



FOR THE

NEXT FOUR YEARS

A Blueprint for Environmental Stewardship



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About the Progressive Policy Institute's Energy & Environment Project

The Progressive Policy Institute is a catalyst for political change. Its mission is to modernize progressive politics and government for the Information Age. Leaving behind the stale left-right debates of the industrial era, PPI is a prolific source of Third Way thinking that is shaping the emerging politics of the 21st century.

The Energy & Environment Project at PPI is dedicated to developing a second generation of environmental and natural resource policies that create incentives to drive continuous and efficient improvement in environmental quality. Five key principles guide our work: set realistic goals and priorities informed by sound science and economics, align decisionmaking with the geography of environmental concerns, harness market forces, seek flexible means to achieve public goals, and measure results. Find more at <http://www.ppionline.org>

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Introduction

In late September 2004, one day after the fourth severe hurricane tromped across the state of Florida in six weeks—something that had never occurred in more than 150 years of official record keeping—crude oil prices broke the \$50-per-barrel mark, also setting a new record. Those two unwelcome events may have appeared to be unrelated, but there were actually real and symbolic connections between them: Hurricane damage along the oil-rich Gulf Coast contributed to the oil price spike. And oil played a role in stirring up so many violent hurricanes in the first place, because the combustion of oil and other fossil fuels is a leading cause of climate change.

As wave upon wave of extreme weather strikes the United States, the debate about global climate change—and the energy policies that are perpetuating it—has assumed new urgency. Left unchecked, most scientists believe climate change will not only cause increasingly serious weather-related damage, but also potentially harm our health, by accelerating the spread of insect-borne diseases, for example. Meanwhile, unsettled political conditions in oil-producing nations such as Iraq, Russia, and Saudi Arabia are undermining both our economic stability and our national security. Yet, even in the face of such ominous trends, Washington is unlikely to decisively change course any time soon. Instead, many of the most innovative approaches to environmental problems are happening at the state and local levels. Often in partnership with each other, states and localities are charting new ways to reduce greenhouse gas emissions, ensure ample supplies of clean water, and mitigate the effects of sprawling development. By doing so, they are spreading best practices—and may ultimately prod the federal government into action.

Decades ago, Supreme Court Justice Louis D. Brandeis described states as “laboratories of democracy” for their capacity to incubate great ideas that eventually find their way to the national level.¹ That dynamic has long been particularly true in the

case of environmental protection. Groundbreaking state environmental policies were the templates for our current set of federal environmental laws, which were fashioned during the 1960s. California’s Porter Cologne Water Quality Act, for example, served as the model for the federal Clean Water Act. Likewise, the federal Clean Air Act was based in part on local codes and ordinances pioneered in smog-plagued cities.²

Now, the state laboratories of democracy are working to modernize our decades-old first generation of environmental laws and regulations. Increasingly, states and localities are replacing “one-size-fits-all” approaches with policies and programs tailored to specific industries and places. The Progressive Policy Institute (PPI) refers to these new environmental practices as “second-generation” strategies to distinguish them from first-generation command-and-control regulations.³

Some of these second-generation state innovations have already percolated up to the national level. For instance, the U.S. Environmental Protection Agency’s (EPA) Project XL, a pilot program that gives state and local governments, private companies, and federal facilities flexibility to individually tailor cost-effective ways of achieving environmental outcomes, was first refined in Minnesota. Similarly, the EPA’s program to improve water quality and supply in the Great Lakes grew out of local efforts to improve environmental quality in the place where the problem arises, rather than at the national level. The Great Lakes program is one of the most notable examples of what DeWitt John of the National Academy of Public Administration refers to as “civic environmentalism,” another concept long endorsed by PPI.⁴

Beyond the broad issues of global warming and the energy policies that are exacerbating the situation, cities and states face a host of more localized problems. For example, they increasingly lack resources to address water quality and supply issues—an area where Washington once provided leadership. In the 1960s and

1970s, Congress sought to improve water quality mainly by funding massive sewage treatment plants and water pipelines in local communities. But those systems are now nearly 40 years old, and cities and states are being stuck with the repair bills. Water supplies are also threatened by pollutants, pathogens, and over-fishing.⁵ States adjacent to oceans and large inland lakes are at risk, as are those with large agricultural economies.⁶

States and localities alone will be more frequently called upon to tackle those and other environmental challenges—such as the costs associated with urban and suburban sprawl. In some cases, the innovations and best practices that they develop can point the way for national and world leaders as they finally move to confront our greatest global challenges, including climate change. In other cases, such as with urban sprawl, more customized solutions may solve problems at the local level, but not necessarily be suitable as one-size-fits-all national strategies.

To further the process of identifying which policy approaches hold the most potential for which environmental challenges, PPI has compiled this briefing book of field-tested state and local policy innovations. Included are a number of recommendations for the president to expand upon quickly at the national level, along with a number of other cases where state, local, and civic groups are effectively solving their own problems—cases where the administration should simply applaud and avoid interfering.

Four Ideas for the Next Four Years

During the last two years, PPI’s Energy & Environment Project has cataloged especially promising state, local, and non-governmental efforts to combat climate change, ensure ample supplies of clean water, and address sprawl and other emerging environmental challenges. To help facilitate the spread of those best practices, PPI has summarized them in concise case studies, which we have delivered to more than 2,500 state and local elected officials on both sides of the partisan aisle, in a publication called the *Environmental Policy Playbook*.⁷ Many of those plays are

summarized in this briefing book, which is grouped into four chapters, each representing one big idea that has the potential to shape a national environmental and energy agenda during the next four years and beyond. Specifically, PPI recommends the administration should:

- 1. Champion Clean Growth**
- 2. Win the West**
- 3. Green the Suburbs**
- 4. Modernize Environmental Management**

The “clean growth” chapter describes a set of policies that can create jobs, ensure ample energy supplies, and clean the air—all at the same time. Washington can follow that example at the national scale, and free itself from the mire of retrograde energy policies, if it follows a three-pronged strategy of reengaging the international community, capping carbon now, and kicking America’s oil habit.

The next chapter focuses on the Western United States, a region historically at odds with Washington about how to best manage its natural resources, as well as a region that is the locus of many U.S. energy, climate, and water challenges (not to mention environmental problems associated with sprawling development). Environmental controversies abound in the West due to the simple fact that the federal government continues to own and manage most of the region’s land.⁸ More than 90 percent of all the land owned by the national government is located in 12 Western states. The U.S. Forest Service and Bureau of Land Management alone own more than one-third of the West.⁹ Pitched battles are also erupting in that fast-growing region due to the presence of endangered and threatened species on or adjacent to private land. Roughly 70 percent of all endangered plants and animals are located on private property.¹⁰

To “win the West”—that is, to win public support for sustainable stewardship of natural resources in the West—the administration must advance the principle that the region’s vast public resources belong to all Americans and all Americans must have a say in how those public resources are managed. At the same time, it must also give the people who make their livelihood in the West a meaningful say in how the region’s



resources are managed. To do so, PPI proposes resurrecting “place-based” conservation approaches; supporting efforts by emerging conservation constituencies to protect prized land and waterways; and encouraging the U.S. Department of the Interior to adopt a more principled approach when considering where to permit oil and gas drilling on public land.

While the West will remain center stage for many future environmental and energy challenges, some of our most common environmental problems may be found in suburban backyards all over the country. The third chapter examines those issues and proposes a strategy for “greening” America’s suburbs, which entails building cleaner homes and offices, using more innovative methods to conserve and manage water, and reducing sprawl by restoring the nation’s aging, inner-ring “first suburbs.”

We are in the midst of a construction boom that is expected to add 38 million new buildings by the end of the decade, compounding the nation’s air, waste, and water quality problems. Construction and demolition already generate 136 million tons of waste annually.¹¹ And that is before you factor in the smog and climate-change effects of commuting to work, or eliminating 4,000 acres of farm and forestland each day to build more homes, businesses, and offices.¹² (Lest we forget, trees and agricultural crops use carbon dioxide in the photosynthesis process, so when we clear them away we are also getting rid of giant natural air filters.) Yet, while pollution generated where we work, live, and play poses threats to human health and the environment, Congress has little leeway to tackle these challenges head-on because Americans would justifiably perceive such action as too heavy-handed. Fortunately, a small but growing number of architects, builders, and homeowners are proving that there are promising new ways to help green America’s suburbs without spending more money or passing a single new law.

The burgeoning green building movement and voluntary efforts to reduce residential water use are classic cases in which little or no federal involvement is required. The president should catalyze such voluntary initiatives by simply showcasing them—holding up shining examples in cities and towns for other localities to follow. But there are also environmental problems that require direct federal

regulation. A prime example is non-point source (NPS) water contamination, such as polluted runoff from parking lots and farm fields. Washington should act more aggressively on that front.

It can bolster state and local efforts with more flexible and innovative second-generation federal strategies. Revitalizing how water is supplied and cleaned is also essential to restoring America’s aging, inner-ring suburbs, instead of always expanding outward—an emerging trend that can help preserve farms and forests far from the urban fringe and breathe new life into the places growing numbers of working families call home.

The first three chapters of this report focus on what states, localities, and civic groups are doing to meet emerging environmental challenges. But the EPA and its state and local counterparts in the public sector have an important ongoing regulatory role to play in the nation’s quest for clean growth. Some problems, such as climate change, are so massive that they require a concerted, national approach. Washington also has a continuing duty to develop national standards to ensure, for example, that tap water in Delaware is just as clean as it is in Oregon. Similarly, other problems, such as those affecting the Great Lakes, the Colorado River, and Chesapeake Bay, involve multiple jurisdictions and thus require concerted cooperative action.

The final chapter delves into questions of how to manage such problems. Just because there are some problems that require a federal response does not mean that Washington should continue to use old, one-size-fits-all, command-and-control solutions. Instead, it should turn increasingly toward market-based, information-driven, and community-friendly ways to combat these newer challenges.

For instance, we know that “cap-and-trade” programs, explained in more detail in the chapters that follow, have been successful in the fight against acid rain and hold enormous potential to curtail gases linked to global warming as well. North Carolina, Oregon, Minnesota, Idaho, and other states are also harnessing such market-based approaches to combat polluted water runoff.

Non-governmental organizations (NGOs) and private actors also are pioneering modern, innovative ways to clean the environment. The “green building” movement to design cleaner, less polluting, and more

energy-efficient homes and offices is being driven primarily by architects, designers, and engineers in the private sector. Landscapers, water planners, and architects meanwhile have developed lush yet water-saving gardening projects known as “Xeriscapes.”¹³ And a small but growing number of ranchers in the Southwest desert have formed an unlikely alliance with biologists and environmentalists to develop more earth-friendly grazing methods that help the landscape while saving ranches and farms.

PPI has been among the earliest and the most vocal supporters in the cause for these modern, market-friendly, community-based, and information-rich second-generation approaches.¹⁴ Unfortunately, the environmental modernization movement for various reasons has languished during the past four years.¹⁵

To get that movement back on track, we urge the presidential administration to embrace a modernization agenda that makes environmental management more flexible and information driven; decentralizes decisionmaking to address problems specific to regions; and catalyzes civic environmentalism.

Making management more flexible is not the same as indiscriminately eliminating laws and rules that polluters do not like, an approach used all too often in recent years. Rather, in cases that warrant mandatory national action, the president should seek to command but not control. In other words, the federal government should develop legally binding standards and at the same time provide polluters with flexibility in exchange for delivering measurable results. Collecting and

disseminating performance data is the key to showing the American people that these more flexible approaches work.

Decentralizing decisionmaking is the right way to address some environmental problems, such as the decline of endangered salmon and trout in the Pacific Northwest, because such problems are strictly regional. In these cases, one-size-fits-all approaches are likely to fail. Giving state and local partners the rules and tools they need to forge their own solutions can be more effective.

Finally, some environmental problems can best be solved through greater civic action rather than direct federal involvement. The burgeoning green building movement and voluntary efforts to reduce residential water use are classic examples. The administration should applaud and facilitate such NGO-driven movements, but not seek to displace or replace them. Elected officials or those seeking office should stress to NGOs and private-sector partners that they are watching and listening.

