



Briefings on Forest Issues

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To view all of SAF's Position Statements visit:
<http://www.safnet.org/policyandpress/positionstatements.cfm>

About the Society of American Foresters

Gifford Pinchot and six other pioneer foresters founded the Society of American Foresters (Society, SAF) in 1900. The Society, with more than 18,000 members, is the national organization representing the forestry profession in the United States. SAF includes public and private scientists and practitioners, administrators, educators, and forestry students as its members. It is also the accreditation authority for professional forestry education in the United States.

The mission of the Society of American Foresters is to advance the science, education, technology, and practice of forestry; to enhance the competency of its members; to establish professional excellence; and to use the knowledge, skills, and conservation ethic of the profession to ensure the continued health and use

of forest ecosystems and the present and future availability of forest resources to benefit society.

Society members subscribe to a code of ethics, the foundation for their professional behavior in relations with the land, the public, their employers (including clients), and with each other. Stewardship of the land is the cornerstone of the forestry profession. As such, SAF members advocate and practice land management consistent with ecologically sound principles.

The Society publishes the *Journal of Forestry*, *The Forestry Source*, *Forest Science*, *Southern Journal of Applied Forestry*, *Northern Journal of Applied Forestry*, *Western Journal of Applied Forestry*, and *Proceedings* of the Society's national convention.

Forest Resource Facts

The 2002 RPA Forest and Rangeland Assessment completed by the USDA Forest Service is a comprehensive overview of the demand for and supply of the United States' public and private forest resources. The assessment found that increases in population, average income levels, and public interest in natural resources has led to added pressures on the resource base. The assessment also provided information on the nation's forest resources including timber, water, range, forage, outdoor recreation, wildlife and fish, and minerals.

Resource Base—The United States has approximately 747 million acres of forest land (Smith, 2001). Of this, over half (54.2 %) is in non-industrial private forest land, one-quarter is in federal ownership, ten percent is in industrial ownership and ten percent is in other public ownership.

Approximately 84 percent of the public owned forest land is in the West and 67 percent of the privately owned forest land is in the East. The Great Lakes states have the highest proportion of state and county land. There has been an increase in the proportion of forest area in smaller ownership units nationwide making landscape level planning increasingly difficult.

The growth-removal ratio on forest lands exceeds 1.0 for both hardwoods and softwoods; however, the United States is expected to remain a net importer of timber products for the foreseeable future. Canada is likely to remain the primary source of these imports and will provide for roughly one-third of U.S. lumber consumption over the next fifty years.

There are approximately 571,000 rangeland acres found in the United States, of which, one-third is in federal ownership. Of the remaining two-thirds in non-federal ownership, 61 percent are found in the Rocky Mountain region. The Bureau of Land Management manages 27 percent of these lands with the Forest Service managing roughly 7 percent.

Timber—Our Nation's dependence on wood increases as population levels continue to multiply. Since 1965, the per capita consumption of wood and paper products has increased approximately 30 percent.

To meet this demand, the United States has 504 million acres of classified forest land that is capable

of producing at least 20 cubic feet per acre per year and is not withdrawn from timber utilization by statute or administrative regulation (Smith et al., 2001). Close to 90 percent of the total output from these forest lands comes from private ownership with 1 in 4 of these private lands managed with timber production as the primary management objective. The amount of harvest from National Forest System lands will remain stable at 800 million cubic feet through 2050.

Meeting the nation's demands has been achieved through innovative advances in the area of wood utilization. Since the early 1950's, it is estimated that there has been a 39 percent increase in the amount of wood and paper products produced per cubic foot of wood input. Because of advances in wood utilization, U.S. consumers in the 1990's were provided with numerous goods and services. For each 1 billion cubic feet of timber harvested, consumers were provided with::

- 88,031 new homes
- 5.2 million tons of pulp, paper, and paperboard products
- 24.7 million new shipping pallets
- 121 trillion Btu's of wood energy
- 3.7 million tons of other wood products, such as furniture and telephone poles.

Water—Public and private forests play a critical role in providing the nation with clean and safe water for consumptive uses, recreation, and aquatic habitat. As population increases test many of our natural resources, so too will pressure be placed on water resources in forests. As the demand for off-stream water needs multiplies, instream flows decrease, causing environmental conflicts and potential injury to aquatic resources.

On the 191 million acres of National Forest System lands, there are approximately 128,000 miles of fishable streams and rivers, over 2.2 million acres of lakes, ponds, and reservoirs, and 12,500 miles of coast and shoreline. The water quality in 3 out of 4 of the Nation's assessed river miles, lake acres, and estuarine areas can support the "aquatic life use" designated under the Clean Water Act (Loftus and Flather, 2000).

Range Forage—Management of USDA Forest Service rangelands will continue to be oriented to vegetation management, with multiple uses as the

desired output mix (Mitchell, 2000). In addition to providing forage, rangelands provide recreational opportunities for many people, conserve biodiversity, provide sources of clean water, and store carbon.

With the total amount of grazing land expected to slowly decline over the next 50 yrs, livestock grazing is expected to follow. It is estimated that beef cattle and sheep consume approximately 431 million animal unit months of grazed forages each year (Mitchell, 2000).

Outdoor Recreation and Wilderness—The national forests play a unique role in providing recreational opportunities. In the National Forest System today, there are 18 national recreation areas, 7 national scenic areas, 4 national monuments, 133 scenic byways, 96 wild and scenic rivers, 4 national scenic or historic trails and over 100,000 heritage sites representing over 10,000 years of history. Many of these lands are available to the public for recreational purposes. The proportion of privately owned forest land open to the public and free of charge, however, has declined since 1979 to 15 percent in 1996 (Cordell, 1999).

In 1995, more than 9 out of 10 people in the United States participated in some form of outdoor recreation. The most popular recreation activities were the ones that could be enjoyed close to home without large outlays of time or money and do not require high levels of specialized skills (Cordell, 1999). Due in part to projected rising incomes, the number of participants in most recreation activities is projected to increase.

In 1997, approximately 53 million acres of forest land were classified as reserved (Forest land withdrawn from harvest by statute or administrative regulation) including wilderness areas on Federal and State lands and national parks (Smith et al., 2001). As much as 1 in 5 acres of National Forest Systems land is classified as wilderness and area continues to be added to the National Wilderness Preservation System. Visitor use of wilderness areas is expected to grow by as much as 1 percent per year for the next 50 years (Cordell 1999).

Wildlife and Insects—Range lands, forest lands, and wetlands support a wide variety of species. There is an estimated 419 native species of mammals, 281 species of reptiles, 240 species of amphibians, and 800 freshwater species in the United States. Of the forest dependent species, 187 have been found to occupy a reduced portion than their former ranges. Growing human populations could add to this number as humans compete for limited ecosystem goods and services provided by forests and rangelands.

Threatened and endangered species are found across the nation. Areas with high amounts include the Ozark Highlands, the Great Plains from Nebraska to North Dakota, the central California Coast, and the Washington- Oregon border (Hof et al., 1999). As development pressures remain and exotics species continue to invade, the struggle to delist many forest and nonforest dependent endangered and threatened species will remain.

The United States contains an estimated 58 million acres of forests that are expected to have twenty- five percent higher than normal mortality rates for the next fifteen years as a result of insects. In 1998 alone, over 54 million acres of forested land were affected by various insect and diseases. There are 70 major insect pests in the United States, 19 of which are exotics.

Minerals—The nation's forests and rangelands are underlain with extensive supplies of metallic and precious metals sufficient enough to accommodate domestic demand through the middle of this century. Many of the mineral reserves found under federal lands are protected by certain restrictions to protect surface resources. The U.S. economy consumes over \$132 billion annually of domestically produced and reclaimed minerals and metals (Shields et al. 1996). Increasing population is expected to lead to net increases in demand for most minerals by 2050, while production of minerals and energy commodities in the United States decreases. Nonetheless, National Forest System Lands remain a major producer of many commodities.

Biological Diversity in Forest Ecosystems

Background Biological diversity has evolved over time through the influence of ecological processes, including historical disturbance regimes such as fire, flood, wind events, and insect infestation. Human activities that affect biological diversity include disruption of ecological processes (e.g., fire regimes), conversion of forest to alternate land uses, introduction of exotic species, fuelwood gathering, subsistence agriculture, and forest management.

Since the beginning of the profession, foresters have attempted to meet human demands by managing for a sustained yield of commodities in perpetuity. Today, a more comprehensive view of sustainability has emerged in which sustained yield of wood and fiber is one of several goals. This view of sustainability includes concerns about relationships among human uses of forests, biological diversity, ecosystem processes, and economic and social well-being.

