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REPORT
108-254

COOPERATIVE FORESTRY ASSISTANCE ACT OF 1978

APRIL 26, 2004.—Ordered to be printed

Mr. DOMENICI, from the Committee on Energy and Natural Resources, submitted the following

R E P O R T

[To accompany S. 1910]

The Committee on Energy and Natural Resources, to which was referred the bill (S. 1910) to direct the Secretary of Agriculture to carry out an inventory and management program for forests derived from public domain land, having considered the same, reports favorably thereon without amendment and recommends that the bill do pass.

PURPOSE OF THE MEASURE

The purpose of S. 1910 is to direct the Secretary of Agriculture to carry out an inventory and management program for forests derived from public domain land.

BACKGROUND AND NEED

Recent focus on restoring the health of and reducing hazardous fuels in forested lands in our National Forests has highlighted the importance of accurately identifying and monitoring the location, type, and conditions of forest stands. This information also is crucial in developing a comprehensive early warning system for potential catastrophic environmental threats to these forests. Such a system would significantly increase the likelihood that forest managers could isolate and treat any such outbreak before it gets out of control. Recent advances in technology offer promising methods for collecting this information more efficiently and effectively.

A program designed to accomplish these goals already is authorized for some National Forest lands, but its focus is limited to the Eastern United States. These continues to be a need to develop this information for National Forest lands in the West, however.

LEGISLATIVE HISTORY

During the development of the Healthy Forest Restoration Act of 2003, Pub. L. No. 108-148 (2003), the program authorized by S. 1910 was included in the Act as it passed the Senate. In conference, however, the Senate language was dropped in favor of more limited language from the House bill that focused on forest in the East. See, e.g., H.R. Rep. No. 108-386 at 43-44 (2003); tit. VI, Sec. 601, Pub. L. No. 108-148 (2003).

S. 1910 was introduced in the Senate by Senator Wyden on November 20, 2003. The Subcommittee on Public Lands and Forests held a hearing on February 12, 2004. At the business meeting on March 24, 2004, the Committee on Energy and Natural Resources ordered the measure favorably reported without amendment.

COMMITTEE RECOMMENDATIONS

The Senate Committee on Energy and Natural Resources, in an open business session on March 24, 2004, by a unanimous voice vote of a quorum present, recommends that the Senate pass S. 1920.

SECTION-BY-SECTION ANALYSIS

Section 1 amends section 17 of the Cooperative Forestry Assistance Act of 1978 by striking the effective date of the original Act and inserting new language addressing forest inventory and management.

Subsection (a) of the amendment directs the Secretary to carry out a program to inventory, monitor, characterize, assess and identify forest stands on National Forest System lands derived from the public domain and private forest land with the consent of the landowner.

Subsection (b) of the amendment requires the use of remote sensing technology, emerging geospatial research capabilities, validating techniques, and integrated results.

Subsection (c) of the amendment directs the Secretary to address early detection of environmental threats such as insect, disease, invasive species, fire, acid deposition, and weather-related risks and other episodic events, forest degradation, carbon uptake, management practices, and forest characterization.

Subsection (d) of the amendment requires the development of an early warning system for potential catastrophic environmental threats to forests.

Subsection (e) of the amendment designates the Ochoco National Forest headquarters in Prineville, Oregon, to address the issues in described subsection (c), with emphasis on coniferous stands in the Western United States.

Subsection (f) of the amendment authorizes appropriations.

COST AND BUDGETARY CONSIDERATIONS

The following estimate of the costs of this measure has been provided by the Congressional Budget Office:

U.S. CONGRESS,
 CONGRESSIONAL BUDGET OFFICE,
 Washington, DC, March 29, 2004.

Hon. PETE V. DOMENICI,
 Chairman, Committee on Energy and Natural Resources,
 U.S. Senate, Washington, DC.

DEAR MR. CHAIRMAN: The Congressional Budget Office has prepared the enclosed cost estimate for S. 1910, a bill to direct the Secretary of Agriculture to carry out an inventory and management program for forests derived from public domain land.