Together, the four big ideas outlined in this briefing book hold great promise for the next four years and beyond. The administration and Congress have a lot to learn from what is happening at the state and local levels. Rather than rely on outmoded policies in the fight against global warming, our excessive dependence on oil, and looming water shortages, federal leaders have an unprecedented opportunity to modernize environmental and energy policies in ways that will make Americans safer, stronger, and more secure.



1. *Champion Clean Growth*

Americans tend to take energy policy seriously only when the lights go out, as they did across California in early 2001, or when gas prices at the pump skyrocket, as they did for much of 2004, when crude oil prices hovered above the \$50-per-barrel mark.¹⁶ In the 1970s, when the Arab oil embargo similarly focused our attention, we leapt into action. The country quickly learned how to produce more goods and services with less power. In fact, today it takes about half as much oil as it did 30 years ago to generate \$1 of gross domestic product.¹⁷ The problem is that once we find ways to make do with less energy, energy prices stabilize, as they did during much of the late 1980s and 1990s. Sticker shock then fades and we begin buying gas-guzzlers and gorging on electricity again, driving energy demand and prices back up. So the pattern repeats itself: We forget about energy policy until the next crisis erupts.

But recent international events and mounting scientific evidence show we can no longer afford to craft energy policy in fits and starts in reaction to price spikes and blackouts. Terrorist attacks against strategic Middle East oil facilities in the wake of the war in Iraq highlight the economic and national security risks of our excessive dependence on imported oil. Meanwhile, scientists warn that byproducts from the combustion of fossil fuels are both health hazards *and* chief contributors to global climate change—a phenomenon that, if left unchecked, will cause calamitous storms, flooding, and the further spread of exotic diseases, such as West Nile Virus. Clearly, it is time for the United States to pursue a new “clean growth” energy strategy driven not by prices or passing emergencies but by the need to reduce the national and economic security risks posed by our excessive dependence on oil, and simultaneously confront the threat posed by global climate change.

Yet America has taken a step backward in the last four years. With most of the developing world moving toward an international agreement to limit greenhouse gas emissions, President Bush, as one of his first acts

in office—and an early indication of his penchant for acting unilaterally on the global stage—withdrawed the United States from the Kyoto Protocol on climate change, claiming it would cost too many U.S. jobs.

Shortly after pulling the United States out of the Kyoto pact, Bush also reneged on his 2000 campaign pledge to use market-based methods (pioneered by his father in the fight against acid rain) to reduce carbon dioxide (CO₂) emissions from power plants here at home. That was an especially lamentable move because a well-crafted carbon-control strategy would be the best possible tool not only to combat global warming, but also to accelerate our independence from foreign oil.

The 1973 Arab oil embargo spurred most U.S. power producers to reduce their reliance on oil to generate electricity, and encouraged diversification into other energy sources, such as coal, natural gas, and nuclear power. It also helped at first to drive improvements in our transportation sector by inducing Congress to set fuel economy standards for vehicles, which account for about 70 percent of U.S. oil consumption.¹⁸ But while federal Corporate Average Fuel Economy (CAFE) standards were initially effective, they have since lost their punch. Tailpipe emissions remain a leading source of air pollution and account for roughly one-third of the nation’s CO₂ emissions.¹⁹

Kicking our gasoline habit will simultaneously advance the fight against global warming and minimize our dependence on foreign oil. During the first four years of the George W. Bush administration, however, the policy debate in Washington has focused on pumping more oil from U.S. sources like the Arctic National Wildlife Refuge (ANWR) and prized public lands in the Rocky Mountain

“We can no longer afford to craft energy policy in fits and starts in reaction to price spikes and blackouts.”

West. And rather than help U.S. automakers deploy existing technologies to make fuel-efficient cars that Americans want, the Bush administration has sought to promote hydrogen-powered fuel-cell vehicles that will not be practical for years to come.

PPI believes it is possible to move faster toward clean growth—and in the process create jobs, ensure ample energy supplies, and clean the air. That belief is bolstered by a number of cases where state and local governments are leading the way. But following a clean growth strategy on the national scale will require a three-pronged program of reengaging the international community, capping carbon now, and kicking America’s oil habit.

Re-Engaging the International Community

In previous reports, PPI has called for muscular, but multilateral, foreign policy and national security strategies, predicated on a reinvigorated Democratic tradition of progressive internationalism, to restore U.S. credibility among our international partners.²⁰ A crucial part of that effort must be to re-engage our international partners in the battle against global warming.

We acknowledge that the Kyoto Protocol is flawed. It asks developed nations to do too much and developing nations, such as China and India, to do too little. Although most participants envision using market-based methods to meet their greenhouse gas emission targets, the treaty’s short-term reduction goals are very stringent and allow participants little latitude in how to achieve them.

But by unilaterally withdrawing from the Kyoto negotiations, the United States defaulted on its responsibility to provide global leadership on climate change. In fact, that was one in a series of stubborn unilateral moves by the Bush administration that have cost us broad international support when we need it most. Before walking away from the table

and alienating our allies, Bush should have offered a viable alternative in Kyoto’s place.

Climate change experts are ambivalent about whether Kyoto should move forward—with or without U.S. involvement—since most agree that the

treaty is simply not up to the task of successfully combating global warming by itself. Nonetheless, it is likely to take effect without us. It only needs to be ratified by countries generating 55 percent of the world’s greenhouse gas emissions, and Russia’s ratification puts it over that mark. But that still leaves nearly 40 percent of the

world’s emissions unchecked. Moreover, even if the treaty covered all current emissions and was 100 percent effective, total world emissions in 2012 would be just 5 percent below what they were in 1990.²¹ Scientists say far greater reductions are needed to roll back greenhouse gas concentrations in the upper atmosphere.

If the United States is serious about global climate change, we have a duty to contribute to the development of a superior alternative to Kyoto. Despite the Bush administration’s recalcitrance, U.S. climate change experts have already started to sketch out such a system.²² Most agree an alternative should do a better job than Kyoto of setting emission reduction goals and timetables. It also should focus on newly industrialized nations, on the grounds that it is cheaper to start from scratch with cleaner factories and cars than it is to retrofit and replace old ones. Harvard’s Robert N. Stavins, for example, proposes a system that would require all nations to participate but give developing nations more lenient initial targets with respect to their rates of growth. Their targets would become tougher as nations become wealthier.²³

To refine such ideas, the administration should accelerate the completion of a climate change plan as one of its first priorities for the next four years and offer it to the international community to demonstrate our commitment to cooperate with our partners on global environmental threats.

“If the United States is serious about global climate change, we have a duty to contribute to the development of a superior alternative to Kyoto.”



Capping Carbon Now

Old-style, government-mandated, one-size-fits-all carbon controls can hobble an economy. But properly designed carbon controls that are mandatory yet flexible can foster economic growth that is both robust *and* clean. Such controls can cut the cost of fighting climate change, diversify our energy supplies, and spur innovations that create jobs and enhance our economic competitiveness. No matter what happens to Kyoto, we should lay the groundwork for a solely domestic program to cut greenhouse gas emissions. One of the most promising starts is the Climate Stewardship Act co-sponsored by Sens. John McCain (R-Ariz.) and Joseph Lieberman (D-Conn.). (Please see box.)

* Lower costs with cap-and-trade

As PPI has long argued, the best way to control CO₂ and other gases implicated in climate change is with a cap-and-trade system that harnesses the power of markets to spur energy-saving and pollution-reducing technologies.²⁴

Unlike command-and-control regulations, cap-and-trade systems set a single limit, or cap, on emissions from all polluters. The government would give or sell allowances to emitters or fuel producers equal to the emissions cap. Those who control emissions efficiently could sell their excess allowances to those not able to control emissions. This approach is far less expensive, cumbersome, and bureaucratic than first-generation laws, such as the portions of the Clean Air Act which regulate emissions separately from each source.

The McCain-Lieberman bill is patterned on the cap-and-trade system launched by the first Bush administration to combat acid rain. It would combine a cap-and-trade program for electric utilities and large industrial emitters with a program that would require fuel producers to account for the CO₂ their products emit when combusted. This hybrid approach to greenhouse gas

control is consistent with a proposal released by PPI in 2002.²⁵

* Support diverse fuel supplies

Contrary to some claims, a cap-and-trade system would not hurt coal-dependent industries. By phasing in greenhouse gas reductions and earmarking some of the revenues generated from emissions trading for targeted investment, the system would help coal-dependent industries invest in technologies that would burn coal more cleanly.

Meanwhile, states including Iowa, Kansas, and the Dakotas are also helping to wean the United States from its dependence on oil and other fossil fuels by tapping into the regions' enormous wind power potential.²⁶

The Climate Stewardship Act

In January 2003, Sens. John McCain (R-Ariz.) and Joseph Lieberman (D-Conn.) introduced the Climate Stewardship Act (S. 139). This historic bill takes the first steps toward limiting heat-trapping gas emissions that contribute to global warming.

The proposal would require emitters of heat-trapping gases to reduce emissions to 2000 levels by 2010. To achieve such reductions, the proposal creates a market-based system of tradable allowances. Such a system is patterned after the widely successful system of sulfur dioxide emission permits, which was created under the 1990 Clean Air Act.

The proposal targets major emitters (those that emit more than 10,000 metric tons of carbon-equivalent heat-trapping gases a year) from the manufacturing, commercial, and electric utility sectors. It would require them to hold a permit for each ton of heat-trapping gas they emit. The bill also encompasses all such emissions from the transportation sector by requiring refiners of transportation fuel to hold a permit for each ton of heat-trapping gas that will be emitted by the combustion of their fuel.

To set the market in motion, the government would limit the number of permits issued (tons allowed) each year. Emitters would be allowed to buy and sell permits from one another. Those who could reduce emissions cheaply could sell permits in excess of the annual capacity to those who found emissions relatively more costly to reduce. In this way, the system reduces emissions at a lower total cost than if a single limit was imposed on all facilities uniformly. An independent study by MIT showed that the Climate Stewardship Act would have a modest economic impact of \$20 per year per household.

The initial vote on the proposal in October 2003 demonstrated strong bipartisan support from 43 senators. Sens. McCain and Lieberman pushed for a vote in the summer of 2004. While that vote did not occur, the senators are determined to keep pushing for votes until the measure passes.

*** Make carbon a cash crop**

Equally important, the McCain-Lieberman proposal would help farmers, foresters, and others keep CO₂ out of the atmosphere by locking it into the ground. Already, some states heavily dependent on farming and forestry (e.g., Alaska, Illinois, Minnesota, Nebraska, Oklahoma, and Wyoming) are demonstrating how to turn carbon storage or “sequestration” into a cash crop.²⁷

*** Use carbon controls to spur U.S. competitiveness**

Contrary to claims that carbon controls will cost too much, history shows that environmental regulations can stimulate the creation of entirely new technologies and jobs. Shortly after Congress created the nation’s clean air and clean water laws in the 1970s,

those oft-maligned mandates had created 50,000 jobs in the construction industry and 75,000 jobs in other sectors,²⁸ according to a PPI report on the clean technology sector.²⁹

Many of those jobs involved treating pollution from smokestacks, discharge pipes, and other “point” sources. Our first generation of environmental laws have done an admirable job of alleviating these point-source problems—so much so that job gains in those areas have tapered off dramatically. Today’s toughest environmental problems (such as storm water runoff and CO₂ emissions) come from diverse non-point sources that are largely immune to first-generation command-and-control solutions.³⁰ For example, we have yet to invent a cost-effective way to capture CO₂ emissions. Until we do, we have the option of keeping CO₂ out of the atmosphere by using fossil fuels that release fewer greenhouse gases, and shifting to solar and wind power and other clean renewable sources.

“If we want to revitalize U.S. growth in the clean technology sector, we have to redouble our national commitment to progressive policies that stimulate innovation and job creation.”

If we want to revitalize U.S. growth in the clean technology sector, we will have to redouble our national commitment to pursue progressive environmental policies that stimulate innovation and job creation. In the next four years, the administration should make a cap-and-trade system to control greenhouse gas emissions the cornerstone of such efforts. Considering the potentially catastrophic environmental and economic effects of global climate change, dealing with greenhouse gases prudently and immediately is the truly conservative path.

Kicking Our Oil Habit

Because the United States lacks sufficient domestic oil supplies, the best way to reduce our oil consumption is to make our cars and trucks more fuel efficient. Mandatory CO₂ controls can be of tremendous help in this effort.