Forest management practices have evolved to produce commodities, enhance recreational opportunities, maintain the quality of water derived from forested watersheds, imitate and restore ecological processes, and protect critical habitat. The impact of these practices on biological diversity is a function of the temporal and spatial scales of management actions rather than of the activities themselves.

Foresters should recognize the context of their operations and its potential implications for biological diversity. Within forest-dominated landscapes, contextual considerations may include attributes of the mosaic of forest structural classes, the diversity of native tree species, and the distribution of features (e.g., abiotic features, retention areas, corridors, edges) within and among stands.

Issue Biological diversity is a basic characteristic of forests that has economic, social, and ecological implications. Accelerating human demands on natural systems have engendered concern about balancing land use with objectives related to biological diversity, including providing adequate forested habitat for various species dependent on forest ecosystems. Forests should be managed within the context of other factors that affect them, including ownership objectives, human needs, natural

disturbances, introduced species, and land-use changes such as urban encroachment.

Position Professional foresters can contribute to the management of landscapes for biological diversity by virtue of their knowledge, training, and experience. The SAF supports forest management approaches that consider the interaction of biological diversity with other forest ecosystem characteristics, including human and natural disturbances. This requires not only selecting appropriate management practices, but associated challenges incorporating biological diversity considerations into planning, monitoring, education, research, and data collection and analysis.

The SAF believes active forest management can play a role in maintaining this diversity by approximating ecological processes that have been disrupted.

Utilization of Forest Biomass to Restore Forest Health and Improve US Energy Security

Position: The Society of American Foresters (SAF) supports policies that promote utilization of forest biomass, together with those that assist communities, forest owners, public forest managers, and local entrepreneurs in accomplishing urgent wildfire prevention and forest health improvement projects. Increased utilization of forest biomass will help improve the nation's energy security by providing an abundant, renewable fuel resource as a substitute for imported fossil fuels. In addition, expanded opportunities to increase utilization of forest biomass are needed to help reduce the accumulation of hazardous fuels and restore healthy forest conditions.

SAF supports strategies and policies that promote development of economically viable forest biomass production, delivery, and processing capabilities in regions where the needs and opportunities are greatest. Public energy and natural resource agencies, and private sector organizations, are encouraged to expand their capabilities and adopt both nationwide and state-specific strategies to increase utilization of forest biomass, including providing support for demonstration projects, funding for targeted research and development opportunities, and inclusion of forest biomass as a qualifying fuel in federal and state renewable energy portfolio policies. Overstocked forests in the U.S. benefit from thinning, which additional markets for small-diameter trees and forest biomass can help support. Expanded opportunities for

utilization of forest biomass would enable forest owners and resource managers to restore the forest to a more productive condition, thereby providing an enhanced economic incentive to retain lands in forest cover and reducing the likelihood that forests will be converted to non-forest land uses.

Issue: Forest biomass-based fuels are an important substitute source of energy for power generation facilities, and potentially for transportation fuels. The U.S. currently utilizes forest biomass to provide about 3% of the nation's total energy needs. Our country's dependence on non-renewable energy sources and foreign supplies of fossil fuel poses a threat to our nation's energy security. Continued reliance on non-renewable energy sources, particularly foreign imports, can have environmental, economic, and national security implications. Increasing our ability to utilize forest biomass can help reduce our dependence on non-renewable energy sources.

Increased utilization of forest biomass will provide forest managers with the ability to alleviate hazardous fuel and wildfire conditions, improve the quality and productivity of forests, and provide a valuable alternative source of energy to help meet the nation's electrical power generation and transportation fuel requirements.

Clearcutting

Background Clearcutting is a forest regeneration method used to produce even-aged stands. It consists of cutting essentially all trees, producing a fully exposed microclimate for the development of a new age class. The method was introduced in Germany in the 1700s where overuse of single-tree cutting had retained trees of low value and resulted in poor forest quality. Its primary objectives are to produce forest products and re-establish even-aged stands of relatively shade-intolerant species.

The applicability of clearcutting varies depending on: (1) type of ownership; (2) landowner objectives; (3) shade tolerance of the desired tree species; and (4) site-specific conditions such as visual sensitivity, slope, and the presence of sensitive wildlife species.

Failure to use clearcutting can have long-term implications for achieving desired forest conditions and land management objectives. For example, in the absence of natural fire regimes, shade-intolerant species are likely to decline in ecosystems unless regenerated by clearcutting. Clearcutting plays an important role in creating and maintaining biological and structural diversity.

Several forest management and regulatory agencies and industry associations have sought to retain the use of clearcutting while minimizing its adverse impacts by imposing regulations or promoting standards for acceptable use. Examples include restricting clearcut size, postponing harvest of adjacent stands until regenerated stands reach a minimum age or height, retaining selected trees or patches of trees, conforming harvests to landscape features, and avoiding clearcutting in sensitive areas. Nonetheless, many others remain critical of clearcutting and advocate its abolition.

Situations where clearcutting is likely to be appropriate include: (1) forest stands consisting of suppressed or deformed trees of low value; (2) stands suffering insect, disease, windstorm, or fire damage; (3) areas where regenerating shade-intolerant tree species is a management objective; (4) areas where an objective is to increase the abundance of ecotones (i.e., edge habitat) or early successional habitat to support such species as songbirds and deer; and (5) areas where large-scale natural disturbances resulting in forest patches of at least several acres are the predominant processes of natural regeneration.

Situations where clearcutting tends to be inappropriate include: (1) visually sensitive areas such as forests adjacent to population centers, wilderness areas, or heavily traveled highways; (2) areas that support wildlife species dependent on large contiguous units of forest habitat (forest interior-dependent species); (3) areas where watershed function has been impaired by the cumulative effects of disturbances; and (4) landslide- or erosion-prone areas.

Issue Clearcutting has come under close scrutiny because of perceptions that it causes environmental damage. Many people mistakenly associate clearcutting with the conversion of forests to urban or agricultural uses. Clearcutting, especially in relatively large areas, has been associated with visual resource impairment, habitat degradation, landslides, surface erosion, and flooding. For these and other reasons, clearcutting has been progressively restricted on federal forests, and several state governments have followed suit on state and private lands. Prohibitions on clearcutting are advocated by some interest groups and have been legislatively proposed in states such as California (in 2000), Oregon (1998), and Maine (1996). Prohibitions on clearcutting could lead to declining abundance of shade-intolerant tree species (e.g., several pines, birches, aspens) and the habitats they support.

Position The clearcutting method of forest stand regeneration plays an important role in sustainable forest management and can be used effectively to produce desired forest conditions. It can be the best silvicultural method for regenerating shade-intolerant tree species, controlling forest insects and pathogens, and achieving other management objectives. As with any land management practice, it can have undesirable effects if it is improperly implemented or applied in the wrong location. Clearcutting is not appropriate in situations where, because of overriding resource sensitivities (e.g., visual sensitivity or landslide hazard), it is likely to result in significant adverse impacts. Except for such situations, however, clearcutting should be among the silvicultural methods considered for forest regeneration. It should only be applied by professional foresters or other qualified forest practitioners. The Society of American Foresters supports the continued development of forest practice standards to ensure the proper use of clearcutting.

Conservation Easements

Position Conservation easements are often an effective tool for maintaining working forests, preserving environmental values, and protecting communities from excessive development pressure. The Society of American Foresters (SAF) supports conservation easements as one tool for ensuring sustainable forest management. Easements are not appropriate for all forestlands, however, and should only be entered into with full understanding of their consequences. Foresters have a responsibility to ensure that landowners they are working with understand the benefits and restrictions of conservation easements.

Public financing of conservation easements should allow for maximum flexibility in negotiating terms and conditions of easements between a willing seller and a willing buyer. Conservation easements should be based on a forest management plan prepared by a professional forester. Public agencies involved in purchasing conservation easements should have strict internal policies to ensure that prices offered for easements are fair and that the agency's fiduciary responsibility to taxpayers is met. The most important source of federal funding for conservation easements, the Forest Legacy Program, should continue its focus on supporting sustainably-managed working forests.

Issue Conditions incorporated into conservation easements normally transfer when land is sold or bequeathed. Some landowners may not be interested in easements because they are reluctant to restrict the management options of their descendants or potential land buyers. In addition, some interest groups seek to divert Forest Legacy funds from the program's original intent to conserve working forestland, as specified in the 1990 Farm Bill.

Background A conservation easement is a voluntary legal agreement between a property owner and a qualified organization, such as a land trust or government agency, that limits the activities and uses that can take place on the property. Landowners (grantors) selectively give up some rights to some or all of their property, either through sale or donation.

