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The Weeks Act and the Future of Land Conservation in the United States¹

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Introduction

The Weeks Act of 1911 represents a major accomplishment for the national public interest in environmental and natural resource conservation, now and for the indefinite future. At its 100th anniversary, the story of the Weeks Act is the story of nearly 25 million acres—an area more than four times the size of Congressman John W. Weeks' beloved state of New Hampshire—where some of the most abused and severely degraded forest the world has ever seen has been healed and restored. These former wastelands are now fully functioning forest ecosystems that provide clean water, wildlife habitat, biodiversity, and public recreation opportunities. And there is a very good chance that at the 200th anniversary of the Weeks Act, these lands will still be healthy forests, meeting the as-yet-undreamed-of needs of generations unborn. This is the enduring value of the Weeks Act, and the lands it has helped to conserve in perpetuity.

From June 7-8, 2011, conservation leaders from across the country gathered at Yale University to identify ways to build on these accomplishments in the face of new, evolving conservation challenges. This summary will highlight the key themes and ideas discussed. More information including speaker presentations can be found by visiting <http://www.pinchot.org/weeksact>.

Looking ahead, the challenges of conservation in the 21st century suggest the need for new strategies. Few Americans of any political persuasion expect that another 25 million acres will be added to the public estate for the purposes of conservation. Yet the need to protect critical water resources, wildlife habitat, and biodiversity, particularly in the face of large-scale threats such as climate change and sprawling development, remains urgent. New challenges will require very different conservation tools, ones that do not rely solely on traditional national and state forests, parks, and refuges.

Forest landscape conservation in the US can only be accomplished through a new level of sustained, productive cooperation among all the federal and state natural resource agencies, conservation organizations, businesses, and families that own and care for a thousand different tracts of forest and open space that make up some of the nation's most important landscapes. This represents a profound change from the way we have approached conservation in the US through much of the past century.

¹ Synthesis report from *Forest Land Conservation in the 21st Century: Strategy and Policy*, a symposium in commemoration of the Weeks Act of 1911, held at Yale University, June 7-8, 2011. The symposium was sponsored by the USDA Forest Service, Yale School of Forestry & Environmental Studies, and the Pinchot Institute.

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Much of the existing institutional, legal, and policy framework for conservation in the US was developed to support the 20th-century approaches to conservation. For example, public forests, parks, and wildlife refuges constitute one-third of the nation's land. But as climate patterns shift, the ecological communities of plant and animal species they were intended to protect are themselves on the move, migrating to follow their climatic ranges, and away from the fixed boundaries of designated conservation areas.

The changing nature of key land conservation challenges

Historian Char Miller noted parallels between the politics of the early 20th century and today. The fact that forests are critical to protecting water supplies and controlling floods was becoming well understood by the early 1900s, yet policy makers refused to take meaningful action to subdue destructive logging on private forest lands in the eastern US until major floods had devastated northern New England and the Alleghenies. After several earlier failed attempts, Congressman Weeks finally saw passage of the law that bears his name in 1911, initiating one of the greatest successes in American conservation history.

The Weeks Act was a product of its time, and new strategies will be needed to address today's challenges. USDA Forest Service Chief Tom Tidwell noted "Today the challenges are different; the greatest threats to forests might come from bulldozers and cement trucks." Since the 1930s, the area of forest land in the United States has remained roughly the same at just under 750 million acres. But this relatively stable national average has masked major differences from one region of the country to another. Losses of forest land to development in some regions of the country have largely been offset in other regions where marginal crop and pasture lands have reverted to forest. But sometime during the latter years of the 20th century, the tide turned. By the 1990s, forest and open space was being lost to development at an average of 6,000 acres a day. Much of the marginal agricultural land that could revert to forest had already done so.