The CAFE standards that Congress mandated in the 1970s were designed to cut gasoline consumption in lieu of a politically unpalatable tax hike. And they worked, up to a point. In 2002, the National Academy of Sciences concluded that if the standards did not exist, “gasoline consumption (and crude oil imports) would be about 2.8 million barrels per day greater than it is, or about 14 percent of today’s consumption.”³¹

Automakers complain, however, that CAFE forces them to make costly trade-offs in terms of vehicle performance and safety, and build vehicles that consumers do not want. They have maneuvered around the standard by taking advantage of its lower miles-per-gallon requirement for trucks (20.7 m.p.g.) than for passenger cars (27.5 m.p.g.). Since CAFE’s inception in 1975, the share of new vehicles classified as light trucks (including SUVs, minivans, and pickups) has shot up from 20 percent of sales to more than one-half of the market today. As a result, CAFE is a far less powerful brake on gasoline consumption than in the 1970s.

Automakers are a powerful political lobby and have fought attempts to raise the fuel economy standards. Meanwhile, in the last four years the Bush administration reinforced the status quo with its policies to open up ANWR to oil drilling. It also undertook a “FreedomCAR” partnership that



emphasizes futuristic fuel-cell technologies. But Americans need a national goal to reduce oil dependence not 10 or 20 years from now, but today.

Clearly, we can do better. As outlined in a recent PPI report, with some commonsense CAFE reforms, in the next four years we can both satisfy the environmental community and deliver a fleet of cars to American consumers that preserves existing jobs and creates new ones. California has provided an excellent blueprint to aid in that effort.³²

California recently became the first state to impose greenhouse gas emissions standards on cars.³³ The mandate reflects the simple reality that the only way to curb carbon emissions is to burn less carbon-based fuel. California's law, however, is likely to face stiff legal challenges since courts have generally recognized regulating fuel economy as a federal prerogative.

In any case, measuring tailpipe emissions is a more direct and efficient way to achieve CAFE's goals. Efficiency for efficiency's sake is fine, but the real reason we want increased vehicle fuel economy is that we want to burn less petroleum (and thus avoid the security, economic, and environmental problems that result). We believe *federal* efficiency standards based on CO₂ tailpipe emissions would prove more effective and less burdensome to administer than CAFE.

To begin to reduce our costly dependence on oil, we propose a five-part strategy, described below, in which a mandatory national cap-and-trade program such as the one proposed by Sens. McCain and Lieberman serves as a cornerstone.

1. Shift to tailpipe trading

In the next four years, we should phase out the current miles-per-gallon fuel economy standard and replace it with a carbon tailpipe emissions reduction standard coupled with a "tailpipe trading" system for car manufacturers. Under such a system, automakers that exceed the carbon tailpipe standard could sell their excess credits to those that miss the mark. Moving away from a miles-per-gallon standard would give carmakers a huge incentive to build vehicles that run on cleaner alternative fuels, such as biodiesel.³⁴

2. Close CAFE's current loopholes

During the transition period to a new system, the administration should overcome industry pressure and close the ill-conceived loophole in the current fuel economy standard that lets automakers classify SUVs as light trucks rather than as what they actually are—passenger vehicles.

3. Give consumers (tax) credit

The administration should also give consumers meaningful financial incentives to switch to cleaner and more efficient cars. New hybrid gasoline-electric vehicles, for example, retail for about \$4,000 more than their conventional counterparts and are not expected to represent even 1 percent of the new car and truck market until 2005. Consumer end costs will have to fall considerably for this and other promising new automotive technologies to break out of the niche market.

Federal law currently allows businesses and individuals to claim a one-time income tax deduction of up to \$2,000 for hybrids and other clean-fuel vehicles and a one-time credit of up to \$4,000 for vehicles powered solely by electricity. The clean fuel tax break, however, is due to be phased out by 2006.

Recent sessions of Congress have considered, but failed to pass, the bipartisan Clean Efficient Automobiles Resulting From Advanced Car Technologies (CLEAR) Act (S. 505, H.R. 1054), which would extend and expand existing incentives to promote alternative vehicles. Rather than dictate what type of technology consumers should buy, the proposal is technology-neutral: It would provide a tiered income tax credit for individuals and businesses that purchase dedicated alternative fuel and advanced technology vehicles, including electric vehicles, fuel cell vehicles, and hybrids. The proposal would allow taxpayers to claim a credit of 50 percent of the incremental cost of any such vehicle. In addition, the bill would peg tax credits to emissions, providing an additional 30 percent credit to vehicles that meet the federal Clean Air Act's most stringent emission standards (excepting California's extremely tough Zero Emissions Vehicle requirement, which predates and is separate from the state's new CO₂ emissions standard).

Generous, technology-neutral tax incentives can go a long way toward putting “soccer moms” behind the wheels of minivans and SUVs that are far more efficient and better for the environment than today’s models.

4. Provide incentives for advanced diesel

On average, diesel vehicles get 40 percent better mileage than comparable gasoline-powered vehicles.³⁵ But with current fuel formulations and engine technologies, they emit more pollutants than are allowed under California’s strict auto emissions standards, which are shared by five other states. As a result, few diesel passenger cars are sold in the United States today.

That may be about to change. New federal regulations requiring the virtual elimination of sulfur from diesel fuel will allow automakers to employ pollution filters on diesels that would otherwise be fouled by the mineral, making them virtually as clean burning as gas-powered engines.

The current version of the CLEAR Act does not provide consumers with tax advantages for advanced diesel purchases. But if the advanced diesel technologies can meet the Clean Air Act’s emissions standards, these vehicles should be made eligible for tax incentives to allow us to benefit from their greater fuel efficiency.

5. Let hybrids use High Occupancy Vehicle lanes

High Occupancy Vehicle (HOV) lanes were built in many of America’s metropolitan areas in the 1980s and 1990s to encourage commuting by carpool and buses. Now states are selectively expanding access to these express lanes to encourage commuters to buy cleaner, more fuel-efficient cars. California, for example,

recently passed legislation (A.B. 2628) that allows owners of hybrid vehicles to use HOV lanes when driving alone and to travel free on toll bridges.

To qualify, hybrid cars would have to get at least 45 miles per gallon and meet strict emission standards; it is estimated that 75,000 HOV-exemption stickers will be issued. The bill would allow the state Department of Motor Vehicles to limit the program if HOV lanes become too congested. The state is looking to add 1,045 miles of carpool lanes to its existing 1,112 miles of HOV lanes, which already represent about 40 percent of the national total.

California would have to obtain a federal waiver to implement the exemption for hybrids if it wants to continue receiving federal highway funds. Virginia already grants single-passenger hybrids access to its HOV lanes, but the U.S. Department of Transportation recently warned the state that its policy conflicted with federal law. The administration should grant California and other states seeking to implement similar programs

the authority to reward consumers who buy and use cleaner, fuel-efficient vehicles.

“Generous, technology-neutral tax incentives can go a long way toward putting ‘soccer moms’ behind the wheels of minivans and SUVs that are far more efficient and better for the environment than today’s models.”

Summary

Our national security and environmental interests demand that we neither accept today’s energy policy gridlock nor passively wait for a distant wholesale shift to a hydrogen economy. To make progress now, we must adopt a clean growth strategy predicated on the need to protect our national and economic security and combat the growing threat posed by global warming. Doing so will require a three-pronged strategy of re-engaging with our international partners, capping carbon now, and reinventing the politics of fuel economy. This will require both sides of the debate to take a fresh look at the problem and understand that it is in all of our interests to make real progress now.



2. Win the West

Westerners have been battling with Washington for years about how to best manage the vast region's natural resources. But particularly since the conservative "sagebrush rebellion" of the early 1980s, the idea that regulators in faraway Washington, D.C., should give Westerners more say in local decisions has taken deep root. During the last four years, the Bush administration claimed that its natural resource and environmental policies were designed to foster such decentralized decisionmaking, but as far as Westerners were concerned, Bush administration initiatives have amounted to the same old top-down policies signed, sealed, and delivered from Washington.

Critics say, for example, that Bush's "Healthy Forests" initiative—a 2003 law to prevent fires by encouraging more logging—does little to protect communities adjacent to public forests and limits their input about where companies should harvest timber.³⁶ Similarly, they complain that the administration's 2004 proposal to roll back the Clinton-era ban on new road construction in public forests would supplant a more carefully crafted forest management plan developed by the Western Governor's Association.³⁷ Additionally, the West's overwhelmingly conservative ranchers and anglers have formed alliances—often with moderates and liberals—to counter the Bush administration's moves. For example, a proposal to dig 50,000 wells to pump more methane from Wyoming's Power River Basin brought together ranchers, outdoor enthusiasts, and environmentalists who fear such efforts will damage sensitive rangeland.

Such controversies abound in the West due to the simple fact that the federal government owns and manages most of the region's land.³⁸ More than 90 percent of all the land owned by the national government is located in 12 Western states. The U.S. Forest Service and Bureau of Land Management alone "own" more than one-third of the West.³⁹ Pitched battles are also erupting in the fast-growing region due to the presence of endangered and threatened species on or adjacent to private land. Roughly 70 percent of

all endangered plant and animal habitats in the United States are on private property.⁴⁰

To create a conservation strategy that Westerners will support, in the next four years, the president must give those who make their livelihood in the West a meaningful say in how its resources are managed. Therefore, PPI proposes a three-pronged strategy: resurrect "place-based" conservation approaches; support efforts by emerging conservation constituencies to protect prized land and waterways; and encourage the U.S. Department of the Interior to adopt a more principled approach when considering where to permit oil and gas drilling on public land.

This first prong will require the administration to promote place-based policies, originally pioneered during the administration of President George H. W. Bush and then refined under President Bill Clinton, to make the federal government a true partner with state and local governments, ranchers, farmers, outdoor enthusiasts, and American Indian tribes.

Today's prevailing policies tend to address problems within the narrow environmental medium in which they occur—air, land, or water. Policies also frequently apply only within the confines of wholly artificial boundaries, such as state or county lines. In contrast, place-based efforts are organized around natural resources, such as watersheds. As a result, these broader strategies promote greater collaboration among all stakeholders.

"To create a conservation strategy that Westerners will support, in the next four years, the president must give those who make their livelihood in the West a meaningful say in how its resources are managed."

Place-based approaches, including watershed councils and habitat conservation planning (discussed in greater detail later in this chapter), depend on strong

federal environmental and natural resource laws that equip states, cities, and tribes to address problems close to home. Current laws often fail to provide states and localities with technical assistance, “one-stop shopping,”⁴¹ and other tools they need to manage such problems effectively. In the next four years, the president should continue to uphold strong federal environmental standards but also signal federal agencies that supporting local problem-solving efforts is part of their job.

The second prong of PPI’s Western strategy recognizes the emergence of conservation coalitions of hunters, anglers, and ranchers. For example, the Theodore Roosevelt Conservation Partnership (TRCP) and the Quivira Coalition (QC) are enlisting sportsmen and ranchers in efforts to protect prized rangelands and hunting grounds threatened by development and environmental degradation. The administration should applaud and support such efforts but should not intervene or try to duplicate them.

The final prong calls on the administration to strike a more principled balance between energy production and habitat protection when it comes to oil and gas drilling.

While this three-part strategy is particularly well suited for decentralized decisionmaking in the West, it also holds great promise for improving management of the Great Lakes, Chesapeake Bay, the Everglades, and other cherished places in the United States.

Decentralized Decisionmaking for Place-Based Problems

The growing use of watershed councils in the West to help preserve and restore endangered salmon and steelhead stocks is an excellent example of new, collaborative management strategies focused on wildlife habitats, which often cover multiple federal, state, local, and tribal jurisdictions. The massive California-federal (CalFed) partnership to preserve species and ensure supplies of clean water to Californians provides a vivid example of watershed-based planning in practice. Similarly, the U.S. Fish and Wildlife Service (FWS) has developed a more flexible approach to endangered species protection that preserves habitat while allowing

private landowners to benefit economically from their property. There are several approaches that the administration should applaud and encourage based on what is already working at the state and local levels.

*** Promote watershed councils**

Pacific Northwest salmon and steelhead are national treasures vital to the Northwest’s economic, cultural, and environmental well being. The biggest threat to these species today is not over-harvesting or factory pollution—problems regulated by existing laws—but rather problems beyond the reach of present legislation. Non-point source pollution—fertilizers from farms and suburban lawns, oil from storm-water runoff, sediment from construction sites, timber operations, or riverbanks trampled by livestock—is now the main threat to salmon and steelhead, along with the continuing decline of the estuaries, rivers, and streams where they live.

