

5           (d) RISK MITIGATION TOOLS.—The Secretary may—

6           (1)     establish     a     buffer     pool,     an  
7           intragovernmental revolving fund, or another similar  
8           risk mitigation tool for a project to carry out a cov-  
9           ered activity under this section;

10          (2)     transfer amounts into and out of the buffer  
11          pool, intragovernmental revolving fund, or other tool  
12          established under paragraph (1); and

13          (3)     develop a protocol, after providing notice  
14          and an opportunity for public comment, for the  
15          management of the buffer pool, intragovernmental  
16          revolving fund, or other tool established under para-  
17          graph (1).

18          (e) REPORTS TO CONGRESS.—The Secretary, in col-  
19          laboration with the National Forest Foundation, shall an-  
20          nually submit to Congress a report describing the status  
21          of the program under this section, including—

22          (1)     the extent to which covered activities that  
23          were implemented as a direct result of funding re-  
24          ceived under subsection (b)(1) have been carried out;  
25          and

1           (2) any recommendations to improve or expand  
2           the program, including expansion of the authorities  
3           under this section to land managed by the Secretary  
4           of the Interior.

5           (f) **TRANSPARENCY.**—The Secretary, in collaboration  
6           with the National Forest Foundation, shall make publicly  
7           available on a website of the Forest Service the data relat-  
8           ing to all carbon credits issued, traded, sold, or retired  
9           under this section.

10          (g) **EFFECT.**—Nothing in this section authorizes any  
11          activity that is inconsistent with—

12                 (1) any applicable land management plan; or

13                 (2) any other provision of law (including regula-  
14          tions).

15   **SEC. 202. RECOVERY AND RESTORATION TREATMENTS**  
16                         **FOLLOWING STAND-REPLACING DISTURB-**  
17                         **ANCES.**

18          (a) **DEFINITION OF STAND-REPLACING DISTURB-**  
19          **ANCE.**—In this section, the term “stand-replacing disturb-  
20          ance” means a natural disturbance event, including a  
21          wildland fire or other event, that kills all or most of the  
22          living overstory trees in a stand and initiates forest succes-  
23          sion or regrowth on a unit of the National Forest System.

24          (b) **PILOT NATIONAL FORESTS.**—Not later than 1  
25          year after the date of enactment of this Act, the Secretary

1 of Agriculture, acting through the Chief of the Forest  
2 Service (referred to in this section as the “Secretary”),  
3 shall identify units of the National Forest System that the  
4 Secretary determines to be at high or very high risk of  
5 experiencing a stand-replacing disturbance during the 10-  
6 year period following the date of enactment of this Act.

7 (c) INTERDISCIPLINARY TEAMS.—Not later than 2  
8 years after the date of enactment of this Act, the Sec-  
9 retary shall establish an interdisciplinary post-disturbance  
10 planning team (referred to in this section as the “team”)  
11 to assist in carrying out the requirements of this section.

12 (d) MODEL LAND AND RESOURCE MANAGEMENT  
13 PLAN AMENDMENT.—

14 (1) IN GENERAL.—Not later than 2 years after  
15 the date of enactment of this Act, the Secretary, in  
16 cooperation with the team, shall develop a model  
17 land and resource management plan amendment es-  
18 tablishing plan content for future site-specific  
19 project-level decisions if a stand-replacing disturb-  
20 ance occurs on units of the National Forest System  
21 identified under subsection (b).

22 (2) CONTENT.—The model amendment required  
23 under paragraph (1) shall include direction regard-  
24 ing post-disturbance management, including salvage  
25 logging and reforestation activities, to achieve de-

1 sired conditions, objectives, standards, guidelines,  
2 suitability of lands, and other plan content, includ-  
3 ing goals and monitoring provisions, of the existing  
4 land and resource management plan on the applica-  
5 ble unit of the National Forest System, if a stand-  
6 replacing disturbance occurs.

7 (3) USE OF MODEL LAND AND RESOURCE MAN-  
8 AGEMENT PLAN AMENDMENT.—The Secretary shall  
9 utilize the Model Land and Resource Management  
10 Plan Amendment, as adapted to the unique ecologi-  
11 cal and socioeconomic setting for each unit of the  
12 National Forest System identified under subsection  
13 (b), in carrying out subsection (e).

