

January 2021

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Recommended Citation

John A. Baden & Pete Geddes, *Environmental Entrepreneurs: Keys to Achieving Wilderness Conservation Goals*, 76 *Denv. U. L. Rev.* 519 (1998).

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ENVIRONMENTAL ENTREPRENEURS: KEYS TO ACHIEVING WILDERNESS CONSERVATION GOALS?

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INTRODUCTION

Historically, Americans have relied on the federal government for wilderness protection; but, the federal government has made promises too politically expensive to keep. While federal designation may provide protection from some forms of development (e.g., dams on western rivers), there is no immunity from threats. A 1998 report by The Wilderness Society listed the nation's fifteen most endangered wilderness areas.¹ Oil drilling, motorized vehicles, road building, and military expansion are increasingly threatening the country's wilderness heritage. In many cases agencies charged with wilderness stewardship are the worst offenders.²

Under the current system of public ownership and political management, taxpayers all too often find themselves subsidizing economically irrational, environmentally destructive activities.³ The fact that the federal agencies charged with protecting wilderness resources are actually the culprits may surprise some people; however, these are the predictable consequences of bureaucratic management.⁴

Wilderness lovers are indebted to Arthur Carhart, Aldo Leopold, and Robert Marshall, founders of the modern American wilderness movement through their advocacy of wilderness in the 1920s. The 103.6 million acres currently in the National Wilderness Preservation System (NWPS) is testimony to their visions.⁵ The first victories came relatively easily with administrative designations of wilderness by the U.S. Forest

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1. The Wilderness Society, *Report: 15 Most Endangered Wild Lands* (visited Oct. 29, 1998) <<http://www.tws.org/standbylands/15most>>.

2. For a discussion of pressure facing agency personnel, see TODD WILKINSON, *SCIENCE UNDER SIEGE: THE POLITICIANS' WAR ON NATURE AND TRUTH* (1998).

3. See RANDAL O'TOOLE, *REFORMING THE FOREST SERVICE* at xii (1988); William F. Hyde, *Compounding Clear-Cuts: The Social Failures of Public Timber Management in the Rockies*, in *BUREAUCRACY VS. ENVIRONMENT* 186, 199 (John Baden & Richard L. Stroup eds., 1981).

4. For a discussion of the underlying logic, see John Baden & Richard L. Stroup, *Introduction to BUREAUCRACY VS. ENVIRONMENT*, *supra* note 3, at 1, 5.

5. See SAMUEL TRASK DANA & SALLY K. FAIRFAX, *FOREST AND RANGE POLICY: ITS DEVELOPMENT IN THE UNITED STATES* 132-33 (2d ed. 1980).

Service.⁶ These designations were easy because they involved mostly high elevation "rock and ice" areas. The economic value forgone, what economists call opportunity costs for withdrawing such ecosystems approached zero.⁷ Today, however, it seems unlikely that significant amounts of our remaining, more ecologically valuable, public land will be protected by additional federal wilderness designation. How then, can we realistically achieve conservation goals?

Commodity production long dominated federal land management. This was often at the expense of ecological integrity, economic efficiency, and social sustainability.⁸ This is changing, however. National forests, parks, and wilderness are increasingly valued for their ecological and amenity services (e.g., clean water, aesthetics, and wildlife habitat). The protection of biological diversity (biodiversity) is now a national priority and a central focus of federal land management.⁹

Ensuring the persistence of species with large home ranges, such as grizzly bears and wolves, requires protection of much larger areas of habitat than previously imagined.¹⁰ In North America, conservation efforts are now directed at preserving biologically valuable lands outside our wilderness areas and parks, especially those that provide habitat corridors between protected areas. For example, the Yellowstone to Yukon initiative (Y2Y) aims to protect habitat between core reserves (i.e., national and state parks and wilderness areas) from the Canadian Yukon to the Greater Yellowstone Ecosystem.¹¹ In the western United States many of the most ecologically valuable lands are in private ownership. This creates new challenges for conservationists, who traditionally relied on the federal government for public land protection.

Environmentalists are finding that conventional approaches to environmental protection (e.g., establishing federally designated protected areas and carefully limiting human use) are not sufficient to accomplish projects on the scale of Y2Y. These large projects require the cooperation of private landowners who have made huge emotional and economic investments in their land. Naturally, they will try to protect these investments.

6. For example, the Forest Service L-Regulations of 1929 established criteria and procedures for designating primitive areas, many of which later became wilderness areas. These regulations were later supplanted by the more forceful U-Regulations. *See id.* at 132-33, 157-58.

7. *See* DYAN ZASLOWSKY & THE WILDERNESS SOCIETY, *THESE AMERICAN LANDS: PARKS, WILDERNESS, AND THE PUBLIC LANDS* 224-25 (1986).

8. *See* UNITED STATES FOREST SERVICE & UNITED STATES BUREAU OF LAND MANAGEMENT, *INTEGRATED SCIENTIFIC ASSESSMENT FOR ECOSYSTEM MANAGEMENT IN THE INTERIOR COLUMBIA BASIN AND PORTIONS OF THE KLAMATH AND GREAT BASINS*, PNW-GTR-382 (1996).