Today, governments, environmentalists, landowners, and ordinary citizens are voluntarily overcoming their frequently sharp differences to form watershed councils. They are working together to identify water quality problems and threats to species, reach consensus on how to address them, take corrective action, and monitor their efforts’ progress. The EPA and the national nonprofit River Network estimate there are more than 3,000 such voluntary, stakeholder-driven watershed councils across America today.

Oregon has been a national leader in this field. In 1987, then-Gov. Neil Goldschmidt created the Governor’s Watershed Enhancement Board (GWEB), which promoted and financed watershed-enhancement demonstration projects and educational activities. GWEB helped get some of the state’s first watershed councils off the ground.

By the early 1990s, the federal government was on the verge of listing coastal Coho salmon in the Pacific Northwest as threatened or endangered. The Oregon legislature responded by creating a \$10 million Watershed Health Program to further encourage the creation of watershed councils in the state.

The councils’ primary mission is to develop trust among landowners in a watershed and help them collaborate on scientifically sound plans to restore



salmon and improve water quality. For example, between 1993 and 1999, the Coquille Watershed Association in southwest Oregon, which was one of the first in the state and counts some 200 private landowners as members, had fenced in more than 200 miles of river and stream bank for the benefit of salmon and replanted a similar amount with riparian vegetation. It had also repaired numerous roads and culverts to improve sediment runoff and fish passage.

In 1995, then-Gov. John A. Kitzhaber directed all Oregon natural resource agencies to develop a joint plan for restoring Oregon's native coastal Coho salmon populations to sustainable levels, in part with the aim of preventing federal listing of the salmon as threatened or endangered. The plan, called the Oregon Coastal Salmon Restoration Initiative, strongly encouraged the formation of more watershed councils. Within two years, more than 60 councils had been formed.

Lawmakers locked the watershed health and salmon recovery effort more firmly in place in 1999 by transforming GWEB into the Oregon Watershed Enhancement Board, a 17-member independent state agency that awards about \$25 million in competitive grants annually for watershed assessments and on-the-ground improvement efforts.

Experts say that the Oregon plan and the multi-stakeholder watershed councils it promotes have helped demolish bureaucratic stovepipes isolating state agencies. Indeed, Oregon officials say their watershed councils have become as much a part of the state's culture as the salmon they work to protect.

*** Pattern place based efforts after CalFed**

In California, preservation of winter-run Chinook salmon and Delta smelt was a driving force behind one of the nation's most prominent examples of watershed management. The two species' continued viability in the Sacramento/San Joaquin

Bay Delta, whose watershed covers 40 million acres, helped trigger what would become a unique and innovative state and federal partnership.⁴²

The Delta is the West's largest wetland habitat. It also supplies 40 percent of California's drinking water and provides irrigation for 45 percent of the nation's fruits and vegetables. Ongoing demand for freshwater, coupled with persistent drought from 1987 to 1992, shrank salmon and smelt habitat in the Delta to the point where both were listed under the Endangered Species Act (ESA) in 1993. At the same time, the EPA was considering bringing federal Clean Water Act (CWA) standards to bear to protect Delta fish populations. Restoring fish habitat

potentially meant diverting fresh water from urban and agricultural uses, a move that almost certainly would have faced a legal challenge.

But rather than let the matter go to court, the EPA joined forces with the U.S. Department of Interior and California's state natural resources and environmental protection agencies. Municipal and agricultural water users and environmental

groups also were invited to the table. Together, they agreed on an appropriate balance between water use and the need to protect fish habitat. The CalFed deal, signed in 1994, provides for increased freshwater flows (400,000 additional acre-feet in normal years and up to 1.1 million additional acre-feet in drought years) to protect salmon and smelt.

If extra water is needed to preserve the salmon and smelt, the deal provides that it can be secured only by water bought with federal funds from willing sellers. And to provide the state with greater authority over CalFed's management, the deal replaces EPA standards with state standards.

The CalFed case shows how tough but fair federal laws can lay the groundwork for the creation of collaborative efforts to protect species and natural resources. In this instance, it took the threat of federal action and lawsuits to bring all stakeholders to the table.

“The CalFed case shows how tough but fair federal laws can lay the groundwork for the creation of collaborative efforts to protect species and natural resources.”

✱ **Promote habitat conservation plans**

Until recently, the ESA failed to give private landowners an incentive to collaborate with federal agencies to preserve threatened and endangered species the way CalFed does.

For much of ESA’s history, the FWS and the National Marine Fisheries Service (NMFS)—the two agencies charged with its implementation—could only punish private landowners as a way to ensure compliance with the law. As a result, to avoid coming within ESA’s reach, some landowners went to the extreme of preemptively destroying habitat that potentially could be discovered to be the home of an endangered species.

Congress amended the ESA in 1982 to correct this unintended consequence. First, it allowed private landowners to conduct otherwise legal activities, such as building houses that might incidentally harm or “take” (i.e., capture) wildlife listed as endangered or threatened. But in order to do so, landowners must obtain from the FWS incidental “take permits.” To obtain a permit, an applicant must develop a habitat conservation plan (HCP), designed to offset any harmful effects the proposed activity might have on the species. The HCP process allows development to proceed while promoting listed species conservation. The federal government also created a “No Surprises” rule that further safeguards landowners who enter into HCPs. It protects them from being forced to provide additional land, water, money, or other resources for species preservation beyond what is spelled out in the original plan.

Private landowners hailed the new rules, which finally were implemented in 1994. Since their implementation, 325 HCPs have been launched, covering 33 million acres of land, according to a recent report based on FWS data. More than 90 percent of all HCPs are in the rapidly growing Pacific Coast region, the Southwest, and in Southeastern states such as Florida—which, combined, account for 60 percent of all the new housing starts. These types of rapidly

developing regions are affecting endangered species’ habitats.⁴³

Even more significant are data illustrating the total amount of property that landowners have committed to species recovery. The HCPs have encouraged private property owners to improve roughly 4.4 million acres of habitat nationwide. In other words, about 7,000 square miles of habitat have been enhanced through activities such as revegetation and reforestation, stream restoration, wetlands creation, and exotic species removal—all of which unquestionably benefit species preservation.⁴⁴

North Carolina’s Sandhills region is home to an endangered species of woodpecker. There, the HCP program has lessened private landowners’ concerns about what actions the federal government would take if woodpeckers were discovered on their land. In doing so, it has provided landowners with a greater incentive to preserve rather than destroy habitat. Landowners there previously thought that the only way to avoid tangling with the ESA was to clear-cut pines on which woodpeckers depend. But today, they “work as active partners in slowing or stopping the loss of birds,” according to a PPI report.⁴⁵ The program has also helped ease inflammatory rhetoric against the woodpeckers, the ESA, and federal agents. The program has proven so popular that the FWS has expanded it to cover every landowner in the Southeast, allowing them to enroll in safe harbor agreements to provide habitat for red-cockaded woodpeckers on their land.⁴⁶ Habitat conservation planning is an excellent way to encourage federal agencies to “let go”⁴⁷ and decentralize decisionmaking to better address local environmental challenges.

Although popular among landowners and developers, some environmental groups charge that the HCP program does not protect species sufficiently. Recently, a federal judge faulted the administrative procedures used by the FWS and NMFS to develop the program. The ruling may delay the development of currently pending HCPs, but will not jeopardize existing programs.

“Habitat conservation planning is an excellent way to encourage federal agencies to decentralize decisionmaking to better address local environmental challenges.”



In the next four years, the administration should follow comprehensive regulatory procedures to inoculate this important program from further legal challenge. It should also evaluate existing efforts to demonstrate that the program is, in fact, protecting endangered and threatened species and their habitat, and the administration should use the results of such studies to strengthen and enhance the HCP program.

Enlisting New Civic Groups as Conservation Partners

The preceding discussion shows how the administration can promote conservation in the West through decentralized decisionmaking. Another promising approach is to step back and simply showcase the stewardship efforts being developed by

new private and nonprofit constituencies. Organizations such as the TRCP and QC are comprised of hunters, anglers, and ranchers who seek to protect and improve prize hunting, fishing, and ranching lands. They represent a vital new force in the environmental policy debate. In particular, the administration should create partnerships with hunting and fishing communities and support modern, collaborative ranching policies.

*** Partner with the hook and bullet community**

Traditionally, most hunters and anglers have sided with political conservatives who traditionally prefer a hands-off approach to public lands. But in 2003, when the Bush administration sought to relax federal regulations that protect wetlands and the fish

The Theodore Roosevelt Conservation Partnership

At a time when the nation's prized hunting and fishing grounds are threatened by pollution and development like never before, the Theodore Roosevelt Conservation Partnership (TRCP) was recently organized to ensure that America's lands, both public and private, will always provide clean water, healthy habitat, bountiful fish and wildlife populations, and ample opportunities to enjoy the outdoors. In short, TRCP says it works to "Guarantee You a Place to Hunt and Fish." The organization works to establish and amplify the pro-hunting and angling voice in Washington and in statehouses across the country. And, by the look of it, the voice has the potential to be powerful.

"There's [sic] 50 million Americans who hunt and fish," noted Chris Wood of the anglers group Trout Unlimited (TU), adding, "You know, this is not a constituency that's overly motivated by people sitting in trees for months if not years." Instead, his is "generally a moderate to conservative group, and they're very active in their communities. ... (They) fill that vacuum right now in the minds of voters who don't really trust the administration on the environment and they don't really trust what they're hearing from the more traditional environmental community. But they probably are willing to listen to the local rod-and-gun club, or the local TU chapter that says, 'Hey, this is a problem. We gotta get worked up about this.'"

*One of the issues such groups have been "worked up" about lately was a Bush administration plan to relax federal policies designed to protect wetlands. In a recent letter addressed to President Bush signed by more than 30 hunting and angling organizations, TRCP observed that America's rich hunting and fishing traditions are "inextricably tied to the protection of habitat, and as sportsmen and Republican presidents have known for over 100 years isolated wetlands and small ponds are among the most important of all habitats." To underscore their point, the letter quoted Teddy Roosevelt's observations on the ecological importance of seemingly trivial pools of water on the prairie: "... it may be the home of beavers, and muskrats, the breeding place of different kinds of ducks and the drinking place for the denizens of dry country roundabouts, such as wolves, antelope, and badgers," Roosevelt wrote in the 1885 tome, *Hunting Trips of a Ranchman*.*

As mentioned, TRCP's efforts appear to be paying off. The White House has scrapped its plans to relax the regulations. The administration, however, left related EPA "guidelines" intact, which the groups fear will lead to the draining of more isolated wetlands. They continue to press the White House to rescind the guidelines and have called for a nationwide plan to stem the loss of wetlands habitat.

Mainstream environmental groups have been in the vanguard of environmental protection since the 1970s and have a vital and ongoing role to play. But, as TRCP's efforts illustrate, by putting conservation back on the environmental agenda, the "hook and bullet" community is staking out a middle ground in the debate and becoming an important voice in the quest to protect and promote America's environmental quality.

“The hook and bullet constituency is becoming an important voice in the quest to protect and promote America’s environmental quality, and the president should laud its efforts to conserve fish and wildlife habitat.”

and game that depend on them, it unexpectedly found itself at odds with many of those same conservative-leaning hunters and anglers.

The proposal from the Bush administration, critics argued, would effectively transfer responsibility for

protecting millions of acres of wetlands, creeks, streams, and ponds from the EPA and the U.S. Army Corps of Engineers to the states. Critics said this would leave wetlands highly vulnerable to development and environmental degradation because most states lack wetlands protection laws and regulations as strong as the federal government’s.

Some 39 states and most environmental groups protested the proposed rule change. Surprisingly, some of the strongest criticism came from a growing alliance of anglers, hunters, and outdoor enthusiasts.

Although the “hook and bullet” set, as this community is commonly known, looks askance at liberal environmentalism, it draws on the progressive environmental tradition of one of the nation’s greatest conservationists, Theodore Roosevelt.

