
INTRODUCTION

Change is in the air. After a century of growing national control, Americans are rethinking the role of the federal government vis-à-vis the states. This reconsideration has led to welfare reform and to a nationwide debate over education. Now it is beginning to focus on environmental policy, too.

Dissatisfaction with Washington-imposed environmental policy is well known.

- Local government officials are outraged by unfunded mandates—regulations imposed from Washington but paid for locally. For example, Montanans must clean up the naturally-occurring arsenic in the Madison River because arsenic levels coming from geysers in Yellowstone Park exceed national standards. Yet, according to Environmental Protection Agency (EPA) estimates, a person would have to consume two liters of untreated water from the source *and* eat 6.5 grams of fish every day for 70 years to increase his or her risk of cancer by 1 in 10,000.
- Towns such as Aspen, Colorado, and Triumph, Idaho, are locked in an unending battle with the EPA because it claims that hazardous waste sites (places that have old mine tailings) must be cleaned up even though the communities do not feel the risks warrant the disruptions (Stroup

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1996).

- Federal regulations to protect endangered species and wetlands have forced property owners to stop farming, logging, and building on their property (Lund 1995).
- Costs of complying with national environmental regulations have risen from \$53 billion in 1980 to over \$150 billion today, a figure representing 2 percent of the nation's gross domestic product.

Recognizing the excesses, Washington officials have attempted to address them through a “reinventing government” program. This has failed to downsize government or reduce regulations. Just the opposite, in fact.

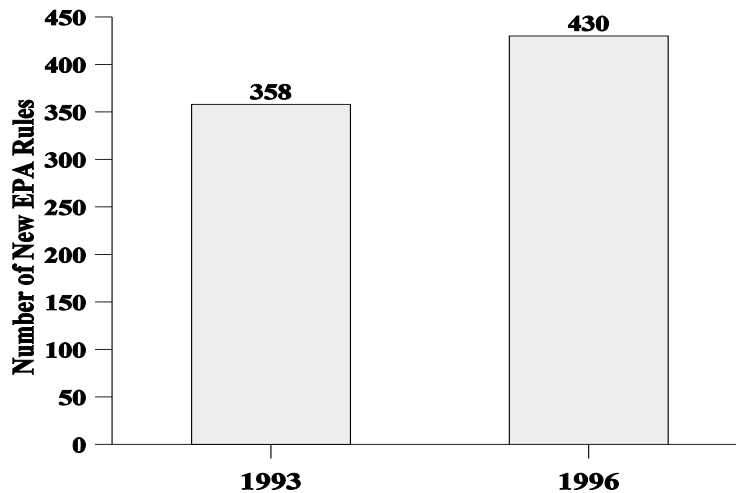


Figure 1
Environmental Regulation, 1993–1996

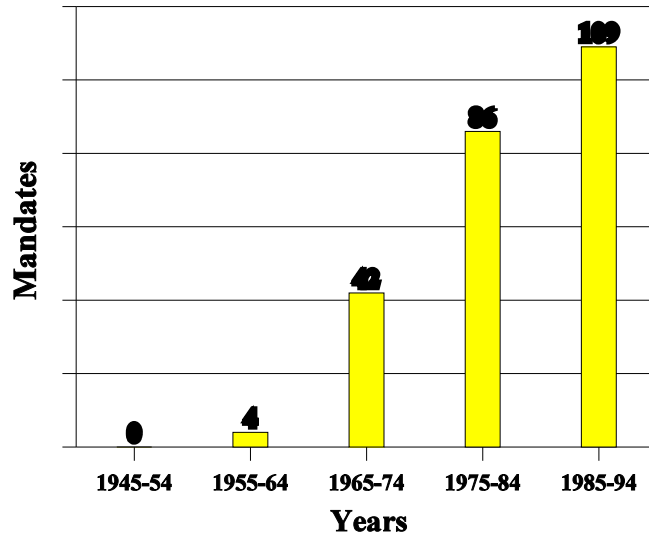
Source: Crews (1996, 14).

Since 1993, the number of regulations proposed or issued by the Environmental Protection Agency has increased by 20 percent, as indicated in Figure 1. Of the 430 regulations in the “pipeline” in April 1996, 46 are expected to cost business at least \$100 million annually. Only nine are receiving scrutiny under the “reinventing government” agenda. Hence, 37 regulations will have an economic impact in excess of \$3.7 billion per year (Crews 1996, 13–14).

These federal regulations are also costly to state and local governments. The Clean Water Act, the Clean Air Act, the Safe Drinking Water Act, and other laws require states and municipalities to meet national environmental standards at significant expense to local taxpayers but do not provide the funds to do so. Figure 2 shows the growth in these unfunded mandates between 1994 and 1995. Though not all of these are related to the environment, the projected costs for 1994 through 1998 total \$54 billion (Crews 1996, 17)! Clearly, reinventing government is not working.

Figure 2
Number of Federal Mandates
on State and Local Governments, 1955–1994

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Source: Crews (1996, 17).