The changing causes and effects of development

Roughly three-quarters of the nation's productive forest land is in private ownership, and forest conversion to development is a significant factor on the large proportion of private forest that is owned by individuals and families. Many of these tracts have been in family ownership for multiple generations. Through studies such as the National Woodland Owners Survey conducted by Brett Butler and others at the USDA Forest Service, most of these family woodland owners indicate that they remain committed to conserving these lands, but many find themselves forced by financial circumstances to relinquish these family assets. Studies by Catherine Mater of the Pinchot Institute indicate that the single greatest source of financial hardship that precipitates the selling of family woodlands is unexpected major medical expenses or unplanned expenses for long-term health care. Crisis, if well understood, can create opportunity, and organizations like the Pinchot Institute are working with health insurers to create new health services mechanisms that can help meet family woodland owners' needs for affordable health care, alleviate the threat of health-related financial emergencies, and reduce the rate at which family woodlands are lost to development.

Development has also become a significant factor on other areas of private forest land that until recently was owned and managed as industrial timberlands by integrated forest products companies. Rapid consolidation of this industry during the 1990s resulted in the sale of most of these lands to timber investment management organizations (TIMOs) that own these lands for relatively short-term financial objectives, and obtain much of their return on investment through actively marketing forest land for development. The few forest products companies that have retained their timberlands have restructured them as timber real estate investment trusts (REITs) that also have a strong incentive to sell forest land for development where possible. With the slowing of the US economy in recent years, development opportunities have declined, and both TIMOs and REITs across the country are more open to considering

alternatives such as the sale of conservation easements, according to Peter Howell of the Open Space Institute and Peter Stein of Lyme Timber Company. Assuming that buyers and funding can be found to purchase these easements, this is another way to reduce the rate at which private forest land is being lost to development.

There is a disturbing trend in the way development taking place today is even more land-hungry than in the past. Between 1982 and 2000, the population of the United States increased 19 percent, but the developed land area increased 42 percent, according to studies by Susan Stein of the USDA Forest Service. Suburban sprawl is altering forest conditions and making it more difficult to manage remaining fragments of forest land. Less than 1 percent of the nation's forest lands are less than a mile from a road, power line, or other "edge," greatly reducing their value for wildlife habitat and making the forests themselves more vulnerable to insects, disease, and invasive species. It also significantly impacts the ability of forests to provide clean drinking water, wood products, recreation opportunities, and other ecosystem services for a growing population.

Increasing competition for scarce land resources

The future of the nation's forests will be influence not only by development, but by increased demand for domestic sources of energy will influence forest extent and conditions. In the aftermath of 9/11, the anxiety over peak-oil and overextended energy supply lines stretching from increasingly unfriendly regions of the world led US policymakers to set ambitious new targets for domestic biofuels production. Powerful new financial incentives were aimed at jump-starting new technologies and greater production capacity. Increased ethanol production pushed corn prices to record levels. New varieties of switchgrass, miscanthus, and short rotations of hybrid poplar and willow were found to do well on less productive soils. As a result, land only recently returned to forest through initiatives like the Conservation Reserve Program is being pressed into service once again to grow energy crops for biofuels production.

Shifting climate patterns in the 21st century will challenge conservation not just ecologically, but economically and socially. The prevailing concept of the role of conservation in promoting global sustainability will be turned on its head as the world's ten billion people seek to satisfy their basic needs for food, energy, and transportation. Changing patterns of temperature and precipitation at continental scales have introduced new uncertainty to the world's major food-producing regions. In recent years including this one, droughts and floods have devastated yields of wheat and other commodity food crops in China, India, Russia, Australia, and Canada, raising the specter of global food shortages that will only become more acute as populations expand and climate patterns become more unpredictable.

Ironically, rising hunger in many of the poorest regions of the world is a boon to some of the richest countries, including the US. Farm income in the US is expected to increase 20 percent this year, according to a February report from the US Department of Agriculture, from \$79 billion in 2010 to \$95 billion in 2011. Crop values are expected to increase 18 percent, to \$202 billion. Such rising trends in farm commodity prices make crop and pasture land-use ever more valuable relative to forest land-use, even when forest conservation is subsidized by government and incentivized by private ecosystem services markets. Millions of private farmers and forest owners will independently make economically rational decisions by to maximize cropland and minimize forests, and this will add up.