An easement is recorded with the deed for the property and is usually perpetual, although the terms

and duration can vary. While the grantee or a third party is responsible for monitoring the property to ensure the terms are followed, the owner retains title to the land, and can sell it if he/she wishes, though the easement remains in effect.

While landowners have diverse motivations for selling conservation easements, usually the easement is sold to ensure that the land will not be developed, subdivided, or converted to non-forest use, often to preserve wildlife habitat. Easements may also carry financial benefits for the landowner, including income tax benefits, revenues from the sale of an easement, and property tax savings.

Most public agencies involved in purchasing conservation easements have strict policies to ensure that prices offered are fair and that the agency's fiduciary responsibility to taxpayers is thereby met. However, there is considerable potential for easements to sell for prices that greatly exceed the fair market value, such as when pressure is applied on the government to prevent development.

Public and private programs provide important funding sources for purchasing conservation easements. The leading sources of public funding are the federal Forest Legacy Program (FLP) and the Land and Water Conservation Fund (LWCF). Numerous state and local government programs also provide funds for conservation easements.

Herbicide Use in Forest Management

Background Research and experience have shown it is possible to significantly increase the growth of desired tree species by managing non-crop vegetation that compete for light, water, and nutrients. Vegetation management with herbicides may also be appropriate for achieving non-timber objectives such as enhancing wildlife habitat, watershed management, forage production for livestock, control of harmful weeds and non-native vegetation, protection from fire, and maintenance of rights-of-way and recreation sites. Science and professional practice have demonstrated that herbicides are a safe and effective method of managing forest vegetation. Herbicides can provide less overall risk than alternative vegetation control methods and often require less energy to implement.

Vegetative forest pests may be either exotic or indigenous to the local biotic community. Many exotic weeds are capable of aggressively colonizing forest ecosystems, thereby destroying habitat for native plants and animals. Such weeds are a growing threat to forest biodiversity throughout the U.S.

When weeds conflict with forest management objectives, herbicides should be considered along with other vegetation management alternatives, such as prescribed fire; manual, mechanical, or biological clearing; and weed mats, in developing an integrated vegetation management strategy. Upon evaluating alternative combinations of treatments, foresters should identify the ecological conditions that are promoting weed expansion and determine the most efficacious, environmentally sound, and cost-effective solutions for controlling the weed problem.

Training in the properties and appropriate use of herbicides is very important for foresters involved in all aspects of herbicide programs. Forest herbicide users must maintain appropriate licensing or certification as required by each state in which they operate.

The amount of herbicide used in forestry and other applications in the U.S. is very small compared to agriculture, which comprises 83%. Environmental effects must be evaluated, however, to ensure that specific herbicides can be safely used in the forest. Evaluation of risk associated with the use of any chemical requires consideration of its toxicity, the potential for exceeding exposure to a specified dose

over a specified time period, and the minimization of undesired effects (i.e. off-site herbicide movement) on the environment.

The Society of American Foresters supports, in principle, the registration process employed by the EPA, as directed by Congress, in regulating the effects of herbicides on the environment and public health. The registered application rates of herbicides currently used on forestlands are very unlikely to produce acutely toxic responses in non-target organisms, unless these organisms are plants. The modes of action (targeted to plant processes), short persistence, lack of accumulation in food chains, and rapid excretion by animals of forest herbicides minimizes chronic exposure.

Because herbicides applied at operational rates pose no health threat to most animals, the greatest effect of herbicides on wildlife will result from changes in the plant component of the habitat. It should be pointed out, however, that little is known about the impacts of surfactants (used to improve the dispersing, absorbing, spreading, sticking and/or penetrating properties of the spray mixture) and other adjuvants (additives), both of which are used in combination with different applications of herbicides. More research is needed to understand their impacts.

Foresters have an obligation to protect the health and safety of the public, forest workers, and the environment. This includes ensuring the competent use of herbicides and/or seeking guidance from qualified experts, posting appropriate public notification, and complying with all provisions of herbicide labels and following all applicable federal, state, and local laws and regulations.

Issue Herbicide use is one of several vegetation management alternatives. Although proven effective and environmentally responsible, their use in forest management remains controversial.

Position The Society of American Foresters supports the judicious use of herbicides in forest management as part of an integrated vegetation management strategy. Herbicides registered by the EPA and applied according to label directions and federal and state regulations are an environmentally safe option for managing undesired vegetation.

Federal Tax Treatment of Timber Investments

Position The Society of American Foresters advocates federal tax policies that encourage sustainable forest management, enhance the application of sound forest management principles, and address the unique nature of timber management programs. We strongly support the retention of forest land as forest land. Forestry investments should be treated fairly in comparison to other capital ventures.

Issue The federal income tax code is in conflict with the public interest objectives of sustainable private forest management and, in fact, discriminates against private forest ownership relative to other forms of investment with regard to treatment of income as ordinary (as opposed to long-term capital gains), restrictions on deductibility of forest management costs, and the low ceilings on reforestation costs eligible for rapid amortization and the reforestation tax credit.

With respect to the federal estate tax, the current provisions - although greatly improved, still present a great burden to many individuals who inherit forest land. The tax ranges from 39 to 50 percent of the taxable estate and is due nine months after the owner's death. To pay the tax, landowners often have to resort to converting forest land to other uses or the harvesting of timber that is inconsistent with forest management plans. The special use provisions of the law and the provision for paying the estate tax in installments are of little help. Although technically applicable, they can only be used by timber estates with great difficulty.

Background In 1943, Congress responded to growing forest liquidation problems by enacting Section 117(k) of the Internal Revenue Code. This placed owners who cut their timber themselves or who disposed of it under a pay-as-cut contract in the same capital gains status as non-managing forest owners who sold their timber outright in infrequent lump-sum transactions, or who disposed of their entire property at once. Section 117(k) was subsequently reenacted in 1954 as Section 631, which remains as law today.

The 1986 Tax Reform Act greatly affected the long-term commitments of forestland owners by eliminating the tax rate differential between ordinary income and capital gains. Although preferential long-term capital gains rates have since become part of the

tax code, the benefit is not as great as before the 1986 Act, when landowners could deduct management expenses. Since the 1986 Act, however, this has been greatly curtailed by the passive activity loss rules.

Despite changes to the estate tax laws that have greatly increased the size of the estate value that is exempt and gradually reduces rates, the tax still often provides a disincentive for retention of family forestland or prevents continuity of sustainable management even if the property is not sold. This situation is made worse by the fact that special use valuation, intended to help alleviate the estate tax problem for farm and timber owners, is largely inapplicable as a practical matter to timber estates. Also, very few timber estates are able to qualify under the strict rules of Section 6166 of the Tax Code which permits estate taxes to be paid over a 14-year period by qualifying family businesses at a very low interest rate.

Over 357 million acres, or 71% of timberland in the U.S. is privately owned. In 1991, this private land produced 82% of the nation's wood supply. The increasing pressure on private forestlands, combined with a lack of forest management incentives in today's tax system, leaves few options for private forest landowners to manage for long-term sustainability and environmental quality.

Existing federal tax provisions for reforestation have been an especially important source of investment capital for nonindustrial forest owners. Due to inflation, the tax benefits associated with amortization and the credit are worth much less now because of failure to increase the eligible dollar amount set when Congress incorporated these provisions into the Internal Revenue Code in 1980.

About 1/3 of forest estates owe the federal estate tax, while approximately 2 percent of estates in general owe the tax. The estate tax has an enormous effect on the decisions of forest landowners.

The Society of American Foresters recommends establishing tax policies that improve U.S. ability to compete internationally, modifying §631(b) of the Tax Code to encourage investments in forestry, indexing the tax deductible basis to account for inflation, modifying the material participation rules and criteria, retaining the reforestation tax provisions, and reforming the estate tax.

International Trade in Forest Products

Position The Society of American Foresters (SAF) recognizes that international trade in forest products is necessary for advancing global economic and social development. Trade provides the wide variety of wood and paper products needed by the world's growing population, while stimulating economic development and social betterment. SAF supports international trade when forest products result from sustainably managed forests in which biological diversity is conserved while socio-economic benefits are provided for resource dependent rural people. In addition, SAF advocates policies and programs, such as phytosanitary inspection systems, that protect forests from the introduction of non-native insects, diseases, and noxious weeds. SAF recognizes that these safeguards must address legitimate risks and not be unwarranted non-tariff barriers to trade. Further, SAF supports the ongoing efforts of the U.S. government to eliminate trade barriers and subsidies that give unfair competitive advantages.