We believe there is an alternative—environmental federalism. To examine how this alternative might work, PERC devoted its June 1996 Political Economy Forum to “Environmental Federalism in the West.” This *PERC Policy Series* paper summarizes the key research results.¹ It is based on papers by PERC’s Wiegand Adjunct Scholars—David Haddock, Robert Nelson, Dean Lueck, Barton Thompson, and Bruce Yandle—as well as several other contributors—Andrew Morriss, Sally Fairfax, Karol Ceplo, and Jonathan Yoder. These papers are not yet published and therefore only a generalized citation can be given. (The published book should appear late in 1997.)

The goal of this “*Reader’s Digest*-condensed” version is to consider the potential for the devolution of environmental policy to state and local governments. This paper will examine state and local controls that have worked and those that have not and propose steps to reverse the tendency to solve all environmental problems at the national level. We will concentrate on four examples that show the prospects and pitfalls of devolution,

especially in the West: water allocation and quality, land management, wildlife management, and pesticide control.

By devolution we mean returning standard-setting and policy-making to lower levels of government where appropriate and, where possible, to private individuals. Devolution will advance *federalism*, the term traditionally used to describe powers distributed among the state governments, not the *federal government* in Washington, D.C.

How the Nation Got to This Point

The national government has been heavily involved in natural resource management in the West since the turn of the century, when the sale and disposal of nationally owned land to private owners stopped rather abruptly. As a result, the federal government owns about 30 percent of the nation's land, most of it in the West. In addition, the federal government controls most of the West's water through the Bureau of Reclamation and the Army Corps of Engineers.

In spite of this broad government ownership, however, before the 1960s land-use policies were mostly set locally and water allocation was guided by state water law. Federal lands were mainly for commodity production—forests were used for the production of timber and grassland for grazing livestock—and commodity users had de facto property rights to them (see Nelson 1995). Forest Service officials worked with local commodity users to determine annual harvest rates for local timber, and Bureau of Land Management officials cooperated with livestock producers to determine grazing policy. The Taylor Grazing Act of 1934, for example, established local grazing committees and codified grazing allotments. Permittees believed that their rights were secure, and they invested in resource stewardship.²

This all changed in the late 1960s and early 1970s. Across the country, environmental groups, adopting the activism of the 1960's antiwar movement, began to insist on tougher laws against pollution and began to argue that forests and grassland were more valuable for recreation and wilderness than for commodity

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production.

This activism fostered national rather than state or local regulation for several reasons.

- Confidence in the federal government. The nation had just embarked on the War on Poverty, and the Apollo program to land a man on the moon was nearing its objective (Shaw 1996).
- By making air, water, wildlife, and land use matters of the national “public interest,” environmentalists could trump state and local laws without concern for the costs. Claiming “third-party effects” and “free rider” problems, environmental groups also benefitted from recreation on public lands provided by the taxpayer virtually without charge.
- Activists feared that state and local governments would dilute environmental laws in order to compete with one another for business. If one state attempted to keep or attract industry by lowering air quality standards, other states would do the same, they argued, in order to keep or attract jobs and income.³
- Industry lobbyists found they could do one-stop shopping in Washington instead of in 50 state capitals, and national environmental laws allowed privileged market arrangements that would not have been legal if states or markets were in charge. The Clean Air Act amendments of 1977, for example, reflected a coalition of environmental groups who wanted national control of pollution laws, industries who wanted to regulate competitors, and eastern mining companies that did not want competition from cleaner-burning western coal. Out of this coalition we got higher utility rates, higher pollution control costs, and air that was dirtier than it would have been (see Ackerman and Hassler 1981).

- More recently, the push toward national control has been bolstered by the view that all things in the environment are interconnected (see Johnson 1996 and Rubin 1994).⁴ If the environment is one giant web of interconnections, then local action is too narrow and must be inferior to centralized coordination. Indeed, environmental activists have shifted focus again, seeking international, not just national, regulations to deal with global issues such as endangered species, climate change, or ozone depletion. The result has been treaties such as the Basel Convention on the Control of Transboundary Movements of Hazardous Materials and Their Disposal, the Convention on Trade in Endangered Species, and the Montreal Protocol that phased out CFCs (chlorofluorocarbons).

What is Environmental Federalism?

Against the history of growing intervention by the national government over the past three decades, we place federalism, which has deep roots in American life.⁵ PERC Wiegand Scholar David Haddock (1997) notes that the original colonists always referred to their union as *these* United States, emphasizing the fact that the individual states were united but not a unitary national state. Known as federalism, the system of “united states” allowed competing sovereign states to pursue their own policies for most issues. The role of the national government was to promote free trade, provide national defense, dispose of the public domain, and settle disputes between states.

Federalism contrasts with the current system of political centralization, in which a national government delegates powers to state and local governments, which act as the agent of the former. This “delegation model” typifies current environmental regulations.

Federalism has several advantages over a single sovereign government.

- It forces states to compete for people and resources by

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providing the legal environment that citizens want. Lower levels of government tailor their policies and programs to the demands of their citizens. In other words, the flexibility that the environmental activists of the 1960s and 1970s so detested is what makes the system work for a wide variety of citizens.