Forest land conservation is challenged as never before, by competition from burgeoning development driven by a growing population and more consumptive lifestyles; by a global food crisis that calls for every arable acre of land to produce commodity food crops for export markets; and by powerful federal and state policy incentives to use any remaining fertile lands to grow energy crops for biofuels. These are long-term trends, not short-term issues, and they are likely to become more pronounced as the 21st century unfolds.

Evolution and innovation in meeting conservation challenges

Efforts to promote conservation on private lands have been incentivized and subsidized through an array of federal and state programs that recognize the important role that private lands play in forest conservation in the United States. Collectively, private forests comprise an area more than twice that of the National Forest System. More than 95 percent of these private lands are in family woodland ownerships of less than 100 acres. Today's intense pressures to reduce overall federal spending are prompting a close examination of both the conservation effectiveness and cost-effectiveness of these approaches, and ushering in a new era of innovation based on local public-private partnerships that add up to help address national conservation priorities.

Cost-sharing and other kinds of financial incentives for forest restoration and stewardship have played a valuable role in conservation education as well as technical assistance to maintain public benefits on private lands. These approaches continue to be important for engaging private landowners in conservation, and providing an opportunity to consider more permanent commitments such as conservation easements. Over the years, millions of taxpayer dollars have been expended for conservation purposes on private lands that in later years have been converted to housing subdivisions and strip malls, leading even the most conservation-minded policymakers to ask whether these scarce public funds were well spent. These questions become particularly acute as appropriations committees are asked to continue putting increasingly limited public funds into conservation that is not bought, but only rented.

Lacking sufficient public funds to incentivize conservation everywhere it is needed, we have sought to unleash the power of the private marketplace. Private land owners nationwide are eager to earn and sell credits for protecting wildlife habitat and water quality, or for sequestering carbon. But supply is only supply if there is demand. And the large-scale public policy interventions that would be needed to create this demand are strongly resisted by many industries from which new revenues would be drawn to fund the demand side of the equation. Voluntary purchasers of ecosystem credits have helped prove the theoretical feasibility of ecosystem services markets and registries, but will these expand to the scale needed to protect a significant proportion of the high conservation-value private lands across the country?

Where forests will be conserved, it probably will not be because of the economics. The growing pressures for alternative uses of scarce productive land will relegate forests even more to the category of a residual land use—what is done with land when it has no conceivable higher and better use. We know intuitively that forests are valuable for wildlife habitat, biodiversity, and that crucial, life-sustaining resource—water. But a generation of natural resource economists (and their successor generation of “ecological economists”) have yet to make a quantitative, analytical case for conservation that is compelling or persuasive to the majority of practical, tax-paying private land owners.

Fortunately, a great many private forest owners do not need a compelling economic case to convince them to conserve their forest land, for this generation and generations to come. For some it is an aesthetic case, a chance to protect and pass along the incomparable beauty of a forest, softly clothing a mountainside or stream valley, and changing with the seasons. For others, it is a moral or ethical imperative, and a sense of stewardship, a responsibility to use the land wisely and pass it along in as good or better condition than it was received. For still others, it is something spiritual, something they may or may not be able to explain to others or even to themselves. Whatever the reason, they act upon their convictions. They permanently conserve their lands through easements or land donations. And their actions make the world a better place, for them and for us all.

Conservation Strategies for the 21st Century

Based on a number of examples presented at the symposium, there is still a place in the 21st century for conservation through new additions of land to national and state forests, parks, and refuges utilizing authorities such as the Weeks Act, but local initiative and partnerships will play a central role in creating these opportunities as well. The Weeks Act is generally associated with the creation of the eastern National Forests through a series of large-scale land acquisitions that took place nearly a century ago. But the Weeks Act authority is still used today, throughout the country. Rob Iwamoto of the USDA Forest Service described efforts in the Pacific Northwest to make strategic acquisitions with existing national forests and along their boundaries, working with forest industry and TIMOs in some instances, and engaging a broader set of partners in other instances like the Mountains to the Sound greenway on the Mount Baker-Snoqualmie National Forest.