9. *See* Robert B. Keiter, *Ecosystems and the Law: Toward an Integrated Approach*, 8 *ECOLOGICAL APPLICATIONS* 332, 332 (1998).

10. *See* William D. Newmark, *A Land-Bridge Island Perspective on Mammalian Extinctions in Western North American Parks*, 325 *NATURE* 430, 432 (1987).

11. *See* *The Y2Y Mission* (visited Oct. 29, 1998) <<http://www.rockies.ca/y2y/mission.htm>>.

Including these lands in conservation plans means overcoming the opportunities lost by precluding development. To reduce these costs and enlist cooperation, government policies and Non-Governmental Organizations' (NGO) initiatives must be sensitive to the economic concerns and expectations of affected individuals and communities.

The challenge of enlisting the support of private landowners has created a niche for a new breed of environmental activists—environmental entrepreneurs.¹² Environmental entrepreneurs specialize in identifying conservation opportunities, mobilizing resources, and building a constituency for conservation. This role is a vital, but often ignored, piece of the conservation puzzle. A key to their success is the recognition that solutions will be more acceptable and successful if locals are both the beneficiaries of and participants in conservation efforts.

As Alexis de Tocqueville explained early in our history, Americans excel at building voluntary institutions that foster cooperative pursuit of shared interests.¹³ In the spirit of de Tocqueville, we explore some modest alternatives to achieving conservation goals that do not depend on federal designation of additional wilderness. We explain how environmental entrepreneurs can help bring ecologically valuable private lands between wilderness areas and parks into conservation plans and thus, may provide the best opportunities to protect biodiversity while reducing conflict over natural resource management.

I. CONSERVATION AFTER A CENTURY OF RESOURCE EXTRACTION

The American West long enjoyed a cultural, economic, and political coherence. The glue, however, was often the subsidized exploitation of natural resources. Some of these subsidies were explicit and involved the transfer of resources (e.g., railroad land grants) while others were implicit, tolerating or ignoring large externalities (e.g., mining and smelter wastes). A comfortable alliance among state and federal agencies, elected politicians, and resource users reinforced this tradition. The mutual interests of this alliance have come at the expense of local communities, national taxpayers, and sustainable ecosystems.¹⁴

This destructive tradition has its roots in geography as well as history. West of the 100th meridian, a mix of climate and topography precluded repetition of the successful homesteading experience in the Mid-

12. The *Chronicle of Community* tracks many of these innovative conservation efforts. See Northern Lights Research & Education Institute, *Chronicle of Community* (visited Oct. 29, 1998) <<http://www.BatesInfo.com/chronicle.html>>.

13. See ALEXIS DE TOCQUEVILLE, *JOURNEY TO AMERICA* 51–52 (George Lawrence trans., J.P. Mayer ed., 1960) (1835).

14. See John A. Baden & Douglas S. Noonan, *The Federal Treasury As a Common-Pool Resource: The Predatory Bureaucracy As a Management Tool*, in *MANAGING THE COMMONS* 204, 209 (John A. Baden & Douglas S. Noonan eds., 2d ed. 1998).

west.¹⁵ The result has been ongoing federal ownership and control of half the western lands. Thus, the West became the staging ground for experiments in Progressive Era conservation via "scientific management."

Progressive Era reformers created agencies (e.g., the Forest Service) to curb the waste of natural resources characteristic of nineteenth century private land development. Political economists have explained why agencies like the Forest Service go astray.¹⁶ Over time, these agencies predictably deviate from their mission. Protecting their budgets and co-dependent commodity interests becomes the dominant strategy.¹⁷ Rather than building the West of Thomas Jefferson's vision, these agencies became part of an iron triangle of special interests, bureaucratic entrepreneurs, and elected officials. What started out as principled reform gradually mutated into unabashed dependency. This unfortunate by-product was anticipated by few but exploited by many.¹⁸

Commodity development by federal agencies unfolded as Washington, at the behest of western senators and members of the House, directed a massive engineering assault to subdue the West's waters and wildlands. The U.S. Department of the Interior Bureau of Reclamation constructed 340 dams in seventeen states west of the Mississippi River, most noticeably the huge Hoover, Glen Canyon, and Grand Coulee Dams.¹⁹ The U.S. Forest Service built a road network that is eight times the size of the U.S. interstate highway system.²⁰

These monuments to public works were expensive in many currencies: cultural, ecological, and social. The region's population came to rely upon the federal "landlord" for economic benefits. Most were benefits that the market process would not have delivered, for most were economically inefficient. The opportunities forgone exceeded the benefits generated (e.g., livestock grazing on marginal public lands). Many benefits were political payoffs. If they are weighed against the environmental costs, as an honest accounting must do, many of the public works were grossly irresponsible.

Even though policies that subsidize the exploitation of natural resources no longer serve the interests of most westerners, they have defenders. Such defenders constitute what University of Colorado Law

15. See generally JONATHAN RABAN, *BAD LAND: AN AMERICAN ROMANCE* (1996) (relating a historically-based fictional account of homesteading in Montana and North Dakota).