- Federalism allows policy to be set at a level where citizens can better monitor and constrain their political agents. These tasks are far more difficult with national politicians, who are farther removed from their constituents.
- Federalism allows competing states to enjoy the benefits of a common market without trade barriers between states. The experiences of Europe and of the states under the Articles of Confederation illustrate the detrimental impact of trade barriers.
- Federalism allows for national control where necessary. Under the Articles of Confederation, the states had found that a weak national government whose funding depended on voluntary contributions from the states was incapable of providing some important services, including national defense and the conduct of foreign policy. Some of the states were getting away with being “free riders” by failing to make the sufficient contributions. The dilemma the founders faced was deciding how to give the national government the power to overcome these “free rider” problems without letting it abuse its power.

The system of federalism created by the Constitution generated unprecedented economic growth. However, as Haddock points out, it also contained the seeds of its own demise by gradually increasing the demand for national control. As trade, migration, and pollution crossed state boundaries, there were increasing calls for uniform national regulations.

By the early twentieth century, centralization was well

underway. Among the factors shifting power toward the national government, says Haddock, were:

the large peacetime standing army that remained in place after the Civil War, the Supreme Court insinuating national authority over local affairs under the Interstate Commerce Clause, the New Deal rising phoenix-like from the ashes of the Great Depression, and on and on.

To the “on and on,” we would add the reservation of large tracts of western lands for control by the national government. This land policy gave Washington politicians enormous power over how the lands would be used. Not surprisingly, politicians and bureaucrats in Washington are loathe to give up the power they have accumulated over this century.

True, centralization can be rationalized on several grounds. Arguably, there may be instances where pollution crosses state borders or where large parks enjoyed by many citizens would not be created locally. But centralization clearly has come with high costs.

- It reduces the number of experiments with alternative policy options and generates “one-size-fits-all” policies that may be appropriate for some places but not for others.
- It reduces the ability of citizens to monitor their governments. As decisions are further removed from constituents, it is more difficult to know whether political agents are acting in the public interest or on behalf of special interests.
- Because citizens cannot easily “vote with their feet” by moving to a different jurisdiction, the national sovereign government is in a position to abuse its power. Centralization in government is like monopoly power in markets; it reduces the options of citizens and raises the cost of services.

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Decentralization and federalism offer ways to reduce these costs by providing experiments with different policies, by making it easier for citizens to monitor their political agents, and by giving citizens alternative jurisdictions from which to choose the policies they desire. Complete privatization of decisions reduces these costs even further, but as long as resources are a “commons,” and therefore subject to abuse, some governmental control may be necessary. Hence, the following principle should guide environmental federalism:

To minimize the costs of monitoring regulatory agencies, authority should devolve to the lowest level of government that also allows for control of pollution or other spillover effects.

Though environmental policy in the past three decades has been mostly dictated from Washington, there is a rich history of states’ success in solving resource and environmental problems. The management of water, state lands, wildlife, and pesticides will illustrate such successes. On the following pages, we explore the states’ experience in these four areas, noting where they have been successful, where the national government has usurped state authority, and where the balance between state and national power seems appropriate.

WATER—ALLOCATION AND QUALITY

In the West, independent miners and farmers preceded formal government. They hammered out a legal framework for water rights that became the basis for most western water law. This framework was born of necessity as miners and farmers discovered that eastern riparian water law was insufficient for their needs. Riparian water rights gave landowners along a stream rights to an undiminished quantity and quality of water but did not allow diversion of water. This limitation was inappropriate in the arid West, where water was seldom near the mines or fields on which it was used (see Anderson and Snyder 1997).

The history of water policy shows that states effectively managed their water resources until the federal government intervened to expand its control. PERC Wiegand Scholar Barton Thompson (1997) identifies four periods of U.S. water policy: the “Gestation Period,” 1849–1901; the “Embryonic National Period,” 1902–1914; the “National Empire Period,” 1914–1968; and the “Environmental Period,” 1968–present.

During the Gestation Period, from 1849 to 1901, local miners and farmers forged water policies that met their specific needs. Generally these policies centered around the prior appropriation doctrine, which awarded water rights to individuals on a “first-in-time, first-in-right” basis. Those who first diverted water had first claim on water in times of overflow. This simple doctrine provided sufficient security of water rights to encourage investments in small-scale, locally funded diversion projects that moved the water from streams to mines and fields.

As state governments became stronger, the prior appropriation doctrine was codified in ways that further protected water rights but limited the role of markets in allocating water. Usually, state water laws required diversion in order to establish a right, required that the water be used or be forfeited (“use it or lose it”), and specified a hierarchy of uses that restricted transfers. So while the states provided secure individual rights, they also interfered with the ability of individuals to transfer those rights through market

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processes.

The Embryonic National Period began in 1902 when the role of the federal government in water allocation expanded significantly. Two events were especially significant: congressional passage of the Reclamation Act of 1902 and the *Winters v. United States* Supreme Court decision in 1908. The Reclamation Act initiated national government investment in massive water projects that subsidized water storage and delivery to western farmers. The *Winters* decision reserved water for use on Indian reservations, giving the reserved right a priority based on the date of the establishment of each Indian reservation. Even if the Indians did not use that water, the early appropriation date gave them, in many cases, “first-in-time” water rights and therefore priority over other users. Later, this federal reserved water doctrine was expanded to water use on all federal lands.