If you wish further details on this estimate, we will be pleased to provide them. The CBO staff contact is Megan Carroll.

Sincerely,

ELIZABETH M. ROBINSON
 (For Douglas Holtz-Eakin, Director).

Enclosure.

S. 1910—A bill to direct the Secretary of Agriculture to carry out an inventory and management program for forests derived from public domain land

Summary: S. 1910 would authorize the appropriation of funds necessary for the Secretary of Agriculture to establish a program to assess the health of certain federal and private forests, primarily in western states. The bill would direct the Secretary to develop means of detecting potentially catastrophic environmental threats to those forests and specifies that those efforts should be carried out from a facility in the Ochoco National Forest in Oregon.

Based on information from the Forest Service about the level of effort and resources needed to meet those requirements, CBO estimates that implementing S. 1910 would cost \$2 million in 2005 and \$24 million over the 2005–2009 period, assuming appropriation of the necessary amounts. The bill would not affect direct spending or revenues. S. 1910 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA) and would impose no costs on state, local, or tribal governments.

Estimated cost to the Federal Government: For this estimate, CBO assumes that S. 1910 will be enacted near the start of fiscal year 2005 and that amounts estimated to be necessary will be provided each year. Estimates of outlays are based on historical spending patterns for similar activities. The estimated budgetary impact of S. 1910 is shown in the following table. The costs of this legislation fall within budget function 300 (natural resources and environment).

	By fiscal year, in millions of dollars—				
	2005	2006	2007	2008	2009
CHANGES IN SPENDING SUBJECT TO APPROPRIATION					
Estimated authorization level	5	5	5	5	5
Estimated outlays	2	6	6	5	5

Intergovernmental and private-sector impact: S. 1910 contains no intergovernmental or private-sector mandates as defined in UMR and would impose no costs on state, local, or tribal governments.

Estimate prepared by: Federal Costs: Megan Carroll. Impact on State, Local, and Tribal Governments: Marjorie Miller. Impact on the Private Sector: Selena Caldera.

Estimate approved by: Peter H. Fontaine, Deputy Assistant Director for Budget Analysis.

REGULATORY IMPACT EVALUATION

In compliance with paragraph 11(b) of rule XXVI of the Standing Rules of the Senate, the Committee makes the following evaluation of the regulatory impact which would be incurred in carrying out S. 1910.

The bill is not a regulatory measure in the sense of imposing Government-established standards or significant economic responsibilities on private individuals and businesses. Private land only will be considered with the consent of the landowner.

No personal information would be collected in administering the program. Therefore, there would be no impact on personal privacy.

Little, if any, additional paperwork would result from the enactment of S. 1910.

EXECUTIVE COMMUNICATIONS

On February 12, 2004, the Committee on Energy and Natural Resources requested legislative reports from the Department of Agriculture and the Office of Management and Budget setting forth executive views on S. 1910. The testimony provided by the Department of Agriculture at the Subcommittee hearing follows:

STATEMENT OF USDA FOREST SERVICE, DEPARTMENT OF AGRICULTURE

Mr. Chairman and Members of the Committee, thank you for the opportunity to present the Department of Agriculture's views on S. 1910, a bill to direct the Secretary of Agriculture to carry out an inventory and management program for forests derived from public domain land with the purpose of providing long term solutions to forest health issues. The Department of Agriculture supports S. 1910.

On December 3, 2003, President Bush signed into law the Healthy Forests Restoration Act (HFRA) of 2003 to reduce the threat of destructive wildfires while upholding environmental standards and encouraging early public input during review and planning processes. The legislation is based on sound science and helps further the President's Healthy Forests Initiative pledge to care for America's forests and rangelands, reduce the risk of catastrophic fire to communities, help save the lives of firefighters and citizens, and protect threatened and endangered species. The HFRA also authorizes a forest stand inventory and monitoring program to improve detection for and response to environmental threats on National Forest lands other than those NFS lands reserved from the public domain and private lands with the owners' consent.