14 (e) LAND AND RESOURCE MANAGEMENT PLAN  
15 AMENDMENTS.—

16 (1) IN GENERAL.—As soon as practicable, but  
17 not later than 10 years, after the date of enactment  
18 of this Act, the Secretary, assisted by the team, shall  
19 amend the applicable land and resource management  
20 plan of each unit of the National Forest System  
21 identified under subsection (b).

22 (2) PROCESS.—The Secretary shall comply with  
23 all relevant laws in carrying out this section.

24 (3) ELECTION.—The Secretary may comply  
25 with the provisions of this section by incorporating

1 the requirements of this section into an ongoing land  
2 and resource management plan revision or amend-  
3 ment process.

4 **SEC. 203. ERADICATION OF INVASIVE GRASSES.**

5 (a) DEFINITIONS.—In this section:

6 (1) ACTION PLAN.—The term “action plan”  
7 means the action plan developed under subsection  
8 (b).

9 (2) INVASIVE GRASS.—The term “invasive  
10 grass” means—

11 (A) cheatgrass;

12 (B) ventenata;

13 (C) medusahead; and

14 (D) any additional invasive, nonnative  
15 grass species that the Secretaries determine  
16 pose a risk by—

17 (i) increasing fire vulnerability and  
18 fire spread; and

19 (ii) altering fire regimes.

20 (b) ACTION PLAN.—

21 (1) IN GENERAL.—The Secretaries shall jointly  
22 develop and implement an action plan to map, treat,  
23 and control invasive grass—



1 (A) to promote the resiliency, biodiversity,  
2 and carbon sequestration capacity of forests,  
3 rangelands, and grasslands;

4 (B) to restore native plant species;

5 (C) to minimize risks from wildfire; and

6 (D) to enhance the quality of forage for  
7 wildlife and livestock.

8 (2) REQUIREMENTS.—The action plan shall—

9 (A) consider or incorporate existing efforts;

10 (B) take into account—

11 (i) the latest science;

12 (ii) best practices; and

13 (iii) available deployment tools;

14 (C) be prepared in coordination with State,  
15 Tribal, and local governmental entities and the  
16 heads of other Federal agencies, including the  
17 Chief of the Natural Resources Conservation  
18 Service, that are engaged in activities to control  
19 invasive grass to leverage and maximize funding  
20 and resources;

21 (D) identify options to streamline environ-  
22 mental review, including—

23 (i) the use of categorical exclusions  
24 (as defined in section 111 of the National  
25 Environmental Policy Act of 1969 (42

1 U.S.C. 4336e)), including a categorical ex-  
2 clusion of another agency pursuant to sec-  
3 tion 109 of that Act (42 U.S.C. 4336e);

4 (ii) the development of consultations  
5 under section 7 of the Endangered Species  
6 Act of 1973 (16 U.S.C. 1536) on a pro-  
7 grammatic basis;

8 (iii) interagency coordination regard-  
9 ing the validation, registration, and effec-  
10 tive use of products to control or eradicate  
11 invasive grass; and

12 (iv) maximizing opportunities to co-  
13 operate with other Federal, Tribal, and  
14 State agencies in analysis, assessments,  
15 and studies;

16 (E) establish—

17 (i) specific goals;

18 (ii) specific implementation actions  
19 that the Secretaries and partners of the  
20 Secretaries will conduct over a 5-year pe-  
21 riod; and

22 (iii) targets, including acres to be  
23 treated annually in target treatment areas  
24 identified by the Secretaries;

1 (F) provide for a combination of treatment  
2 methods for the most effective control or eradi-  
3 cation of an invasive grass, including—

4 (i) manual treatment methods;

5 (ii) mechanical treatment methods;

6 (iii) cultural treatment methods, in-  
7 cluding the use of wood chips or prescribed  
8 fire;

9 (iv) biological treatment methods,  
10 which may include livestock grazing; or

11 (v) chemical treatment methods;

12 (G) identify and implement, to the extent  
13 practicable, best practices to reduce the spread-  
14 ing of invasive grass seed, such as the use of  
15 spray washing stations; and

16 (H) identify methods and metrics to deter-  
17 mine the effectiveness of treatment and control  
18 efforts.

19 (3) DEADLINE TO FINALIZE ACTION PLAN.—

20 Not later than 1 year after the date of enactment  
21 of this Act, the Secretaries shall finalize the action  
22 plan.