Roosevelt, a renowned big-game hunter, made conservation a central theme of his early 20th century Republican presidency. He created five national parks, four big-game refuges, 51 bird reservations, and the National Forest Service. Appropriately, the hunting and fishing umbrella group that spearheaded the recent fight against the federal wetlands policy shift goes by the name of the TRCP (Theodore Roosevelt Conservation Partnership).

While many individual organizations, including state fish and wildlife agencies and groups such as Ducks Unlimited, Trout Unlimited, and the National Rifle Association work to preserve and manage the nation’s fish and wildlife resources and habitats, TRCP works to create and amplify a pro-hunting and angling voice in Washington and in statehouses across the country. By most accounts, these organizations are

emerging as a powerful new voice in environmental protection.

To illustrate their growing influence, consider that while the Bush administration has refrained from rolling out the welcome mat for most mainstream environmental organizations, in December 2003 it invited leaders from roughly 20 hook and bullet groups to the White House to discuss their concerns about the proposed wetlands rule change. Four days later, the White House scrapped its plans to relax the regulations.⁴⁸

Emboldened by its partial victory, the hook and bullet community has set its sights on other issues, including reducing the impact of federal transportation programs on fish and wildlife and securing more funding for “conservation reserves,” a program to encourage farmers and ranchers to keep sensitive environmental lands fallow. Most notably, TRCP is working with the U.S. Bureau of Land Management, ranchers, and other landowners, through a series of conferences in Wyoming, to ensure that energy development is done in a manner compatible with wildlife needs.

The hook and bullet constituency is becoming an important voice in the quest to protect and promote America’s environmental quality. The president should laud its efforts to conserve fish and wildlife habitat.

*** Promote ranching’s radical center**

Large areas of the West suffer from drought, catastrophic fire, invasive species, and poor land management practices. Together, they have increased soil erosion and decreased soil productivity. And as a result, Western farmers and ranchers face increasing pressure to earn greater returns from their land by selling it to developers.

To better meet these challenges, ranchers, environmentalists, public land managers, and scientists are putting aside old divisions and staking out a “radical center” aimed at promoting better land stewardship through greater collaboration.

The Malpai Borderlands Group (MBG), a group of ranchers who reside in the nearly 1 million acre border region between southwestern New Mexico and southeastern Arizona, is one such example. The group



works with federal land managers, such as the U.S. Department of Agriculture and the FWS, as well as nonprofit organizations such as the Nature Conservancy, to improve the productivity and ecological diversity of their land.

Since its establishment in 1994, MBG has worked to protect 42,000 acres of private land through the establishment of conservation easements. Such easements typically keep ranch and farmland in its current use by stipulating that it cannot be subdivided or otherwise converted into other uses. In addition, MBG also has worked to restore some rangeland to native grassland and savannah.

Also, MBG pioneered a process known as “grassbanking” to minimize overgrazing on ranches. Grass on one ranch is made available to other ranchers’ cattle in return for the conveyance of conservation easements to MBG that restrict the land from subdivision.

The nonprofit QC (Quivira Coalition), based in Santa Fe, N.M., is another example of “radical center” ranching. In contrast to MBG, which focuses primarily on land protection, QC hosts events to promote greater cooperation among ranchers, environmentalists, and federal land managers, and to popularize a suite of progressive ranch management practices known as the “New Ranch.”

One New Ranch innovation involves concentrating livestock into small plots on a short-term, rotating basis. This technique, thought to mimic elk and bison grazing behavior, has several benefits. Studies show that, in many ecosystems, short-term, intensive grazing stimulates plant growth without killing vegetation. High livestock concentrations also break up and turn the soil, which encourages the sowing of seeds, prevents erosion, and recharges groundwater by increasing rainwater infiltration. Concentrated herds also deter predators, and the system of short-term rotation allows individual plots to rest for long periods of time.

Another New Ranch technique is resting ecologically important areas adjacent to streams, rivers, and seasonal ponds during the growing season. Traditionally, livestock are turned loose on vegetation-rich stream banks year-round. They strip plants that hold stream banks in place, causing erosion and water pollution. Resting ecologically sensitive areas during the growing season keeps adjacent streams healthy and

conserves an important source of forage for later in the season when herds need it most.

Radical center ranching is still in its infancy and New Ranch principles have been greeted with apathy and suspicion by many mainstream ranchers and sometimes with scorn by hard-line environmentalists. In addition, the idea that some lands can serve livestock and simultaneously be restored to their native state simply does not apply to the most ecologically sensitive Western lands.

Despite these challenges, ranching’s radical center is vital and flourishing where underlying conditions are ripe as in the Malpai Borderlands. The movement’s pioneers are demonstrating that it is possible to improve both the livelihoods of ranchers and the land on which they depend.

Principled Energy Extraction on Public Lands

In the next four years, the president should support efforts by the TRCP and similar groups to work with the U.S. Bureau of Land Management to ensure that energy development is undertaken in a manner compatible with wildlife needs. But it must also adopt a new, more principled federal approach toward energy exploration.

The federal government should support vigorous oil and gas production on public spaces, including offshore locations. But, during the last four years, the Bush administration’s assumptions about new production opportunities on public lands were overstated and misleading. While acknowledging the important role that public lands play in domestic energy production, we must now champion a middle ground between walling off all public lands from new exploration and opening them to unbridled development.

In a recent report, PPI laid out a set of principles aimed both at striking a better balance between energy production and habitat protection, and at bringing more discipline to decisions about oil and gas production on public lands. For example, it recommends that the U.S. Interior Department “seek to promote new oil and gas drilling next or near to existing production and transportation infrastructure (e.g., working leases, pipelines, etc).”⁴⁹ Proposed drilling in areas remote

from infrastructure should be subject to special scrutiny, including a thorough economic analysis and a comprehensive evaluation of the long-term impact on affected lands.

In all cases, the Interior Department should require private energy developers to follow best environmental management practices. It should also require bonds and collateral guarantees to ensure that land and habitat are fully restored upon the project's completion. In exchange for meeting such requirements, the Interior Department, where possible, should streamline the permitting process and cut red tape.

As the PPI report concludes, the adoption of a balanced approach, guided by sensible criteria that acknowledge both the benefits and risks posed by oil and gas production on public land, represents a more prudent, principled way for the administration to pursue energy development on prized public land and win the support of Westerners.

Summary

Many, if not most, Westerners believe that when it comes to land and water management, Washington

should back off and give them more say. Although in the first four years the George W. Bush administration purported to embrace that viewpoint, it pursued top-down and retrograde environment and energy policies, prompting a backlash from a small but growing number of ranchers, anglers, and hunters. Progressives have a unique and perhaps one-time opportunity to win the allegiance of this important constituency. But it will take more than promises to decentralize decisionmaking.

To win support in the West in the next four years, the Bush administration must pursue a three-pronged strategy that begins with resurrecting place-based approaches such as the CalFed effort, and expanding popular programs such as the habitat conservation planning provision pioneered by the Clinton administration. At the same time, it should applaud and support (but not supplant) collaborative conservation efforts sponsored by important new hunting and angling constituencies. Finally, on the matter of oil and gas drilling on public lands, it should adopt a more principled approach that strikes a better balance between energy production and habitat protection.



3. *Green the Suburbs*

Ask a group of friends to name top sources of energy waste and pollution, and odds are good that no one would answer “my house” or “the building where I work.” Yet the fact is that the nation’s 5 million commercial and 76 million residential buildings consume more than two-fifths of all our energy. They also account for just more than one-third of our carbon dioxide (CO₂) emissions (a chief culprit in climate change), about one-half of sulfur dioxide emissions, a quarter of nitrous oxide emissions, and one-tenth of particulate emissions (all major contributors to smog and acid rain).⁵⁰

The current construction boom is expected to add 38 million new buildings by the end of the decade, compounding the nation’s air, waste, and water quality problems. Construction and demolition already generate 136 million tons of waste annually.⁵¹ And that is before you factor in the smog and climate change effects of commuting to work or the 4,000 acres of farm and forestland lost each day to build more homes, businesses, and offices.⁵²

Although pollution generated from where we work, live, and play poses challenges to human health and the environment, Congress has little leeway to tackle these challenges head-on because Americans would justifiably perceive such laws as being too intrusive.

Fortunately, a small but growing number of architects, builders, and homeowners are proving that there are promising new ways to help “green” America’s suburbs without spending more money or passing a single new law. The burgeoning green building movement and voluntary efforts to reduce residential water use examined in this chapter are classic cases where little or no federal involvement is required.

In the next four years, the administration should catalyze such voluntary initiatives by simply showcasing them—holding up shining examples in cities and towns for other localities to follow.

Although there is little Washington can do to actively promote greener residential and commercial structures, national policymakers can and should

bolster state and local efforts to address non-point source (NPS) water quality problems, such as polluted runoff from parking lots and farm fields, through more flexible, innovative second-generation federal strategies. Strategies to revamp how water is supplied and cleaned also serve as an important pillar in the small but growing effort to revitalize America’s aging, inner-ring “first suburbs”—an emerging trend that can help preserve farms and forests far from the urban fringe and revitalize the places where a growing number of working families live.

Greening America’s suburbs will require a three-pronged strategy: building cleaner homes and offices, using more innovative methods to conserve and manage water, and reducing sprawl by restoring the nation’s aging first suburbs.

Building Greener Homes and Offices

In the past, many architects, builders, and their customers shunned environmentally conscious design and construction on the assumption that green buildings cost too much. However, a growing number of Americans are discovering that green buildings can yield significant cost savings over the long haul, even as they help protect the environment.

As the name implies, green buildings use power and other natural resources far more efficiently and generate less pollution than buildings merely constructed to code. They also create safer indoor environments by harnessing more natural lighting and using materials that make indoor air healthier to breathe. The examples that follow illustrate the trend’s broad promise.

“There are promising new ways to help ‘green’ America’s suburbs without spending more money or passing a single new law.”

✱ **Champion the green building movement**

Companies including Toyota, Steelcase, Herman Miller, and IBM have recently broken ground or completed construction on green office buildings. For instance, in Torrance, Calif., Toyota recently completed a 624,000-square-foot green headquarters expansion that costs less to occupy than the average cost of rental space previously paid to house 2,500 sales-division employees.⁵³

“While upfront construction costs are higher, green buildings generate approximately 20 percent in savings over their lifetimes.”

In addition to the trend in the private sector, states such as

Pennsylvania, California, Oregon, New York, and Maryland have adopted green building policies. At the federal level, the U.S. Department of Energy’s Federal Energy Management Program provides resources on best building practices.

To promote a common set of green building standards and spur their construction, the U.S. Green Building Council (USGBC) has created the Leadership in Energy and Environmental Design (LEED™) Green Building Rating System. Established in 1993, the USGBC is comprised of 4,000 organizations, including architectural and engineering firms, product developers, financial institutions, and representatives from state and local government.

The nonprofit organization established the LEED rating system in 1999 and updated its standards in 2002 and 2003 to reflect advancements in green building construction and materials. The rating system, which may be applied to new and existing commercial, institutional, and high-rise residential buildings, is comprised of 34 criteria or “credits,” as well as seven prerequisites across six broad categories: site selection, water efficiency, energy use, materials selection, indoor air quality, and design. Building scores determine LEED’s four rating levels: platinum, gold, silver, and certified.

In recognition of Toyota’s advancements, the USGBC recently gave the new Southern California facility its gold rating for features such as the

commercial solar rooftop electric systems, one of the largest in North America, which is expected to provide up to 20 percent of the building’s energy requirements. The building uses wood harvested from sustainable forests for construction and interior finishes, as well as steel recycled from automobiles to form the building’s structural beams and columns. More than 90 percent of the waste from construction and demolition is being recycled, some of it onsite in the form of pavers in the facility’s state-of-the-art Xeriscape garden (a practice described in greater detail later in this chapter). Toyota’s South Campus facility is furnished with recycled and recyclable carpets and work stations. Even the products used by janitors to clean the facility are non-toxic—plus for the environment and for the custodial workers.

As of 2004, approximately 190 million square feet of U.S. buildings are undergoing LEED certification. California leads the country in the number of LEED certified buildings with 140.⁵⁴ But the Golden State is rivaled, in project-per-capita and project-per-gross-state-product terms, by other states, including Pennsylvania, Oregon, and Washington, each of which has well-established state programs to encourage green construction.