16. See Richard Stroup & John A. Baden, *Externality, Property Rights, and the Management of Our National Forests*, 16 J.L. & ECON. 303, 305 (1973) (elucidating the management conflicts inherent in the Forest Service).

17. See O'TOOLE, *supra* note 3, at 118-24.

18. See generally BUREAUCRACY VS. ENVIRONMENT, *supra* note 3 (discussing the unnecessarily high cost of bureaucratic management of natural resources).

19. See James V. DeLong, *Dam Fools*, REASON, Apr. 1, 1998, 40, 42.

20. The U.S. Forest Service was in fact the world's largest socialized road building enterprise.

Professor Charles Wilkinson calls the "Lords of Yesterday"²¹—tenacious political groups and institutions that refuse to die even though demographic, economic, and technological changes have eroded the original justifications for their existence. Ironically, the western politicians supporting these programs claimed to be "conservative" in favor of "free-market capitalism." Nevertheless, they operated government as an engine of plunder to keep the subsidies flowing.²²

This political tradition continues today with prominent western Republican natural resource policy makers like Don Young of Alaska (Chairman of the House Resources Committee) and Helen Chenoweth of Idaho (Chairman of the House Subcommittee on Forests and Forest Health), who "parade under the banner of free enterprise while demanding subsidies for . . . environmentally harmful resource exploitation on public lands."²³ Democrats are also not immune from criticism. They fail to offer new or constructive alternatives, defaulting to the standard orthodoxy of "improved" regulation and better, more integrated agency oversight.

Rethinking approaches to natural resource management challenges politicians of all stripes. Creative ideas are too often scarce in the environmental policy field, however. The debate degenerates into images of Jane Fonda chaining herself to a tree or an out-of-work logger enjoying spotted owl stew. There is an open niche for politicians of either party who are brave and creative enough to propose reforms that support both local communities and ecosystems. The current failure of politicians to engage in constructive environmental policy reform has left this niche open to environmental entrepreneurs.

II. THE TIDE TURNS: ECOSYSTEM MANAGEMENT AND THE RISE OF BIODIVERSITY

Despite laws designed to assure that a range of values are protected on federal lands²⁴ natural resource managers have traditionally been rewarded for commodity production (e.g., grass, timber, and water). To-

21. CHARLES F. WILKINSON, *CROSSING THE NEXT MERIDIAN: LAND, WATER, AND THE FUTURE OF THE WEST* 19–21 (1992).

22. See generally WILLIAM C. MITCHELL & RANDY T. SIMMONS, *BEYOND POLITICS: MARKETS, WELFARE, AND THE FAILURE OF BUREAUCRACY* (1994) (describing how government intervention was claimed to improve market imperfections but was actually used to politically control and influence economic choices).

23. John A. Baden, *The GOP Can't See the Forest for the Trees*, *INVESTOR'S BUS*, DAILY, Aug. 8, 1997, at A28.

24. See, e.g., Multiple-Use Sustained-Yield Act § 4(a), Pub. L. No. 86-517, 74 Stat. 215, 215 (codified as amended at 16 U.S.C. § 531(a) (1994)) (defining multiple use as "making the most judicious use of the land . . . to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions"); Federal Land Policy and Management Act of 1976 § 102(a)(7), Pub. L. No. 94-579, 90 Stat. 2743, 2744–45 (codified as amended at 43 U.S.C. § 1701(a)(7) (1994)) (requiring that public land "management be on the basis of multiple use and sustained yield unless otherwise specified by law").

day, there is strong pressure for change. National policy directives now emphasize an integrated approach to management recognizing a spectrum of ecosystem values. Many agree that this has made the preservation of biodiversity the *de facto* goal of public land management in the United States.²⁵

Regarding the national forests, environmentalism had its "coming of age" during the clearcutting controversies of the 1960s. In 1969, Senator Lee Metcalf of Montana asked Arnold W. Bolle, then Dean of the University of Montana's School of Forestry, to investigate management on the Bitterroot National Forest in western Montana. *A University View of the Forest Service* (The Bolle Report)²⁶ was a devastating indictment of traditional forestry focused on timber production.²⁷ The Bolle Report was in part responsible for prompting legislative and administrative reforms of Forest Service management.²⁸

Three pieces of legislation have been used as a framework to make the protection of biodiversity a top priority on federal lands. First, the National Environmental Policy Act of 1969 (NEPA)²⁹ requires federal agencies to consider the consequences of their actions before acting.³⁰ Procedural in nature, NEPA prevents "uninformed—rather than unwise—agency action."³¹ Thirty-eight years after its passage, it remains an important statute. Many legal challenges to management of the national forests, for example, are based in part on NEPA.

Second, the Endangered Species Act of 1973 (ESA)³² places the protection of species above other considerations.³³ Sometimes described

25. See Keiter, *supra* note 9, at 332.

26. S. DOC. NO. 91-115 (1970).

27. The Bolle Report stated:

The problem arises from public dissatisfaction with the Bitterroot National Forest's overriding concern for sawtimber production. It is compounded by an apparent insensitivity to the related forest uses and to the local public's interest in environmental values.

In a federal agency which measures success primarily by the quantity of timber produced weekly, monthly and annually, the staff of the Bitterroot National Forest finds itself unable to change its course, to give anything but token recognition to related values, or to involve most of the local public in any way but as antagonists.