23 (4) IMPLEMENTATION OF ACTION PLAN.—

24 (A) IN GENERAL.—Not later than 60 days  
25 after the date on which the action plan is final-

1           ized under paragraph (3), the Secretaries shall  
2           begin implementing the action plan in a manner  
3           consistent with other applicable laws (including  
4           regulations).

5           (B) MEMORANDA OF UNDERSTANDING  
6           AND AGREEMENTS.—In implementing the ac-  
7           tion plan, the Secretary concerned may enter  
8           into a memorandum of understanding or an  
9           agreement with non-Federal entities, as appro-  
10          prium, to carry out activities under the action  
11          plan to control the spread of an invasive grass  
12          on Federal land or land adjacent to Federal  
13          land.

14          (C) COOPERATING AGENCY COORDINA-  
15          TION.—The Secretary concerned shall, to the  
16          extent practicable, offer to assist in the prepa-  
17          ration of environmental reviews that may be  
18          necessary in implementing treatment and con-  
19          trol activities on land adjacent to Federal land.

20          (e) REPORTS TO CONGRESS.—Not later than 3 years  
21          after the date of enactment of this Act, and annually  
22          thereafter during the period in which the action plan is  
23          being implemented, the Secretaries shall submit to Con-  
24          gress a report assessing the effectiveness of the action  
25          plan that includes a description of—

1           (1) the location and acreage of the areas treat-  
2           ed for invasive grass;

3           (2) any memoranda of understanding or agree-  
4           ments entered into under subsection (b)(4)(B) to ad-  
5           vance the implementation of the action plan;

6           (3) the effectiveness of treatments and control  
7           efforts, determined using the methods and metrics  
8           described in subsection (b)(2)(H); and

9           (4) recommendations for studies to explore in-  
10          novative methods and practices to treat and control  
11          invasive grass.

12          (d) FUNDING.—

13           (1) OUTSIDE FUNDING.—The Secretary con-  
14           cerned may accept non-Federal funds to implement  
15           any provision of this section.

16           (2) OTHER FUNDING.—In addition to any fund-  
17           ing received under paragraph (1), the Secretaries  
18           may expend to carry out this section up to  
19           \$30,000,000 of any funding made available to the  
20           Secretary concerned for invasive species control, in-  
21           cluding funding provided under section 40804(b)(6)  
22           of the Infrastructure Investment and Jobs Act (16  
23           U.S.C. 6592a(b)(6)).

24           (3) LIMITATIONS.—Of the amounts made avail-  
25           able to carry out this section, not more than 10 per-

1 cent shall be used for development of the action  
2 plan.

### 3 **TITLE III—RESEARCH**

#### 4 **SEC. 301. LONGEVITY OF FOREST PRODUCTS.**

5 The Secretary of Energy, in coordination with the  
6 Secretary of Agriculture, shall—

7 (1) develop accurate and efficient methods and  
8 technologies to measure and monitor the amount  
9 and average lifespan of carbon stored in woody bio-  
10 mass energy feedstocks and building materials;

11 (2) by not later than 2 years after the date of  
12 enactment of this Act, publish estimates of the car-  
13 bon intensity of woody biomass energy feedstocks  
14 and building materials, including in short-lived for-  
15 est products and long-lived wood products; and

16 (3) by not later than 3 years after the date of  
17 enactment of this Act, publish a lifecycle carbon as-  
18 sessment, including any carbon sequestration, for—

19 (A) short-lived forest products;

20 (B) building materials; and

21 (C) other long-lived wood products.

#### 22 **SEC. 302. FOREST INVENTORY AND ANALYSIS.**

23 (a) IN GENERAL.—To bring more innovation and ef-  
24 ficiency to climate-resilient forestry actions in the United

1 States, the Secretary of Agriculture, acting through the  
2 Chief of the Forest Service—

3 (1) shall publish a report, or expand on a re-  
4 port being published pursuant to another provision  
5 of law, that demonstrates the efforts of the Forest  
6 Service—

7 (A) to measure a consistent historical se-  
8 ries of field plots while using advanced tech-  
9 nology, including remote sensing, to improve  
10 data and information; and

11 (B) to use advanced geospatial tech-  
12 nologies to improve area and volume estimates,  
13 especially for smaller areas;

14 (2) may use remote sensing technologies and  
15 other technologies to develop more accurate and effi-  
16 cient methods and to reduce costs to facilitate the  
17 measuring and monitoring of forest carbon in the  
18 United States, in a manner that can—