Numerous other examples of successful public-private land conservation partnerships serve to illustrate both the range of possibilities, and the opportunities for creativity and innovation to tailor these efforts to local circumstances. The Highlands Conservation Act grew from a local effort to protect the headwaters forests that provide clean drinking water to New York and other major population centers in the Northeast, and Tom Gilbert of the Trust for Public Land described efforts now under way to expand this beyond New Jersey to include New York, Connecticut, and Pennsylvania. Citizens of eastern Tennessee came together to support the acquisition of the Rocky Fork tract, a key inholding in the Cherokee National Forest. This is part of a larger strategy, described by Mark Shelley of the Southern Appalachian Forest Coalition, to utilize public lands as the building blocks for a regional conservation strategy encompassing parts of eight states. As noted by Peggy Nadler of the USDA Forest Service, citizens in Charleston County, South Carolina, concerned about development of their coastal forests, voted themselves a tax increase to protect these lands in cooperation with state and local authorities and the Francis Marion National Forest.

In many instances, there is simply no substitute for public lands when it comes to conserving special places for the full range of their values—known and unknown, quantified and unquantifiable—in the public interest. Passionate debates over the just and proper use of these public lands will continue, as well they should in a free and democratic society. The beauty is in the fact that future generations too will have the luxury of passionately debating the best use of these lands in their own time, because the land itself has been conserved for all time.

Lest we think of this only in terms of what it will cost the present deficit-weary generation to benefit unnamed others in the future, think first of the dollars that were invested in the early years of the Weeks Act, and the enormous dividends that we ourselves derive from these investments every day. Most of the Weeks Act investments were made during the 1930s by a nation in the grips of what is still today the deepest economic depression this country has ever endured. Can we in good conscience deny future generations the same consideration and bequest that an earlier and far more economically challenged generation gave to us?

The clear consensus of the symposium was an emphatic “no.” Yet despite the development of innovative partnerships, conservation still relies on funding. Many presenters noted the troubling trends in the appropriations of federal funding for land conservation. Jad Daley of the Trust for Public Land, stressed despite tough economic situations there are opportunities take advantage of this 100-year anniversary of the Weeks Act and make a compelling case for continued and expanded public investment in conservation.

Forest landscape conservation, based on a modest government investment leveraging much larger private donations and investments in a landscape that will remain largely in private ownership, is a concept that has near-universal appeal and has been supported by conservative and liberal policymakers alike. It is a model based on partnerships, on shared conservation values, and on mutual respect and cooperation. One bright spot in federal conservation investments has been the USDA Forest Service Forest Legacy program, which uses a combination of federal, state, and private funding to acquire conservation easements on high-priority lands identified through collaborative local processes. This voluntary program has had such broad support from legislators of all political stripes, state agencies, and conservation groups that it has been expanded from its original focus on Northeastern forest lands to now include virtually the entire country. An analysis by Deirdre Raimo of the USDA Forest Service documents more than 2 million acres of new easements in 49 states and 5 U.S. territories since the inception of the Forest Legacy program in 1990. This is the approach that will most likely define conservation in this country in the 21st century, in much the same way that building systems of federal and state public lands defined conservation in the US in the 20th century.

Broadening Landscape Conservation Partnerships

The challenges of future federal and state funding for land conservation come at a difficult time, just when we are beginning to realize that climate change and other factors require conservation strategies that are fundamentally different from those based on protected areas that are fixed on the landscape. The native ranges of plant and animal species and entire ecological communities are on the move. Public forests, parks, and refuges generally cannot be moved or expanded to follow. The private forest lands into which these species are migrating are managed for purposes that are as diverse as the owners themselves. So although the question of conservation funding is critical, effectively addressing the land conservation challenges we face today is not simply a matter of more funding applied in the same ways as in the past.

A key role that is emerging for federal and state natural resource agencies, and possibly some of the larger science-oriented conservation NGOs as well, is facilitating partnerships and local action through information and highly targeted support. Landscape-scale geographic information compiled by these agencies serves to illustrate to landowners the interrelationships among tracts of land that occupy the same watershed, or provide habitat for local and migratory species. Agency specialists can help identify specific priorities and opportunities for cooperation and collaboration, but in many instances these become self-evident to landowners once they are able to view their lands in this larger geographic context. Jim Levitt of Harvard Forest used several examples to illustrate the value of providing this “30,000-foot perspective,” including the New England Wildlands & Woodlands study, and the Yellowstone-to-Yukon land conservation initiative.