Although the green building movement is gaining momentum, the perception that green structures are “too costly” and “unproven” persists. However, a recent study by California’s Sustainable Building Task Force found that while upfront green building construction costs are about 2 percent higher than buildings solely constructed to code, green buildings generate about 20 percent in savings of initial construction costs over their lifetimes.⁵⁵ In other words, an upfront investment of \$100,000 in green-building features as part of a \$5 million project can result in about \$1 million worth of savings during the average 20-year life of the building. Most of the higher initial cost is for the additional time architects and engineers need to design cleaner, greener features.

Many of the savings come in the form of lower energy and water bills. But features such as improved natural lighting and cleaner indoor air also improve productivity and result in fewer lost workdays and worker’s compensation claims. More importantly, environmentalists say, green buildings have the potential to improve the nation’s energy independence.



“Operating commercial and residential buildings consumes over 40 percent of the country’s energy—twice as much as passenger cars and trucks,” says National Resources Defense Council (NRDC) senior scientist Rob Watson,⁵⁶ a driving force behind the group’s new green Santa Monica, Calif., facility. Located in a recycled building that once housed an acupuncture school, the NRDC facility uses 60 percent to 75 percent less electricity on lighting than a building merely constructed to code by maximizing natural light and using photo sensors to dim lamps when sunlight is bright enough to allow reading. It also uses 60 percent less water by filtering and disinfecting water reclaimed from rain gutters, sinks, and showers, then using it to flush toilets. Based on these and other attributes, USGBC awarded the building its highest possible platinum rating, thereby classifying it the greenest building in America. The NRDC estimates that if all commercial buildings in the United States were as efficient as its Southern California office, the country would achieve 70 percent of its greenhouse gas reduction obligation of the Kyoto Protocol.⁵⁷

Even more promising, perhaps, is the fact that such savings are possible today without passing a single new law or resorting to existing mandates. Although states such as New York have passed tax incentive programs to encourage green building development, the movement, for the most part, is voluntary—illustrating the tremendous potential of the building sector to pave the way for a cleaner, more sustainable future. Although the green building movement is doing just fine without the involvement of federal regulators in Washington, the administration can help to boost the effort’s momentum by calling attention to it and showcasing some of the best examples.

Using More Innovative Methods to Conserve Water and Manage its Use

Demands for water are outstripping supplies in many parts of America, causing some observers to say that water will be the oil of the 21st century.⁵⁸ And the problem is not limited to the arid West. Current projections by the Interstate Commission on the

Potomac River Basin, for example, indicate that the present reservoirs in the Potomac River basin may not be able to satisfy projected water demands 30 years from now.⁵⁹

The problem is even more acute in the West because existing water supplies there are already inadequate to meet the needs of people, agriculture, and the environment. Periodic droughts and explosive, long-term population growth in desert cities threaten to make the problem worse. Water’s critical role in food production from Western farms and ranches is increasingly fueling conflicts among states, cities, and water management districts over water’s many competing uses. More effective, efficient pricing strategies can improve allocation of this precious resource. But conservation also must be part of the equation, particularly when it comes to landscaping. In the case studies that follow, three innovative strategies are outlined for reducing residential water use and keep our water safe and clean.

*** Grow greener gardens**

In major Western cities, landscape watering and other outdoor uses guzzle 50 percent to 70 percent of the water used.⁶⁰ In Las Vegas, that rate can soar to 90 percent during the city’s scorching summers. Water planners are quick to point out that turning off the tap entirely and letting front yards go to seed is not the solution. On the other extreme, strict regulation about when, where, and how homeowners can water their yards would antagonize private landowners and burden local jurisdictions with the extra costs involved in policing homeowners who turn on the tap when they should not.

Fortunately, there is a compromise that saves water, energy, and, eventually, time spent working in the yard. Xeriscaping encompasses water-saving practices that keep gardens in bloom while reducing outdoor water use anywhere from 30 percent to 60 percent. Done well, it can raise property values by up to 15 percent.

While many individuals have embraced xeriscaping out of concern for the environment, policy experts say even more would do so with the right financial incentives. More homeowners, they say, would change their gardening practices if they knew that doing so would cut their water bills significantly.

Water Quality Trading in Action

Water quality trading is being put to the test in the West. The Idaho Department of Environmental Quality (DEQ) and the EPA Region 10 have been studying how to use pollutant trading to meet water quality goals for the Lower Boise and Middle Snake rivers. Idaho's effort is part of a broader program in the Pacific Northwest supported by the EPA. A full-time water quality trading coordinator, with considerable experience in air emissions trading for EPA's acid rain program, oversees the development of trading systems in the region.

The Lower Boise River Effluent Trading Demonstration Project, for example, has been launched to determine whether trading can improve water quality at a lower cost. Federal, state, and local water quality managers, farmers, businesses, municipalities, and environmentalists participated in its design. Trading will not begin until officials set the limits on pollutants (known as total maximum daily loads) that will be allowed to flow into the Lower Boise watershed. In the meantime, Idaho DEQ has used the experience it has gained to issue draft guidelines to help other parts of the state launch similar programs. These specify the conditions under which pollutant trading may take place, establish record-keeping and reporting procedures, and prescribe how to develop best-management practices for each watershed in which trading occurs.

Water quality trading can also be extended to heat from human sources, which spurs plant growth that robs water of needed oxygen. EPA Region 10, in cooperation with the Oregon DEQ, is developing a project to trade water temperature on the Tualatin River, just outside of Portland. The amount of heat or "thermal load" of the effluent discharged by the two sewage treatment plants there needs to be reduced by 95 percent to stay within permitted levels. Rather than install expensive refrigeration systems, the facilities are proposing to restore areas along stream banks further up in the watershed, creating shade to keep water temperatures down. Clean Water Services, a wastewater and storm-water management utility in Washington County working with the Oregon DEQ, has said that it expects to complete 35 miles of stream restoration. Environmental managers are close to working out the technical details that will ensure the proposed trading system meets its objectives.

Las Vegas, for example, which derives much of its water from ever-shrinking Lake Mead, is both raising its water prices and actually paying customers one dollar for every square foot of grass they replace with drought-tolerant foliage. Under the Southern Nevada Water Authority's Water Smart Landscapes program, property owners can qualify for landscaping rebates by converting at least 400 square feet of their lawns to Xeriscapes, which when fully mature must cover at least one-half of their yard. The maximum rebate is

\$50,000. Water authority officials, citing program popularity, estimated that they gave out as much as \$25 million in Xeriscape rebates in 2003.

Although the Xeriscape concept was invented and popularized in the West, even comparatively wetter states along the Eastern Seaboard have embraced the concept as a way to save water and prevent yard waste and pesticides from contaminating watersheds. By the early 1990s, Xeriscape programs were flourishing in most of the 50 states, including Hawaii. By the end of the decade, the practice had spread from Saskatchewan to Spain.

As in the case of green building, the growing Xeriscape movement can and should remain within the province of local government and water planning agencies. But the federal government can help to popularize Xeriscape practices through programs such as the National Xeriscape Demonstration Program.

Recognizing that municipal water authorities often lack the funds to study the outcomes of Xeriscape programs, the demonstration program marks the effort by the U.S. Department of the Interior's Bureau of Reclamation to step up and fill the void. Working in partnership with the cities of Austin, Texas, Phoenix, Las Vegas, Denver (and surrounding areas), and Fargo, N.D., program officials are working to analyze how much water Xeriscape landscaping saves on an annual and seasonal basis; the costs of implementing and retrofitting such landscaping; and what kinds of strategies, incentives, and promotions facilitate the adoption of Xeriscape landscaping. Results will be available on the bureau's website.

Xeriscaping will not entirely solve the nation's growing water needs, but it is an easy and cost-effective way for local governments nationwide to help stretch one of our most precious natural resources and to help avert contentious water conflicts in years to come. The National Xeriscape Demonstration Program is an example of how the administration can work with local partners to popularize water-wise practices and help



avert the possibility that water indeed will become the oil of the 21st century.

* **Harness market methods to improve water quality**

As the previous case shows, voluntary programs to encourage water conservation can be made even more effective when paired with the right financial incentives. In some cases, harnessing markets can also help to reduce water pollution, particularly runoff from pastures, lawns, construction sites, and even contaminants that fall from the air.

States say that such NPS pollution is today's leading remaining cause of water quality problems. About two-thirds of the pollutants entering our water today come from NPS, such as storm-water runoff from farms and city streets.⁶¹ While the Clean Water Act (CWA) of 1972 has done a great deal to clean up water pollution from individual sources, it is poorly suited to handle pollution from numerous sites—which is exacerbated when rain washes contaminants into streams and rivers. This NPS pollution can be curbed through better land management practices, such as calibrating agricultural fertilizer more carefully, keeping livestock away from fragile stream banks, and planting grass and tree “buffer zones” to filter runoff from parking lots or fields. Generally speaking, it is now more cost effective to control NPS pollution in these ways than it is to squeeze more efficiency out of equipment designed to control pollution from factories and other point sources.

This cost difference makes water quality problems ideally suited to market-based control solutions. “Cap-and-trade” programs, for example, set a limit on pollutants from all sources, distribute emission credits to polluters that add up to that limit, allow polluters to meet their limit however they see fit, and create markets for trade in the excess credits of those who excel at cutting pollution. Under such a system, for example, rather than install expensive new filters to meet its water pollution limit, a factory might find it cheaper to buy excess credits from farmers who have cut more than their allotted share of pollution through improved land-management practices.

A number of states, including Idaho, Oregon, Minnesota, Connecticut, Maryland, Colorado, and North

Carolina, in cooperation with the EPA, private landowners, and local public interest groups, have launched water quality trading experiments for specific river basins and distinct ecosystems. Among the oldest is North Carolina's program, launched in 1989, which harnesses water quality trading to reduce pollutants in the Tar-Pamlico River Basin, the fourth largest river basin in North Carolina and a major tributary to the Pamlico Sound.

“Water quality trading programs serve as a promising example of how the president can continue to build effective partnerships around shared values and common goals.”

Together, the Pamlico Sound and neighboring Albemarle Sound constitute one of the most productive estuarine systems in the country. Based on the success of this effort, North Carolina recently launched another effort, patterned after the Tar-Pamlico program, to reduce nitrogen in the Neuse River Basin.

As foregoing examples show, water quality trading programs not only leverage the power of the market, but serve as a promising example of how the administration can continue to build effective partnerships among federal, state, local, and tribal governments, and other stakeholders, around shared values and common goals.

* **Solve water pollution with soft path approaches**

During the past 20 years, U.S. communities have spent more than \$1 trillion (in 2001 dollars) to treat and supply drinking water, and to treat and dispose of wastewater. Much of the infrastructure that accomplishes these tasks is nearing the end of its lifespan, however, and will need to be replaced during the next 20 years to 40 years.⁶²

The EPA estimates that without additional investment, capital spending on clean water and drinking infrastructure could fall \$896 billion short of projected needs during the next 20 years.⁶³ Although the federal government has historically picked up much of the tab for water treatment

facilities, it increasingly has been shifting more of the cost to states and localities.

Funding is not the only challenge for cities and states. As the previous discussion shows, non-point source pollution is a problem that does not lend itself well to conventional engineering solutions. In addition, widespread drought and the subsequent depletion of aquifers in recent years have raised concerns about the adequacy of water supplies throughout the country.

Water management in the United States is another complicating factor. It has been typified for generations by capital-intensive engineering projects: laying more pipes, transporting water over ever-longer distances to and from big central treatment plants, digging deeper wells, dredging deeper channels, and building higher levees.

Some of the most promising new approaches to water resource management rely not on centralized “big infrastructure,” but instead on decentralized tools that use the environment’s natural ability to process and treat polluted water at home or in the workplace, wherever it is produced. These so-called “soft path” strategies also lend themselves to a more integrated water management approach that addresses issues such as drinking water, wastewater, irrigation, and storm water runoff simultaneously.

Prince George’s County, Md., for example, has been a national leader in the use of “low-impact development” (LID) practices, which improve water quality by taking advantage of the land’s natural filtering ability. On a LID site, instead of laying expensive drainage pipes to channel storm water to a far-off treatment facility, water might be stored and treated naturally onsite in a “rain garden” composed of filtering layers of gravel, sand, and organic materials. Other runoff treatment tools in the LID toolkit include filter/buffer strips, dry wells, grass swales, and rooftop gardens. The LID sites also often employ rain barrels or cisterns to collect rainwater for re-use in irrigation, which saves money and conserves water.