....
 ... [T]he continued emphasis [on timber production] largely ignores the economics of regeneration; it ignores related forest values; it ignores local social concerns; and it is simply out of step with changes in our society since the post-war years.

Id. at 14.

28. The Forest Service released an internal report of the "Bitterroot Controversy" shortly after the *Bolle Report*. Its conclusions were not dramatically different. See DAVID A. CLARY, *TIMBER AND THE FOREST SERVICE* 187-88 (1986).

29. Pub. L. No. 91-190, 83 Stat. 852 (codified as amended at 42 U.S.C. §§ 4321-4370d (1994 & Supp. II 1996)).

30. See NEPA § 2, 42 U.S.C. § 4332.

31. *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 333 (1989).

32. Pub. L. No. 93-205, 87 Stat. 884 (codified as amended at 16 U.S.C. § 1531-1544 (1994 & Supp. II 1996)).

33. See ESA § 2, 16 U.S.C. § 1531.

as the "pit bull" of environmental statutes,³⁴ the ESA is one of the nation's most comprehensive environmental laws. The ESA's requirement for the designation of critical habitat for each threatened or endangered species has broad implications for public and private land management (e.g., close to ten million acres of land have been suggested as critical habitat for the grizzly bear). It has moved ecological concerns to the top of agency agendas.

Third, the National Forest Management Act of 1976 (NFMA)³⁵ elevated wildlife and ecological values to a par with timber harvests.³⁶ In principle, the intent of the Act was to stop the Forest Service from turning the National Forests into tree farms at the expense of other values. For example, the implementing regulations for the NFMA specifically require the agency to provide for minimum "viable populations of existing native and desired non-native vertebrate species."³⁷ Though this section has been a useful lever for forcing more ecologically sensitive management, most observers agree on the need for further reform of the Act.³⁸

In the 1980s, debates over the protection strategies for the northern spotted owl and the dramatic decline of Pacific Northwest salmon grabbed national headlines. These controversies have become infamous examples of the divisive potential of federal actions, now referred to as "environmental train wrecks."³⁹ A new management paradigm, ecosystem management, has emerged in response to these crises. In large part, ecosystem management represents a last ditch effort by agencies like the Forest Service to regain public trust and a sense of mission.⁴⁰

Whatever the agency's motives, the key goals of an ecosystem approach must include the maintenance and enhancement of biodiversity.⁴¹

34. GEORGE CAMERON COGGINS ET AL., *FEDERAL PUBLIC LAND AND RESOURCES LAW* 790 (3d ed. 1993).

35. Pub. L. No. 94-588, 90 Stat. 2949 (codified as amended at 16 U.S.C. §§ 1600-1614 (1994)).

36. See NFMA § 2, 16 U.S.C. § 1600.

37. 36 C.F.R. § 219.19 (1998).

38. See Interview with Charles F. Wilkinson, Professor of Law, University of Colorado, Boulder, in Gallatin Gateway, Mont. (July 16, 1998).

39. E.g., Howard M. Crystal, *The Elimination of the Category 2 Candidate Species List: A Prescription for Environmental Train Wrecks*, ENDANGERED SPECIES UPDATE, Jan.-Feb. 1997, at 7. See generally STEVEN LEWIS YAFFEE, *THE WISDOM OF THE SPOTTED OWL: POLICY LESSONS FOR A NEW CENTURY* (1994) (discussing how the spotted owl and other indicator species forced a drastic change in national resource policy).

40. See generally PAUL W. HIRT, *A CONSPIRACY OF OPTIMISM: MANAGEMENT OF THE NATIONAL FORESTS SINCE WORLD WAR TWO* (1994) (describing how the post-war culture of the Forest Service sowed the seeds for an agency identity crisis that surfaced twenty years later and is still unresolved).

41. In 1993 the Society of American Foresters defined ecosystem management as an attempt to "maintain the complex processes, pathways, and interdependencies of forest ecosystems intact, and functioning well, over long periods of time. . . . The key elements include: maintenance of biological diversity and soil fertility; conservation of genetic variation and its dispersal; and through

The recognition of biodiversity protection, and the importance of maintaining ecosystem processes and thinking at larger landscape scales represents a fundamental departure from traditional resource management paradigms. Emphasis on a sustained yield of commodities will no longer suffice as a policy defense.⁴²

III. WILDERNESS AND WILDLIFE HABITAT AS LUXURY GOODS

The contemporary changes in agency management mandate mirror changes in society. Americans continue to demand greater environmental quality and are increasingly reluctant to accept the negative environmental and economic externalities associated with traditional resource extraction on public lands (e.g., livestock grazing in riparian areas). This new emphasis is the predictable consequence of increased education and income. Compared with earlier periods, the majority of people in the contemporary West are relatively well-educated and wealthy. Well-educated people not only seek environmental quality for themselves, but normally consider environmental quality an essential goal for a responsible culture.⁴³ Across time and cultures, as people become wealthier, their preference for biking, boating, camping, fly fishing, and similar pursuits increases. The quality of these activities varies with the quality of the natural environment. Clearcut forests, polluted waters, and scarce wildlife greatly impoverish these experiences.