Despite both of these events, however, the role of the national government in western water allocation was limited through much of the twentieth century. The Reclamation Act specifically stated that

nothing in this Act shall be construed as affecting or intended to affect or to in any way interfere with the laws of any State or Territory related to the control, appropriation, use, or distribution of water used in irrigation, or any vested right acquired thereunder.⁶

And interference with western water rights under the *Winters* doctrine was restricted because Indian reservations did not have the funds to divert much water, and, regarding other federal lands, the Supreme Court interpreted the doctrine to apply only to those **“appurtenant lands withdrawn from the public domain for specific federal purposes.”** REF? Pam S.?

It was not until the Environmental Period, which Thompson identifies as beginning in 1968, that the national government really began to dominate state water policy. This occurred through national regulation of water quality.

One might surmise that this takeover occurred because states

were not effectively dealing with clean water issues, but the evidence does not support this interpretation. Karol Ceplo and PERC Wiegand Scholar Bruce Yandle conclude that “prior to 1970, state management of water quality involved a mixture of statutes and common law” that provide “a positive history of responding to water-related problems.” They found “significant diversity” among the states. Building on a common-law base, state water quality agencies quite often grew out of the agencies that managed water rights and water supply. States such as Arizona, California, and Oregon have “long-developed elaborate administrative mechanisms to control and prevent water pollution,” while others, such as New Mexico, have done less. According to Ceplo and Yandle (1997),

Some of these differences reflect historical disparities: pollution posed greater threats in some states than in others, and thus was addressed earlier or more fully in affected states. Some differences may indicate that special-interest groups have played an important role in developing water quality control programs [e.g., Texas and Oregon]. . . .

They contend that states showed themselves capable of creating appropriate programs to manage pollution. Certainly there is no evidence of a general race to the bottom—that is, competition to weaken water quality standards to attract industry.

In spite of the assumption of responsibility by the states, overconfidence in the federal government led to monopolization of water policy at the national level. Especially under the Clean Water Act and the Endangered Species Act (ESA), the national government usurped more and more control.

- Section 404 of the Clean Water Act specifies that anyone discharging material into navigable water must first obtain a national permit and show that the discharge will not have adverse environmental consequences.

- The ESA requires all agencies to ensure that any action

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they authorize, fund, or carry out “is not likely to jeopardize the continued existence” of an endangered or threatened species. A number of these species inhabit streams and rivers.

Combined, these two acts expanded national authority to nearly all water in the United States.

The history of water policy is a classic example of nationalism replacing federalism without a principled reason for doing so. The usurpation of power from states does not follow the environmental federalism principle stated above, and it does not improve resource use.

However, water policy can be devolved to individuals operating through water markets. While there may be impacts on “third parties,”—the usual rationale for government intervention—these impacts can be controlled through state or regional authorities. The following are recommendations for moving from water “nationalism” to water federalism.

Solidify private ownership of water and ease restrictions on market transfers.⁷

Western water law is built on the prior appropriation doctrine, which quantifies and prioritizes private rights to water. National policies such as the federal reserved water claims, the Clean Water Act, and the Endangered Species Act have clouded these private rights. Furthermore, where water rights were created by reclamation projects, the rights have generally not been transferable except when the land irrigated by the water is transferred. All national water policy should be reviewed for the purpose of clarifying private water rights and of making them fully transferable through willing buyer/willing seller transactions.

Privatize federal water projects.

Even at the Bureau of Reclamation, home of water projects that subsidize water use, a task force was established in 1995 to

explore the possibilities of privatizing bureau projects. Discussions centered on selling government-owned projects to make a profit or cut losses. The task force addressed such questions as: What would determine the sale price of a project? How could long-term contracts between the bureau and water users be enforced? Would existing agricultural users have the right to sell their water to nonagricultural users? These questions should continue to be asked, and Congress should move forward with a privatization agenda for all national reclamation projects.

**The national government should facilitate
the establishment of water basin commissions
with sovereign authority over interstate water issues.⁸**

Because water often flows across state borders, an authority larger than a single state may be necessary to apportion water among the states and to determine water quality policy. This authority does not have to be the national government, however. Interstate commissions should clarify private rights to water quality and quantity, encourage water transfers across state borders, and establish water quality standards where appropriate.

**Most authority for water quality
should be returned to states.**

Karol Ceplo and Bruce Yandle (1997) document that common law—specifically, the right of a person to sue a party that has harmed his or her property—has fostered private solutions to many water quality problems. They also point out that prior to national monopolization of control, state regulations codified and supplemented the common law. The Clean Water Act should be amended to allow states to set and enforce their own water quality standards except where water quality has interstate impacts. (These interstate effects should be handled by the interstate commissions described above.) David Riggs and Bruce Yandle (1996) describe the success of a decentralized approach with the Tar-Pamlico Sound in North Carolina. There, the Environmental Protection Agency helped set

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a water quality standard and then allowed local authorities, environmental groups, industry, municipalities, and farmers to determine how the standard would be met. Cost savings, which are potentially as large as \$50 million in Tar-Pamlico, could be achieved elsewhere, too.