Issue International trade in forest products provides the United States with an abundant supply of both solid wood and pulp and paper products from the world's temperate, boreal, and tropical forests, as well as markets for forest products produced domestically. U. S. produced wood and paper products likewise contribute to the economic well being of many nations. While imports provide U.S. consumers with a wide selection of competitively priced forest products, trade poses risks as well as benefits for the sustainability of the world's forest resources. In addition to concern about how trade barriers affect U.S. firms engaged in international trade, the SAF is concerned about the effect of international trade on the sustainability of the world's forest resources, and the conservation of biological diversity.

Background International trade in forest products provides social and economic benefits to the countries involved in such trade. Attaining these benefits at acceptable costs and risks is a global challenge of considerable importance. There is no global legal instrument in which forests are the main subject and in which they are viewed in a holistic way, with attention to the full range of goods and services they provide.

The sustainability of forest resources is a core value of SAF and a focal point for concerns about world forestry, and several definitions of sustainable forest

management have been recognized. As the world's largest producer and consumer of forest products, the United States has both an obligation and a major role to play in helping to insure that international forest products trade contributes to the advancement of sustainable forestry globally. The net social benefits of global forest products trade will be more fully realized when the temperate, boreal, and tropical forests that supply the world's wood and paper products are managed according to agreed-upon sustainable forestry principles and practices. Achieving this goal globally requires that forest owners, producers, suppliers, and consumers of forest products support ongoing efforts to verify that the wood and paper products involved in international trade have been produced according to recognized sustainable forest management standards.

The SAF supports forest management approaches that consider the interaction of biological diversity with other forest ecosystem characteristics, including human and natural disturbances. This requires not only selecting appropriate management practices, but associated challenges incorporating biological diversity considerations into planning, monitoring, education, research, and data collection and analysis. Global forest products trade must recognize that temperate, boreal, and tropical forests serve as reservoirs for biodiversity and provide critical habitats for threatened and endangered species. **Exotic Pests** - In addition to concerns about protection of biodiversity, both public and private forest owners and managers in the United States recognize the potential risk that international trade in forest products may result in the introduction of harmful, exotic insects, diseases, or noxious weeds to U.S. forests. The U.S. must maintain adequate phytosanitary safeguards against introduction of additional harmful insects, diseases, and noxious weeds via forest product imports or other channels.

Recognizing that international forest products trade is conducted according to rules established by governmental agreement through the World Trade Organization (WTO), SAF believes that forest owners and forest products manufacturers in the United States must be able to participate in global forest products trade on a "level playing field" with the countries our producers compete globally.

Loss of Forest Land

Position: The amount of forest land is decreasing in many states. A growing population demands more land, needed for residential and commercial development as well as highways and other infrastructure. The Society of American Foresters (SAF) believes that much of the permanent loss of forest land occurring today is avoidable and too often the result of uncontrolled urban expansion, lack of thoughtful land use policies, over regulation, and limited economic incentives to own and manage forest land.

SAF encourages state and local governments to adopt land use policies that respect the rights and responsibilities of forest owners, while recognizing the importance of forest lands to the citizens of local communities, states, and to the nation as a whole. SAF urges policy makers at all levels of government to recognize the essential role of forests in providing watershed and water quality protection, wildlife habitat, outdoor recreation opportunities, and the forest products that contribute to our social and economic well-being.

SAF also urges state and local governments to adopt forest taxation systems that encourage long-term investment in sustainable forest management in order to help maintain the viability of privately owned forests. SAF supports efforts to reform federal and state estate tax laws to prevent involuntary liquidation and parcelization of family-owned farms, ranches, and forests when such lands are passed from one generation to the next. SAF also supports ongoing landowner education and outreach efforts, and federal and state incentive programs that promote sustainable forest management by family forest owners. SAF also encourages the use of creative voluntary agreements, such as conservation easements, as important mechanisms for ensuring long-term protection of the nation's private forestlands.

Issue: Conversion of forest land to other land uses has many undesirable ecological, social, and economic consequences. While fundamentally a result of population growth, loss of forest land to uncontrolled urban expansion, subdivision, and commercial development is to some degree avoidable. Often, this is a result of outdated land use policies that have not kept pace with the rapid rate of growth of their communities.

The maintenance of forest lands in the United States is important because of the ecosystem benefits as well as socio-economic benefits they provide to their communities. Forested watersheds provide high quality water as well as essential habitat for numerous species of birds and mammals, including many threatened or endangered species. They are also important as carbon sinks in mitigating global climate change. The gradual, fragmentation and parcelization of extensive forested landscapes into smaller, disconnected tracts creates an expanding urban-forest interface. This can lead to increased risk of flooding and catastrophic wildfire, particularly in fire-prone Western states.

Economically, remaining tracts of forest are often too small to support ongoing investment in forest management or, in aggregate, to supply the volumes of timber and other forest products that were previously attainable. Parcelization has led to reduced self-sufficiency in forest products as well as reduced forest products manufacturing and employment.

In addition, the loss of open space has resulted in reduced outdoor recreation opportunities. As more forest land is permanently converted to non-forest land uses, fewer of our citizens will be able to enjoy the physical and spiritual renewal that their ancestors gained by spending leisure time within natural, forested landscapes.

Background: For the past 40 years the acreage of forest land in several states has continued to decline, with forest lands near many urban population centers, as well as recreational and retirement communities, now being permanently converted to residential, commercial, and other non-forest land uses. From a peak of 762 million acres in 1963, total US forest land decreased by 13 million acres by 2002. The Southeastern United States incurred a net loss of approximately six million acres of forest land between 1963 and 2002. While the Southern states experienced an aggregate net loss of forest land of approximately 12 million acres since 1963. On the Pacific coast, the reduction in forest land acreage since the 1960s represents almost five million acres. One recent study projects that the area of forestland in the United States will decrease by 23 million acres by the year 2050 from the 1997 level (Alig et al. 2003).

Professionalism in Natural Resource Management Agencies

Position The Society of American Foresters believes that sustainable stewardship of our National Forests, state forests, and other public forest lands is most likely to be accomplished when both senior leaders and field-level managers of the federal and state natural resource agencies have had a professional education in the broad field of forestry. While top-level public agency leaders may be political appointees or elected officials, they depend on the advice, knowledge, and experience of career professional forest managers and scientists to implement forest resource policies established by the Executive branch and Congress or by state and local governments. SAF believes that those who manage the nation's 336 million acres of National Forest and other public forest lands must be professionally qualified through both education and experience to fulfill their responsibilities. Sustainable management of the nation's public forest resources for the benefit of both current and future generations requires dedicated career professionals who have been prepared for their responsibilities through education in the broad field of forestry.

SAF recognizes that many federal, state, and local government forest management functions and services are performed by independent contractors, consultants, or other suppliers. Decisions on when, where, and to what extent such contract services are utilized should remain a responsibility of, and be performed under the direction of, the career professional foresters who are responsible for the stewardship of the nation's public forest lands. Where contract services include professional or technical forest management functions, SAF believes that it is essential that they be provided by foresters or other natural resource professionals who adhere to the same high standards of professional ethics and practice expected of public agency resource managers and scientists.

Issue Key leadership positions as well as most field resource management positions in the Forest Service and other federal and state natural resource agencies have traditionally been filled by career professionals educated in the broad field of forestry, with primary emphasis placed on the competencies and experience needed in these positions. Changes in federal civil service law and federal agency hiring and promotion practices since 1978 have now made it less likely that career positions in the Forest Service

and other federal natural resource management agencies will be filled by professional foresters.

This situation is cause for concern for the Society of American Foresters. If federal or state natural resource agencies place less emphasis on employment of qualified professionals, forest resource management decisions will increasingly be made by persons who lack the educational background, expertise, and experience needed to manage the nation's National Forests or other public forests in a sustainable manner to provide the expected benefits and meet the needs of the nation's growing population.

Background In many cases over past decades, foresters have advanced to the top leadership positions in these federal agencies, with the trust and confidence of the Executive Branch, the Congress, and the public. At other times, foresters have served capably under both politically appointed and elected agency leaders, maintaining continuity and professionalism in managing the nation's public forests while implementing resource management policies.

The federal Civil Service Reform Act of 1978, which created the Senior Executive Service (SES), changed the structure and hiring practices for high-level personnel in the Executive branch, increasing the potential for persons who lack professional education in forestry or other natural resource management disciplines to fill senior positions in the federal natural resource agencies.

Reduced emphasis on professional qualifications has also occurred with entry-level hiring practices, where civil service requirements make no clear distinction between graduates of SAF-accredited and non-accredited forestry education programs, resulting in career positions being filled by persons who lack complete professional preparation in the broad field of forestry.

