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The underappreciated role of regulatory enforcement in natural resource conservation

Martin Nie

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Abstract This article analyzes the role of prescriptive regulation and citizen-suit litigation (regulatory enforcement) in natural resource conservation in the USA. It first briefly explains why the judiciary is so involved in resource management and why litigation is so often used as a conservation tool. It then summarizes the extent to which regulatory enforcement is being threatened and/or undermined by Congress, the executive branch, and other interests. The analysis shows how regulatory enforcement often facilitates the use of less adversarial conservation strategies and that there are important synergies between them. Regulatory interactions with collaborative conservation, land and resource acquisitions/easements, and adaptive ecosystem management are analyzed.

Keywords Natural resource policy · Environmental policy · Governance · Conservation · Regulation · Collaboration · Easements · Adaptive management

This article analyzes the role of governmental regulation and citizen-suit litigation in natural resource management and conservation in the USA.[1] It first explains why the judiciary is so involved in resource management and why litigation is so often used as a conservation tool. A few contemporary challenges, critiques, and shortcomings related to this tool are then summarized. This general overview is followed by a more in-depth analysis of the role that regulatory enforcement plays in facilitating the use of other conservation strategies and tools. Interactions with collaboration, land and resource acquisition/easements, and adaptive ecosystem management are examined.

[1] This article focuses on federal public land and resources policy and management, with its customary emphasis on property, federal lands, water, and wildlife. A similar argument focused on environmental policy and management (e.g., common law roots of nuisance doctrines, pollution prevention, human health, etc.) could also be made.

M. Nie (✉)
College of Forestry and Conservation, University of Montana, Missoula, MT 59812, USA
e-mail: martin.nie@cfc.umt.edu

My objective is to provide some history, context, and arguments that should be considered by scholars, decision makers, and practitioners interested in advancing the next generation of conservation approaches, strategies, and tools. As discussed below, there is an emerging debate in the fields of environmental and natural resources law regarding interactions between policy tools, and I hope to help cross that discussion over to the policy field for further inquiry. The article, written as part argument and part review essay, explains how regulatory enforcement often facilitates the use of other, less adversarial, conservation strategies and shows that there are important synergies between them. In many cases, a sort of "co-evolution" is apparent, with regulation and litigation playing an important role in the development and leveraging of other strategies. The most important lesson is that conservation tools are interconnected in significant ways, and when regulatory enforcement is weakened, so too are a host of less adversarial approaches to environmental protection. Any political juxtaposition of regulatory and "non-regulatory" policy approaches should be viewed most skeptically.

An argument of this sort requires some important qualifications. First, it is clear that "command and control" approaches to conservation can be poorly suited for some types of policy problems. Second, effective regulation does not have to be accomplished through process *ad nauseum*. "Analysis paralysis," as critics call it, often stems from multiple procedural requirements imposed by Congress and the Executive, and not necessarily from prescriptive laws and their legal enforcement. Third, we must consider the context in which the article is written. Governmental regulation is widely criticized as ineffectual, inefficient, and self-defeating, and the use of litigation by conservationists has been widely disparaged by academics, interest groups, and political decision makers whom often favor less adversarial approaches to resource management. Such criticism has resulted in numerous efforts to weaken governmental regulation and litigation in this field.
Fourth, some political interests, from industry to conservationists, have admittedly abused this tool and too often use the courts as a venue of first resort. Finally, and as discussed below, the shortcomings and problems of regulatory enforcement are fully acknowledged. Like any other conservation tool, it works better in some cases than in others. My aim, in short, is quite limited. No complete picture of governance is painted. I am not oblivious to such complexities, but rather hope to focus on just a small piece of the puzzle for purposes here.

As used here, prescriptive regulation means that government mandates how a resource may be used and explicitly directs the behavior of regulated interests. The regulations, comprised of such things as congressionally-written public laws and executive-based administrative rules, are enforceable by governmental and non-governmental intervention. Such enforcement usually happens through the use of non-governmental litigation, with these citizen-suits acting as a type of action-forcing device. The encompassing term "regulatory enforcement" is used here when analyzing governmental laws and regulations and their enforcement, which most often happens through citizen-suit litigation.

Prescriptive regulation often takes the form of non-discretionary standards, directives, and binding obligations. Who can access a place or use a resource? What are the rules governing timber, mineral, rangeland and recreation management? How are fish and wildlife to be protected? These are the sorts of questions answered through prescriptive regulation and enforced by the courts. Some types of state and local private land use planning tools are also regulatory in nature. Zoning, development moratoria, adequate public facility ordinances, urban growth boundaries, and subdivision exactions and regulations provide examples (Bengston et al. 2004). These differ from other types of state land use and growth management laws and plans that can be largely discretionary in nature.

Why the judiciary is so involved in natural resource management

Before proceeding with the core analysis and argument, a brief elementary summary of why the courts are so involved in natural resource management is necessary. Much of this explanation is often absent from today's political debate and in rhetoric surrounding governmental regulation and the use of the courts by conservation interests.

The history of American environmentalism is very much a history of environmental law (Sax 1971; Sive 1970, 2001–2002; Coglianese 2001/2002; Lazarus 2004). Though easy to forget, the common assumptions and starting points used today to discuss environmental protection often stem from core laws and resulting judicial opinions. Take the following statements: government can regulate the use of private property within certain parameters; citizens are often able to legally challenge agency actions that may harm the environment; agencies need to seriously consider reasonable alternatives to proposed actions when told to do so; the National Environmental Policy Act (NEPA) is not a "paper tiger" and its procedural obligations are to be taken seriously; and that the "plain intent" of Congress in enacting the Endangered Species Act (ESA) "was to halt and reverse the trend toward species extinction, whatever the cost." Though each statement comes with standard qualifications, they are generally taken for granted only because of corresponding landmark judicial decisions.[2] Without them, resource management would undoubtedly look much different today (Houck 1993–1994, 1995–1996). As articulated by Judge Skelly Wright in the NEPA-empowering *Calvert Cliffs* decision, the judicial role is to ensure that the promise of legislation becomes reality: "Our duty, in short, is to see that important legislative purposes, heralded in the halls of Congress, are not lost or misdirected in the vast hallways of the federal bureaucracy."[3]

But why do the courts play such a central role in contemporary natural resource management? The Administrative Procedures Act (APA) of 1946 is a good place to begin, as it authorizes the judicial review of agency actions that are challenged as being "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law" (5 U.S.C. §706(2)(A)). Though deference to agencies is most common, the courts nonetheless scrutinize the quality of an agency's reasoning. From the more probing "hard look" standard to the more deferential "Chevron" inquiry, courts do not give agencies a free pass, but rather ensure that their decisions are logically based on an administrative record and are reasonable.[4]

Various environmental laws also include citizen suit provisions allowing interested parties to sue agencies and/or private interests believed to be violating the law. These provisions and the APA are designed to supplement governmental enforcement of environmental laws. Though each provision has a different congressional history, in many cases they were provided by Congress as a way to watchdog unresponsive and/or captured

[2] In corresponding order see Penn Central Transportation Co. v. New York City, 438 U.S. 104 (1978) (takings); Scenic Hudson Preservation Conference v. Federal Power Commission, 354 F. 2d 608 (2d Cir. 1965) (standing); Citizens to Preserve Overton Park v. Volpe, 401 U.S. 402 (1971) (consideration of alternatives); Calvert Cliffs' Coordinating Committee v. United States Atomic Energy Commission, 449 F. 2d 1109 (D.C. Cir. 1971) (NEPA); and Tennessee Valley Authority v. Hill, 437 U.S. 153, 184 (1978) (ESA).

[3] Calvert Cliffs' Coordinating Committee v. United States Atomic Energy Commission, 449 F. 2d 1109, 1111 (D.C. Cir. 1971).

[4] For judicial articulations of these standards of review see Greater Boston Television Corp. v. FCC, 444 F. 2d 841, 850–52 (.D.C. Cir. 1970), cert. denied, 403 U.S. 923 (1971); Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43–44 (1983); Chevron U.S.A v. Natural Resources Defense Council, 467 U.S. 837 (1984); and Citizens to Preserve Overton Park v. Volpe, 401 U.S. 402 (1971).

executive agencies.[5] Stated differently, NGO enforcement of environmental regulation, through the judiciary, is part of the DNA of several environmental laws. As Sax (1971, p. xxiii) argued some time ago, "Regulation in the name of the public interest can no longer remain a two-party enterprise carried on between the regulated and the professional regulator. Effectuation of the public interest must begin to embrace the active participation of the public." And we would be well-served to consider what implementation of environmental law was like before such participation was provided.

A liberalized rule of standing is also a common explanation for the growth of environmental litigation. Put simply, an increased number of interests gained wider access to the courts following the historic *Scenic Hudson* decision (1965) granting environmental organizations the standing to challenge a license to construct an electric generating system on Storm King Mountain in New York's upper Hudson Valley.[6] Followed by *Sierra Club v. Morton* (405 U.S. 727, 1972)—ruling that standing goes beyond economic harm and could be granted if environmental interests could show an aesthetic or ecological injury—the judiciary henceforth became quite receptive to environmental claims.

Problematic statutory language is another reason. Several natural resource laws contain open-ended, vague, contradictory, and problematic language begging for judicial resolution (Nie 2008). Examples are legion, from the Federal Land Policy and Management Act's (FLPMA) direction to prevent "unnecessary or undue degradation" to the ESA's undefined "best available science" mandate. The result is that agencies fill in the details, and try to give such Congressional language meaning via the administrative rulemaking process, as governed by the APA. Often times, these agencies are then sued by interests who believe such interpretation and/or implementation is contrary to law. There are variations to this explanation, but problematic language undoubtedly helps explain the litigation that follows.

Though some laws "breath discretion at every pore," many also contain prescriptions, standards, and binding obligations that are judicially enforceable.[7] Myriad environmental laws allow citizens to challenge agency decisions while providing a host of substantive and procedural "legal hooks" that they can use to do so (e.g., §404 of Clean Water Act; ESA, §102 of NEPA). Laws are simply tools, and to matter they have to be used by interest groups and citizens and enforced by the courts.

A culture of "adversarial legalism" should also be considered in this context. As shown by Kagan (2001), the US model of policy making, implementation, and dispute resolution is characterized by adversarial lawyer-dominated litigation. This is due to a number of factors, including the nature of American laws that are comparatively complex, vague, and indeterminate. Kagan (2001) also shows how a political culture that demands governmental protection from various harms, combined with a political structure reflecting mistrust in concentrated power partially explains the litigious nature of American society.

Positive reinforcement also helps explain the use of litigation as a conservation strategy. Litigation often works, in other words, thereby setting precedent for future cases. Despite the deferential standards used by the courts when reviewing agency decisions, conservation

[5] Most of these provisions are patterned after section 304(a)(2) of the Clean Air Act authorizing "any person" to sue the administrator of the EPA "where there is alleged a failure of the Administrator to perform any act or duty under this chapter which is not discretionary with the Administrator." 42. U.S.C. §7604(a)(2).

[6] Scenic Hudson Preservation Conference v. Federal Power Commission, 354 F. 2d 608 (2d Cir. 1965), cert. denied, 384 U.S. 941 (1966).