19 (A) assess landscape-scale or regional-scale  
20 carbon stocking;

21 (B) improve the quantity and quality of  
22 the information available to policy makers and  
23 forest managers, including with regard to forest  
24 inventories and verification activities;

1 (C) empower private forest owners to par-  
2 ticipate in voluntary carbon crediting opportuni-  
3 ties; and

4 (D) enable—

5 (i) a policy maker to compare the con-  
6 sequences of policy options to increase cli-  
7 mate benefits from forests; and

8 (ii) an assessment of the effectiveness  
9 of a policy implemented to increase the cli-  
10 mate benefits from forests; and

11 (3) may accelerate, or increase the frequency of,  
12 current inventories and data collection activities  
13 across all forest types to ensure consistent nation-  
14 wide estimates of forest carbon pools that can reflect  
15 short-term changes from disturbances, such as  
16 wildfires, and management activities.

17 (b) FUNDING.—The Secretary of Agriculture, acting  
18 through the Chief of the Forest Service, may annually use  
19 to carry out this section not more than \$10,000,000 of  
20 any amount made available to the Forest Service for re-  
21 search.

22 **SEC. 303. BIOECONOMY RESEARCH AND TECHNOLOGY**  
23 **TRANSFER.**

24 (a) FOREST PRODUCTS RESEARCH.—The Secretary  
25 of Agriculture (referred to in this section as the “Sec-



1 retary”), in coordination with the Secretary of Energy,  
2 shall expand research relating to the use of wood—

3 (1) to facilitate the establishment of new mar-  
4 kets, including nontraditional markets, for material  
5 produced from forest management projects that typi-  
6 cally has little or no commercial value;

7 (2) to increase the economic viability of manu-  
8 facturing products using material described in para-  
9 graph (1);

10 (3) for the production of low-carbon renewable  
11 fuel, including sustainable aviation fuel; and

12 (4) including structural testing of hardwood  
13 species for use in mass timber.

14 (b) TECHNOLOGY TRANSFER OFFICE.—

15 (1) ESTABLISHMENT.—There is established  
16 within the Forest Service an Office of Technology  
17 Transfer (referred to this subsection as the “Of-  
18 fice”).

19 (2) MISSION.—The mission of the Office shall  
20 be—

21 (A) to expand the commercial impact of  
22 the research investments of the Forest Service;  
23 and

1 (B) to provide for the commercialization of  
2 technologies that support the mission of the  
3 Forest Service.

4 (3) CHIEF COMMERCIALIZATION OFFICER.—

5 (A) IN GENERAL.—The Office shall be  
6 headed by an officer, who shall be known as the  
7 “Chief Commercialization Officer” and who  
8 shall report to the Deputy Chief of the Forest  
9 Service for Research and Development.

10 (B) QUALIFICATIONS.—An individual ap-  
11 pointed to the position of Chief Commercializa-  
12 tion Officer shall be an individual who, by rea-  
13 son of professional background and experience,  
14 is specially qualified to advise the Chief of the  
15 Forest Service and the Deputy Chief of the  
16 Forest Service for Research and Development  
17 on technology transfer at the Forest Service.

18 (C) DUTIES.—The Chief Commercializa-  
19 tion Officer shall—

20 (i) oversee the expenditure of funds  
21 allocated for technology transfer within the  
22 Forest Service;

23 (ii) represent the Forest Service on—

24 (I) the Federal Laboratory Con-  
25 sortium for Technology Transfer es-

1                    established by section 11(e) of the Ste-  
2                    venson-Wydler Technology Innovation  
3                    Act of 1980 (15 U.S.C. 3710(e)); and

4                    (ii) other similar interagency co-  
5                    ordinating entities;

6                    (iii) coordinate with—

7                    (I) other technology transfer and  
8                    commercialization offices within the  
9                    Department of Agriculture; and

10                  (ii) other similar Federal enti-  
11                  ties, as appropriate;

12                  (iv) oversee efforts to engage with pri-  
13                  vate sector entities, including venture cap-  
14                  ital companies, on issues relating to tech-  
15                  nology transfer and commercialization; and

16                  (v) coordinate efforts to patent or oth-  
17                  erwise protect under title 35, United  
18                  States Code, any inventions arising from a  
19                  Forest Service laboratory.