A particularly useful example is the Silvio O. Conte National Fish & Wildlife Refuge, which is delineated by the boundaries of the entire 4.2 million-acre Connecticut River watershed, spanning parts of five states. Established by Congress in 1991, this was a new approach to conserving fish and wildlife resources, one quite unlike the traditional refuges comprised of public lands owned in fee by the US Fish & Wildlife Service. A small area within the boundaries has actually been acquired by the USFWS, but the agency has defined “special focus areas” that have served to guide private conservation efforts, including several coordinated by the Forest Service through the Forest Legacy program. Several national forests and national park areas are within the boundaries as well, creating opportunities for closer federal interagency cooperation. One of the keys to success, according to Joseph McCauley of the USFWS, is that this approach sprang from a local initiative, and continues to have the close involvement of a diverse local “friends of the Conte Refuge” that provides ongoing advice and support. The USFWS is now using this approach to conserve the fish and wildlife resources on the landscape surrounding the Rappahannock and James Rivers in Virginia, and expects to use this approach even more widely in the years ahead. It is

among the most cost-effective ways ever used to achieve demonstrable conservation outcomes, and build strong, enduring community relationships at the same time.

Protecting extraordinary local biodiversity in the face of a monumental invasive species challenge is the focus of another kind of public-private partnership in the tropical forests of Hawaii. John Henshaw described efforts by The Nature Conservancy, working with local private landowners and the USDA Forest Service to create a landscape-scale research and demonstration area focused on invasive species control and the restoration of native forests. Weeks Act and Forest Legacy authorities may both play an important role in accomplishing this effort, recalling that forest restoration has been a central purpose of the Weeks Act right from the beginning. With so many land conservation programs focused on “saving the best of the best,” it is important to maintain authorities to protect degraded forests and restore them to ecological health and functioning.

In addition to advocating for continued federal support, many other sources of funding will be needed to meet the many challenges, some of them new and not necessarily intuitive. Bob Bendick of The Nature Conservancy described the strategic use of damage assessment or mitigation funds. Tim Richardson of the American Land Conservancy described the utilization of funds from the Exxon Valdez settlement to conserve millions of acres of prime habitat in Alaska’s Kodiak Archipelago, and suggested that a similar settlement following the BP oil spill in the Gulf of Mexico could offer a unique opportunity to conserve tidal wetlands along the Gulf coast, and riparian habitat throughout the Mississippi River basin.

With or without new funding, federal agencies will remain critical partners in land conservation deals. Agencies do not always interact effectively, shifting the burden to small and large conservation groups alike to manage multiple agency contributions, often with different sets of requirements. Bob Bendick suggested that the federal Office of Management and Budget could provide incentives for interagency cooperation. This can include the pooling of agency resources for land conservation. As agencies work together, redundancies can be reduced to make available federal funds accomplish more conservation on the ground.

Tom Curren of the Pew Trusts pointed out that Americans contribute more to charitable causes than people in any other country in the world, but that only about 1 percent of this goes to environmental or conservation purposes. New communication techniques and funding models are needed to raise the amount of funding, and utilize it most effectively in the context of other private funding from environmental grantmaking foundations. Peter Stein noted that European investment could fill some of this vacuum in domestic funding due to corporate interests in sustainability.

Conclusion

As we commemorate the centennial of this far-sighted and influential public law, let us think of it not as a historical endpoint, but as a marker in time, like a leaf floating by on some great river. Today we honor the commitment and leadership of Congressman John Weeks and his contemporaries in the 20th-century Conservation Movement. Let us also recognize and celebrate our own generation of conservationists, who are no less committed or far-sighted than their forebears. The Weeks Act began with a legislative proposal that took several years to come to fruition in 1911. Such creative initiatives today might arise from a conversation that begins on Facebook or Twitter and gains momentum overnight. But the conservation ideals at work are much the same. And partnerships and cooperation based on shared conservation values and a commitment to a sustainable future are still the essential elements of success.