[7] Natural Resources Defense Council v. Hodel, 624 F. Supp. 1045, 1063 (D. Nev. 1985) (quoting Strickland v. Morton, 519 F. 2d 467, 469 (9th Cir. 1975).

groups are often successful in challenging them, winning a high percentage of cases (Austin et al. 2004; Jones and Taylor 1995; Keele et al. 2006; Malmsheimer et al. 2004). And the resulting decisions, injunctions, and remands can be an effective way to force bureaucratic change, set agendas, shape public opinion, and help draw attention to issues (Daggett 2002; Nie 2006a; Turner 1990, 2002). Measuring the real impact of litigation, however, is difficult. This is due to the rule of anticipated reaction: who knows, that is, what proposals and decisions have not been made because of the mere threat of litigation.

Of course, litigation, by itself, often proves politically inadequate. It often serves as a shield, or defense mechanism, rather than a sword or offensive weapon. Nonetheless, litigation can provide a valuable "time-out," slowing things down long enough so that other offensive forces can be mobilized. This is the history of many federal wilderness areas for example: litigation stopped proposed development long enough that Congress had a chance to protect these places legislatively (Nie 2006a; Parker 1995; Turner 1990, 2002).

As noted above, litigation also provides a check on unresponsive and/or captured agencies. Environmental laws can languish because of agency cultures, competing priorities, and political-budgetary pressures, among other reasons. Instead of obstructionists, then, litigators view themselves as public watchdogs who ensure that agencies do what Congress intended (Daggett 2002; Turner 1990, 2002), and the courts are apt to see their role as legitimate and necessary in order to achieve accountability and justice (Chayes 1975–1976). Supporters also see litigation as an authentic form of democratic participation and often view the judiciary as the venue of choice when legislative and executive branches are seen as beholden to special interests.

The undermining of regulatory enforcement in natural resource management

This section briefly reviews some of the threats to regulatory enforcement in natural resource management, focusing on governmental, interest group, and academic criticism. It shows that no straw-man is being presented here, as the threats are very real. It also briefly acknowledges some of the shortcomings and problems of regulatory enforcement.

While the use of litigation by conservationists has been widely criticized and publicized, we should also recognize its widespread use by other interests. Industry, commodity, and user-groups have initiated litigation over the 2001 roadless rule, snowmobiles in Yellowstone National Park, forest planning regulations, motorized access to multiple use lands, and dozens of other high-profile cases.[8] For further evidence, consider the wise use movement's legal arm, the Mountain States Legal Foundation (www.mountainstateslegal.org), which publicizes a "litigation of the month" section on its webpage. The private property rights-based takings movement provides another example, as this political agenda has been purposefully advanced via constitutional litigation (Kendall and Lord 1998). The judiciary is this movement's venue of choice in challenging core environmental protection and land use planning laws passed by Congress and state legislatures across the country.

[8] See Kootenai Tribe of Idaho v. Veneman, 142 F. Supp. 2d 1231 (D. Idaho 2001) (and list of other plaintiffs suing over 2001 roadless rule), International Snowmobile Manufacturers Association v. Norton, 340 F. Supp. 2d 1249 (D. Wyo. 2004) (Yellowstone), American Forest and Paper Association v. Veneman, No. 1:01-cv-00871-GK (D.D.C.) (2000 forest planning regulations) (see also Flournoy et al. 2005); and Utah Shared Access Alliance v. U.S. Forest Service, 288 F. 3dd 1205 (10th Cir. 2002) and Colorado Off-Highway Vehicle Coalition v. U.S. Forest Service, 357 F. 3d. 1130 (10th Cir. 2004) (recent motorized access decisions).

Despite the fact that most interests use the courts, as shown below, there has been a concerted effort to frame conservationists as "obstructionists" who serially abuse the judicial system. The political implications of such framing are serious, as policy solutions follow problem definitions (Lewicki et al. 2003; Stone 1997; Pralle 2006). The "policy story" of environmental obstructionism is being told by numerous actors, with the remedy being as simple as the narrative: to either remove, weaken, and/or undermine environmental regulations.

Recent challenges to the use of regulatory enforcement have a history, from SLAPP suits (strategic lawsuits against public participation) initiated by industry, developers, and federal land users; to the use of congressional policy riders exempting various programs and projects from judicial review (Farber 1999; Plater et al. 2004; Sher and Hunting 1991). But the criticism and corresponding threats appear deeper and wider today, coming from the executive branch, Congress, interest groups, and the academic and policy communities.

I will start with the Executive. Before doing so, however, it is important to point out that criticism of governmental regulation is not entirely a partisan issue. The Clinton Administration, for instance, focused on "reinventing government" and various regulatory pathologies (Plater et al. 2004). Nevertheless, the George W. Bush Administration has intensified the critique and effectuated "regulatory reform" to a much greater degree. Instead of a reiteration of the Administration's full environmental record,[9] I instead elaborate on just a few regulatory changes that are particularly relevant to the following analysis. First, several agencies have made it clear that they view excessive regulation and corresponding litigation as a core problem and serious threat to effective land management and efficient administration. The U.S. Forest Service (USDA 2002), for example, argues that administrative appeals and litigation are an important part of "the process predicament," and pose a challenge to forest health and restoration goals. Regulatory changes, like the extensive use of more categorical exclusions under NEPA, followed this problem definition. At one point, in fact, nearly three quarters of forest management projects were excluded from NEPA analysis (GAO 2006). Or consider the agency's revised (and soon thereafter enjoined)[10] and proposed 2007 forest planning regulations that remove some of the most substantive standards in place since 1982, like the enforceable "viable populations" of wildlife standard (70 Fed. Reg. 1023, Jan. 5, 2005; Flournoy et al. 2005; Nie 2006b; 72 Fed. Reg. 48514, Aug. 23, 2007).

Regulatory changes have also been initiated at the Department of Interior, including a streamlining of NEPA (Luther 2006), expediting oil and gas exploration and development on public lands (Humphries 2004), revising environmental regulations pertaining to hardrock mining (66 Fed. Reg. 54,834, Oct. 30, 2001), and a controversial rewriting of federal grazing regulations (71 Fed. Reg. 39,402; July 12, 2006), among other significant developments.

Critics also contend that the Bush Administration uses a "sue and settle strategy" as a Trojan Horse approach to public land reform (Blumm 2004; Turner 2004). A number of intractable public land conflicts, from the 2001 roadless rule to the management of wilderness study areas, have been dealt with by settling lawsuits brought by commodity interest groups against Clinton Administration policies. The Bush Administration then

[9] See, for e.g., symposia on the Bush Administration's natural resource record, published by the *Ecology Law Quarterly* (vol. 32, 2005) and the *Duke Environmental Law & Policy Forum* (vol. 14, 2004).

[10] These regulations were found in contravention of the APA, NEPA, and the ESA. See Citizens for Better Forestry, et al., v. U.S. Dept. of Agriculture, et al., No. C 05-1144 PJH; and Defenders of Wildlife et al., v. Johanns, et al., No. C-04-4512 PJH, (D. N. Cal., 2007).

chooses either to not litigate and fight back, or to resolve the issues with generous settlements. Closely related to this strategy is the Administration's practice of regularly choosing to make arguments in court that are unusually hostile to NEPA (Snape and Carter 2003). On other occasions, the Administration has used questionable interpretations of judicial decisions as a pretext for policy reform, a way in which to claim that the courts forced the politically risky regulatory change (Nie 2006b). These and other strategies, says a group of legal scholars (Buzbee et al. 2005), are tools of "regulatory underkill" that have been skillfully used by the Administration to dismantle environmental regulations. "Program after program has been weakened, shelved, derailed, under funded or unenforced," they say, and "[f]ar less visible utilization of these many mechanisms has allowed the Bush administration to undercut important regulatory programs without paying the political costs for underkill" (Buzbee et al. 2005, p. 3).

Congress has also been critical. Under Republican leadership, the House Resources Committee (109th Cong.) embarked upon a piecemeal rewriting of federal environmental law, with NEPA and the ESA at the forefront. Numerous Congressional hearings, for example, paint NEPA as a burdensome procedural requirement that does more to promote litigation than protect the environment (Oversight Hearing 2005a, b). The ESA, the so-called "pitbull" of environmental laws, was also targeted for serious revision, partly because of the steady stream of litigation it produced (see H.R. 3824, 109th Cong.; Field Hearing 2004). The forest health and policy debate has been cast in a similar light, thus partly explaining sections of the Healthy Forests Restoration Act (2003) (Pub. L. No. 108-148) and other proposed legislation (H.R. 4200, 109th Cong.) making regulatory enforcement more difficult (Keiter 2006; see also Hearing 2006). The impacts of regulations on energy and mineral development on public lands has also been debated (Oversight Hearing a), with the Energy Policy Act of 2005 (Pub. L. No. 109-58) and its regulations designed partly as a way expedite energy development projects and streamline NEPA compliance (Luther 2006).

Unsurprisingly, various interest groups have also been critical. A few examples will suffice, as many arguments stem from the much-studied wise use movement. In any case, political communication about litigious environmental strategies, "paper wrenching," and environmental obstructionism is a case study in successful issue framing and problem definition (Vaughn and Cortner 2005). The *Congressional Record* and numerous hearings are replete with horror stories, personal attacks, and explicit criticism about governmental regulation and enforcement. The New Mexico Stockgrowers Association (Oversight Hearing 2005a, p. 11), for example, asserts that "*[a]ll* conservation efforts are better served through incentives and landowner cooperation, rather than threat of litigation and the iron hand of the courts, rules and regulations" (emphasis mine).

James Peterson (2006), publisher of the popular forestry trade magazine *Evergreen*, places virtually every problem faced by the timber industry and forest management on the shoulders of radical environmentalists, lawyers, and activist federal judges. "The misuse of litigation to derail congressional intent and silence civil discourse has become a cancer of our society" he says (2006, p. 7). Equivocation is not a problem for Peterson (2006, p. 2), who says that he "cannot think of one example of good work done by a lawyer in service of forestry, wildlife habitat management, water quality, air quality or forest health. Not one." Litigants within the "environmental conflict industry" have also been blamed for the Western fire and forest health problem (Vincent 2006; see also Oversight Field Hearing 2003). And, others see rural America as falling prey to this "subtle form of eco-terrorism," whose "covert operations are perpetrated by a wide array of environmental groups in conjunction with their attorneys, do-gooder bureaucrats,

liberal judges, a biased media, and urbanites who buy into the propaganda spewed forth by all the above" and who "do their damage primarily by using the courts to stop or delay worthwhile projects such as timber sales, oil and gas development, mining and grazing" (Hurst 2006: p. 8).

Another common framing is that environmental groups often misuse citizen suit and "violator pay/"attorney fee provisions, including the Equal Access to Justice Act (5 U.S.C. §504), to obtain revenues rather than to protect the environment (Benson 2006; but see Babich 2003/2004).