Currently, budget constraints and Executive branch direction have placed increased pressure on federal forest managers to contract out or "outsource" some functions that have traditionally been performed by federal agency employees. This initiative has raised questions about the needed skills and professional qualifications of those performing land management activities on public lands.

Protecting Endangered Species Habitat on Private Land

Position The Society of American Foresters (SAF) recognizes that biological diversity is a function of healthy, productive forests and believes that consistent with landowner objectives, forests should be managed to conserve and enhance biological diversity. The SAF endorses the goals and purposes of the Endangered Species Act of 1973 (ESA) because the conservation of endangered or threatened species and their habitats or ecosystems is important to society and the profession of forestry. Professional foresters can contribute their knowledge, training, and experience to managing landscapes for the conservation of biological diversity. The SAF agrees with a National Wildlife Federation position that the ESA can and should balance the needs of people with the urgent treatment of imperiled species. Furthermore, significant changes in the ESA, rather than bureaucratic discretion, are required to assure that balance is achieved in practice.

The SAF recommends that Congress, when considering whether to reauthorize and amend the ESA, should consider changes that would: 1) Clarify habitat protection on non-federal lands, 2) Require peer review of listings to ensure that high quality scientific data are used, 3) Improve the recovery plan process, and 4) Provide incentives to encourage private landowners to protect habitat.

Issue While biodiversity protection and ESA conservation efforts raise many issues, the SAF has chosen to focus on the protection of habitat on non-federal lands. The related problems could be improved by redesigning the ESA, clarifying how habitat essential for species conservation is to be protected.

Major ESA policy issues on non-federal lands include whether to increase protection for property owners by reducing regulatory impacts or to increase the protection afforded listed species and the section 9 prohibition on habitat-altering activities on private lands versus the Fifth Amendment's constitutional takings provision. ESA often imposes the costs of protection on a few for the benefit of the many.

Background One of the ESA's stated purposes is to "provide a means whereby the ecosystems upon which endangered species and threatened species may be conserved." The means to this end is the

listing of individual species and designation of "critical habitat" essential for their conservation.

In 1994, 90% of protected species had some portion of their habitat on private land and 37% of them were entirely dependent on private land. However, the ESA does not identify a specific means for protecting habitat or ecosystems on non-federal lands. To fill the policy gap, the U.S. Fish and Wildlife Service (FWS) used the regulatory powers granted by section 9 of the ESA, which prohibits any action causing "significant habitat modification" of a protected species. In effect, habitat is fully protected wherever a species happens to be, whether or not critical habitat has been designated. This regulatory approach has proven to be problematic.

Many people perceive that private property within designated critical habitat areas is off limits, potentially lowering property values and/or increasing susceptibility to third-party lawsuits. The matter is complicated by different appellate courts arriving at different interpretations of what Congress intended with regards to critical habitat.

The ESA recognizes that economic development activities can lead to species extinction and it provides the means for the two implementing federal agencies to identify, protect, and recover threatened and endangered species of plants and animals. For roughly 95% of protected species, habitat modification plays some role. Habitat is absolutely crucial for species survival; the ESA recognizes that strong provisions for habitat protection are necessary for species conservation. The vast majority of protected species reached that status more or less indirectly, due to habitat loss.

As of March 6, 2006, in the U.S. 1838 species were protected; 1,043 are covered in recovery plans.

Public Regulation of Private Forest Practices

Position Depending on their design, which will determine how forest landowners react, regulations may have either positive or negative effects on forest productivity and environmental quality. While the Society of American Foresters neither advocates nor opposes public regulation of private forest practices, any such laws or regulations should reflect the Society's commitment to sustainable forest management. If states or localities choose to regulate such practices, the Society recommends specific criteria during their development and for use in assessing their effectiveness.

Issue Uncertainty exists between society's respect for forested landowners' property rights and the landowners' stewardship responsibility to society. Balancing these interests requires an understanding of the role and effects of various regulatory schemes. Although the constitutionality of forest regulations has not presented serious problems, the goals, purposes, and numbers of new regulations have the potential to spark a new series of legal conflicts. Forest practices regulations must, therefore, be crafted with careful consideration and precision.

A number of state and local governments regulate private forest practices in an effort to ensure public health, welfare, and safety by protecting private forest resources. Some states and localities have adopted regulations to sustain forest productivity and timber supplies. Others, responding to federal water quality legislation, have adopted regulations to control the levels of sediment from timber harvest activities. The effectiveness of these regulations depends upon the extent to which they sustain forest productivity and prevent environmental harms, influence the ability of states and localities to effectively enforce these regulations, and impact landowners' ability to sustain these forest benefits.

Some states have eschewed forest practice regulation in favor of voluntary and incentive programs, including best management practices, tax and fiscal incentives, educational programs and technical assistance. To date, these voluntary approaches have largely been effective when properly implemented, and have been commonly adopted.

Background Forest practice regulations are one means to sustain forest productivity and protect environmental quality. Although they may express a

broad public intent to achieve this objective, they should not be assumed to do so by virtue of intent alone. The effectiveness of the regulations depends on their enforcement and overall impact, which is affected by landowners' responses.

The criteria listed below may be used to assess the potential effectiveness and results of regulations. The Society believes these criteria should enhance long-term resource opportunities while not overly encroaching upon or discouraging landowners from exercising their private rights.

The Society of American Foresters recommends that forest practice regulations (1) embody the interests of all citizens they are likely to affect, and that stakeholders feel their participation in the process is welcomed; (2) be based on scientific knowledge and forest management principles with landowners in mind, have clearly stated goal(s) and fulfill the regulatory intent, and promote regeneration and productivity while preventing environmental harms; (3) recognize variations in forest conditions and forest derived values and avoid management prescriptions, emphasize rule-making rather than legislation while avoiding frequent amendments, and regulate on as local a level as possible; (4) promote predictable application and effective enforcement; (5) inform those affected, and ensure apparent and consistent accountability of enforcement agencies; (6) provide incentives that promote both desired practices and the viability of affected owners, produce the greatest benefit on the forest resources, and be evaluated on the physical impacts, public responses, and compatibility with other policies and programs; and (7) be consistent with what can be financed and staffed adequately.

Regulations place requirements on landowners, which, along with any associated costs, may modify landowners' choices and actions. Regulations may positively affect forest productivity and environmental quality, but may also have negative effects if they impose a burden on landowners that reduces the incentive to manage their forest. Regulations that discourage timber production may erode the economic viability of the forest, promoting conversion to uses which may pose greater environmental problems and produce undesirable outcomes. The suitability of a regulatory system to the ecological and human circumstances in which it is applied is essential.

Roads in Forests

Background Most forest roads are constructed to access timber, but often support other purposes, including allowing access for forest management activities, recreation, rural travel, fighting forest fires, and controlling outbreaks of pests and diseases. Roads also provide access to other commodities, such as oil, natural gas, minerals, livestock grazing, and special forest products.

Roads represent an environmental challenge. Drainage from roads can cause erosion and reduce water quality. Roads can help the spread of forest diseases, exotic plants and other pests, and fragment wildlife habitat. Many of the challenges roads present can be overcome through proper design, construction, use, location and maintenance. A well-maintained network of roads is an asset for good forest management, while a poorly designed or inadequately maintained network is a liability.

Roads in the National Forest System have become a controversial issue, and the condition of existing roads is of real concern to the Society of American Foresters. Roads within the system should meet minimum standards, regardless of which public agency or organization is charged with their maintenance, in order to prevent the breakdown of the entire system and to minimize liability. According to the Forest Service, three quarters of the agency's roads are more than 50 years old, and 60 percent are being maintained below Forest Service standards. The Forest Service needs to ensure these roads are safe and that they are not causing environmental damage.

Current laws mandate that the Forest Service develop a management plan for each unit of the National Forest System, and require management for seven separate purposes—water, wildlife, recreation, timber production, grazing, minerals, and wilderness. To implement these plans, forest managers must have access to their forests through a well-maintained road system, requiring a substantial, dependable road budget for maintenance and reconstruction.

When it comes to roads, the Society of American Foresters' primary concern is maintaining an infrastructure to address the health of forests. There is no doubt that roads are a critical part of helping maintain healthy forests, however, the environmental

implications of roads must be considered. A poorly planned road or a road in a serious state of disrepair can contribute to undesirable environmental and social conditions.

Issue The practice of building roads in forests has generated significant controversy in recent years. This controversy involves several connected but distinct issues, including building roads in areas where there are currently no roads, the mechanisms available to pay for road construction to support forest management needs and opportunities, the maintenance of existing roads, and the environmental effects of road building. These issues have impacts on both public and private forest management.