PUBLIC LAND MANAGEMENT

Because the West is almost 50 percent public land, the national government plays a major role in western land management. Initially, policies under such laws as the Homestead Act, the Timber-Stone Act, and the Mining Law of 1872 dictated settlement and land use. For the most part, these acts provided for the sale or disposal of land to the private sector. As states were admitted into the Union, some of the public domain was given to states. The proceeds from sale or management of these lands were earmarked for public schools (see Souder and Fairfax 1995). However, late in the nineteenth century, Congress reserved millions of acres from disposal and began the process of establishing a vast system of lands managed by bureaucracies in Washington.

The federal government's grant of school trust lands to the states and its simultaneous retention of other (often adjacent) lands created a vivid contrast between management regimes. This comparison illustrates the efficacy of federalism. Because state school trust lands are managed to generate income for public schools, their managers face a discipline that federal land management lacks.

Donald Leal (1995b) studied state and federal forest management in Montana. He found that state forests earn \$2.16 for every \$1 they spend, while neighboring national forests earn only **\$0.50 for every \$1 spent**. A major reason for the difference is the higher costs of national forest timber sales. Leal's comparison of labor costs and labor hours in central Montana showed that the Gallatin National Forest required more than two and a half times the number of hours of labor to harvest a thousand board feet than did the state office.

Leal also reviewed grazing land management in Montana. He found that management costs for Montana's state lands are approximately **\$0.82 per acre, compared to \$3.79 per acre** for BLM lands (Leal 1995a). If Montana were to manage BLM lands for \$0.82 per acre and collect the same revenues currently received by the BLM, it would net \$48 million per year, compared with the BLM's annual loss of approximately \$5 million.

If land management can be so lucrative, why aren't states clamoring to take over the federal estate? PERC Wiegand Scholar Robert Nelson points out that even though the management of these lands causes losses to the U.S. Treasury, the losses represent money spent within the states. Even if states made money from a transfer of BLM lands, a transfer of the lands would mean loss of the large infusion of funds associated with the presence of BLM lands now coming from the federal treasury. This would mean "significant losses of jobs and income for many state residents." To compensate for this loss of federal funds, says Nelson, a state would have to earn between \$25 to \$75 million in net revenues from lands that are now losing \$10 to \$40 million per year under BLM management. While Don Leal's (1995a) figures for Montana suggest that revenues would go up substantially under state management, a turnaround of this magnitude in all the states is not assured.

Of course, privatization is another option, but this option failed to gain support even in the Reagan administration, partly for the same fiscal reasons. Under private management, most national forests and public grazing land could generate more value through more efficient commodity use and through fees for recreational use. However, the infusion of funds from the national treasury would not occur.

Public land federalism must address state fiscal concerns and the fears of existing public land users. Nevertheless, the combination of severe national losses on federally managed land and successful revenue generation on state land provides persuasive evidence that change is needed. The following policy steps could begin this process.

Rekindle the privatization fires.⁹

All U.S. Forest Service and Bureau of Land Management lands in the western states should be inventoried to determine which could be sold to the private sector. Certainly, public lands that are “inheld” (that is, largely surrounded by private land) or that are leased exclusively to single users for single purposes should be privately owned. There are thousands of small parcels that are costly to manage and that have no—or minimal—multiple-use values that dictate national control.

Make all existing permits to use federal lands more secure and transferable.

Over the years, permits for exclusive use of federal lands have become less secure. This is most clear with grazing permits.¹⁰ As environmental interests have increased their power over federal grazing land, permittees have become less sure about what demands will be made in the future and are even uncertain about whether they will be allowed to use the land for grazing.

Ranchers facing such insecurity have less incentive for good stewardship. In addition, the process becomes increasingly politicized as the change in the level of certainty encourages groups (environmental groups opposed to cattle grazing, for example) to fight for greater control.

Making existing permits secure and transferable would enable competing users, including environmental groups, to trade rights to use federal lands among one another. Secure, transferable permits would encourage cooperation, not conflict.

U.S. Forest Service and Bureau of Land Management lands that are not privatized should be turned over to the states and managed to generate income for specific uses such as the school trust lands.

The discipline of the bottom line is crucial to changing government land management. Unlike the national agencies, state

land managers do not have a bottomless trough from which to build their budgets. Furthermore, because revenues from state land management are designated for schools, there is pressure for economic performance. Nelson concludes that “most western states would be capable of earning positive net revenues from BLM lands” that now earn a loss for the national treasury. Finding support for this transfer, however, will not be easy because federal spending in each state “can well be regarded as a benefit within a state,” says Nelson. “From the state perspective, the more the federal government spends, the better off the state will be.” Nonetheless, Nelson believes that with careful attention **to its decision**, states could develop a transfer proposal that would be “a winning proposition for the federal government, for the state, and for the affected user groups in the state.”¹¹

WILDLIFE

Like the management of water, management of wildlife until recently has mostly resided with states but is partly shared with individuals and the national government. State and local control, in contrast to national governance, is appropriate because most wildlife problems are confined to state boundaries. To understand why we have moved to greater national control, consider wildlife management as discussed by PERC Wiegand Scholar Dean Lueck and economist Jonathan Yoder.