Criticism has also come from scholars and policy-legal analysts/think tanks and from multiple directions. At one end, constitutional-based "new federalism" arguments have been reinvigorated (Environmental Law Institute 2007). This criticism goes straight to the core of federal environmental law, challenging its constitutional basis and legitimacy (e.g., commerce clause, takings, Tenth Amendment, standing, non-delegation, etc.). Advocates of "collaborative conservation," inside and outside the academy, offer a more moderate and qualified critique, which is often only implied in their analyses. Excuse the generalization, but much of this writing presupposes that regulatory and adversarial approaches to environmental management are inferior to more collaborative, participatory, deliberative, "win–win," community-based solutions. Consensus and its kin, not the zero-sum nature of adversarial legal proceedings, is often the default position of this camp. "Second generation" environmental policy analysts have also pointed out shortcomings of the "command and control" paradigm of first generation environmental law, finding that such a top-down approach is often poorly designed to deal with more advanced and/or diffused policy problems, like non-point sources of pollution (Chertow and Esty 1997; Durant et al. 2004; Stewart 2001).

Some of this criticism is warranted, as regulatory enforcement admittedly has its share of shortcomings. These have been adequately and abundantly addressed elsewhere, so there is no need to repeat them here (see e.g., Holling and Meffe 1996; Karkkainen 2001/2002, 2003, 2005; Stewart 2001; Tarlock 2002). But a few key points should be introduced before the forthcoming analysis. First, as referenced above, when used frequently and successfully, regulatory enforcement is subject to political backlash and perceptions of environmental obstructionism. Legislative attacks on keystone environmental laws can be understood in this context, as can efforts to remove an increasing amount of decisions from NEPA analysis and/or judicial review.

There are other political limitations as well. Litigation is primarily reactive and defensive in nature, so without a political movement behind it, contestants may win battles while losing the war (see Coglianese 2001/2002). Then there is the question of how long it can take to translate legal victories into more tangible conservation outcomes. Take, for example, water policy parlance, in which references to "paper water rights" and "wet water" are common.

The multifaceted and increasingly complex nature of some environmental policy problems also challenges the traditional "rule of law" and role of litigation. To start with, the judiciary does not have to wrestle with the trade-offs and compromises inherent in political decision making, from limited budgets to other countervailing political pressures. In considering discrete legal and technical-based questions, moreover, the deeply interconnected and scientifically complex nature of some policy problems can go unexamined. This is why some legal scholars see advances in ecology, adaptive management, and collaboration as posing a tremendous challenge to the traditional rule of law/litigation enforcement model of environmental protection (Karkkainen 2001/2002, 2002a, b, 2003, 2005; Tarlock 2002).

There are also equity, representation, and fairness concerns that must be considered when evaluating this strategy. While some emphasize the authentic type of democratic participation provided by litigation, others focus on its exclusivity. Critics of "institutional reform litigation," for example, see a process dominated by a "controlling group" of interests who negotiate what idealistic statutory goals will be obtained, while "[t]he great mass of less organized and sophisticated interests and the public at large get no seats at this judicially managed, invitation-only table of government" (Sandler and Schoenbrod 2003, p. 158).

The critique could go on of course. But for purposes here, it is enough to simply recognize the political, social, and environmental limitations of this conservation strategy. Like any other political tool, it must be used appropriately and cannot solve every problem.

Regulatory enforcement as policy tool

There are an assortment of policy approaches, strategies, and tools that can be used to protect the environment. Policy analysts have long recognized the challenges and inadequacy of using "first generation" command and control policy approaches to deal with "second generation" environmental policy problems. As discussed above, while centralized "command-and-control" federal regulatory approaches are well designed to manage point-sources of water pollution, they are thought to be less well-equipped to deal with non-point sources of pollution, like that originating from multiple secondary sources. New environmental policy challenges have therefore necessitated new strategies, and various studies focus on their implementation, problems, and possible application in the future.[11]

A similar recognition is apparent in the field of natural resources law and management, with its emphasis on land, water, and wildlife conservation. Most of this work has focused on the policy tools that can be used to protect biodiversity. Noting that more than 90% of species listed as endangered or threatened have at least some part of their habitat on private lands, for example, Doremus (2003) puts forth a "policy portfolio" approach to biodiversity protection. She analyzes a broad spectrum of policy options, including educational programs, government acquisition of land or resource rights, direct incentives for private conservation action, market creation and improvement, and regulatory prohibitions and requirements.

Thompson (2002) similarly shows how we might provide biodiversity through policy diversity. He briefly analyzes the variety of tools that can be used to protect biodiversity on private land, including federal regulation (using the ESA and Clean Water Act for example), governmental investment programs (like the Land & Water Conservation Fund and the Conservation Reserve Program and others), and using other federal programs to leverage private biodiversity efforts (from tax incentives to matching grants).

Within this policy toolbox are a number of tools that can be used to protect the environment. Each tool is designed for a particular problem, like intermixed ownership for example (Keiter 2002). Many of these approaches also have their share of hard-core adherents and "policy entrepreneurs" who try to couple their preferred solutions, from collaborative to market-based, to various policy problems (see Kingdon 1995). Whatever the merit of such tools might be, this section demonstrates why they should not be viewed in isolation. It shows how regulatory enforcement often facilitates the use of these other less adversarial approaches. A general overview of such interaction follows. For brevity's

[11] See, for e.g., Chertow and Esty 1997; Bemelmens-Videc et al. 1998; Doremus 2003; Durant et al. 2004; Farber 2000; Plater et al. 2004; Stewart 2001; Klyza and Sousa 2008.

sake, the analysis is limited to three conservation strategies and tools: collaboration, land and resource acquisition, and adaptive ecosystem management. But similar arguments could be made with other tools as well.

Collaboration

Different forms of alternative dispute resolution, "stakeholder-based collaborative conservation," "cooperative conservation," "grassroots ecosystem management," and/or "civic republicanism" (among other labels and variations) have emerged as a way of dealing with a variety of environmental conflicts. These groups, or "coalitions of the unalike," try to find common ground in order to promote less adversarial, longer-lasting, and more integrated solutions to various policy problems (Snow 2001, p. 6). Growth and interest in the "movement" is phenomenal, with dozens of advocates, scholars, think tanks, clearinghouses, and government officials promoting its beneficial use.[12] As mentioned earlier, though not always the case, there is a tendency on the part of some supporters of the movement to contrast the approach to more adversarial legal approaches to conservation. As two more knowledgeable observers of the movement put it in their comprehensive survey, "An *idealized narrative* of collaborative natural resource management has emerged across the popular and academic literature. In it, collaboration is hailed as a way to reduce conflict among stakeholders; build social capital; allow environmental, social, and economic issues to be addressed in tandem; and produce better decisions" (Conley and Moote 2003: p. 372). The following analysis shows that while some exaggerate its virtues, the more serious studies of collaboration show why it is better to view it as supplementary to regulatory enforcement, and is not an adequate replacement. I take it a step further and argue that the weakening of regulatory enforcement will potentially undermine the usefulness and spread of collaboration in the future.

The George W. Bush Administration has embraced the movement's ideas and language. Irony notwithstanding, Executive Order 13,352 (Aug. 26, 2005) aims to facilitate the bottom-up use of "cooperative conservation" and a White House-sponsored conference on the matter convened in 2006.[13] Within the executive branch at least, collaboration is often contrasted to more regulatory and adversarial-based approaches to conservation. Interior Secretary Gail Norton, for example, marketed a "Four Cs" agenda during her tenure: "consultation, cooperation, and communication, all in the name of conservation." Her Assistant Secretary, Lynn Scarlett (2002), very plainly contrasted this new approach to an "old environmentalism" and its focus on the "four Ps": prescription, punishment, process and piecemeal decisions as the primary motivation for change (Scarlett 2002, p. 73). "We want a kinder, gentler conservation that encourages innovation" says Scarlett, the former president of the libertarian Reason Foundation (Tierney 2003), whom also contends that "[g]overnment should be the cheerleader, but not the leader of conservation" (Scarlett 2002, p. 75). The Administration's "Cooperative Conservation" website (www.cooperativeconservation.gov) is also clear on the matter, stating that this "voluntary and incentive-based" approach "is the

[12] See e.g., Brick et al. 2000; Conley and Moote 2003; Brunner et al. 2002, 2005; Weber 2003, Wondolleck and Yaffee 2000, Comer 2004; Koontz et al. 2004. The Executive's "Cooperative Conservation" website at http://cooperativeconservation.gov/ (accessed Mar. 30, 2007); The Red Lodge Clearinghouse at http://www.redlodgeclearinghouse.org/ (accessed Mar. 30, 2007); and the Community-Based Collaboratives Research Consortium at http://www.cbcrc.org/ (accessed Mar. 30, 2007).

[13] For conference background and documents see http://cooperativeconservation.gov/conference805home.html (accessed Apr. 1, 2007).

practical option to litigation and polarization that otherwise divide Americans." As evidence, the site offers numerous case studies and hearing transcripts showcasing the advantages of collaboration and the apparent problems caused by regulation/litigation.

Such a simple dichotomy is wrong for several reasons. To start with, we should recognize how various environmental laws mandate public participation opportunities in the first place. Laws like the APA, NEPA and various planning statutes have created the participatory baseline from which collaboration has spread (Barker et al. 2003; Bates Van de Wetering 2006). Some of these participatory laws, moreover, like the National Forest Management Act (NFMA), are actually the result of high-profile litigation and complaints about poor communication and undemocratic administrative decision making.[14] In other words, it took conflict, litigation, and resulting law to get the public a respected seat at the table. Furthermore, several collaborative endeavors are now embedded or institutionalized within these existing regulatory structures, like the popular use of resource advisory councils in public rangeland management (43 C.F.R. §1784.6-1(i)).

Some research also contradicts the common assumption that litigation is necessarily incompatible with ongoing relationships between agencies and interest groups. In his study of the EPA's regulatory process, Coglianese (1996, pp. 736–737) finds recurrent litigation within ongoing regulatory relationships; with those interest groups having the most extensive, long-standing relationships with the EPA most likely to legally challenge the agency's regulations. In this case at least, such litigation does not signal the end of the relationship, but is rather "just another round of an ongoing process of bargaining" (Coglianese 1996, p. 737). "Litigation is not viewed as a last-resort strategy reserved for outsiders, as it is ordinarily thought to be," says Coglianese (1996, p. 763), "but rather as a legitimate institutional process for carrying on business as usual." Parties see it as the way in which the game is played in other words. This is not to suggest that this state of affairs is always beneficial, but it should also provide some perspective, and help us appreciate that there are legitimate disagreements that the judiciary is designed to resolve.

Less often noted are the incentives provided by regulatory enforcement for interests to collaborate. Take collaborative-based watershed groups for example: many formed as a way to avoid or deal with the regulatory hammers of the ESA and the Clean Water Act's Total Maximum Daily Load (TMDL) provision. With the latter, TMDL-based lawsuits provided a stimulus for organizing watershed programs. As water policy and collaboration-expert Sarah Bates Van de Wetering and law professor Robert Adler (2000, p. 36) explain, "[P]erhaps it is the juxtaposition of a regulatory hammer in one hand and an olive branch is the other that will make the more collective approach work." This does not mean that litigation is the answer to the TMDL challenge, it is simply to remind ourselves that it served as the major catalyst for change.[15]

[14] See A University View of the Forest Service, A Select Committee of the University of Montana Presents Its Report on the Bitterroot National Forest, *Congressional Record*, Nov. 18, 1970. The "Bolle Report" later published as Senate Document No. 115, 91st Cong., 2d Sess. (1970). Izaak Walton League of America v. Butz, 522 F. 2d. 945 (4th Cir. 1975) (the Monongahela decision).