Position The Society of American Foresters believes that forest roads, properly constructed and maintained, are a necessary component of managed forests that provide a full range of social and economic benefits, including recreation, watershed protection, and harvest and transportation of forest products. Forest roads provide essential access to enable forest managers to protect forests from wildfire, accomplish administrative and research tasks, and improve forest health and productivity through use of silvicultural practices, such as thinning and prescribed burning. Forest road systems on national forests and other public lands provide important access to enable public recreational use and enjoyment. However, forest managers must have the ability to restrict use of forest roads when necessary to ensure public safety, prevent wildlife disturbance, protect threatened or endangered species, or meet other resource management objectives.

While recognizing that roads are necessary in managed forests, SAF also supports designation of wilderness areas and other protected roadless areas on national forests and other federal lands, provided that such classifications are determined following opportunities for public comment. SAF recognizes, and encourages the public to recognize, the clear distinction between managed forests on federal, state, and private lands that provide a wide range of public benefits and those forests on federal lands that are designated as wilderness or other restricted-use classifications for which roadless conditions are appropriate and necessary.

Timber Harvesting on Federal Lands

Background The Society of American Foresters believes strongly in managing forests sustainably. Sustainability is consistent with current policies, and it requires simultaneously addressing economic, community, and environmental values.

National forest lands suitable for growing and harvesting timber are determined through an established comprehensive planning process requiring public involvement (National Forest Management Act of 1976). Before Forest Service or BLM managers can implement timber harvesting projects, the National Environmental Policy Act of 1970 (NEPA) mandates that environmental impacts must be assessed, adequately documented, and presented to the public for comments. Furthermore, timber-harvesting operations must protect water quality (Clean Water Act of 1972), and must neither jeopardize the recovery of threatened and endangered species nor adversely modify their habitat (Endangered Species Act of 1973). In addition, Forest Service managers must protect the diversity of plant and animal species (National Forest Management Act of 1976).

Economic benefits of timber harvesting include a supply of raw materials for conversion to consumer products and the employment of approximately 2 million people (about 1.5 percent of the total U.S. labor force), who depend on the forest products industries for jobs. Policies resulting in minimal federal timber harvesting, in concert with economic factors affecting the forest products manufacturing industry, can have undesirable socioeconomic effects associated with employment loss, especially in timber-dependent rural communities.

According to scientists representing the Ecological Society of America, “proposals to ban all timber harvesting on National Forests would leave managers without a valuable tool that can be used selectively to restore early successional habitat, reduce fuel loads, and contain pest and pathogen outbreaks in some forests”. Excessive accumulation of fuels is a major problem on federal lands. Human health has been adversely affected by wildfire smoke, a situation that

can be improved by fuel reduction treatments. Forest management can also produce benefits to the environment including enhanced wildlife habitat, improved water quality, and cleaner air.

Commercial and non-commercial timber harvesting have a role in management strategies, though the methods used should vary with different federal lands. Forest Service and BLM managers need all the tools available, including timber harvesting, to manage the nation’s forest resources sustainably.

Issue Timber harvests on national forests declined by three-fourths during the 1990s, from 10.5 to 2.5 billion board feet (bbf). This is far below the long-term sustained-yield capability of national forest lands (12.16 bbf) and the Allowable Sale Quantity (7.56 bbf) established by land and resource management plans. Consequently, social well-being in many forest-dependent communities has declined along with employment and income. To achieve healthy, sustainable resources and protect human communities, hazardous fuels treatments are needed on millions of acres throughout the country, using prescribed burning, thinning, and other methods of reducing fuels. A substantial proportion of the forests needing fuel reduction treatments are on federal land, especially in the inland West, but the timber harvesting needed for fuel reduction is usually controversial.

Position The Society of American Foresters supports commercial and non-commercial timber harvesting on federal lands allocated for such use through land and resource management planning. Current harvest levels on federal lands are insufficient to maintain forest health, to meet the goals for hazardous fuel reduction to reduce wildfire risk in the nation’s forests and provide economic and community benefits. Current laws offer more than enough protection to sustain the full range of forest values on public lands. Timber harvesting is a legitimate use of national forests and Bureau of Land Management (BLM) public lands, as the multiple-use mandates make clear.

Urban Forestry

Background Urban forestry is the integrated biophysical management of urban forest ecosystems for improving the quality of life. This includes the art, science and technology of managing trees and forest resources as an integral part of urban community ecosystems for physiological, sociological, economic and aesthetic benefits. Urban and community forestry play an important role in enhancing urban environmental quality by providing a multitude of benefits, such as enhanced aesthetics; improved air, water and soil quality; increased recreational opportunities; improved wildlife habitat; improved physical and mental health; and community strengthening and pride. Societal benefits include opportunities for forest resources education, economic and community betterment and development, and overall improvements to the quality of life in the urban setting. Urban forestry is a viable and complementary component of managing the nation's forest ecosystems and a viable part of urban ecosystems.

From small villages to large cities, urban and community forests include trees along streets, within greenbelts, greenways, parks, public spaces, residential yards and neighborhoods, and municipal watersheds. There are 70 million acres of such forests in the nation in communities where 80 percent of our citizens live. The unique demands on urban forests, their location within populated areas, and their potential as a medium to educate and engage the public in natural resource issues require unique management approaches.

While the decision to support urban and community forestry programs should not be based solely on economic criteria, the forests provide many economic benefits, including (1) reducing energy costs and demand through summer shade and winter wind protection, which will be increasingly important as fossil fuels become more scarce and expensive and global climate change occurs, (2) reducing water and air pollution (including CO₂), (3) increasing carbon storage, and (4) increasing property values.

Significant resources are required to establish and maintain urban and community forests. However, including these in municipal accounting systems will provide for long term maintenance of this natural capital asset at the municipal level, as specified under the Government Accounting Standards Board's

(GASB) Ruling 34. Under planned and efficiently administered systems, the costs are far outweighed by the benefits.

Additionally, community trees and forests can help maintain air quality standards, thus helping communities avoid nonattainment status that would otherwise reduce their municipal bond rating and their ability to engage in continued development.

Issue It is uncertain whether existing programs will meet the increasing demand by urban communities; and whether sufficient financial support and long-term commitments exist for managing urban forest ecosystems sustainably. Concerns include unplanned intrusion and lost opportunities for design in urban sprawl and a lack of funding and need for the preservation of unique forest characteristics.

Position The Society of American Foresters (SAF) believes actions and practices that strengthen and improve the urban and community forestry discipline within the broader profession of forestry are vital to the social and economic well-being of the nation. The SAF strongly supports activities and funding levels that promote the establishment, maintenance and sustainability of healthy urban forest ecosystems for all urban communities. The SAF supports integrating the science and art of urban forestry into urban land use planning systems and related commitments. Prior to the establishment of an urban forestry program, a socioeconomic analysis needs to be done of the area and community involved. After implementation, a monitoring and evaluation plan should be developed to ensure program objectives are being met.

The Society believes that the sustainable management and use of urban forest resources requires appropriate policy, a modest regulatory framework, and forward-looking research and investment programs, as well as institutional strengthening to make government and private sector investments and partnerships in urban and community forestry more effective and efficient. The ultimate success of such programs will also depend upon the efforts of individual citizens from all ethnic and socioeconomic levels who, on a voluntary basis, participate with local, state, and federal governments to ensure program objectives are met.

Use of Silviculture to Achieve and Maintain Forest Health on Public Lands

Position: To achieve forest health and other forest management goals and to maintain public forests in an ecologically sustainable condition capable of providing the many values and benefits that people expect from their forests, the Society of American Foresters (SAF) advocates the use of the proven practices of silviculture.

The goals for national forests and other public lands are determined through comprehensive land management planning processes with extensive public participation. Forest managers are then responsible for selecting appropriate, site-specific silvicultural practices, which may include thinning or use of prescribed fire, or both, to accomplish desired forest health, watershed, and wildlife habitat objectives, including maintaining a diversity of tree species and age classes. Skillful use of silvicultural practices can achieve desired resource conditions more rapidly, and with greater assurance of success, than will reliance on natural processes alone. In many cases, silviculture is essential to meeting resource objectives in a timely manner—for example, to rehabilitate damaged watersheds following catastrophic wildfire.

National forest and public land managers in the United States now have a century of experience and research knowledge to support effective use of silvicultural practices on public forest lands. Public forest managers must have the ability to use proven silvicultural practices to reduce the risk of catastrophic wildfires, prevent damage to watersheds and wildlife and fish habitats, and address hazardous fuel conditions that pose unacceptable risks to life, property, and communities.