Lueck and Yoder (1997) point out that wildlife management is complicated by the costs of coordinating among the various landowners over whose property wildlife may range. If the range is confined to a single parcel of private land (either naturally or by fencing), there are few coordination problems. In this case the landowner can manage the species and can capitalize on this management by charging fees to people who want to hunt or view the animals.

As the value of wildlife has risen, private landowners have had more incentive to overcome the organizational costs and capture the value. Large landowners such as International Paper in the

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southeastern United States, the White Mountain Apache Indians in Arizona (Anderson 1996), and television magnate Ted Turner in Montana (see Anderson and Leal 1997) contract with hunters, charging a fee for access. In South Africa, where private ownership of wildlife is highly developed, game laws give a landowner complete control of habitat management and wildlife harvests as long as the land is fenced.

For species with large territories extending over land owned by multiple parties, however, it is more difficult for private owners to coordinate management. If landowners cannot contract with one another to capture the benefits of wildlife management, wildlife becomes a common-pool resource. As with bison in the late nineteenth century, under these circumstances wildlife will be overexploited and perhaps even driven to extinction. This potential for the tragedy of the commons explains why wildlife agencies can improve management through regulation.¹²

State agencies can eliminate the tragedy of the commons by limiting seasons and harvest. Such federalism may be appropriate for game species that have territories larger than typical ranches or that cannot be easily fenced. For example, pronghorn antelope in Montana range over territories larger than typical ranches, making it difficult for individual landowners to coordinate management. Except along the state border, however, they do not affect people outside the state. Hence, the Montana Department of Fish, Wildlife, and Parks sets seasons and bag limits for pronghorns.

Unfortunately, however, as with water, state wildlife agencies can stand in the way of private cooperative management. All too often, state wildlife agencies discourage fee hunting and give landowners almost no authority over harvest decisions. This makes wildlife a liability rather than an asset.

Wildlife management can be even more complicated when species range over territories larger than a state. In these instances, the optimal locus of governmental regulation may be regional, national, or even international. Waterfowl are the quintessential example. Ducks and geese nest in Canada, migrate across the United States, and winter in Mexico. No individual landowner can coordinate habitat management over this range, and even single

states are powerless to regulate management across state or international borders. For that reason, Canada, Mexico, and the United States entered into a treaty in 1916 that made the U.S. Fish and Wildlife Service responsible for setting seasons and bag limits for waterfowl, in cooperation with Flyway Councils composed of appropriate state and provincial agencies.

In recent years, the authority of national government over wildlife has expanded beyond migratory species through the Endangered Species Act. This act gives the U.S. Fish and Wildlife Service authority to regulate land and water if current uses are likely to destroy the habitat of a species officially listed as endangered or threatened. Under ESA authority, states have lost control of some wildlife management decisions. Grizzly bears, for example, can no longer be hunted in Montana because they are listed as an endangered species.

The argument for national control of endangered species rests on two premises: the view that people derive value (often called “existence value”) from knowing that a species exists, even though they will never consume or view it, and the assumption that they cannot or will not help to support this value (they will be “free riders”). Because individual land or water owners cannot capture the benefits of this “existence value,” they will not take the value into account when making decisions that affect habitat. If existence value extends beyond state boundaries (as presumably it does), the argument is that the national government should intervene. However, this argument ignores many of the costs of national bureaucratic regulation.

Another effect of the ESA is that landowners, feeling the pressure of regulation from national government, have less incentive to preserve habitat. In fact, they even have an incentive to destroy habitat. At one time, black-footed ferrets were the ally of Montana ranchers because they prey on prairie dogs. But now that they are on the endangered species list, landowners have fought their reintroduction. The reason is that landowners will be required to provide habitat without compensation, subject to U.S. Fish and Wildlife Service regulations. This creates a “shoot, shovel, and shut up” mentality and discourages landowners from

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managing their lands to preserve protected species (Stroup 1995).

The history of wildlife management shows that a balance can be struck between individual, state, and national control, but this balance is currently missing. As the value of wildlife has risen, private landowners have had a greater incentive to overcome the organizational costs and capture the higher value of wildlife, yet states have been reluctant to allow this natural development. At the same time, the national government has taken more control of wildlife management decisions.

Policy changes built on the principle of environmental federalism could reverse this trend. They would strengthen the role of both the private owner and state agencies.

Remove state and national impediments to marketing of wildlife.¹³

Because the value of wildlife is rising, ranchers and farmers have an incentive to husband the habitat on their property and market it through hunting and the sale of recreation. Where the range of a species is small enough to allow private landowners to coordinate management, those landowners should be given more authority to set seasons and bag limits. Indeed, wildlife laws in South Africa provide that any wild animals fenced on private property become the property of the landowner. This rule has led hunting to grow rapidly, with landowners managing their habitat for the sake of wildlife, driven by the same incentives that drive owners of domestic livestock.