20                  (4)    TECHNOLOGY    TRANSFER    WORKING  
21                  GROUP.—

22                  (A)    ESTABLISHMENT.—The    Secretary  
23                  shall establish within the Forest Service a Tech-  
24                  nology Transfer Working Group, which shall  
25                  consist of—

1 (i) the Deputy Chief of the Forest  
2 Service for Research and Development;

3 (ii) the Chief Commercialization Offi-  
4 cer;

5 (iii) representatives from each re-  
6 search station within the Forest Service;  
7 and

8 (iv) representatives from other Forest  
9 Service entities with relevant expertise, as  
10 appropriate.

11 (B) DUTIES.—The Technology Transfer  
12 Working Group established under subparagraph  
13 (A) shall—

14 (i) assist with the coordination of  
15 technology transfer and commercialization  
16 opportunities occurring at Forest Service  
17 laboratories;

18 (ii) develop and disseminate guidance  
19 to researchers at Forest Service labora-  
20 tories on technology transfer and commer-  
21 cialization requirements under the Steven-  
22 son-Wydler Technology Innovation Act of  
23 1980 (15 U.S.C. 3701 et seq.) and associ-  
24 ated agreements to implement those re-  
25 quirements; and



1 Service for patents held by the Forest  
2 Service during the preceding 5 years; and  
3 (iv) recommendations for legislative,  
4 programmatic, or regulatory changes to  
5 support the mission of the Office.

6 (5) KEY PERFORMANCE INDICATORS.—Begin-  
7 ning with the first year after the report under para-  
8 graph (4)(C) is submitted, and each year thereafter,  
9 the President shall include in the budget of the  
10 United States Government submitted to Congress  
11 under section 1105 of title 31, United States Code—

12 (A) the number of cooperative research  
13 and development agreements entered into by  
14 the Forest Service under section 12 of the Ste-  
15 venson-Wyidler Technology Innovation Act of  
16 1980 (15 U.S.C. 3710a) during the preceding  
17 year;

18 (B) the number of agreements with part-  
19 nership intermediaries entered into by the For-  
20 est Service under section 23 of the Stevenson-  
21 Wyidler Technology Innovation Act of 1980 (15  
22 U.S.C. 3715) during the preceding year; and

23 (C) the number of licenses or other use au-  
24 thorizations issued by the Forest Service for

1 patents held by the Forest Service during the  
2 preceding year.

3 (6) AUTHORIZATION OF APPROPRIATIONS.—

4 There is authorized to be appropriated to the Sec-  
5 retary to carry out this subsection \$5,000,000 for  
6 each fiscal year.

7 (c) NATIONAL FOREST FOUNDATION ACTIVITIES.—

8 Section 402(b)(3) of the National Forest Foundation Act  
9 (16 U.S.C. 583j(b)(3)) is amended by striking “coopera-  
10 tive forestry” and inserting “technology transfer, commer-  
11 cialization, cooperative forestry,”.

12 (d) SMALL BUSINESS VOUCHER PILOT PROGRAM.—

13 (1) ESTABLISHMENT.—The Secretary, in con-  
14 sultation with the Secretary of Energy and the Ad-  
15 ministrator of the Small Business Administration,  
16 shall establish an innovation voucher pilot program  
17 to accelerate product development, demonstration,  
18 and commercialization in the forest products sector.

19 (2) VOUCHERS.—Under the pilot program es-  
20 tablished under paragraph (1), the Secretary shall  
21 provide vouchers to small business concerns (as de-  
22 fined in section 3 of the Small Business Act (15  
23 U.S.C. 632)) to be used at research facilities of the  
24 Forest Service for research, development, dem-  
25 onstration, technology transfer, skills training and

1 workforce development, or commercial application  
2 activities.

3 (3) COST-SHARING.—

4 (A) BASIC RESEARCH.—Except as pro-  
5 vided in subparagraph (D), the Secretary may  
6 require up to 20 percent of the cost of a vouch-  
7 er provided under paragraph (2) for a research  
8 or development activity that is of a basic or  
9 fundamental nature, at the discretion of the  
10 Secretary, to be provided by a non-Federal  
11 source.

12 (B) APPLIED RESEARCH.—Except as pro-  
13 vided in subparagraphs (D) and (E), the Sec-  
14 retary shall require not less than 20 percent of  
15 the cost of a voucher provided under paragraph  
16 (2) for a research or development activity that  
17 is not of a basic or fundamental nature, at the  
18 discretion of the Secretary, to be provided by a  
19 non-Federal source.