Issue: For almost a century, through federal and state forest fire protection efforts, wildfire has been purposely suppressed in many forests that are naturally adapted to periodic low-intensity wildfires. We now know that this policy has had some unintended and undesirable consequences. Because of lack of vigor, dense forests are highly susceptible to insects and diseases and, consequently, increased tree mortality. Excess tree mortality causes increased

fuel loading, resulting in hazardous forest fire conditions that can put watersheds, wildlife habitat, and other forest values at risk. These conditions also increase fire suppression costs and make wildfire control more difficult. The dominant factor affecting forest vigor is stand density (Helms 2003).

A number of proven silvicultural practices can be employed to manage stand density, reduce vulnerability to insects and diseases, and reduce tree mortality, thereby reducing the buildup of hazardous fuels and the risk of catastrophic wildfires. Such practices include precommercial thinning, commercial thinning, and use of prescribed fire under controlled conditions. Appropriate thinning and other operations promote sustainable forestry by keeping wildfire and insect and disease outbreaks to noncatastrophic levels (Oliver 2003). Use of such silvicultural practices is often necessary to promote regeneration of desired tree species and achieve desired forest conditions, including maintaining a diversity of tree species and age classes across the landscape.

Background: Because of widespread forest health problems, many of our forests would benefit from thinning or other measures to control stand density, reduce vulnerability to insect-caused mortality, and accomplish regeneration of desired tree species. Most resource management objectives can be achieved more rapidly, and with greater assurance of achieving the desired outcome, through use of silvicultural practices designed to manage stand density, improve tree species composition, reduce vulnerability to insect epidemics, reduce tree mortality, and prevent buildup of hazardous fuels. The issue for public policy becomes ensuring the ability of public forest managers to select appropriate, site-specific silvicultural practices to reduce the risks to natural resources and communities, accomplish forest management objectives, and achieve the desired future conditions in the most feasible time period, within operational and budget constraints.

Wildfire Management

Issue & Background Large, intense wildfires have proven difficult to control and have resulted in catastrophic damage to property and resources, and the tragic loss of lives. Suppression and rehabilitation costs have also increased significantly. And when fires occur in the proximity of residences, called the wildland-urban interface, risks and costs escalate. Education efforts are needed to inform citizens of the risks of living in wildland fire prone environments, and on how to protect their property, firefighters, and themselves from wildfire

181 million acres of U.S. forests and rangelands are at risk of catastrophic, high intensity fires. Following a national policy to quickly suppress fires, many forests have excessive fuel levels compared to historic conditions, when fire played a more prominent ecological role. The result is an increased risk of serious and potentially permanent ecological deterioration. In many areas it is impracticable to reintroduce fire without first reducing and/or rearranging the fuels.

The National Fire Plan was a policy response to widespread wildfires that burned across 8.4 million acres in 2000, mostly in the West. The need for effectively implementing the Plan was illuminated in 2002 when 6.7 million acres burned. These were the two largest fire seasons in the past 50 years, both doubling the 10-year average. The Plan's four goals are 1) improve fire prevention and suppression, 2) reduce hazardous fuels, 3) restore fire-adapted ecosystems, and 4) promote community assistance.

Position The Society of American Foresters (SAF) recognizes the key role fire plays in many forest and range ecosystems. The SAF believes active and comprehensive management of vegetation can reduce the risk of unacceptable wildfire losses. This approach is essential for sustaining the nation's forests and rangeland ecosystems and the values people expect from them. In support of the National Fire Plan, the SAF advocates:

- 1) Well funded and well trained fire management organizations that are capable of carrying out fire management activities including fuels management, prevention, education, and suppression in an effective and safe manner. Firefighter and public safety should

be the first priority and should never be compromised.

- 2) A comprehensive approach to fuel management including the full range of silvicultural tools available to treat fuel composition, density, and structure. Appropriate silvicultural tools include mechanical manipulation, such as thinning and timber harvest, and fire. The use of selected tools should be carefully planned and implemented by qualified professionals, with full recognition of the effects, costs and benefits of the treatments. Fire, whether manager-ignited (prescribed) or naturally ignited fire used for management purposes, must be implemented within the guides of carefully prepared plans.

- 3) Timely rehabilitation activities following wildfires where appropriate. Timely rehabilitation reduces the risk of long-term soil damage from surface erosion and landslides. The removal of dead and dying trees reduces the fuel for reburns and recovers some of the economic value.

- 4) Efforts by natural resource and fire management agencies to coordinate with private landowners and tribal, state, and local governments to plan and implement strategies across ownerships, including education and training such as the FireWise program. This should be focused at the community level, as many of the people moving into the wildland-urban interface are not well informed on how to protect themselves and their property from wildfire, and especially the need to manage fuels.

Furthermore, the SAF advocates the use of prescribed fire where it can be effectively and safely used to restore and maintain desired forest and range conditions and reduce unacceptably high risks to human life, property damage, and resource values. However, due to highly successful suppression practices developed and implemented throughout much of the last century, as well as some land-use practices, many forests have accumulated too much fuel to use prescribed fire alone, and tree removal will be necessary. The SAF therefore recommends a comprehensive approach using restoration-based fuel reduction treatments, thus effectively combining goals two and three of the National Fire Plan. This will in some cases reduce the cost of fuel treatments over time by creating stand conditions less susceptible to crown fires and diminishing the need for frequent understory fuel treatments.

World Forestry

Position The Society of American Foresters (SAF) urges its members to apply their knowledge, skills, and conservation ethic globally, to help insure the continued health and use of the world's forests. Doing so is important because the livelihood and well-being of American foresters can be affected by global changes in environment, economy, and society. Unless professionals are knowledgeable about these issues, their voices are not likely to be heard. The SAF strongly urges its members to become personally involved internationally through the many organizations working on sustainable approaches to the world's forestry problems. The SAF supports international education, research, and technology transfers – tasks that SAF members are well equipped to undertake.

The SAF supports the efforts of individual countries to identify and implement policies and practices for sustainable forest management, and cooperative efforts among nations to promote sustainability. This means providing the values, services, and products people desire from forests to enhance their economic and social well-being, while protecting environmental quality and respecting the sovereign status of nations. The SAF advocates national forest sector planning based on sustainable development concepts as a way to help reduce deforestation, environmental degradation, and forest conversion now evident in many countries. These plans can provide the basis for a comprehensive framework for revising forest policies and laws. The SAF encourages efforts to involve local communities in forestry planning.

Issue The key issue affecting forests around the world is how to sustain forest services, products, and values while the human population is increasing and the area of forests is decreasing. Most countries face a common set of forestry issues: 1) providing a multitude of services and products while protecting forest values; 2) projecting long-range wood products needs and developing forest plantations; 3) developing effective policies and practices for fire prevention; 4) considering effects of logging restrictions or bans; 5) changing governance roles among government, the private sector, and civil society; 6) conserving biological diversity, in protected areas and elsewhere; and 7) strengthening international cooperation.

Background The expanding human population is placing increasing demands on forests for a variety of values, services, and products. Six billion people now inhabit Earth and by 2050, a population of 9.3 billion is projected. Today, global consumption of wood is approximately 3.3 billion cubic meters per year, of which 54% is fuelwood.

The worldwide area of forests declined 2.4 percent during the past decade. However, in many countries, the area of forests is decreasing at much higher rates, particularly the area of primary tropical forests.

Forestry has been affected by globalization and decentralization, two seemingly contradictory shifts within the global community. Most countries are now carrying out a national forest program, based on an interactive forest sector planning process from which a comprehensive forest policy framework is developed. Faced with inadequate financial and human resources, governments are increasingly turning to local communities for assistance in protecting and managing government-owned forests.

Deforestation, environmental degradation, and poverty can result from unsound natural resource, energy, transportation, and trade policies.

Conserving biological diversity has become a feature of national forest policy and planning throughout the world. An estimated 12 percent of the world's forests are now in protected areas, including areas for biological diversity conservation. Management of protected areas can include efforts to integrate conservation and development needs, community-based conservation, a greater emphasis on ecosystem management, and the adoption of a bioregional planning approach, whereby protected areas are considered within a wider geographic and land use context.

Through their storage role in the global carbon cycle, forests and the way they are managed could significantly affect the course of global climate change. Achieving sustainable forest management in a given country depends on the availability of university-level natural resource curriculums that integrate silviculture, management, agroforestry, wood utilization, social science, and other disciplines closely allied to forestry.