Responsibility for endangered species should devolve to states unless there is a clear case that values extend across state lines.

Environmentalists have tried to make the case for national control of endangered species by arguing that only the federal government can protect endangered species adequately and that there is a need for management of vast “ecosystems” stretching across broad areas. This approach has led to vague policies that

allow for unbridled growth of national regulations (see Johnson 1996). To the extent that species have interconnections that extend beyond private boundaries, a case can be made for governmental control, but it is hard to conceive of a need to encompass an ecosystem the size of the entire United States. In most cases, state borders are sufficient. Devolving authority for wildlife management allows states to address the problems posed by large animals that cover large territories, while at the same time reducing the costs of monitoring wildlife agencies.

Where wildlife or wildlife values do extend across state lines, a case can be made for regional authorities, as with water.

Regional authorities with limited sovereignty over wildlife management are appropriate for managing wildlife populations that cross political boundaries.¹⁴ Dean Lueck and Jonathan Yoder note that currently informal agreements among state wildlife agencies take this approach for game populations that migrate back and forth across state boundaries. These informal agreements provide a possible model of regional authority.

Recognize the potential for voluntary nonmarket groups to meet a significant portion of the national demand for species protection.

Groups like Ducks Unlimited, Trout Unlimited and the Nature Conservancy can solve some of the “free rider” problems that supposedly justify federal involvement in species protection. These organizations can generate a broad base of support for specific causes. Even if some species protection were to be carried out by the national government, private groups could bid for tax dollars with competing species protection plans. Such bidding would give a measure of the effectiveness and costs of alternative protection plans and would allow experiments with a variety of techniques for preserving species.

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PESTICIDE MANAGEMENT

Many of the issues associated with pesticides are local. Wind drift or water may carry a pesticide to a neighbor's property, or failure to control a pest may impact a neighbor; the actual use of the pesticide may involve risks for the applicator. On the other hand, spillovers may have national or international impacts. For example, if pesticide residues enter into the food chain, people far from the original place of use can be affected. The history of pesticide regulation suggests that a dual regulatory system properly balanced between the national and state governments may be optimal.

Andrew Morriss (1997) notes that pesticide regulation in the U.S. is "the product of cooperation between state and federal governments."

The federal government establishes minimum safety standards for products sold nationally, determines acceptable residue levels for food crops, and sets national restrictions on use, while states act as agents of the federal government and retain significant authority to vary pesticide regulation at the state level. In addition, state liability laws exert an important influence over manufacturers and distributors because of the potentially huge liability. . . .

A dual regulatory system has distinct advantages. State regulation can better respond to location-specific needs. Because the types of pesticides used and the method of use can vary considerably by crop or region, flexibility is necessary to meet the demands of agricultural users for pest control under a variety of conditions and uses. National regulation, on the other hand, offers a way of controlling effects that may cross boundaries.

The history of pesticide regulation in the United States reflects these advantages and illustrates the problems that can result from monopolization of regulation at the national level. Early pesticide regulation at both the state and national levels was primarily concerned with the effectiveness of pesticides. Products that fell

short of manufacturer claims had to be removed from the market.

In 1947, however, the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) changed the regulatory focus from efficacy to product harm. It demanded a more rigorous registration system and labeling of contents and instructions for use. Even then, Morriss tells us, this and each successive version of FIFRA “was built upon an existing regulatory scheme which depended largely on state-level regulations.”

The focus changed again after the publication of Rachel Carson’s *Silent Spring* in 1962. Her claim that DDT was affecting birds—especially eagles and falcons—and might be harming humans, too, aroused enormous environmental concern. In 1970, authority for pesticide regulation was transferred from the Department of Agriculture to the newly created Environmental Protection Agency. In 1972, the EPA banned DDT for most uses, and the Federal Environmental Pest Control Act (FEPCA) revamped virtually every part of FIFRA to focus on the environmental impacts of pesticide residues.

National registration under EPA rules is time-consuming and expensive. The process is made all the more difficult by the 1972 requirement that previously registered pesticides be re-registered under new, environmentally oriented criteria. Forty-six thousand pesticides were awaiting federal reregistration in 1975; by March 1986, the EPA had not completed even one final reassessment of any pesticide active ingredient and had only conducted preliminary assessments of about twenty percent of the registered active ingredients. By 1993, only 8 percent of the active ingredients had been reregistered under the new rules. **MENTION NEW LAW?**

The burdensome EPA regulations plus fears by agricultural users that environmentalists would “slam shut the door on pesticide use” led to the devolution of authority to states, says Morriss. Sections 24 of the 1972 version of FIFRA allow states to register pesticides for intrastate use. Under Special Local Needs (SLN) provisions, states can register pesticides that have not yet been approved by the EPA. The states cannot impose **additional labeling** or package requirements and cannot permit uses expressly prohibited by the federal government. Data requirements for SLN

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registrations are much less rigorous than for national approval by the EPA.

The mix of federal and state regulation has provided a solution consistent with the principle of federalism presented above. National registration requirements provide a minimal safety floor that appears to have been effective in preventing serious residue problems. Although there have been several national scares about pesticides, there is no good scientific evidence that any serious health problems have occurred because of pesticide residues in food.