20 (C) DEMONSTRATION AND COMMERCIAL  
21 APPLICATION.—Except as provided in subpara-  
22 graph (E), the Secretary shall require not less  
23 than 50 percent of the cost of a voucher pro-  
24 vided under paragraph (2) for a demonstration



1 or commercial application activity to be pro-  
2 vided by a non-Federal source.

3 (D) EXEMPTION FOR HIGHER EDUCATION  
4 AND NONPROFIT INSTITUTIONS.—The cost  
5 share requirements under subparagraphs (A)  
6 and (B) shall not apply to an activity performed  
7 by an institution of higher education or a non-  
8 profit institution (as defined in section 4 of the  
9 Stevenson-Wydler Technology Innovation Act of  
10 1980 (15 U.S.C. 3703)).

11 (E) REDUCTION IN COST-SHARE.—The  
12 Secretary may reduce the non-Federal share re-  
13 quired under subparagraphs (B) and (C) if the  
14 Secretary determines the reduction to be nec-  
15 essary and appropriate, taking into account any  
16 technological risk relating to the activity.

17 (4) TERMINATION.—The authorities provided  
18 under this subsection (except for paragraph (5))  
19 shall expire on September 30, 2029.

20 (5) REPORT.—Not later than 180 days after  
21 the termination of the pilot program under para-  
22 graph (4), the Secretary shall submit to Congress a  
23 report describing the outcomes of the pilot program,  
24 including any recommendations to improve the pilot  
25 program.

1 **SEC. 304. FOREST HEALTH THREAT CENTERS.**

2 The Secretary of Agriculture, acting through the  
3 Chief of the Forest Service, shall—

4 (1) seek to expand the services provided by the  
5 Western Wildland Environmental Threat Assessment  
6 Center and the Eastern Forest Environmental  
7 Threat Assessment Center such that those Centers  
8 become centers of excellence to inform large-scale  
9 climate-resilient forest management; and

10 (2) share the syntheses, models, and application  
11 tools developed by the Western Wildland Environ-  
12 mental Threat Assessment Center and the Eastern  
13 Forest Environmental Threat Assessment Center  
14 with—

15 (A) the Department of Agriculture climate  
16 hubs; and

17 (B) the Climate Adaptation Science Cen-  
18 ters managed by the Secretary, acting through  
19 the Director of the United States Geological  
20 Survey.

21 **SEC. 305. JOINT MASS TIMBER SCIENCE AND EDUCATION**  
22 **PROGRAM.**

23 (a) **DEFINITIONS.**—In this section:

24 (1) **LOCAL APPROVING AGENCY.**—The term  
25 “local approving agency” means an agency or unit

1 of a local government that is responsible for the  
2 issuance of permits for building construction.

3 (2) MASS TIMBER.—The term “mass timber”  
4 includes—

5 (A) cross-laminated timber;

6 (B) nail laminated timber;

7 (C) glue laminated timber;

8 (D) dowel laminated timber;

9 (E) laminated strand lumber; and

10 (F) laminated veneer lumber.

11 (3) PROCURING AGENCY.—The term “procuring  
12 agency” means the Department of the Interior, the  
13 Forest Service, or a person that is a party to a con-  
14 tract with the Department of the Interior or the  
15 Forest Service, with respect to work performed  
16 under such a contract.

17 (4) SECRETARY.—The term “Secretary” means  
18 the Secretary of Agriculture, acting through the Di-  
19 rector of the Forest Products Laboratory of the For-  
20 est Service.

21 (5) TALL WOOD BUILDING.—The term “tall  
22 wood building” means a building designed to be—

23 (A) constructed with mass timber; and

24 (B)(i) if a residential building, more than

25 4 stories in height; and

1 (ii) if a commercial building, more than 5  
2 stories in height.

3 (b) MASS TIMBER SCIENCE AND EDUCATION PRO-  
4 GRAM WITH THE FOREST PRODUCTS LABORATORY.—The  
5 Secretary shall establish a mass timber science and edu-  
6 cation program to respond to the emerging research needs  
7 of architects, developers, and the forest products industry.

8 (c) COORDINATION.—The Secretary shall coordinate  
9 with research programs at colleges and universities in ad-  
10 ministering the mass timber science and education pro-  
11 gram established under subsection (b) to supplement the  
12 current research and educational efforts of colleges and  
13 universities.