[15] For more on the mixed role played by TMDL litigation see symposium published by *Public Land & Resources Law Review*, Vol. 22, 2001. In Montana, as elsewhere, TMDL litigation has proven very controversial, with "radical environmentalists" being blamed for much of the acrimony. But, this is not how at least one Judge sees it: "Some have even characterized this catastrophe as being precipitated by 'radical environmentalists.' In my view citizens who have watched the degradation of precious resources for 28 years are not radical in temperament or policy when they seek to make government agencies comply with the law as enacted by Congress." Friends of the Wild Swan, Inc. v. EPA, 130 F. Supp. 2d 1207, 1209 (D. Mont. 2000).

Multi-party Habitat Conservation Plans (HCPs) provide another example. Implemented as part of the ESA, they are often portrayed as collaborative planning processes and partnerships between federal fish and wildlife agencies, private property owners, and other regulated interests (Field Hearing 2004). Along with other tools like safe harbor agreements, HCPs are viewed as a voluntary and incentive-based way to more cooperatively implement the ESA. This may indeed be the case. But missing from many of these analyses is the role that litigation so often plays in getting species initially listed (Greenwald et al. 2006)—the legal clutch putting the ESA into gear. The "Plum Creek Timber Company Native Fish Habitat Conservation Plan" (2000), covering roughly 1.6 million acres in portions of Montana, Idaho, and Washington, is a case in point. Whatever its merit, the plan was written in large part as a way to deal with the contentious listing of bull trout, a decision resulting from agonizing rounds of NGO litigation (Bechtold 1999). This is not an isolated example, as other literature describes similar dynamics (Long 2005). There is also a backdrop of regulatory coercion making HCPs look relatively attractive to private land owners who make various concessions in order to get an incidental take permit and avoid the potential hammer of the ESA's no jeopardy standard.

The much studied Quincy Library Group provides another interesting point of analysis. For better or worse, this group became a focal point in the debate about collaboration and public land management (Brunner et al. 2002). A full evaluation is beyond the scope of this article, but some of the more rigorous studies of the group explain its formation similarly: that various environmental regulations and threats of litigation, including the possibility of an ESA listing of the California spotted owl, created a context in which the timber industry wanted to negotiate. The implications resulting from the listing of the northern spotted owl and a precipitous decline in timber harvest levels constitute the backdrop in which this collaborative developed its controversial proposal (and resulting legislation). "The new logging restrictions," says Duane (1997, p. 787), "altered the balance of power...forcing the timber industry and its allies to give local environmentalists a seat at the table." Pralle (2006, p. 205) also emphasizes this "grim political and institutional environment" in explaining why the timber industry was interested in changing political venues. Admittedly, environmental laws and planning processes have also seriously frustrated the implementation of the group's legislation (Owen 2002). But in an interesting twist, the Quincy group, like so many other interest groups who believe that agencies are not implementing legislation as intended by Congress, is now using the same judicial system it once so publicly rejected.[16]

Defining "successful" collaboration is not as easy as it sounds, partly due to questions of how and what to measure. But some of the more popular, or least controversial, cases often seem to share something in common: the groups have been able to more successfully achieve regulatory goals and objectives (see Brunner et al. 2005, Chap. 2). Weber's (2003) work is illustrative, as it demonstrates how various collaborative groups work within and supplement the preexisting regulatory/institutional structure. He finds that such an approach "can be a mechanism for translating top-down, one-size-fits-all laws into a place-specific form without violating them" (p. 247). Take Montana's Blackfoot Challenge for instance, as it is showcased throughout the nation as an exemplar of cooperative

[16] The QLG sued the agency because it believes that the Sierra Nevada Framework violated the 1999 Herger-Feinstein Quincy Library Group Forest Recovery and Economic Stability Act, among other laws. Additional background and updates, including some legal documents and decisions, available at the Quincy website at http://www.qlg.org (accessed Apr. 2, 2007) and the USFS http://www.fs.fed.us/r5/hfqlg/index.shtml (accessed Apr. 2, 2007). See also Pralle 2006: p. 217; and Villamana 2003.

conservation.[17] First of all, it was formed as a way to deal with the degraded Blackfoot river watershed and the perceived regulatory "threat" of Wild and Scenic River designation. But what makes the group so popular, aside from its substantial financial support and land acquisition victories, is the fact that it has more effectively implemented existing environmental regulations, or even surpassed them (e.g. EPA TMDL-approved plans; quantifiable stream, riparian, and wetland restoration; substantial reduction in human-bear conflicts, etc.).

All of the above is not meant to suggest that tensions are not present in the relationship between collaboration and regulatory enforcement. Clearly, litigation can be a disincentive for diverse interests to collaborate. Any rational actor would calculate the costs and benefits of collaboration and weigh them against the risks posed by another party using the courts to get what it wants. Why collaborate, in other words, if other actors are likely to wage a collateral legal attack and put the whole negotiation into question? Furthermore, though a participatory baseline is provided by various environmental laws, such laws, together with other Constitutional principles (subdelegation doctrine) and administrative rules, can also constrain and/or frustrate some forms of collaboration (Barker et al. 2003). It is akin to the game of "Operation" in which a player must thread the needle without setting off built-in alarms. There is, in fact, a tight legal space in which to maneuver. Some actors may bemoan this fact, seeing it as yet another example of laws impeding problem solving and the public good. But others view the situation more positively, seeing such laws as providing requisite political representation, checks, balances, and appropriate sideboards.

For all of the benefits collaboration can produce, it is imperative we view the tool in its appropriate context. In many respects, the hammer of environmental laws, and the groups willing to enforce them, have created the conditions necessary for collaboration to emerge as a viable governing strategy. Citizen suits can trigger negotiations that wouldn't otherwise get started. And would an interest be at the table if not for some particular regulation leveling the playing field? Weber (2003, pp. 237–238), for one, is not so sure: "This is because the protective superstructure creates the equivalent of a '2,000-pound gorilla' for environmental advocates engaged in decentralized, collaborative efforts; they can use national laws as a backstop and a reminder to others that there are other more costly and restrictive alternatives available." In some situations, there is an incentive to collaborate, partly because cooperation can be mutually advantageous and more certain than drawn out legal proceedings. Viewed together, says Karkkainen (2002a, 2003), the strict mandates of various environmental laws can serve as "penalty default" provisions, and litigation enforcing those rules becomes the "nuclear option" in a larger negotiating and collaborative strategy.

Land and resource acquisition

One of the most popular environmental strategies is full and partial land and resource acquisition. Government or non-governmental organizations like land trusts often purchase land with high conservation values or acquire development rights in the form of

[17] The Challenge won an Innovations in American Government Award in 2006, that is sponsored by the Ash Institute for Democratic Governance and Innovation at Harvard University's Kennedy School of Government. It is also showcased by the Interior Department, see http://cooperativeconservation.gov/ (accessed Apr. 1, 2007). For background and accomplishments see http://www.blackfootchallenge.org/ (accessed Apr. 1, 2007).

conservation easements. Some resources, such as instream flows/water rights, can also be acquired and are considered below as well. Like collaboration, acquisition strategies are often contrasted to top-down regulatory approaches to resource management (for in-depth analysis see Echeverria 2005). With the exception of eminent domain, they are usually portrayed as voluntary market-based transactions between willing buyers and sellers. The strategy is often used to reacquire lands and resources disposed of during the nineteenth and early twentieth centuries and provides one way to consolidate intermixed public land ownership and/or to protect lands and resources threatened with development.[18] To that end, governments use such programs as the Land and Water Conservation Fund (LWCF), the Forest Legacy Program, other farm bill provisions, and other means to buy desired lands and/or easements. Land trusts, like The Nature Conservancy or Trust for Public Land, among hundreds of other place-based groups, similarly acquire lands and easements using several combinations of public and private financing (Brewer 2003).

Regulatory enforcement plays a significant but often unnoticed role in this strategy. First, it is inaccurate to portray acquisitions and easements as solely private in nature. As shown by Raymond and Fairfax (2002, p. 621), the line between public and private lands continues to blur and the "[c]oercive powers held by the public provide an important backdrop to these kinds of 'voluntary' programs." Concerning easements, for example, *public* easement statutes and taxation law best explains the growth of this so-called *private* conservation tool (Gustanski and Squires 2000), and tax and property law-based litigation will keep their use and valuation more legitimate and accurate (Ring 2005).

It is also clear that we cannot nor should not attempt to buy our way out of various conservation problems. The multi-hundred-billion dollar investment necessary to acquire a national system of habitat conservation areas is not insurmountable and favorably compares to other national infrastructure and environmental programs (Shaffer et al. 2002). But the requisite will to make such an investment is questionable. Take, for instance, the LWCF. Though it annually authorizes $900 million for land acquisition, Congress has approached this level only once, averaging instead annual appropriations ranging between $150 and 350 (Zinn 2002). The ill-fated Conservation and Reinvestment Act (CARA) of 2000 (H.R. 701, 106th Cong.), which would have provided a more secure and steady stream of acquisition money, is another example.

There are other reasons why we should think twice before reaching for the collective wallet as our default policy position. As Fairfax et al. (2005, p. 257) warn in their comprehensive history of land acquisition as conservation strategy:

> An undue reliance on acquisition, particularly to avoid the messy and unpopular process of enforcing regulations, is a grave error. Land ownership entails both rights

[18] Land exchanges are another popular tool used to consolidate public land ownership, and it is very clear that regulatory enforcement plays an important role here as well. First, regulations often provide the impetus and incentive for the negotiated exchange. Take the high profile and contentious New World Mine exchange for example. Conservationists and others were extremely concerned about the Crown Butte Mine's plan to develop a gold mine in the New World Mining District, just outside the northeast corner of Yellowstone National Park. Based on risks posed by acid mine drainage, a Clean Water Act citizen suit was filed, and this litigation provided an impetus and incentive for the exchange to begin in earnest (See Beartooth Alliance v. Crown Butte Mines, 904 F. Supp. 1168 (D. Mont. 1995) and Feldman 1997). Litigation also plays an essential role in watch-dogging these often questionable transactions (see, for e.g., the Western Lands Project at http://www.westlx.org (accessed Apr. 6, 2007). Numerous lawsuits have exposed egregious abuses of this tool (GAO 2000), and NEPA-based litigation can also be used as a way to force agencies to consider other alternatives to exchanges, like outright acquisition deals (see e.g., Muckleshoot Indian Tribe v. U.S. Forest Service, 177 F. 3d 900 (9th Cir., 1999).

> and responsibilities, and it includes at a minimum the duty to avoid harming one's neighbors. The more society compensates landowners for conservation, the more landowners will sensibly conclude that in the absence of such payments, they are entitled to develop their parcels to the detriment of society.

