Part D

REQUIRED SUPPLEMENTARY STEWARDSHIP INFORMATION

Unaudited

Stewardship Investments

The stewardship objective of Federal financial reporting includes accountability for stewardship investments.

Stewardship investments are expenses and investments incurred for education and training of the public that is intended to increase national economic productive capacity (investment in human resources), and research and development intended to produce future benefits.

RESEARCH AND DEVELOPMENT—FOREST AND RANGELAND RESEARCH

FY 2009 Net Cost of Operations: $322 Million
Of the $322 million—

$301 million was an investment of Research and Development (R&D) funding;
$ 21 million was an investment of National Fire Plan funding and Joint Fire Science Program funding.[1]

Forest Service R&D has an integrated portfolio that supports achievement of the agency's strategic goals with an emphasis in seven strategic program areas (SPAs).

Wildland Fire and Fuels
Wildland Fire and Fuels R&D provides managers with the knowledge and tools to reduce the negative impacts of fire and enhance the beneficial effects of fire, as a natural process, and the human process of fire and fuels management on society and the environment.

Research focuses on understanding and modeling fundamental fire processes, interactions of fire with ecosystems and the environment, social and economic aspects of fire, evaluation of integrated management strategies and disturbance interactions at multiple scales, and application of fire research to address management problems.

Invasive Species
Invasive Species R&D provides the scientific information, methods, and technology to reduce or eliminate the introduction, spread, and impact of invasive species, and to restore or improve the functionality of ecosystems affected by invasives species.

Research focuses on plants, animals, fish, insects, diseases, invertebrates, and other species not native to an ecosystem whose introduction is likely to cause economic or environmental harm.

Water, Air, and Soil
Water, Air, and Soil R&D enables the sustainable management of these essential resources by providing clear air and safe drinking water, by protecting lives and property from wildlife fire and smoke, and through adapting to climate variability and change.

The program features ecosystem services with a high level of integration between water, air, and soil research, such as the effects of climate variability and change on water budgets or carbon sequestration from an ecosystem perspective.

Wildlife and Fish
Wildlife and Fish R&D relies upon interdisciplinary research to inform policy initiatives affecting wildlife and fish habitat on private and public lands, and the recovery of threatened or endangered species.

[1] The Joint Fire Science Program is appropriated to the Forest Service in the Wildland Fire Treasury Symbol 12X1115. FY 2008 was the first year the Forest Service transferred these funds over to the Research and Development Treasury Symbol 12X1104, as specified in the Appropriations Act, P.L. 110-161.

Scientists investigate the complex interactions among species, ecosystem dynamics and processes, land use and management, and any emerging broadscale threats, including global climate change, loss of open space, invasive species, and disease.

Resource Management and Use

Resource Management and Use R&D provides the scientific and technology base to sustainably manage and use forest resources and forest fiber-based products.

Research focuses on the plant sciences, soil sciences, social sciences, silviculture, productivity, forest and range ecology management, harvesting and operations, forest and biomass products and utilization, economics, urban forestry, and climate change.

Outdoor Recreation

Outdoor Recreation R&D promotes human and ecological sustainability by researching environmental management, activities, and experiences that connect people with the natural world.

Research in Outdoor Recreation is interdisciplinary, focusing on nature-based recreation and the changing trends in American society; connections between recreation visitors, communities, and the environment; human benefits and consequences of recreation and nature contact; the effectiveness of recreation management and decisionmaking; and sustaining ecosystems affected by recreational use.

Inventory and Monitoring

Inventory and Monitoring R&D provides the resource data, analysis, and tools needed to monitor forest ecosystems at greatest risk from rapid change due to threats from fire, insects, disease, natural processes, or management actions. From their research, scientists determine the status and trend of the health of the Nation's forests and grasslands, and the potential impact from climate change.

Their research integrates the development and use of science, technology, and remotely sensed data to better understand the incidences of forest fragmentation over time from changes in land use or from insects, disease, fire, and extreme weather events.

A representative summary of FY 2009 and prior-year accomplishments using Forest Service appropriated funds includes the following:

R&D Stewardship Investments	2009	2008	2007	2006	2005
Net Cost of Operations (in millions)	$322	$304	$262	$318	$296
New interagency agreements and contracts	57	40	41	54	63
Interagency agreements and contracts continued	12	12	17	15	93
Articles published in journals	2,294	1,903	1,336	1,691	1,320
Articles published in all other publications	886	1,487	1,846	1,817	1,779
Patent(s) granted	3	6	3	7	7
Patent licenses executed	0	1	0	1	16

The Forest Service renamed the measure "Right(s) to inventions established" from previous years, to "Patent licenses executed" to be more clear and consistent with the Technology Transfer Report, however, the definition remains the same.