S. 1910, as introduced, would complement the Healthy Forest Restoration Act by authorizing an inventory and

management program on National Forest lands reserved from the public domain with an emphasis on forest stands in the Western United States. The bill would amend the Cooperative Forestry Assistance Act of 1978 to direct the Secretary of Agriculture to use geospatial and information management technologies to inventory, monitor, and identify National Forest System and private (with landowner consent) forest stands through the application of remote sensing technology of the National Aeronautics and Space Administration (NASA) and the United States Geological Survey; emerging geospatial capabilities in research activities; field verification to validate techniques; and integrating the results into pilot operational systems.

Under the provisions of the S. 1910, the Secretary would address: (1) environmental threats (including insect, disease, invasive species, fire, acid deposition, and weather-related risks and other episodic events); (2) forest degradation, and preventive management practices; (3) quantification of carbon uptake rates; and (4) characterization of vegetation types, density, fire regimes, and post-fire effects. The bill would require the Secretary to develop a comprehensive early warning system for potential catastrophic environmental forest threats.

The Secretary would also designate and maintain a facility in the Ochoco National Forest headquarters in Prineville, Oregon, to address these issues.

S. 1910 is important because it recognizes the critical need to help identify priorities and monitor progress as implementation of the National Fire Plan, the President's Healthy Forests Initiative and the Healthy Forest Restoration Act proceeds. Current condition class and fire regime maps require updating, and by using remote sensing the Forest Service can track changes in condition class over time as vegetation changes and projects are implemented on the ground. Opportunities exist to work with NASA, other agencies and the commercial sector to use state-of-the-art technologies in earth observations, from aircraft and spacecraft, and output from predictive models to improve the timeliness and accuracy of forest and rangeland inventories, monitor changes over time, and detect insect and disease infestations.

Several existing Forest Service programs are well positioned to help address the issues identified in the proposed legislation.

The Forest Service participates in national and international monitoring efforts for disturbances, forest health, and sustainability. Forest Health Monitoring (FHM) is a national program designed to determine the status, changes, and trends in indicators of forest condition on an annual basis. The FHM program uses data from ground plots and surveys, aerial surveys, and other biotic and abiotic data sources and develops analytical approaches to address forest health issues that affect the sustainability of forest ecosystems.

Forest Inventory and Analysis (FIA) is the Nation's forest census. The Forest Inventory and Analysis program collects data and reports annually on strategic-scale status and trends in the Nation's forests, including data on forest threats, degradation, and vegetation characterization. These reports cover status and trends in forest area and location; species, size, and health of trees; total tree growth, mortality, and removals by harvest; wood production and utilization rates by various products; and forest land ownership. The FIA program includes information relating to tree crown condition, lichen community composition, soils, ozone indicator plants, complete vegetative diversity, and coarse woody debris. In addition to strategic-scale analysis, National Forest land managers are highly interested in monitoring forests at the stand level. Active stand-level inventory programs are underway in several Regions and could be applied in the forests of eastern Oregon.

A part of the President's Climate Change Science program involves interagency activity focused on integrating land-based and remote sensing inventories of carbon. This integration is done through partnerships at a variety of work units across the United States to cover all forest ecosystems. Forest Service Research and Development produces the national forest carbon inventory, through a multi-disciplinary national team, and includes quantification of carbon uptake. Other research activities develop carbon uptake estimates, carbon management systems, and management practices that protect and enhance forest health and productivity.

The agency also participates in developing detection, monitoring and mitigation systems for invasive species at various scales. The Forest Health Protection program of the Forest Service works closely with other Federal and State partners to detect and eradicate new invasions of invasive forest insects and pathogens, such as the Asian longhorned beetle, emerald ash borer, and sudden oak death, with the aim of reducing future impacts to urban and forest environments.