If pay-offs do become the line of first defense, there is also the logical possibility that acquisitions may threaten the long-term viability of governmental regulation. Not only might such deals perpetuate radical understandings of private property rights, such as the recent spate of takings-based ballot initiatives, but they can also make environmental and land use planning regulations harder in the future, by shifting public expectations and perceptions of fairness. If my neighbor gets paid for not doing something, in other words, why shouldn't I as well? As asked by Echeverria (2005, pp. 40–41), "[I]s there a risk that repeated efforts to resolve land use conflicts with the handy lubricant of public money could eventually convert environmental protection into a hostage beyond the reach of our elected representatives in any way other than paying for it?"

Regulatory enforcement can also make acquisition deals attractive in comparison. Rasband (2004, p. 179) suggests that we are entering a new period of reacquisition and that its goals would be best fulfilled "not by focusing on regulation, litigation, or backdoor reacquisition theories like the public trust doctrine, but by actually buying back the West through a variety of approaches that recognize legitimate reliance interests in natural resource use and the power of economic incentives in encouraging private actors to fulfill public purposes." Buying back disposed lands, acquiring water rights for instream purposes, and efforts to buy federal grazing permits for conservation use are examples.

Now, the obvious regulatory response is to question the need for reacquisition, given the state's constitutional powers to secure the public interest and prevent harm. Why not just regulate these values rather than pay for them in other words. But there is also a less appreciated role played by regulatory enforcement in this story, as it can make acquisition look preferable to the uncertainties inherent in the former. A corporate timber company owning checkerboarded sections of land, for example, will be more willing to sell, probably at a lower price, if there is a chance that the full extent of the ESA will be likely invoked in the future. Likewise with the proposed purchase of instream flows or grazing permits. A similar interaction can be expected between land use/zoning regulations and conservation easements (Merenlender et al. 2004). The presence of the former could limit development rights, and thus play a determining factor in whether or not a land owner wants to sell such rights—before they are regulated away. The threat of regulatory coercion, in other words, can make voluntary market transactions more preferable to risk-averse rational actors. At the very least, it becomes part of the private property owner's risk assessment.

In short, we should be very skeptical of any interest who oversells the potential of land and resource acquisition as an independent conservation strategy. The challenge, really, is not to pit environmental lawyers against land trusts and other conservation buyers; but rather to better coordinate the regulatory and acquisition approaches, to find synergies and added-values between them. Cheever and McLaughlin (2004, p. 10229) take on the sometimes combative divide separating environmental litigators and the land trust community and see the need for both regulatory and voluntary land protection tools: "Financial incentives cannot replace regulatory efforts because we simply do not have sufficient public funds to purchase our way to a more socially desirable level of land protection. By the same token, regulation cannot replace financial incentives because we simply do not have the political will to regulate our way to a more socially desirable level of land protection."

While acquisition, for example, can undermine the regulatory approach, it can also help meet the goals and standards articulated in various environmental laws, thus actually enhancing regulatory efforts (Cheever and McLaughlin 2004; Morrisette 2001). It is easy to see how acquisition of land and development rights makes it easier to achieve such goals as clean water (and non-source points of pollution) and protected wildlife habitat. When we weaken such regulations, however, or our will to enforce them, such synergy disappears and we are left contemplating Leopold's lesson that we cannot buy our way to land ethics and health (Leopold 1949; Freyfogle 2003, 2007).

Adaptive ecosystem management

Adaptive ecosystem management is another popular approach used by agencies to manage transboundary resources and intermixed ownership problems. "Ecosystem management" was put forth as a paradigm shift in the field because of its emphasis on biological diversity, scales, socially defined goals and objectives, integrated science, collaboration, transboundary/jurisdictional issues, and adaptable institutions and decision making processes (Cortner and Moote 1999; Grumbine 1994; Keiter 2003). These days, much of the focus is on the latter, with scholars and managers extolling the possibilities of "adaptive management" and its emphasis on experimentation, monitoring, and learning (Doremus 2001; Karkkainen 2001/2002, 2005). Because of their histories and similarities, the term "adaptive ecosystem management" is useful when analyzing both approaches to resource management. The approach will figure even more prominently in the future because of increasing threats to biodiversity, rampant private lands development, and an increasing recognition of the limitations of rational comprehensive (synoptic) planning. With this in mind, it serves us well to consider how this approach interacts with regulatory enforcement.

History is particularly instructive in this regard, as a combination of environmental laws, administrative regulations, and judicial decisions best explains the emergence of ecosystem management in the first place. The purpose of the ESA—"to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved" (16 U.S.C. §1531(b))—accounts for why agencies started thinking and planning differently. Or consider the landmark northern spotted owl litigation in the Pacific Northwest which served as the major catalyst for ecosystem management.[19] In *Seattle Audubon Society v. Lyons* (1994), a federal judge invoked the ESA, NEPA, NFMA, and FLPMA, in endorsing an ecosystem management policy and the Northwest Forest Plan.[20] The status quo was no longer tenable given this cumulative body of law. Keiter's (2003, p. 118) comprehensive account summarizes nicely: "There can be little doubt that the federal judiciary deserves much credit for bringing ecosystem management to the public lands." Furthermore, he says (2003, p. 118) that since the spotted owl rulings, "[T]he public land agencies have credibly used the threat of more spotted owl-type litigation to justify incorporating basic ecosystem management principles into public land policy." In a

[19] See, for e.g., Seattle Audubon Society v. Robertson, 771 F. Supp. 1081 (W.D. Wash. 1991), aff'd sub nom. Seattle Audubon Society v. Evans, 952 F.2d 297 (9th Cir. 1991).

[20] 871 F. Supp. 1291 (W.D. Wash. 1994), affirmed sub nom. Seattle Audubon Society v. Mosely, 80 F.3d 1401 (9th Cir. 1996).

nutshell, regulatory enforcement helps explain why so many agencies talk so eagerly about ecosystem management and why some are actually doing it.[21]

Nevertheless, for various reasons, agencies are often reluctant to utilize their regulatory and other political powers to protect public lands from "external threats." Sax and Keiter (1987, 2006) document such restraint, or timidity, in their comprehensive study of Glacier National Park and its neighbors. Glacier officials, they found (1987, p. 220), "[S]eem to have difficulty perceiving the law as a tool by which they can gain leverage over decisions that will affect park resources." Their (2006) revisitation of this research shows that very little has changed in this regard. Nevertheless, an ecosystem approach has advanced in the "Crown of the Continent" region, largely because of environmental advocates who are willing to draw from hard-edged coercive legal standards to force change (Sax and Keiter 2006). Enforcing laws such as NEPA, the ESA, and the National Historic Preservation Act (NHPA), among others, brought about significant change on neighboring park lands. The ESA-protected grizzly bear, for example, helps account for decreased timber harvesting and road building/closure projects on the Flathead National Forest, while NEPA and NHPA looms large when it comes to oil and gas exploration on Montana's Rocky Mountain Front (Lewis and Clark National Forest). And ESA-based regulatory enforcement has facilitated the use of other policy tools, which are less adversarial and more ecosystem-based, such as habitat conservation planning (Plum Creek 2000), an ESA-based conservation agreement (USFWS 1994), and a multi-party cooperative stewardship endeavor.[22]

Enforcing NEPA's cumulative impact/effects requirement could also be used as a way to further facilitate and institutionalize an ecosystem-based approach. Regulations define the term as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions...[and]...can result from individually minor but collectively significant actions taking place over a period of time (40 C.F.R. §1508.7). This is an increasing focus area of litigation, with the USFS often sued in recent years (Smith 2006). For example, within the Ninth Circuit Court of Appeals, from 1995 to 2004, the USFS lost nine of its thirteen cases heard by the Court (Smith 2006). Though cumulative effects case law is mixed, some courts have been reluctant to require agencies to seriously consider actions occurring on non-federal lands and make corresponding adjustments (Hartt 2002). But such judicial deference might change in the face of unprecedented private lands fragmentation and the permanent loss of habitat, especially when development is so "reasonably foreseeable" (i.e., when land is sold and development is scheduled). And when viewed in conjunction with the strictures of the ESA, NFMA, and other laws, this unwieldy provision could become even more important in the future.

Regulatory enforcement could also be used to help institutionalize the serious use of adaptive management. Definitions abound, but this approach is essentially "learning by doing" (Walters and Holling 1990), with an associated emphasis on information, monitoring, and experimentation. It is certainly a different approach than the standard one-shot ex ante predictions that are most common in NEPA-based rational comprehensive plans (CEQ 1997; Karkkainen 2002b). Unlike the traditional "predict-mitigate-implement"

[21] For comprehensive analyses of ecosystem management see the University of Michigan's Ecosystem Management Initiative at http://www.snre.umich.edu/ecomgt//index.htm (accessed Apr. 2, 2007).

[22] See e.g., Great Northern Environmental Stewardship Area at http://www.gnsa.org (accessed Apr. 11, 2007).

NEPA process, this approach uses a "predict-mitigate-implement-monitor-adapt" management model (NEPA Task Force 2003, p. 45). Like collaboration, multiple interests enthusiastically champion its use, but have trouble figuring out how it might work in the modern administrative state. And like previous problems with ecosystem management, multiple and sometimes vacuous definitions and conceptions of the approach explain at least part of its popularity. Nonetheless, adaptive management deserves serious consideration, and it behooves us to consider how it might interact with regulatory enforcement in the future.

Undoubtedly, the modern regulatory and institutional environment poses a major challenge to more ecosystem-based, adaptive, provisional, and experimental approaches to resource management (Meidinger 1997). In their study of adaptive management and the Northwest Forest Plan, for example, Stankey and others (2003, p. 45) find that "significant barriers confront adaptive management and that legal, organizational, and ideological changes must occur before implementation can succeed." Karkkainen (2005, p. 10096) goes even further in his summation of the problem: "The upshot is that conventional fixed-rule approaches—commands by sovereign to subject, or rules of mutual legal obligation owed by sovereign States to other States—turn out to be extremely blunt, limited, and inflexible tool, poorly matched to the subtle, complex, and ever-changing demands of ecological management."

Some agencies, like the USFS, apparently agree, and have revised their regulations accordingly. As referenced earlier, the USFS rewrote its planning regulations in 2005, removing substantive standards while maximizing its administrative discretion. Though its intentions are debatable, the USFS defended this "paradigm shift in land management planning" using language and ideas from adaptive management (70 Fed. Reg. 1023, 1024, Jan. 5, 2005). In short, the agency wanted to be unshackled from traditional NEPA-based planning procedures so it could utilize its expertise and respond to new problems, science, and information more expeditiously (Nie 2008).

We should be reluctant to accept this common problem definition without challenge. Admittedly, the regulatory environment poses a real challenge to more adaptive-based approaches natural resources management. But laws and regulations, along with citizen-suit enforcement, can also facilitate and institutionalize its use. First, the obvious: laws and regulations must define the goals, standards, and parameters of experimentation. For what purpose, in other words, is the experiment being conducted? Without clear-cut regulatory objectives and boundaries, adaptive management will be subject to science-coated political manipulation. Second, we should recognize that the approach is not an adequate substitute for environmental regulation and that tough choices and trade-offs must still be made. The history of adaptive management, including problems faced by the Northwest Forest Plan and management of the Columbia river system, should seriously temper our enthusiasm (Doremus 2001). Third, adaptive management can also be a political strategy used by agencies to maximize their discretion while avoiding controversial decisions. So citizen suits can play a pivotal role in ensuring that the principles on which adaptive management are based are taken seriously by agencies; in order to protect the environment, rather than merely postpone their regulatory responsibilities.