It is clear that the West's cultural and economic future is inextricably linked to its environmental quality.⁴⁴ High environmental quality attracts visitors, new permanent residents, and new businesses. Increased appreciation for environmental quality means that resource extraction with its attendant environmental costs no longer benefits the quality of life for most of the region's people.⁴⁵ Thus, public demand is expected to drive the

evolution, future biological diversity." SOCIETY OF AMERICAN FORESTERS, TASK FORCE REPORT ON SUSTAINING LONG-TERM FOREST HEALTH AND PRODUCTIVITY 13 (1993). In 1996, the Ecological Society of America suggested, "[e]cosystem management is management driven by explicit goals, executed by policies, protocols, and practices, and made adaptable by monitoring and research based on our best understanding of the ecological interactions and processes necessary to sustain ecosystem structure and function." Norman L. Christensen et al., *The Report of the Ecological Society of America Committee on the Scientific Basis for Ecosystem Management*, 6 ECOLOGICAL APPLICATIONS 665, 668-669 (1996) (emphasis omitted).

42. See R. Edward Grumbine, *What Is Ecosystem Management?* 8 CONSERVATION BIOLOGY 21, 38 (1994).

43. See Don Coursey, *The Demand for Environmental Quality* (Dec. 1992) (unpublished manuscript, on file with authors).

44. See, e.g., RAY RASKER, *A NEW HOME ON THE RANGE: ECONOMIC REALITIES IN THE COLUMBIA RIVER BASIN* 31 (1995) (linking "economic well-being to a complex set of factors [related to demographics], including . . . local residents who have successfully adapted to changes in the global economy").

45. Gundars Rudzitis & Harley E. Johansen, *Migration into Western Wilderness Counties: Causes and Consequences*, W. WILDLANDS, Spring 1989, at 19, 19.

region towards more environmentally sensitive politics. So far, however, traditional major party politics have not reflected this shift in public mood.

Democrats have long been aligned with the environmental movement. However, Democrats in the Rocky Mountain states have been proposed (jokingly) for the Endangered Species List.⁴⁶ Newcomers appear to be adopting (or bringing with them) political values associated with the Old West.⁴⁷ For example, after President Clinton's 1993 inauguration, there were fifty-two Democratic and thirty-seven Republican members from eleven western states in the U.S. House of Representatives.⁴⁸ By January of 1997 the political landscape had changed considerably: there were forty Democratic and forty-nine Republican members of the House and the number of Republican governors had jumped from four to seven.⁴⁹ What this means for the region's environment is unclear. However, it illustrates the limitations of relying on the political process to produce environmental goods.

Economists understand that whatever people claim, environmental quality is only one of several competing values they seek. They must trade-off more of some values for less of another. Scarcity—the fact that virtually no resources are abundant enough to satisfy all human demands at zero cost—dictates that choices must be made among competing values or goods. Just as people on fixed budgets must choose between buying a new television or a new sofa, societies must choose among competing goods (e.g., more health care, safer roads, or more environmental protection). Open space and wildlife habitat provided by parks, ranches, and wilderness are among the goods involved in the trade-offs. It is intellectually and ethically impossible to pretend away the necessity of such choices.

IV. THE LIMITATIONS OF TRADITIONAL WILDERNESS DESIGNATION

With the possible exception of the dry, depopulating western reaches of the Great Plains, the era of designating large expanses of wilderness (such as the Bob Marshall-Scapegoat or the Selway Bitterroot) is past. In the United States, it is highly unlikely that federal lands will be politically protected on the scale envisioned by Y2Y. The primary reason is because focused, motivated interest groups bonding together to defend economic benefits will have significant advantages in political struggles against more diffuse and disorganized groups united only by a general

46. Interview with Tom France, Senior Attorney, National Wildlife Federation, in Gallatin Gateway, Mont. (July 15, 1998).

47. Center for the New West, *Report Analyzes Unprecedented Republican Party Advances in Western United States; Predicts West's Growing Impact in National Politics* (visited Oct. 31, 1998) <<http://www.newwest.org/press/wpo2.htm>>.

48. *Id.*

49. *Id.*

interest in environmental quality.⁵⁰ Moreover, institutional inertia retards or actually prevents laws, policies, and political institutions from changing as quickly as society's values.

Thus, protecting habitat at such large scales in the future requires understanding a new paradigm: economic security and environmental protection must go together. Only when environmental policies foster economic security and productivity can we reasonably expect additional protection. Conversely, when environmental policies thwart material wants, conservation goals languish.

Public decision makers are seldom in a position to gain personally from increasing efficiency (e.g., cutting costs and increasing public benefits), nor do they lose from decreasing efficiency. Preserving wilderness for future generations at the expense of present powerful interests usually fails in the political calculus. This is especially true if a wilderness area is home to a particularly valuable resource (e.g., oil in the Arctic National Wildlife Refuge). As previously noted, the history of the American West is closely tied to political support that continues to underwrite the production of commodities at the expense of ecological and social values.