The proposed inventory program in S. 1910, especially integrated with the existing inventory and monitoring activities of the Forest Service and our state partners, would complement those programs in important ways. Specifically, increasing emphasis on stand-level monitoring will be of great interest to land managers and others involved in planning and implementing specific forest management projects on the ground. Linking these programs would support an effective early warning system that will enable land managers to isolate and treat before the threat gets out of control; and prevent epidemics that could be environmentally and economically devastating to forests.

The Central Oregon location presents opportunities to pilot technologies due to the diverse forest types ranging from wet Douglas fir and mountain hemlock at the crest of the Cascades to dry juniper and sagebrush at the lower

elevations, and the various forest types in-between. Forests across central Oregon are representative of most of the coniferous forests across the west. Insects and diseases present include Mountain Pine Beetle, spruce budworm, various root rots, and mistletoe. An Inventory Center on the Ochoco National Forest would provide an opportunity to integrate and synthesize important forest health and fuels information from Forest Service Research and Development, State and Private Forestry and National Forest Systems.

We would like to work with the communities on the exact location of the center within the Prineville community. We believe there may be sites other than the headquarters building which would serve the purposes of the bill.

We look forward to working with the committee and others interested in addressing healthy forest ecosystems. This concludes my testimony. I would be happy to answer any questions that you may have.

CHANGES IN EXISTING LAW

In compliance with paragraph 12 of rule XXVI of the Standing Rules of the Senate, changes in existing law made by S. 1910, as ordered reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new matter is printed in italic, existing law in which no change is proposed is shown in roman):

COOPERATIVE FORESTRY ASSISTANCE ACT OF 1978

(Public Law 95-313; 92 Stat. 365)

* * * * *

【EFFECTIVE DATE

【SEC. 17. The provisions of this Act shall become effective October 1, 1978.】

SEC. 17. FOREST INVENTORY AND MANAGEMENT.

(a) *IN GENERAL.*—The Secretary shall carry out a program using geospatial and information management technologies (including remote sensing imaging and decision support systems) to inventory, monitor, characterize, assess, and identify forest stands and potential forest stands on—

(1) *units of the National Forest System derived from public domain land; and*

(2) *private forest land, with the consent of the owner of the land.*

(b) *MEANS.*—The Secretary shall carry out the program through the use of—

(1) *remote sensing technology of the National Aeronautics and Space Administration and the United States Geological Survey;*

(2) *emerging geospatial capabilities in research activities;*

(3) *validating techniques, including coordination and reconciliation with existing data through field verification, using application demonstrations; and*

(4) integration of results into pilot operational systems.

(c) *ISSUES TO BE ADDRESSED.*—In carrying out the program, the Secretary shall address issues including—

(1) early detection, identification, and assessment of environmental threats (including insect, disease, invasive species, fire, acid deposition, and weather-related risks and other episodic events);

(2) loss or degradation of forests;

(3) degradation of the quality forest stands caused by inadequate forest regeneration practices;

(4) quantification of carbon uptakes rates;

(5) management practices that focus on preventing further forest degradation; and

(6) characterization of vegetation types, density, fire regimes, post-fire effects, and condition class.

(d) *EARLY WARNING SYSTEM.*—In carrying out the program, the Secretary shall develop a comprehensive early warning system for potential catastrophic environmental threats to forests to increase the likelihood that forest managers will be able to—

(1) isolate and treat a threat before the threat gets out of control; and

(2) prevent epidemics, such as the American chestnut blight in the first half of the twentieth century, that could be environmentally and economically devastating to forests.

(e) *ADMINISTRATION.*—To carry out this section, the Secretary shall designate and maintain a facility in the Ochoco National Forest headquarters in Prineville, Oregon, that will address the issues described in subsection (c), with a particular emphasis on coniferous forest stands in the Western United States.

(f) *AUTHORIZATION OF APPROPRIATIONS.*—There are authorized to be appropriated such sums as are necessary to carry out this section.

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