14 (d) PURPOSES.—The mass timber science and edu-  
15 cation program established under subsection (b) shall have  
16 the following principal purposes:

17 (1) To provide practical research responsive to  
18 the needs of architects, developers, and the forest  
19 products industry, including assessments of carbon  
20 impacts in the originating forests and the end use of  
21 mass timber in the built environment.

22 (2) To engage and listen to clients and then de-  
23 velop focused, strategic lines of new research respon-  
24 sive to those needs, which may include research re-  
25 lating to flammability and performance during a

1 fire, structural characteristics, energy use and sav-  
2 ings, acoustics, and slab construction composed of  
3 hybrid materials.

4 (3) To solicit proposals from scientists who  
5 compete for funding through a rigorous peer-review  
6 process designed to ensure the best projects are  
7 funded.

8 (4) To disseminate research findings using a  
9 suite of communication tools to ensure that archi-  
10 tects, developers, and the forest products industry  
11 are aware of, understand, and can use the informa-  
12 tion to make sound decisions and implement  
13 projects.

14 (5) To develop and facilitate the adoption, on a  
15 voluntary basis, of a curriculum for building struc-  
16 tures using mass timber for use in schools of engi-  
17 neering and architecture that includes—

18 (A) structural design; and

19 (B) the possibilities, benefits, and limita-  
20 tions of using mass timber in construction.

21 (e) MASS TIMBER PLAN.—Not later than September  
22 30, 2025, the Secretary shall submit to the relevant com-  
23 mittees of Congress a mass timber plan that includes—

24 (1) an assessment of the current state of knowl-  
25 edge about mass timber and tall wood buildings;

1           (2) an integrated approach to improve knowl-  
2           edge sharing;

3           (3) an approach for project monitoring and  
4           evaluation; and

5           (4) an approach for setting research priorities.

6           (f) STAKEHOLDER ADVISORY GROUP.—

7           (1) MEMBERSHIP.—The Secretary shall appoint  
8           a stakeholder advisory group of technical experts  
9           that consists, at a minimum, of—

10                   (A) a Forest Service scientist;

11                   (B) a researcher from a college or univer-  
12                   sity;

13                   (C) a representative of a trade association;

14                   (D) an architect or developer;

15                   (E) a representative of a local approving  
16                   agency;

17                   (F) a representative of a forest products  
18                   company; and

19                   (G) a representative of a nongovernmental  
20                   organization with experience—

21                           (i) designing or constructing tall wood  
22                           buildings; or

23                           (ii) complying with or revising related  
24                           building codes.

1           (2) DUTIES.—The stakeholder advisory group  
2 shall meet at least annually—

3           (A) to consider immediate and long-term  
4 science needs;

5           (B) to suggest to the Secretary appropriate  
6 topic areas, specific issues within those topic  
7 areas, and information transfer needs for which  
8 the Secretary shall solicit proposals described in  
9 subsection (d)(3); and

10           (C) to assist the Secretary in drafting the  
11 mass timber plan required under subsection (e).

12       (g) ASSISTANCE.—The Secretary may provide to the  
13 Secretary of Transportation and to States technical assist-  
14 ance relating to the use of wood in bridges when under-  
15 going revisions to a State bridge design manual.

16       (h) AVAILABILITY OF APPROPRIATIONS.—From  
17 amounts appropriated for Forest Service research, exclud-  
18 ing funding made available for the Forest Inventory and  
19 Analysis program, the Secretary may use \$4,000,000 to  
20 carry out the activities described in this section.

## 21       **TITLE IV—MISCELLANEOUS**

### 22       **SEC. 401. DESIGNATION OF PATSYE CRITES FOREST.**

23       (a) DESIGNATION.—On acquisition by the United  
24 States, the approximately 2,693.31 acres of land within  
25 the Monongahela National Forest identified on the map

1 prepared by the Forest Service entitled “Blackwater Can-  
2 yon” and dated August 5, 2024, shall be known and des-  
3 ignated as the “Patsye Crites Forest”.

4 (b) REFERENCES.—Any reference in a law, map, reg-  
5 ulation, document, paper, or other record of the United  
6 States to the land acquired under subsection (a) shall be  
7 deemed to be a reference to the “Patsye Crites Forest”.