Efforts to conserve biodiversity present an opportunity to design institutional structures that capture the benefits of both private and public sector organization while avoiding the high costs of public ownership and political control. Dave Foreman, founder of Earth First!, observes that "conservationists have relied too much on federal government law and regulation."⁵¹ He reminds us that it "has also been easier to pass federal laws than to work out good conservation through the free market or through voluntary agreements."⁵²

Environmentalists may hope that additional wilderness designation will preserve biodiversity, but such hopes should not be confused with prudent expectations. While we may be grateful for any additional designation, given the economic, recreational, and other opportunities forgone by this classification, it is unlikely that biologically significant areas will be added in time to protect species at risk. For example, Montana has been involved in a twenty-year battle over how much remaining public land to designate as wilderness. There is little realistic hope of resolution. In Utah, environmentalists are struggling to designate 5.7 million acres of wilderness.⁵³ Environmental politics being what they are in Utah (President Clinton finished third in the 1996 elections), it will be a long

50. See generally MANCUR OLSON, *THE LOGIC OF COLLECTIVE ACTION: PUBLIC GOODS AND THE THEORY OF GROUPS* 141-44 (1995) (theorizing that groups made up of rational, self-interested individuals will not always act to achieve their common interests).

51. Dave Foreman, *Am I a Free Market Environmentalist?*, 14 PERC REP., Mar. 1996, at 1, 4.

52. *Id.* at 4.

53. See Southern Utah Wilderness Alliance, *SUWA Frequently Asked Questions* (visited Oct. 31, 1998) <<http://www.suwa.org/faqpart2.html>>.

wait before any significant portion of that acreage is protected by federal wilderness designation.

Environmentalists can learn lessons from the international conservation arena. In many rural landscapes, such as Africa, protection of biodiversity and the alleviation of human poverty are intertwined.⁵⁴ In these protected areas, despite elaborate efforts, conventional approaches to conservation (i.e., establishing protected areas and limiting human use) are not working. Four problems have been identified, all of which are relevant to both federal and traditional NGO conservation initiatives in North America. First, there is the problem inherent to "island ecology;" small protected areas lose diversity over time. Second, this protected area strategy is too costly and scattered to protect biologically rich landscapes. Third, governments cannot afford to protect borders of reserves. Fourth, the protected area approach is the result of top-down planning. This has often robbed rural communities of their traditional user-rights over forests, waters, fisheries, and wildlife. Hence, local people see conservation efforts as misanthropic and threatening to their economic security.⁵⁵ Achieving the ambitious conservation goals of Y2Y will require constructive policies that are sensitive to the concerns and hopes of communities both small and large.

V. INCLUDING PRIVATE LANDS

Since the passage of the Wilderness Act of 1964,⁵⁶ the NWPS has grown by a factor of eleven from 9.1 million acres to 103.6 acres,⁵⁷ but most of these wilderness areas were chosen for scenic and recreational attributes. Many are at high elevations and have relatively little ecological value. These ecosystems are not sufficient to protect biodiversity. Even large protected areas such as Yellowstone National Park are too small and isolated to support viable populations of wide-ranging species.⁵⁸ As David Quammen describes in *The Song of the Dodo*,⁵⁹ when populations of plants and animals are confined to small habitat islands (often surrounded by intense resource use and development) they meet a predictable fate—extinction.⁶⁰

54. See generally NATURAL CONNECTIONS: PERSPECTIVES IN COMMUNITY-BASED CONSERVATION (David Western & R. Michael Wright eds., 1994) (giving an overview of community-based conservation through case studies).

55. See LIZ CLAIBORNE & ART ORTENBERG FOUND., THE VIEW FROM AIRLIE: COMMUNITY BASED CONSERVATION IN PERSPECTIVE 4 (1993).

56. Wilderness Act of 1964, Pub. L. No. 88-577, 78 Stat. 890 (codified as amended at 16 U.S.C. §§ 1131-1136 (1994)).

57. Telephone interview with H. Michael Anderson, Senior Resource Analyst, The Wilderness Society (Sept. 18, 1998).

58. See Newmark, *supra* note 10, at 432.

59. DAVID QUAMMEN, THE SONG OF THE DODO: ISLAND BIOGEOGRAPHY IN AN AGE OF EXTINCTIONS (1996).

60. *Id.* at 491-92.

Any strategy to link habitat and protected areas over large landscapes must consider the importance of private lands. In the arid West, low elevation riparian areas provide critically important habitat, especially in the winter months. Due to early settlement patterns, most of these lands are privately held. For example:

- According to a 1990 Bureau of Land Management study, sixty to eighty percent of native wildlife in the arid West depend on riparian habitats to survive.
- In Teton County, Wyoming, fifty percent of bald eagle nests are on private lands, and ninety percent of the mule deer population that summers in Grand Teton National Park winters on private lands.
- One quarter of the northern elk herd in Yellowstone National Park uses private lands during the winter months.
- "Sixty-two plant and animal species listed by the Nature Conservancy as 'sensitive species in the Greater Yellowstone Ecosystem' are found primarily on private lands."⁶¹

Since less than one tenth of endangered species makes their homes exclusively on public lands, conserving species on private lands is vital to achieving conservation goals. Michael Bean and David Wilcove of the Environmental Defense Fund comment:

Without effective strategies for conserving species on private land, the nation cannot succeed in recovering most of the species that the Endangered Species Act seeks to conserve. Unfortunately there is growing evidence that the principal strategies used thus far have not worked particularly well. According to the U.S. Fish and Wildlife Service's most recent report to Congress on the status of recovery efforts, fewer than 10% of listed species are judged to be improving; nearly four times that number are declining.⁶²

Conservation strategies that attempt to establish and protect core reserves and connecting wildlife corridors must recognize the importance of economic security to private landowners. For ranchers and timberland owners, their real property is their store of wealth and may well represent college tuition or retirement savings. Lured by development pressures and threatened by perceived restrictions on the use of their property, they face agonizing choices about their lands, some of which have been held and nurtured for generations. As industry and environmental groups spar

61. DENNIS GLICK ET AL., INCENTIVES FOR CONSERVING OPEN LANDS IN GREATER YELLOWSTONE 7 (1998).

62. Michael J. Bean & David S. Wilcove, *The Private-Land Problem*, 11 CONSERVATION BIOLOGY 1, 1 (1997).

in protracted and expensive litigation, some owners hurry to reduce their exposure to political uncertainties by harvesting, draining, or selling critical habitat.⁶³

The chief lesson from economics is clear: there are no perfect, cost-free solutions—only trade-offs. Policies that fail to respect property are strongly resisted, for they alienate people and waste resources. Conservation strategies must capitalize on the desires of environmentally sensitive landowners who are eager to manage their land for environmental ends but are afraid of political entanglements and potential takings.

VI. WHAT DO WE MEAN BY "ENTREPRENEURS" AND WHY ARE THEY IMPORTANT?

The resource extraction model described above represents business-as-usual in the West; however, major forces are at work eroding this static model. As many have correctly observed, the American West is in the midst of a fundamental transformation from a natural resource extraction economy to an economy based on services, amenities, and the creation and transfer of information.⁶⁴ One possible way to achieve conservation goals without relying on federal legislation is to harness and nurture entrepreneurial activity that has successfully helped the environment.

There is wide recognition that entrepreneurial activity is vital to economic and community development. Successful entrepreneurs identify, create, and act on profitable opportunities, typically by innovative arrangements of people, information, and material. In addition, entrepreneurs frequently pursue social opportunities as well as economic opportunities. In stark contrast with America, the Soviet Union had no entrepreneurs; those with the talents and the tolerance for risk became bureaucratic criminals. Among the results were some of the world's worst episodes of pollution and resource waste. In this system there could be no entrepreneurs to discover profitable opportunities to address these problems. These persistent negative outcomes in the U.S.S.R. and throughout the communist world demonstrate the importance of entrepreneurial actions.

We recognize three kinds of entrepreneurs. First, for profit entrepreneurs ranging in size from Federal Express to Predator Friendly, Inc., perceive and develop unoccupied market niches and provide services that meet people's demands. Second, non-profit or NGOs create innovative, attractive incentives for individuals, landowners, and communities to practice better conservation. One example is Defenders of Wildlife's "wolf insurance program," an effort to reduce the resistance to wolf recovery by compensating ranchers for wolf predation on livestock. The

63. Michael J. Bean, *Environmental Economics and Policy Analysis: A Seminar for Professors of Environmental Law*, Address at the Foundation for Research on Economics and the Environment Seminar (July 17, 1998).

64. See Pete Geddes, *Economy and Ecology in the Next West*, J. FORESTRY, Aug. 1998, at 56, 56.

third kind of entrepreneurs is creative individuals within government agencies who develop and then execute new programs. One example is a U.S. Forest Service manager in the Gallatin National Forest, in southwestern Montana, who worked with the Bozeman Lions Club to develop a handicapped hiking and interpretive trail in the Hyalite drainage.

Only the first economically motivated entrepreneurship has received wide media attention. However, other newer forms of entrepreneurship are crucial in a rapidly changing West. NGO entrepreneurs, in particular, offer some of the best thinking and best practices to a region torn apart by political polarization, rampant mistrust and enmity between urban and rural residents, and widespread disgust with agencies of government. Also, environmental entrepreneurs often bridge the gap between public and private land protection. For example, since the early 1980s, efforts have been made to stem the decline of the red-cockaded woodpecker in the southeastern United States. This non-migratory bird requires mature, fire-maintained pine forests for foraging and nesting. These are forests with high economic value.⁶⁵ In addition to protecting habitat on the region's federal lands, successful recovery requires that private timber lands play an important role in recovery.⁶⁶

In 1995, the Environmental Defense Fund, in cooperation with other organizations, began the "safe harbor" program to protect habitat through voluntary agreements with area landowners.⁶⁷ Under the program, landowners agree to enhance woodpecker habitat on their lands, maintaining the current or baseline populations of birds present at the time of the agreement. In return, the owners are assured of protection from liability under the ESA if the population of woodpeckers on the land increases.