We must remember that agencies are inherently political, and that organizational biases and political pressures will help determine what information is collected and how it is monitored and evaluated. Such practices are not apolitical, nor should the public simply acquiesce to the same old "scientific management" model of the past. As Doremus (2001, pp. 55–56) makes clear, "Just as scientists tend to interpret equivocal evidence in the light most consistent with their preferred theories, decision makers are likely to see equivocal

evidence as confirming their preexisting management biases." Given this, citizen suits can be a way to effectively enforce the practice of adaptive management. Not only does such enforcement provide political cover for agencies fearful of making controversial decisions, but it can also ensure that information is collected, monitoring accomplished, and learning happens. In short, enforcement can ensure that adaptive management becomes a reality rather than a political smokescreen and agency defense mechanism.

The information and monitoring components of adaptive management are instructive. Agencies like the BLM and USFS have a long history of not delivering on monitoring promises, partly because of predictably inadequate congressional funding (see Bear 2003; CEQ 1997; GAO 1992; Karkkainen 2002a, b; NEPA Task Force 2003). Without enforceable standards, then, some interests are likely to view a renewed emphasis on monitoring with suspicion, even when couched using the language of adaptive management. Take the BLM's proposed grazing regulations for example (68 Fed. Reg. 68,452, Dec. 8, 2003). The proposed rules require monitoring before the BLM can correct grazing practices that are in non-compliance with rangeland health standards and guidelines. Critics are skeptical, of course, because they fully appreciate how rarely the BLM collects such monitoring data. It is "the monitoring scam" says Feller (2004, p. 245), and "a familiar ploy of rancher-friendly administrations" according to Donahue (2005, p. 785), two rangeland legal experts and critics. And if such monitoring was performed, the BLM and permittees would decide what and how to monitor, and how to interpret the findings. The problem, as Doremus (2001) sees it, is that agencies are often reluctant to share information that may force them into political confrontations or threaten their management programs. "We need institutional counterweights to that reluctance" she says (2001, p. 81): "Clear, enforceable information collection and disclosure mandates must be part of any adaptive management requirement or authority. We must, in so far as possible, specify the type and extent of monitoring required in advance" (Doremus 2001, p. 81).

Doremus (2001, p. 84) also recommends the use of pre-negotiated management commitments as a way to incorporate clear boundaries and obligations into adaptive management. Agencies and interests would agree in advance about what steps would be taken when monitoring shows this or that. Such an approach would provide greater certainty for all interests involved, while providing a way for agencies to distance themselves from case-by-case political pressures. Such commitments could be worked into all sorts of policies, like the ESA's HCP program for instance. "Mandates to collect and distribute information, citizen suits, and precommitments can all help keep agencies accountable for the ways in which they exercise their flexibility," she says (2001, p. 87), "So can statutory or regulatory boundaries on agency action."

Conclusion

In the field of natural resource management, regulatory enforcement is often disparaged by governmental and non-governmental interests. While some of this criticism is warranted, some of it is dangerously shallow and poses a real threat to the long-term sustainability of natural resources. Under the rubric of regulatory reform, Congress and the Executive have recently initiated a number of changes to natural resources law and policy. Instead of focusing on the importance of legally binding standards and enforceable obligations, multiple actors now accentuate alternative and less adversarial approaches to conservation. Unfortunately, some political interests go too far in their enthusiasm for alternatives and fail to appreciate the complexity of contemporary environmental governance, with all of its

strategic interactions and synergies. Thankfully, however, a number of scholars amply demonstrate how regulatory enforcement plays a pivotal role in leveraging the use of less adversarial approaches to resource management. In case-after-case, the backdrop of regulatory coercion and enforcement facilitates the use of other conservation strategies and tools. Such lessons, though, seem to have been lost in the sometimes shrill critique of regulation and litigation in contemporary politics.

The framing of environmental regulation as counter-productive and litigation as "obstructionism" is deeply troubling. Not only because of the hypocrisy of some interests who utilize the judiciary when they deem it advantageous to do so, but also because this widely publicized problem-definition leads to the incipient undermining of natural resources law and policy. As we have seen, there are a number of good reasons why the judiciary is so involved in resource management, for better and worse. This is not to suggest, however, that the regulatory status-quo is ideal. Far from it. But much of the problem stems from onerous procedural and process delays imposed by Congress and the Executive branches on administrative decision makers, not from sharp prescriptive laws and legally-binding regulations holding politicians and agencies accountable. Finding efficiencies in the environmental decision making process should be encouraged by all means, but we should be most vigilant in ensuring that "streamlining" endeavors do not become a cover for the weakening of environmental laws. It is also unfair for Congress and the Executive to bemoan the time it takes for agencies to fulfill their legally-imposed analytical duties (e.g., NEPA) when those branches fail to provide the funding necessary to do them more quickly.

Some readers might question the basis of this argument, perhaps suggesting that the divide between regulatory enforcement and other conservation tools is largely fictional; that, of course, there is a relationship among these approaches and that regulatory enforcement must play a role in the future. The review, however, shows that such claims are not exaggerated at all. Yes, some interests advocate other conservation strategies, while acknowledging the dynamics analyzed herein. But, as shown above, others present the situation in a more dichotomous and simplistic fashion, offering de facto replacements to "top-down, command-and-control governmental regulation" and the "litigation crisis." Proponents of alternative approaches rarely state, in explicit terms, that such approaches should replace the existing regulatory scheme. Doing so would be quite daring. Instead, rhetorical support is given to the rule of law and its enforcement. Not acknowledged, however, are concurrent efforts to rewrite those federal environmental standards through regulatory changes and proposed legislation. The point, then, is to ask readers to take a broader look at what government officials are saying and doing.

Recognizing the necessity and legitimacy of regulatory enforcement is imperative if we are to move alternative conservation strategies forward. If not, collaboration runs the risk of being politically appropriated to the point where it is mostly seen as a public relations ploy by those whose real interest lies in removing or undermining federal environmental standards. If, however, champions of collaboration were more vocal in their defense of such standards, and the role they play in getting interests to the negotiating table, then perhaps the movement would grow in strength and support. Like collaboration, full and partial acquisition strategies will be more prominent in the future as well, as all sorts of landowners, from timber corporations to family ranchers, will expect to get paid if they choose not to subdivide and develop their lands. There is nothing wrong, of course, about making their choice a little bit easier, and to reward landowners who go above and beyond what is required by environmental laws and local land use restrictions. But, we must also be realistic about the financial limitations of this approach, and appreciate the role played

by regulatory enforcement in getting landowners to this negotiating table. Adaptive ecosystem management is also here to stay, though what final form it takes is far from clear. This too is a positive development, as long as we recognize that such an approach is a means to an end, and is no substitute for the environmental regulations that do set ends in the form of enforceable standards. Regulatory enforcement, moreover, could help further institutionalize and legitimize this promising approach to resource management.

In defense of regulatory enforcement, this viewpoint avoids undue romanticizing and knee-jerk opposition to alternative approaches to resource management. It seems that collaboration, acquisition, and adaptive ecosystem management, among a variety of other conservation strategies, are net positive developments and should be encouraged in the future. But let us not get carried away in our enthusiasm. However imperfect, laws and regulations must play a central role in the future of conservation, and we should not expect their implementation to always happen without non-governmental intervention. When thinking about the "conservation toolbox," it is not a case of either-or, but rather all-of-the-above. But, several instruments in this toolbox will not be as useful without the hammer of prescriptive laws and regulations and the groups willing to enforce them.

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References

Austin, J. E., Carter II, J. M., Klein, B. D., & Schang, S. E. (2004). *Judging NEPA: A 'Hard Look' at judicial decision making under the National Environmental Policy Act*. Environmental Law Institute.

Babich, A. (2003/2004). The wages of sin: The violator-pays rule for environmental citizen suits. *Widener Law Review, 10*, 219–278.

Barker, A., Chamberlain, H., Eyre, J., Gomez, B., Hofberger, J., Jones, J., Kingston, A., McBride, M., Robinson, K., Smith, D., Smith, M., Smith, M., & Ressetar, R. (2003). The role of collaborative groups in federal land and resource management: A legal analysis. *Journal of Land, Resources and Environmental Law,* 23, 67–141.

Bates Van de Wetering, S. (2006). *The legal framework for cooperative conservation*. University of Montana, MT: Public Policy Research Institute.

Bates Van de Wetering, S., & Adler, R. W. (2000). New directions in western water law: Conflict or collaboration? *Journal of Land, Resources, and Environmental Law, 20*, 15–40.

Bear, D. (2003). Some modest suggestions for improving implementation of the National Environmental Policy Act. *Natural Resources Journal, 43*, 931–960.

Bechtold, T. (1999). Listing the bull trout under the Endangered Species Act: The passive-aggressive strategy of the United States Fish and Wildlife Service to prevent protecting warranted species. *Public Land and Resources Law Review,* 20, 99–129.

Bemelmans-Videc, M. L., Rist, R. C., & Vedung, E. (Eds.). (1998). *Carrots, sticks and sermons: Policy instruments and their evaluation*. New Brunswick, NJ: Transaction.

Bengston, D. N., Fletcher, J. O., & Nelson, K. C. (2004). Public policies for managing urban growth and protecting open space: Policy instruments and lessons learned in the United States. *Landscape and Urban Planning, 69*: 271–286.

Benson, B. L. (2006). *Unnatural bounty: Distorting the incentives of major environmental groups*. PERC Policy Series, PS-37.

Blackfoot Challenge. (2007). Available at: http://www.blackfootchallenge.org. Accessed on April 1, 2007.

Blumm, M. C. (2004). The Bush Administration's Sweetheart Settlement Policy: A Trojan Horse Strategy for advancing commodity production on public lands. *Environmental Law Reporter, 34*, 10397–10420.

Brewer, R. (2003). *Conservancy: The land trust movement in America*. Lebanon, NH: University Press of New England.

Brick, P., Snow, D., & Van de Wetering, S. (Eds.). (2000). *Across the great divide: Explorations in collaborative conservation and the American West*. Washington, DC: Island Press.

Brunner, R. D., Colburn, C. H., Cromley, C. M., Klein, R. A., & Olson, E. A. (2002). *Finding common ground: Governance and natural resources in the American West*. New Haven, CT: Yale University Press.

Brunner, R. D., Steelman, T. A., Coe-Juell, L., Cromley, C. M., Edwards, C. M., & Tucker, D. W. (2005). *Adaptive governance: Integrating science, policy, and decision making*. New York, NY: Columbia University Press.

Buzbee, W. W., Glicksman, R. L., Shapiro, S. A., & Sokol, K. (2005). Regulatory underkill: The Bush Administration's insidious dismantling of public health and environmental protections. Center for Progressive Regulation White Paper, No. 503.