These LID practices can be employed not just in new subdivisions but in redeveloped urban settings as

well, creating welcome green space in cities. They also reduce wear-and-tear on our aging sewer and wastewater treatment systems by keeping water out.

Vermont is another pioneer charting the soft path to cleaner water. The 120-home village of Warren, for example, has received a \$1.5 million grant from the federal EPA to demonstrate a decentralized approach to planning and engineering the village wastewater system, maximizing the use of onsite systems to save money and improve community support. The new system combines management of onsite systems with a small, conventional central system, and has garnered very strong community support.

As these and nearly 20 other demonstration projects around the country are proving, soft path approaches can deliver communities significant up-front and long-term financial savings, plus benefits in the form of preserved and restored waterways and more open space. They replace the “big infrastructure” approaches that often give rise to sprawling development and the traffic congestion, environmental degradation, and diminished

quality of life that come with it. And in some instances, soft path methods represent the only way to protect fish habitats and other valued ecosystems because “hard path” alternatives are not up to the job or simply do not exist.

During the next two to four decades the nation will have to replace virtually its entire water infrastructure. Soft path options can do the job as well or better, at less cost, and with more benefit to society. With the federal government unlikely to resume funding the lion’s share of water treatment facilities any time soon, states and localities face enormous costs ahead. The administration can help ease their burden by encouraging the integration of soft path approaches into conventional practice, supporting research and development, and encouraging even more demonstration projects.

Stemming Urban Sprawl

Most policies to stem urban sprawl focus on geographic extremes: reining in development on the

“The authority to help restore America’s first suburbs, such as funding water infrastructure improvement, resides at the federal level.”



outer fringe or luring jobs and people back to the urban core. Typically overlooked are those aging, inner-ring first suburbs that people often pass through during their commutes. Many now confront challenges than had previously only affected central cities: deteriorating and obsolete real estate, shrinking tax bases, problematic sewer and water systems, business disinvestment, and residents with modest or low incomes.

* Revitalize the nation's first suburbs

Studies have shown that, dollar for dollar, it is far more economical to reinvest in first suburbs than to build from the ground up on the suburban fringes.⁶⁴ The challenge for first suburbs is to awaken state and federal policymakers to such facts—and their residents and leaders are rising to the occasion.⁶⁵ In the mid-1990s, for example, first suburb leaders in the Cleveland region created the Northeast Ohio First Suburbs Consortium (FSC) to tackle common problems. The group has focused on two goals: revitalizing the retail sector, and helping residents renovate their aging homes.

On the retail front, FSC created the First Suburbs Development Council, a nonprofit corporation that helps member communities identify, prepare, and market retail development sites to private-sector developers. To help renovate housing stock, FSC created the Home Enhancement Loan Program (HELP), which allows homeowners in older suburbs to borrow money to repair or remodel their homes or rental properties at interest rates 3 percent below the normal rates a bank would offer.

Similar programs are sprouting up in other parts of the Midwest. For example, the Michigan Suburbs Alliance, a group of 25 communities surrounding Detroit, is forming a coalition of government agencies and banks to make it easier to buy and demolish eyesore properties. Minnesota's "This Old House" program (which expired in early 2003) provided a property tax break to help people fix up homes built before 1958 and valued below \$400,000 in the year in which improvements are added. Backers say the program, which they hope to revive, was a great incentive for people to reinvest in older

homes in Minneapolis and the first suburbs of Hennepin County. Similarly, Missouri's Neighborhood Preservation Act provides tax credits to homeowners to offset the costs of investment in repair and construction of owner-occupied housing in moderate-income neighborhoods, such as those on the outskirts of St. Louis.

While renovating first suburbs can play an important role in reinvigorating nearby retail and residential sectors, the residential areas need federal help to overcome their staggering infrastructure challenges. Though Washington historically provided much of the capital for services such as public water, since the late 1980s, state and local governments have been picking up about 75 percent of the cost for such infrastructure outlays.

Several bills pending in Congress could help speed the recovery of first suburbs. For example, the proposed "Clean Water Infrastructure Financing Act" (S. 170 and H.R. 20) would help states establish simplified methods for securing federal water infrastructure monies and extend the repayment period for financially distressed communities. Meanwhile, the proposed "Rebuild America Act" (S. 1409 and H.R. 2615) would provide funding both for public works initiatives and to promote clean water.

Leaders in first suburbs can do much to help working families revitalize their homes and encourage businesses to locate there, but authority for some decisions, such as water infrastructure funding, resides at the federal level. Rather than champion policies based exclusively on the need to rein in development on the outer fringe or lure jobs and people back to the urban core, the administration can help curb sprawl, traffic congestion, and pollution by promoting efforts such as the aforementioned legislative proposals to revitalize the nation's first suburbs and assist the working families who live in them.

Summary

The nation's first-generation environmental laws have done an impressive job of reducing smoke and fouled water from factories. But they are ill equipped to meet the nation's growing air, water, and waste

pollution generated from the places where we work and live. More to the point, homeowners, family farmers, and other small property owners would howl if Congress even thought about imposing industry-style environmental and water controls on them. However, there are a growing number of innovative, low-cost ways to green the nation's suburbs that do not require the passage of a single new law.

Some problems, however, such as water supply and pollution covered under existing first-generation statutes, will require more active federal involvement.

The foregoing discussion also shows that in these cases, there are many flexible, innovative alternatives to bureaucratic, one-size-fits-all solutions.

Where appropriate, the president should showcase and champion promising voluntary approaches, such as the burgeoning green building and Xeriscape movements. And when necessary, it should promote more flexible, market-oriented second-generation strategies such as water-quality trading and soft path approaches to ensure ample supplies of clean water, as well as help revitalize the nation's aging first suburbs.



4. Modernize Environmental Management

For more than a decade, a bipartisan consensus has been growing on the need to update many of America's important but increasingly arcane approaches to improving environmental quality. By November 2000, at least 18 major reports had come out squarely for modernization.⁶⁶ A bipartisan group of lawmakers subsequently drafted a modernization bill (H.R. 3448) and the policy community rallied behind it. But as PPI reported in 2003, momentum for change faded for numerous reasons during the last four years.⁶⁷

Although the modernization push has largely stalled at the federal level, the problems that gave rise to it have not. Urgent challenges such as global climate change, the ongoing deterioration of our waters, and the degradation of lands that are part of our American heritage remain beyond the reach of the nation's first-generation environmental laws and policies.

The first three chapters of this report focus on innovative ways that states, localities, and civic groups are meeting such challenges. In many cases, those environmental management approaches driven by regional, local, and non-governmental organization efforts may be more appropriate than regulation from Washington. But the EPA has an important ongoing regulatory role to play in the nation's quest for clean growth. Some problems, such as climate change, are so massive that they require a concerted, national approach. Washington also has a continuing duty to develop national standards to ensure, for example, that tap water in Delaware is just as clean as in Oregon. And other problems, such as those affecting the Great Lakes, the Colorado River, and Chesapeake Bay, involve multiple jurisdictions and thus require concerted cooperative action that is spurred from the federal level.

This final chapter delves into questions of which environmental management tools, and which levels of government, are most appropriate to handle which environmental challenges. The solution, PPI believes, should vary according to the problem. But the common thread that runs through all of these conclusions and

recommendations is that rather than continue to pursue first-generation fixes, it is time to make the kinds of innovative, second-generation environmental practices described in this briefing book our standard approach to environmental policy in the United States.

In the next four years, we urge the administration to embrace the following three-point agenda to breathe new life into the environmental modernization movement at the national level:

- * Make environmental management more flexible and information-driven,
- * Decentralize decisionmaking to address problems specific to places, and
- * Catalyze civic environmentalism.

Making management more flexible is not the same as eliminating laws and rules that polluters do not like—an approach used all too often in recent years. Rather, in cases that warrant mandatory, national action, the administration should seek to “command” but not “control.” In other words, the federal government should develop legally binding standards and at the same time provide polluters with flexibility in exchange for delivering measurable results. Information collection and dissemination is the key to showing the American people that these more flexible approaches work.

Some environmental problems—for example, the decline of endangered salmon and trout in the Pacific Northwest—are strictly regional. In these cases, place-

“The federal government should develop legally binding standards and at the same time provide polluters with flexibility in exchange for delivering measurable results.”

specific approaches make more sense than a standard, one-size-fits-all national strategy. In many cases, it may make more sense for the federal government to decentralize decisionmaking, giving its state and local partners the rules and tools they need to forge their own solutions.

Finally, some environmental problems can be best solved through greater civic action rather than direct federal involvement. The burgeoning “green building” movement and voluntary efforts to reduce residential water use are classic examples. The president’s administration should applaud and facilitate such movements driven by non-governmental organizations (NGOs), but not seek to displace them. Elected officials and candidates for office should stress to NGOs and private-sector partners that they are watching and listening.

Make Environmental Management More Flexible and More Information-Driven

When Congress passed first-generation laws, including the Clean Air Act and the Clean Water Act during the 1960s and 1970s, problems such as climate change and non-point source pollution had not yet been identified as serious issues. Lawmakers were instead focused on visible, easy to pinpoint targets such as smoke from smokestacks and rivers fouled by industrial by-products. To tackle those problems, lawmakers favored command-and-control strategies such as standards prescribing what type of technology must be used to curb air and water pollution.

But problems such as climate change and fouled water that runs off parking lots, fields, and thousands of other hard-to-target sources, are much harder to address with those traditional approaches. Moreover, even for more conventional pollution problems such as smokestack pollution, we since have developed more flexible, information-driven solutions. Based on our accumulated knowledge and experience, there are several second-generation policy approaches we should adopt as soon as possible:

*** Cap carbon now**

As described in the first chapter, the best way to control carbon dioxide (CO₂) and other greenhouse gases implicated in climate change is with a cap-and-trade system that harnesses the power of markets to spur energy savings and pollution reduction.⁶⁸

Unlike first-generation command-and-control policies, cap-and-trade systems set a single limit, or cap, on emissions from all polluters. The government then gives or sells allowances to emitters or fuel producers equal to the emissions cap. Companies and others that generate less pollution than they are allowed to under their cap can sell their excess allowances to those that would otherwise miss the mark. By thus assigning real costs to the right to pollute—and making it possible to profit by polluting less—the system gives polluters strong incentives to use the best available technologies to beat, rather than merely meet, pollution reduction targets.

The EPA has already used a cap-and-trade system to significantly reduce power plant pollution that causes smog and acid rain, and such systems hold enormous potential to reduce power plant emissions of CO₂. This approach can be extended beyond electric power companies to cover fuel producers, mines and oil companies, and even the boilers used to run factories.

The cap-and-trade philosophy also can be used to help reduce CO₂ emissions from the transportation sector, which accounts for about one-third of the nation’s CO₂ emissions.⁶⁹ Moreover, a cap-and-trade system can also help the country kick its oil habit. Stringent greenhouse gas caps on vehicles would prompt manufacturers to develop and build new models like hybrids that use less gasoline or cars and trucks that run on more environmentally friendly alternative fuels like biodiesel and ethanol.