A "permit" trading scheme is included in the "safe harbors" program. Landowners who increase the population of red-cockaded woodpeckers on their property can sell safe harbor "rights" to landowners seeking permission to modify habitat.⁶⁸ In the Sandhill region of North Carolina, these efforts are expected to double the population of woodpeckers over the next fifteen years.⁶⁹

The "safe harbors" approach is successful because it responds to landowner concerns. Previously, the arrival of these woodpeckers meant

65. See FOREST SERV. SOUTHERN REGION, U.S. DEP'T OF AGRIC., R8-MB 73, FINAL ENVIRONMENTAL IMPACT STATEMENT FOR THE MANAGEMENT OF THE RED-COCKADED WOODPECKER AND ITS HABITAT ON NATIONAL FORESTS IN THE SOUTHERN REGION 1, 12, 14 (1995).

66. See M.R. LENNARTZ & V. GARY HENRY, ENDANGERED SPECIES RECOVERY PLAN: RED-COCKADED WOODPECKER 35-36 (1985).

67. See Robert Bonnie, *Safe Harbor for the Red-Cockaded Woodpecker*, J. FORESTRY, Apr. 1997, at 17, 20.

68. See Robert Bonnie & Michael Bean, *Habitat Trading for Red Cockaded Woodpeckers: Enhancing Recovery, Reducing Conflicts*, ENDANGERED SPECIES UPDATE, Apr./May 1996, at 7, 8.

69. See Bonnie, *supra* note 67, at 20.

owners could lose control of their property. Now landowners enrolled in the program have their rights protected. Even if they attract woodpeckers they may continue active forestry and agriculture. Similar programs can link large tracts of habitat without removing land from all productive uses.

Creativity, flexibility, and adaptability are essential in coordinating habitat protection at the scales needed for the future. However, these traits are rare in governmental bureaucracies. Environmental entrepreneurs specialize in identifying conservation opportunities and building constituencies for wildlands. For example:

- The Malpais Borderlands Group, which is an alliance of about fifteen ranchers in Arizona and New Mexico, has raised and spent almost \$1 million to protect the threatened and endangered species in the region. John Cook of the Nature Conservancy was quoted, in praise of their efforts: "Private efforts like these represent the future of conservation. Government can't do it all."⁷⁰
- The Rocky Mountain Elk Foundation, founded in 1984, "now has more than 115,000 members who have helped . . . conserve and enhance 2.3 million acres of wildlife habitat in North America."⁷¹
- Ducks Unlimited's Habitat 2000 campaign has the goals of conserving nine million acres of wetland and upland habitat; nearly 8.2 million acres have already been conserved.⁷²

[T]he Audubon Society operates the 26,000-plus acre Rainey Sanctuary Preserve in southern Louisiana. Natural gas wells have operated within the preserve for more than 25 years without measurable damage to the surrounding ecosystem. The preserve is home to ducks, geese, and a variety of mammals including mink, otter and deer.⁷³

- Audubon uses royalties from oil and gas production "to purchase additional wildlife habitat while improving the management and ecological integrity of the Rainey Preserve."⁷⁴

It is important to recognize that many of the protected lands described above will not fit the traditional definition of wilderness as a

70. *Grazing: "New Breed" Ranchers Seek Middle Ground in SW*, GREENWIRE (Aug. 5, 1998) <<http://www.cloakroom.com>>.

71. *Rocky Mountain Elk Foundation* (visited Nov. 1, 1998) <<http://www.rmef.org/index.htm>>.

72. *See Ducks Unlimited* (visited Nov. 1, 1998) <<http://www.ducks.org/5x/habitat2000.htm>>.

73. John Baden, *Oil and Ecology Do Mix*, WALL ST. J., Feb. 24, 1987, § 1, at 32.

74. *Id.*

place "untrammelled by man." These are working landscapes. Protection strategies will resemble "multiple-use modules" (MUM) consisting of protected cores surrounded by a gradation of buffer zones, with intensity of human use increasing outward.⁷⁵

It is quite reasonable to expect that traditional greens will find the perspective we have offered quite difficult to accept. The early successes of the environmental movement came through political organizing and subsequent agency regulation. The value of entrepreneurship was unknown, discounted, or ignored by mainstream environmentalists. The term "entrepreneurship," if used at all, was employed with derision, not respect.

There were times and places when politics and regulations were appropriate means for achieving ecological ends. Establishing the Wilderness Act was surely one, of only as a way to constrain political/industrial exploiters of the federal lands.

These strategies, however, are doomed to frustration as we move toward efforts to preserve environmental values on the privately owned lands of the West. The creativity and flexibility required for these varied lands and circumstances are antithetical to bureaucratic means. Our experience with the environmental movement suggests that some of today's environmental leaders fail to recognize these changes. Their organizations are failing while their boards search for leaders who appreciate the environmental value of entrepreneurs.

Attempts to save wildlands by dipping deeper into the U.S. Treasury seem doomed. It is an important federal role to monitor against abuse and adjudicate conflict. To achieve acceptable results, however, we should recognize the value of environmental entrepreneurs and create institutions that foster their good works. The key is to create institutional arrangements that involve, rather than alienate, local communities. The locksmith will be the environmental entrepreneurs.

75. See REED F. NOSS & ALLEN Y. COOPERRIDER, *SAVING NATURE'S LEGACY: PROTECTING AND RESTORING BIODIVERSITY* 146-50 (1994).