Chayes, A. (1975/1976). The role of the judge in public law litigation. *Harvard Law Review, 89*, 1281–1316.

Cheever, F., & McLaughlin, N. A. (2004). Why environmental lawyers should know (and care) about land trusts and their private land conservation transactions. *Environmental Law Reporter, 34*, 10223–10233.

Chertow, M. R., & Esty, D. C. (Eds.). (1997). *Thinking ecologically: The next generation of environmental policy*. New Haven, CT: Yale University Press.

Coglianese, G. (1996). Litigating within relationships: Disputes and disturbance in the regulatory process. *Law and Society Review, 30*, 735–766.

Coglianese, G. (2001/2002). Social movements, law, and society: The Institutionalization of the Environmental Movement. *University of Pennsylvania Law Review, 150*, 85–118.

Comer, R. D. (2004). Cooperative conservation: The federalism underpinnings to public involvement in the management of public lands. *University of Colorado Law Review, 75*, 1133–1158.

Community-Based Collaborative Research Consortium. (2007). Available at: http://www.cbcrc.org. Accessed on March 30, 2007.

Congressional Record. (1970). A University view of the forest service. A select committee of the University of Montana presents its report on the Bitterroot National Forest.

Conley, A., & Moote M. (2003). Evaluating collaborative natural resource management. *Society and Natural Resources, 16*, 371–386.

Cooperative Conservation. (2007). Available at http://cooperativeconservation.gov. Accessed on March 30, 2007.

Cortner, H. J., & Moote, M. (1999). *The politics of ecosystem management*. Washington, DC: Island Press.

Council on Environmental Quality. (1997). *The National Environmental Policy Act: A study of its effectiveness after twenty-five years*. Washington, DC: CEQ.

Daggett, S. D. (2002). NGOs as lawmakers, watchdogs, whistle-blowers, and private attorneys general. *Colorado Journal of International Environmental Law and Policy, 13*, 99–113.

Donahue, D. L. (2005). Western grazing: The capture of grass, ground, and government. *Environmental Law, 35*, 721–806.

Doremus, H. (2001). Adaptive management, the Endangered Species Act, and the institutional challenges of new age environmental protection. *Washburn Law Journal,* 41, 50–89.

Doremus, H. (2003). A policy portfolio approach to biodiversity protection on private lands. *Environmental Science and Policy, 6*, 217–232.

Duane, T. P. (1997). Community participation in ecosystem management. *Ecology Law Quarterly, 24*, 771–797.

Durant, R. F., Fiorino, D., & O'Leary, R. (Eds.). (2004). *Environmental governance reconsidered: Challenges, choices, and opportunities*. Cambridge, MA: MIT Press.

Echeverria, J. D. (2005). Regulating versus paying land owners to protect the environment. *Journal of Land, Resources, and Environmental Law, 26*, 1–46.

Environmental Law Institute. (2007). Endangered Environmental Laws Program: Background paper. Available at: http://www.endangeredlaws.org/index.htm. Accessed on: February 4, 2007.

Fairfax, S. K., Gwin, L., King, M. A., Raymond, L., & Watt, L. A. (2005). *Buying nature: The limits of land acquisition as a conservation strategy, 1780–2004*. Cambridge, MA: MIT Press.

Farber, D. A. (1999). Taking slippage seriously: Noncompliance and creative compliance in environmental law. *Harvard Environmental Law Review,* 23, 297–325.

Farber, D. A. (2000). Triangulating the future of reinvention: Three emerging models of environmental protection. *University of Illinois Law Review, 2000*, 61–81.

Feldman, M. D. (1997). The New public land exchanges: Trading development rights in one area for public resources in another. Rocky Mountain Mineral Law Institute 43.

Feller, J. M. (2004). The BLM's proposed grazing regulations: Serving the most special interest. *Journal of Land, Resources, and Environmental Law*, 241–248.

Field Hearing Before the Subcommittee on Fisheries, Wildlife, and Water of the Committee on Environment and Public Works, United States Senate, 108th Cong. (April 23, 2004). Oversight of the Endangered Species Act.

Flournoy, A., Glicksman, R. L., & Clune, M. (2005). Regulations in name only: How the Bush Administration's National Forest Planning Rule frees the forest service from mandatory standards and public accountability. A Center for Progressive Reform White Paper, No. 508.
Freyfogle, E. T. (2003). *The land we share: Private property and the common good*. Washington, DC: Island Press.
Freyfogle, E. T. (2007). *On private property: Finding common ground on the ownership of land*. Boston, MA: Beacon Press.
General Accounting Office. (1992). Rangeland management: Interior's monitoring has fallen short of agency requirements. GAO/RCED-92-51.
General Accounting Office. (2000). BLM and the forest service: Land exchanges need to reflect appropriate value and serve the public interest. GAO/RCED-00-73.
Government Accountability Office. (2006). Forest Service: Use of categorical exclusions for vegetation management projects, Calender Years 2003 through 2005. GAO-07-99.
Great Northern Environmental Stewardship Area. (2007). Available at http://www.gnsa.org. Accessed on April 11, 2007.
Greenwald, D. N., Suckling, K. F., & Taylor M. (2006). The listing record. In D. D. Goble, J. M. Scott, & F. W. Davis (Eds.), T*he Endangered Species Act at thirty* (Vol. 1, pp. 51–67). Washington, DC: Island Press.
Grumbine, R. E. (1994). What is ecosystem management? *Conservation Biology, 8*, 27–38.
Gustanski, J. A., & Squires, R. H. (Eds.). (2000). *Protecting the land: Conservation easements past, present, and future*. Washington, DC: Island Press.
Hartt, L. (2002). Pacific Coast Federation of Fishermen's Associations v. NFMS: A case study of successes and failures in challenging logging activities with adverse cumulative effects on fish and wildlife. *Environmental Law, 32*, 671–716.
Hearing Before the Subcommittee on Public Lands, Forests of the Committee on Energy and Natural Resources U.S. Senate, 109th Cong. (2006). Implementation of the Healthy Forests Restoration Act, July 19.
Holling, C. S., & Meffe, G. K. (1996). Command and control and the pathology of natural resource management. *Conservation Biology, 10*, 328–337.
Houck, O. A. (1993/1994). The secret opinions of the United States Supreme Court on leading cases in Environmental Law, never before published. *University of Colorado Law Review, 65*, 459–517.
Houck, O. A. (1995/1996). The water, the trees, and the land: Three nearly forgotten cases that changed the american landscape. *Tulane Law Review, 70*, 2279–2310.
Humphries, M. (2004). *Oil and gas exploration and development on public lands*. Washington, DC: Congressional Research Service.
Hurst, J. (2006). Notes from an Old Stump Jumper. *Range Magazine*, Fall.
Jones, E. S., & Taylor, C. P. (1995). Litigating agency change: The impact of the courts and administrative appeals process on the forest service. *Policy Studies Journal, 23*, 310–336.
Kagan, R. A. (2001). *Adversarial legalism: The American way of law*. Cambridge, MA: Harvard University Press.
Karkkainen, B. C. (2001–2002). Collaborative ecosystem governance: Scale, complexity, and dynamism. *Virginia Environmental Law Journal, 21*, 189–243.
Karkkainen, B. C. (2002a). Environmental lawyering in the age of collaboration. *Wisconsin Law Review, 2002*, 555–574.
Karkkainen, B. C. (2002b). Toward a smarter NEPA: Monitoring and managing government's environmental performance. *Columbia Law Review, 102*, 903–972.
Karkkainen, B. C. (2003). Adaptive ecosystem management and regulatory penalty defaults: Toward a bounded pragmatism. *Minnesota Law Review, 97*, 943–998.
Karkkainen, B. C. (2005). Transboundary ecosystem governance: Beyond sovereignty? *Environmental Law Reporter, 35*, 10094–10099.
Keele, D. M., Malmsheimer R. W., Floyd D. W., & Perez J. E. (2006). Forest service land management litigation 1989–2002. *Journal of Forestry, 104*, 196–202.
Keiter, R. B. (2002). Biodiversity conservation and the intermixed ownership problem: From nature reserves to collaborative processes. *Idaho Law Review,* 38, 301–324.
Keiter, R. B. (2003). *Keeping faith with nature: Ecosystems, democracy, and America's public lands*. New Haven, CT: Yale University Press.
Keiter, R. B. (2006). The law of fire: Reshaping public land policy in an era of ecology and litigation. *Environmental Law, 36*, 301–384.
Kendall, D., & Lord C. (1998). The takings project: A critical analysis and assessment of the progress so far. *Boston College Environmental Affairs Law Review, 25*, 509–587.

Kingdon, J. W. (1995). *Agendas, alternatives, and public policies*. New York, NY: HarperCollins.
Klyza, C. M., & Sousa D. (2008). *American environmental policy, 1990–2006*. Cambridge, MA: MIT Press.
Koontz, T. M., Steelman, T. A., Carmin, J., Moseley, C., & Thomas, C. W. (2004). *Collaborative environmental management: What roles for government?* Washington, DC: Resources for the Future.
Lazarus, R. J. (2004). *The making of environmental law*. Chicago, IL: University of Chicago Press.
Leopold, A. (1949). *A Sand County Almanac and sketches here and there*. New York, NY: Oxford University Press.
Lewicki, R., Gray, B., & Elliott, M. (Eds.). (2003). *Making sense of intractable environmental conflicts: Concepts and cases*. Washington, DC: Island Press.
Long, E. A. (2005). Two prongs of public interest lawyering under the Endangered Species Act: Building a cooperative strategy from litigation and collaborative efforts. *Environmental Law Reporter, 35*, 10690–10702.
Luther, L. (2006). *The National Environmental Policy Act: Streamlining NEPA*. Washington, DC: Congressional Research Service.
Malmsheimer, R. W., Keele, D., & Floyd, D. W. (2004). National forest litigation in the U.S. court of appeals. *Journal of Forestry, 102*, 20–25.
Meidinger, E. E. (1997). Organizational and legal challenges for ecosystem management. In K. A. Kohm & J. F. Franklin (Eds.), *Creating a forestry for the 21st century: The science of ecosystem management* (pp. 361–379). Washington, DC: Island Press.
Merenlender, A. M., Huntsinger, L., Guthey, G., & Fairfax, S. K. (2004). Land trusts and conservation easements: Who is conserving what for whom? *Conservation Biology, 18*, 65–75.
Morrisette, P. M. (2001). Conservation easements and the public good: Preserving the environment on private lands. *Natural Resources Journal, 41*, 373–426.
NEPA Task Force. (2003). Report to the Council on Environmental Quality: Modernizing NEPA implementation. Washington, DC.
Nie, M. (2006a). Governing the Tongass: National forest conflict and political decision making. *Environmental Law, 36*, 385–480.
Nie, M. (2006b). The 2005 National forest system land and resource management planning regulations: Comments and analysis. *Public Land and Resources Law Review, 27*, 99–106.
Nie, M. (2008). *The governance of western public lands: Mapping its present and future*. Lawrence, KS: University Press of Kansas.
Oversight Field Hearing Before the Committee on Resources, U.S. House of Representatives, 108th Cong. (2003). Management challenges on Montana's National Forests, July 2.
Oversight Hearing (a), Before the Subcommittee on Energy and Mineral Resources of the Committee on Resources, U.S. House of Representatives, 109th Cong. (2005). The impacts of environmental regulations on energy and mineral development: The Wildlands Project, June 16.
Oversight Hearing (b), Before the Committee on Resources, U.S. House of Representatives, 109th Cong. (2005). NEPA litigation: The causes, effects and solutions, November 10.
Oversight Field Hearing Before the Committee on Resources, U.S. House of Representatives, 109th Cong. (2005). The role of NEPA in the States of Washington, Oregon, Idaho, Montana, and Alaska, April 23.
Owen, D. (2002). Prescriptive laws, uncertain science, and political stories: Forest management in the Sierra Nevada. *Ecology Law Quarterly, 29,* 747–804.
Parker, V. (1995). Natural resources management by litigation. In R. L. Knight & S. F. Bates (Eds.), *A new century for natural resources management* (pp. 209–220). Washington, DC: Island Press.
Petersen, J. D. (2006). Don't Shoot, I'm not a lawyer!'. Paper presented at the Annual Meeting of the Montana Society of American Foresters, Missoula, MT, March 31.
Plater, Z. J. B., Abrams, R. H., Goldfarb, W., Graham, R. L., Heinzerling, L., & Wirth D. A. (2004). *Environmental law and policy: Nature, law, and society*. New York, NY: Aspen.
Plum Creek. (2000). Final Plum Creek Timber Company Native Fish Habitat Conservation Plan.
Pralle, S. B. (2006). *Branching out, digging in: Environmental advocacy and agenda setting*. Washington, DC: Georgetown University Press.
Quincy Library Group. (2007). Available at http://www.qlg.org. Accessed on April 2, 2007.
Rasband, J. R. (2004). Buying back the west. *Journal of Land, Resources, and Environmental Law, 24*, 179–186.
Raymond, L., & Fairfax, S. K. (2002). The 'Shift to Privatization' in land conservation: A cautionary essay. *Natural Resources Journal, 42*, 599–639.
Red Lodge Clearinghouse. (2007). Available at http://www.redlodgeclearinghouse.org. Accessed on March 30, 2007.
Ring, R. (2005). Write-off on the range. *High Country News*, May 30.