Executive Summary: *Forest of Discord: Options for Governing our National Forests and Federal Public Lands*

Conflict over land use and management is an enduring theme in history. Disputes over natural resources have sparked wars and armed conflicts around the world. In the United States we have left the battlefield for the courtroom—and the court of public opinion—but the conflicts are no less impassioned just because the adversaries advance their cause by brandishing laws and regulations instead of swords and rifles. The laws and regulations that govern the national forests and public lands are the accretion of 200-plus years of American democracy, but like the profession of forestry itself they have seen the most activity in the last century. Federal land management policy has lurched from conveyance to water protection and subsistence timbering, from multiple use to ecosystem protection—always reflecting change in public values—and each new policy overlays its predecessors. Moreover, the managers entrusted to make land-use decisions are constrained by the regulatory agencies charged with enforcing statutes like the Endangered Species Act and the Clean Water Act. As a result, the language that governs the public lands is sometimes contradictory, and clear direction about priorities is lacking. Even though the difficult resource allocation decisions have not been—perhaps cannot be—made, land managers struggle to design and implement plans for land use. The doctrine of multiple use, which seems to promise all things to all people, is intended to be their guide. But at which scale—both temporal and spatial—should managers make decisions? Using the national forests and the public lands

for a variety of purposes is not an unreasonable goal, but some uses are incompatible with others and cannot be achieved simultaneously or equally across a landscape. Multiple use has thus become an engine of conflict that pits one interest group against another and denies land managers a clear mandate. Some people argue that partisan politics has interfered with the work of the public land management agencies. Although the Forest Service may now seem less insulated from political whims—the possibility that future chiefs may undergo Senate confirmation would exemplify such a trend—a reading of history shows that both the Forest Service and the Bureau of Land Management (BLM) have often been caught in political crossfires. The problem maybe not politics itself but the political timeframe: election and budget cycles do not coincide with forest rotations or

ecological processes. The challenge is to give land managers the tools they need to plan for the long-term resilience of the land in a political environment. Whatever the direction of the agencies and the twists and turns of politics, the most important legacy of the public land manager is the health of the land. The land can provide no more than it is capable of, and at times politicians and citizens expect too much. The difficulty lies in balancing the discretion of the professional with the preference of the public. Public sentiment will inevitably drive natural resource management on the public lands, and indeed, in our democracy, public lands ought to be managed for public purposes, consistent with ecologically sound principles.

But the laws and regulations intended to determine the highest and best use of the land, to react to changes in public sentiment, to resolve conflicting values—these arbiters have in many respects failed. The accretion of laws is like a leaky roof, and each law is like new shingles—of variable quality and longevity—nailed on top of the old; still the patched roof leaks. It is time to tear off all the shingles and lay a new roof.

The Issues In *Forest of Discord: Options for Governing Our National Forests and Federal Public Lands*, the Society of American Foresters analyzes the critical policy issues that successful legislative and regulatory reform must address. One fundamental problem is that the purposes of the national forests and public lands are no longer clear. Changing public values, court decisions, administrative agendas, and federal environmental laws have combined to emphasize biodiversity, ecosystem functions, and forest health. The land management statutes—last revised more than 20 years ago—no longer adequately convey the public purposes or the priorities for which these lands should be managed. No management planning process for the public lands and national forests can resolve basic differences in values. Congress and agency managers had assumed that a locally based, rational planning process would resolve those differences, but experience—including appeals and lawsuits—has proved the assumption wrong. Congress has never adequately defined the roles of local communities in implementing its broad legislative statements. Is this a bottom-up process in which each community selects its priorities? Or is it a top-down arrangement, in which Congress sets the

goals and the community has only a limited say? The planning process is also unclear about which decisions are made when and where. No public organization or management system can be effective without clearly articulated goals and an unambiguous decisionmaking process.

The purposes of public participation in federal resource management remain unclear. What is the goal? In some cases local public participation seems to have paralyzed implementation of agreed-upon national or regional policy goals. Federal environmental laws and land management laws do not mesh well, and land managers must comply with the hundreds of sometimes-conflicting statutes, executive orders, and regulations that guide the planning process. Both natural resources monitoring and program implementation monitoring are currently inadequate. Despite the intensive data gathering, useful information about resource conditions and agency performance is often inadequate. Funding is not adequately related to management priorities, and new means must be found to fund resource management. Budgets are not linked to the resource management plans and resource monitoring plans, yet all three are tools in the management process. In short, the problems that exist are both serious and complex, and it is unlikely that regulatory reform can resolve them. Rather, new legislation is warranted. Our national forests and public lands represent an American legacy, and because of their importance, new legislation should reflect bipartisan consensus.

The Solution Forest of Discord sets forth the options for change in three categories: clarifying the mission, improving the planning process, and financing land management.

Clarifying the mission

- Congress has the constitutional responsibility to set policy for the national forests and public lands and should act decisively to establish clear priorities for their management. The new legislation must clarify which of the many legitimate public values are most important.

- It is appropriate that national forests and public lands be managed flexibly to meet the changing needs of the nation. Congress should clearly articulate in new legislation that the concept of multiple use is not necessarily appropriate on every management unit, but may be better applied in the aggregate across the national forest and public lands.

- If Congress wants to retain sustained yield as a tenet, it must clearly say so and then broaden the

definition to include all the legislated public values associated with the national forests and public lands.

- The federal land management agencies should be given broad authority and responsibility to meet all applicable environmental and legal requirements. Consultation is appropriate, but other federal and state agencies should not have the authority for approving land management activities.

Improving the planning process

- Resource management plans and subsequent monitoring strategies should provide an appropriate range of diverse, resilient aquatic and terrestrial communities.

- Resource management plans should identify and quantify (to the extent feasible) appropriate goals and outcomes, including vegetation management goals, and commodity and amenity outputs.

- The plans should compare and contrast the goals and outcomes with recent performance, highlighting situations where a significant change in direction is proposed.

- Plans should indicate expected financial performance and expected economic and environmental consequences (including economic and social stability, downstream air and water quality and other environmental effects).

- The goals and outputs (including fiscal expectations and downstream effects) should be set forth in a manner that provides a basis for monitoring, evaluating, and reporting agency performance.

- Both citizen participation and professional discretion are important in resource management planning. Citizens clearly have a responsibility to make their wishes known, and professional resource managers have a duty to listen carefully to the public.

- Local public participation should enrich, not paralyze, implementation of national or regional policy goals. Congress must clearly define the role of local participation with regard to national policy directives. National and regional decisions should be shaped through national and regional participation.

- Both Forest Service and BLM forest planning regulations should identify the analyses and decisions that must be made at each planning level.

- Forest or area plans and resource management plans should identify necessary monitoring as well as the type, location, and intensity of measurements needed. Monitoring should be cost effective and should concentrate on key outcomes. The monitoring plan should be part of the decision document.

- Both Forest Service and BLM forest planning regulations should provide a systematic means for addressing new information, including the results of monitoring. This should include ways to preserve or

protect values of concern while the new information is examined for scientific validity and incorporated into analyses and decisions, but without overriding or invalidating the planned targets and budgets.

- Experimentation should be encouraged, but it should be limited to certain conditions. Authority for experiments should be constrained until the agencies have demonstrated that adequate controls are in place.

- Any legislation designed to improve the planning process should be clear in its relationship to existing planning legislation.

Financing Land Management

- A variety of experimental programs exist for collecting revenues from recreational users and nontraditional forest products. These programs should be expanded. If, for example, watershed management is reemphasized, Congress must address how to pay for it, or how it can pay for itself.

- Forest or area plans should explain how the goals and outcomes would be affected by differing budgets. Annual reporting on agency performance can then compare and contrast the goals and outcomes of the plan with the requested budgets and actual appropriations.

- Use of the trust funds and special accounts should be reviewed and modified if necessary. Administrative reform is warranted before legislative changes are considered. The agencies should use care to ensure that projects funded through these accounts meet the legislative intent Congress had when developing the accounts.

- Congress should continue to examine the adequacy of payments in lieu of taxes and other compensation programs to ensure that the states and counties are fairly and consistently compensated for the tax-exempt status of federal lands.

The issues are complex, and we do not begin to suggest that resolution will occur within one or two congresses. Rather, we hope that *Forest of Discord: Options for Governing Our National Forests and Federal Public Lands* can be used as a beginning for bipartisan discussion and policy development. After more than a century, the forest of harmony still seems to lie beyond our collective horizon. We hope that this and similar efforts will allow us to glimpse that forest among the trees of our disagreements.

1 Public lands are the lands described in Section 103 of Federal Land Policy and Management Act of 1976 (FLPMA), i.e., those lands administered by the Bureau of Land Management