The ability of states to register pesticides for local needs has also meant more responsiveness to the particular circumstances and conditions in those states. Morriss, who empirically tested the use of the SLN category, indicates that the states have not simply used it as a loophole to conduct an end-run around federal registration by allowing environmentally harmful products. If anything, the evidence indicates that further devolution of the regulation and registration process to the states would be appropriate because of the problems of a “one-size-fits-all” national regulatory regime.

The dual approach for pesticide regulation has implications for improving environmental regulations beyond pesticides. Use and disposal of wastes can be harmful to those directly involved and they can flow through the air and water to impact third parties, some close at hand and others further removed from the place of origin. Likewise, while most pollution is primarily a local problem, in some instances there may be significant transboundary spillovers. As Henry Butler and Jonathan Macey (1996a, 61) state in a study of federalism and environmental policy, “imposing a complex, centralized federal regulatory system on thousands of highly localized sources of toxic waste, underground storage tanks, and pesticides and herbicides makes no sense.”

Dual regulation following the example of pesticides would be an improvement for many pollutants. Pesticide regulation illustrates several points:

**Because pesticides enter into interstate commerce,
a case can be made for federal registration and monitoring**

of potential third-party effects that cross state lines.

However, the registration should be of the minimal type, setting standards that are clear and that do not strive for a zero risk world. The 1972 requirements that the EPA re-register all pesticides with a complete assessment of the environmental impact of each pesticide overloaded the capacity of the agency. National level regulations that are too stringent can mean ineffective regulation in practice.

The effective use of “Special Local Needs” exceptions in pesticides indicates that many hazardous waste and pollution problems can be handled at the state or local level.

The SLN exceptions, authorized in the 1972 legislation, have allowed local communities to play a greater role in determining what level of risk they are willing to accept. A similar approach could be used for some other pollutants. The important benefit of the SLN approach is that it places responsibility for comparing costs and benefits of pesticide or other toxic control at the local level, where officials have better information and incentives to make the correct tradeoffs.

**CONCLUSION:
STARTING THE “DEVOLUTION REVOLUTION”**

Elevating natural resource and environmental regulations to the national level may have had some benefits. Spillover effects, such as pollution across state boundaries, can be taken into account. But this elevation has come with high costs.

It is difficult to monitor the national government. Experimentation among competing regimes is reduced. Indeed, national regulations themselves can have spillover effects. Banning DDT, for example, helped birds but harmed farm workers because more acutely toxic pesticides sometimes replaced DDT.

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Against the backdrop of the steady increase in national power, the challenge for devolution is great. But there is growing doubt about whether this growth in national control should be sustained. For most natural resource and environmental problems, devolution is an alternative that can reduce costs and align results with the demands of citizens. While private ownership offers the ultimate degree of devolution, a government role may be appropriate when there are environmental effects that markets cannot fully handle. Devolution to local and state governments would leave it to governments at these levels to decide the boundary between public and private.

The examples of environmental federalism presented above provide a starting point for reversing the rising power of the national government and returning authority to states and individuals. The examples are not comprehensive, but they suggest ways to begin the process of decentralization. As our Founding Fathers understood, national regulations should be a last, rather than a first, resort.

NOTES

1. The complete papers will be published in 1997 as a volume of PERC's Political Economy Forum Series (Rowman and Littlefield Publishers, Inc.) This policy paper presents them in a condensed version.
2. For a discussion of how the security of grazing permits has diminished, see Watts and LaFrance (1994).
3. Though there is little evidence to support the idea of a "race to the bottom," a similar argument surfaced as a reason to oppose freer trade in North America. Opponents feared that Mexico would compete with its northern trading partners by offering lower environmental standards, forcing Canada and the United States to do the same.
4. Writing in *PERC Reports* in December 1994, Charles T. Rubin noted: "We would do little conceptual violence to 'environmentalism' if we simply replaced the word 'environment'

with the word ‘everything,’ and likewise spoke of ‘everythingists’ and ‘everythingism.’”

5. For a complete discussion of the optimal locus of sovereignty see Haddock (1996 and 1997).

6. 43 U.S.C. § 383.

7. For a complete discussion see Anderson and Snyder (1997).

8. For further discussion, see Huffman (1994), Haddock (1996), and Butler and Macey (1996b).

9. See Anderson and Leal (1996).

10. Watts and LaFrance (1994) show that the security of permits was nearly complete—that is, 0.97 by their measurements—in 1973 but by 1993 was almost nonexistent—0.18.

11. Such a proposal would remove many of the federal management mandates that would make state control prohibitively expensive, but would also recognize the claims of certain groups and individuals who, if their claims are not acknowledged, would have the political power to block such a transfer.

12. A discussion of the “tragedy of the commons” can be found in Leal (1996), a paper in this *PERC Policy Series*.

13. For a complete discussion of the potential for wildlife marketing, see Anderson and Hill (1995).

14. It should be noted that the Constitution prohibits states from entering into agreements with one another unless the compact is legislated by Congress. Therefore, regional management would require congressional approval.

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