Sandler, R., & Schoenbrod, D. (2003). *Democracy by Decree: What happens when courts run government*. New Haven, CT: Yale University Press.
Sax, J. L. (1971). *Defending the environment: A strategy for citizen action*. New York, NY: Alfred Knopf.
Sax, J. L., & Keiter, R. B. (1987). Glacier National Park and its neighbors: A study of federal interagency relations. *Ecology Law Quarterly, 14*, 207–263.
Sax, J. L., & Keiter, R. B. (2006). The realities of regional resource management: Glacier National Park and its neighbors revisited. *Ecology Law Quarterly, 33*, 233–312.
Scarlett, L. P. (2002). A new approach to conservation: The case for the four Cs. *Natural Resources and Environment, 17*, 73–113.
Shaffer, M. L., Scott, J. M., & Casey, F. (2002). Noah's options: Initial cost estimates of a national system of habitat conservation areas in the United States. *BioScience, 52*, 439–443.
Sher, V. M., & Hunting, C. S. (1991). Eroding the landscape, eroding the laws: Congressional exemptions from judicial review of environmental laws. *Harvard Environmental Law Review, 15*, 435–491.
Sive, D. (1970). Some thoughts of an environmental lawyer in the wilderness of administrative law. *Columbia Law Review, 70*, 612–651.
Sive, D. (2001/2002). The litigation process in the development of environmental law. *Pace Environmental Law Review, 19*, 727–754.
Smith, M. D. (2006). Cumulative impact assessment under the National Environmental Policy Act: An analysis of recent case law. *Environmental Practice, 8*, 228–240.
Snape III, W., & Carter, J. M. (2003). Weakening the National Environmental Policy Act: How the Bush Administration uses the judicial system to weaken environmental protection. Judicial Accountability Project and Defenders of Wildlife.
Snow, D. (2001). Coming home: An introduction to collaboration conservation. In P. Brick, D. Snow, & S. Bates Van de Wetering (Eds.), *Across the great divide: Explorations in collaborative conservation and the American West* (pp. 1–11). Washington, DC: Island Press.
Stankey, G. H., Bormann, B. T., Ryan, C., Shindler, B., Sturtevant, V., Clark, R. N., & Philpot, C. (2003). Adaptive management and the Northwest Forest Plan: Rhetoric and reality. *Journal of Forestry, 101*, 40–46.
Stewart, R. B. (2001). A new generation of environmental regulation. *Capital University Law Review, 29*, 21–182.
Stone, D. (1997). *Policy paradox: The art of political decision making*. New York, NY: Norton.
Tarlock, D. A. (2002). The future of environmental 'Rule of Law' litigation. *Pace Environmental Law Review, 19*, 575–610.
Tierney, J. (2003). Trying for balance at Interior Department. *New York Times*, June 9.
Thompson Jr., B. H. (2002). Providing biodiversity through policy diversity. *Idaho Law Review, 38*, 355–384.
Turner, T. (1990). *Wild by law: The Sierra Club legal defense fund and the places it has saved*. San Francisco, CA: Sierra Club Legal Defense Fund.
Turner, T. (2002). *Justice on Earth: Earth justice and the people it has served*. White River Junction, VT: Chelsea Green.
Turner, T. (2004). Unsettling development. *The Environmental Forum, 21*, 32–41.
University of Michigan's Ecosystem Management Initiative. (2007). Available at http://www.snre.umich.edu/ecomgt//index.htm. Accessed on April 2, 2007.
U.S.D.A. Forest Service. (2002). The process predicament: How statutory, regulatory, and administrative factors affect National Forest Management, Washington, DC.
U.S. Fish and Wildlife Service. (1994). Conservation agreement among Plum Creek Timber Co, L.P. and Montana Department of State Lands and U.S.D.A. Forest Service, Flathead National Forest, and United States Fish and Wildlife Service, February 23.
U.S. Forest Service. (2007). Available at USFS http://www.fs.fed.us/r5/hfqlg/index.shtml. Accessed on April. 2, 2007.
Vaughn, J., & Cortner, H. (2005). *George W. Bush's healthy forests: Reframing the environmental debate*. Boulder, CO: University Press of Colorado.
Villamana, M. (2003). Enviros seek intervention rights in case challenging Sierra framework. *Greenwire*, April 24.
Vincent, B. (2006). Ash and smoke. *Range Magazine*, Fall.
Walters, C. J., & Holling, C. S. (1990). Large scale management experiments and learning by doing. *Ecology, 71*, 2060–2068.
Weber, E. P. (2003). *Bringing society back in: grassroots ecosystem management, accountability, and sustainable communities*. Cambridge, MA: MIT Press.
Western Lands Project. (2007). Available at http://www.westlx.org. Accessed on April 6, 2007.

Wondolleck, J. M., & Yaffee, S. L. (2000). *Making collaboration work: Lessons from innovation in natural resource management*. Washington, DC: Island Press.
Zinn, J. (2002). *Land and water conservation fund: Current status and issues*. Washington, DC: Congressional Research Service.

Legal References

66 Fed. Reg. 54,834, Oct. 30, 2001.
68 Fed. Reg. 68,452, Dec. 8, 2003.
70 Fed. Reg. 1023, Jan. 5, 2005.
70 Fed. Reg. 1023, 1024, Jan. 5, 2005.
71 Fed. Reg. 39,402; July 12, 2006.
72 Fed. Reg. 48514, Aug. 23, 2007.
Administrative Procedures Act (5 U.S.C. §706(2)(A).
American Forest and Paper Association v. Veneman, No. 1:01-cv-00871-GK (D.D.C.).
Beartooth Alliance v. Crown Butte Mines, 904 F. Supp. 1168 (D. Mont. 1995).
Calvert Cliffs' Coordinating Committee v. United States Atomic Energy Commission, 449 F. 2d 110 (D.C. Cir. 1971) (NEPA).
Chevron U.S.A v. Natural Resources Defense Council, 467 U.S. 837 (1984).
Clean Air Act 42. U.S.C. §7604(a)(2).
Citizens for Better Forestry, et al., v. U.S. Dept. of Agriculture, et al., No. C 05-114 PJH.
Citizens to Preserve Overton Park v. Volpe, 401 U.S. 402 (1971).
Colorado Off-Highway Vehicle Coalition v. U.S. Forest Service, 357 F. 3d. 1130 (10th Cir. 2004).
Conservation and Reinvestment Act (CARA) of 2000 (H.R. 701, 106th Cong.).
Defenders of Wildlife et al., v. Johanns, et al., No. C-04-4512 PJH, (D. N. Cal., 2007).
Endangered Species Act. 16 U.S.C. §1531(b).
Energy Policy Act of 2005 (Pub. L. No. 109-58).
Equal Access to Justice Act 5. U.S.C. §504.
Forest Emergency Recovery and Research Act, H.R. 4200, 109th Cong.
Friends of the Wild Swan, Inc. v. EPA, 130 F. Supp. 2d 1207, 1209 (D. Mont. 2000).
Greater Boston Television Corp. v. FCC, 444 F. 2d 841, 850-52 (D.C. Cir. 1970).
Healthy Forests Restoration Act (2003) (Pub. L. No. 108-148).
International Snowmobile Manufacturers Association v. Norton, 340 F. Supp. 2d 1249 (D. Wyo. 2004).
Izaak Walton League of America v. Butz, 522 F. 2d. 945 (4th Cir. 1975).
Kootenai Tribe of Idaho v. Veneman, 142 F. Supp. 2d 1231 (D. Idaho 2001).
Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43-44 (1983).
Muckleshoot Indian Tribe v. U.S. Forest Service, 177 F. 3d 900 (9th Cir., 1999).
Natural Resources Defense Council v. Hodel, 624 F. Supp. 1045, 1063 (D. Nev. 1985).
Penn Central Transportation Co. v. New York City, 438 U.S. 104 (1978).
Scenic Hudson Preservation Conference v. Federal Power Commission, 354 F. 2d 608 (2d Cir. 1965).
Seattle Audubon Society v. Robertson, 771 F. Supp. 1081 (W. D. Wash. 1991).
Seattle Audubon Society v. Mosely, 80 F.3d 1401 (9th Cir. 1996).
Seattle Audubon Society v. Evans, 952 F.2d 297 (9th Cir. 1991).
Seattle Audubon Society v. Lyons (1994), 871 F. Supp. 1291 (W. D. Wash. 1994).
Senate Document No. 115, 91st Cong., 2d Sess. (1970).
Sierra Club v. Morton (405 U.S. 727, 1972).
Strickland v. Morton, 519 F. 2d 467, 469 (9th Cir. 1975).
Tennessee Valley Authority v. Hill, 437 U.S. 153, 184 (1978) (ESA).
Threatened and Endangered Species Act, H.R. 3824, 109th Cong.
Utah Shared Access Alliance v. U.S. Forest Service, 288 F. 3dd 1205 (10th Cir. 2002).