Finally, as PPI has noted in this briefing book and elsewhere, cap-and-trade systems can also help us tackle water pollution from diffuse non-point sources (NPS)—problems that largely fall beyond the reach of today’s first-generation laws.⁷⁰

*** Develop better environmental information**

As the saying goes, you cannot fix what you cannot measure. In many instances we simply lack the



The Essentials of Second-Generation Environmentalism

- * **Target environmental priorities.** *Too many of the past pilot programs initiated by the EPA and the states have lacked clear goals for environmental improvement, such as reducing exposures to high-risk chemicals or reducing the tonnage of smog-causing compounds. Second-generation environmental legislation would focus on climate change, smog, polluted runoff, and other top priorities.*
- * **Encourage risk-taking.** *Under existing laws, the EPA and the states are constrained in their ability to try new ideas. For example, according to a recent National Academy of Public Administration study, the EPA was reluctant to give Massachusetts the authority to cut the time dry cleaners have to hold on to environmental records in return for cleaning up their chemical emissions. Yet, without the Massachusetts program, dry cleaners would remain outside the reach of regulators. The second-generation bill would clear up the ambiguity about federal and state experiments that are either stretching the legal limits of existing law and regulation or, for lack of boldness, not stretching those limits enough. The legislation would also reward regulators and agencies that make significant efforts to advance innovative strategies.*
- * **Equip citizens, regulators, and investors with better environmental information.** *For any strategy—new or old—to be credible, the public needs access to understandable results and knowledge of who is accountable for those results. Not until the Toxics Release Inventory hit full stride in the mid-1990s was the full power of information disclosure recognized. The information technology revolution has opened the door to more direct and reliable methods of monitoring environmental performance. Second-generation legislation would overhaul monitoring and public reporting by companies and government facilities, and would provide agencies and states with the funds to do the job. Further, if companies, states, and communities commit to producing timely, accurate, publicly available data from monitoring air, water, and other resources, they can earn the public's trust to meet standards by means of their own choosing.*
- * **Support the growth of civic environmentalism.** *Federal agencies with different legal mandates and bureaucratic traditions continue to have difficulty working together to help communities and regions solve their own particular environmental problems. Nowhere is this dysfunction more noticeable than in the continual clash between new federal spending on transportation, flood control, and other public works, and regional efforts to curtail the ill effects of suburban sprawl. Second-generation environmental legislation would strengthen the federal contribution to civic efforts to solve local or regional environmental problems through better coordinated agency actions, technical assistance, and enforcement actions.*
- * **Identify market-based incentives.** *Whether through prescriptive regulation or market-based approaches like emissions trading, government implicitly sets the price of a clean and healthy environment. In today's rapidly changing new economy, regulators should press for incentives that send a clear price signal to businesses and others to continuously improve their environmental performance. Second-generation legislation would provide a legal platform to test and evaluate incentive structures for different industries and places.*
- * **Invest in change.** *Unfortunately, no one knows the real price of innovation and information improvements, although \$300 million to \$500 million over five years would be a reasonable starting point. Depending on the desired level of commitment and duration, Congress should give the EPA and the states adequate funds to give innovation and information upgrades a chance to succeed—without undermining the foundation of existing environmental law and siphoning resources needed for permitting, compliance assistance, and enforcement. A safety net of credible enforcement of existing law must be maintained.*

Source: Knopman, Debra, "Five Essentials of Second Generation Environmentalism: How to Get Citizens, Businesses, and Experts Involved," *BLUEPRINT*, February 7, 2001, <http://www.ndol.org/blueprint>.

information we need to tell us whether polluters are complying with laws—or, for that matter, whether laws are even reducing pollution.⁷¹ PPI has long advocated the development of better information systems to monitor the environment and report on how well laws and policies are working.⁷²

Improved data systems can help resolve disputes among Washington, states, and regions. For example, data developed through EPA’s market-based program to reduce sulfur dioxide emissions undermined the claim by some coal-burning Midwestern states that New York’s acid rain originated solely in that state. But in addition to helping identify pollution sources, information technologies are also a part of the solution. As EPA’s acid rain program proves, market-friendly programs to reduce emissions depend on reliable data. Emissions trading markets would crumble if companies doubted that the pollution credits they were buying represented real reductions. To insure that data are accurate, federal regulators require firms to run pollution monitors continuously and impose heavy sanctions if firms fail to meet their reduction targets. Similar monitoring and reporting systems will be essential to the success of markets to reduce pollutants that cause global warming.

Finally, data dissemination can help bring public pressure to bear against polluters. The power of information disclosure truly became apparent when the Toxics Release Inventory (TRI) hit full stride in the mid-1990s. The TRI has been hugely successful, spurring dramatic reductions in the use and discharge of toxic substances nationwide. From 1988 to 1998, TRI manufacturing facilities nationwide reduced their onsite and offsite environmental releases by 45 percent. During the same period, New England facilities reduced their toxic releases by 80 percent, with the vast majority removed from the air.⁷³

In the next four years, the administration should showcase and foster environmental disclosure policies that “let the sunshine in.” Building on TRI’s successes,

it should work with power plants, fuel producers and importers, auto manufacturers, and other emitters of CO₂ and other greenhouse gases to develop a carbon release inventory (CRI). In the same way that TRI drew public attention to toxic emissions, a CRI would shine a spotlight on greenhouse gas emitters and give them a powerful incentive to reduce emissions.

*** Encourage corporations to adopt greener accounting methods**

Climate change is not just bad for the environment; it is bad for business and investors. Experts say dealing with global warming could cost major companies up to 15 percent of their total market capitalization and slice the value of shareholders’ investments by up to 7 percent. Yet only a handful of companies address the costs of climate change in their financial reports.

State retirement funds managers recognize the risks of this form of nondisclosure and are beginning to act. But they are not responding with overwhelming new regulation. Instead, they are launching initiatives to promote greater awareness of the problem and using their massive public pension funds to invest in firms that develop cleaner technology.

California, which has two of the nation’s three largest public pension funds, is leading the charge. Combined, the California Public Employees

Retirement System (CalPERS) and the California State Teachers Retirement System (CalSTRS) are the largest pension funds in the world, with combined assets totaling \$250 billion. When they speak about their investments, businesses listen. To push for a cleaner environment while bolstering financial returns to retirees, California elected officials launched the Green Wave in 2004, a targeted investment initiative.

The Green Wave has four purposes. It demands environmental accountability and disclosure, targets private investment in environmental science, invests in stocks of environmentally responsible companies,

“State and local agencies are often the first responders to environmental issues—accordingly, the administration should decentralize decisionmaking where appropriate while maintaining and enforcing strong federal standards.”



and audits real estate portfolios to favor effective conservation practices and boost long-term value.

The CalPERS and CalSTRS funds will encourage companies in which they invest to consistently and clearly report their environmental practices and liabilities. California state officials hope greater corporate transparency about the costs of climate change will bring public pressure to bear and compel companies to adopt sound environmental practices.⁷⁴

By encouraging companies, states, and communities to produce timely, accurate, publicly available data on air, water, and other monitoring, the administration can help the regulated community earn the public's trust as they meet more modern, flexible standards by means of their own choosing.

Decentralize Decisionmaking to Address Problems Specific to Places

State and local pollution control agencies are often the first responders to environmental issues and many have become adept at managing their own problems. Accordingly, the administration should decentralize decisionmaking where appropriate while maintaining and enforcing strong federal standards. California's bid to adopt the nation's first mandatory caps on CO₂ from vehicles, described in a March 2004 PPI report, is a case in point.⁷⁵ The massive CalFed water planning effort, described in the second chapter, is another.

The CalFed program used the threat of enforcement provisions under the federal Clean Water Act and the Endangered Species Act to encourage ranchers, farmers, and environmental groups to seek an amicable, "bottom up" solution to water quality and supply issues in the Sacramento/San Joaquin Bay Delta. The CalFed deal, signed in 1994, provides for increased freshwater flows (400,000 additional acre-feet in normal years and up to 1.1 million additional acre-feet in drought years) to protect endangered salmon and smelt.

The CalFed experience demonstrates that it takes far more than just flexibility in outdated regulatory schemes to solve site-specific problems. To succeed, communities, regions, and states also need Washington

to provide tools such as "one-stop shopping" for regulatory advice and technical support.

The habitat conservation plan (HCP) provisions of the Endangered Species Act (ESA), outlined in chapter two of this report, also represent a successful place-based strategy. The HCP program upholds strong federal protections for threatened and endangered species. But the law as originally written created perverse incentives for landowners to destroy or prevent the growth of habitat that would attract those threatened or endangered species. The Clinton administration fixed those incentives and encouraged private landowners to work in partnership with government to achieve the law's objectives by giving landowners greater flexibility in land use in exchange for help in gathering information about the environment and greater accountability for outcomes.

During the last four years, decentralized environmental management has too often stood for diminishing strong federal standards and abrogating federal responsibility. As the CalFed and HCP cases show, there is a way to uphold strong federal environmental standards while making it clear to federal agencies that supporting civic environmental problem-solving efforts is part of their job. To promote effective decentralized decisionmaking and enhance federal managers' ability to work with state and local partners, the administration should provide federal environmental managers with more tools patterned after the CalFed model and the popular HCP program.

Catalyze Civic Environmentalism

The foregoing discussion shows how the president can promote conservation through decentralized decisionmaking. Another worthwhile approach, which is appropriate in some cases, is for federal decisionmakers to step back entirely and simply showcase stewardship efforts developed by private and nonprofit groups. Such civic approaches hold great promise for problems that arise from where we work and live, which Congress is unlikely to ever regulate. They can also foster collaborative solutions to contentious conservation issues such as grazing and wetlands management.

*** Champion the green building movement**

As previously mentioned, pollution generated where we work, live, and play poses challenges to human health and the environment. But such problems are likely to remain unregulated by Washington because federal regulation would strike Americans as cutting a little too close to home.

Fortunately, a small but growing number of architects, builders, and homeowners are showing that there are promising new ways to help “green” America’s suburbs without spending more money or passing a single new law. The burgeoning green building movement and voluntary efforts to reduce residential water use, examined in chapter three of this report, are classic cases in which little or no federal involvement is required. As the name implies, green buildings use power and other natural resources far more efficiently, and thus generate less pollution, than buildings merely constructed to code. They also create safer indoor environments by harnessing natural lighting and using materials that make indoor air healthier to breathe.

Although the green building movement is flourishing without strong federal involvement, the fact that the nation’s 5 million commercial buildings and 76 million residential buildings consume more than two-fifths of all our energy (and, accordingly, generate one-third of the greenhouse gases we produce when we burn fuels such as oil and coal to generate electricity) suggests that it is in Washington’s interest to take notice. The administration should showcase and applaud exemplary green building efforts while refraining from displacing or replacing them.

The burgeoning Xeriscape movement is closely related to the drive for green buildings. Another promising practice, mentioned in chapter three of this report, is Xeriscaping—an approach to landscaping developed and popularized by local and regional water planners to reduce the amount of water, pesticides, and fertilizers used in residential and commercial landscaping.

The day-to-day business of supplying homes and businesses with water is primarily a regional, local, and private function, and should remain so. But the administration in Washington can and should support

and advance local Xeriscape practices through efforts, such as the National Xeriscape Demonstration Program operated by the U.S. Department of the Interior’s Bureau of Reclamation. Working in partnership with a number of cities across the country, the program is studying how much water Xeriscape landscaping saves on an annual and seasonal basis, the costs of implementing and retrofitting such landscaping, and what kinds of strategies, incentives, and promotions facilitate the adoption of Xeriscape landscaping. Results will be available on the bureau’s website.

The administration should catalyze such voluntary initiatives by simply showcasing them—holding up shining examples in cities and towns for other localities to follow.

*** Promote ranching’s radical center**

Non-governmental organizations are also playing an important role in promoting conservation. Organizations such as the Theodore Roosevelt Conservation Partnership (TRCP) and the Malpai Borderlands Group (MBG) are comprised of hunters, anglers, and ranchers who seek to protect and improve hunting, fishing, and ranching lands. As discussed in chapter two of this report, these groups represent a vital new force in the environmental policy debate.

Unlike other hook and bullet groups that work to preserve and manage the nation’s fish and wildlife resources and habitats, TRCP works to create and amplify a pro-hunting and angling voice in Washington and statehouses across the country. To illustrate their growing influence, consider that in December 2003, the Bush administration invited leaders from roughly 20 such groups to the White House to discuss their concerns about a proposed wetlands rule change. Four days later, the White House scrapped its plans to relax the regulations.⁷⁶

Likewise, to meet the challenges of drought, catastrophic fire, invasive species, and poor land management practices, a small but growing group of ranchers, environmentalists, public land managers, and scientists are putting aside old divisions and staking out a “radical center” aimed at promoting better land stewardship through greater collaboration.



The MBG, composed of ranchers from the nearly 1 million acre border region between southwestern New Mexico and southeastern Arizona, is one such example. MBG works with federal land managers such as the U.S. Department of Agriculture and the Fish and Wildlife Service, as well as nonprofit organizations including the Nature Conservancy, to improve the productivity and ecological diversity of their land.

The hook and bullet set, and groups working to form ranching's "radical center," are becoming important voices in the quest to protect and promote America's environmental quality and its natural heritage. The administration should support such efforts by listening to their proponents, showcasing exemplary efforts, and encouraging federal land managers—when asked—to work with groups such as MBG. However, as in the case of the green building and Xeriscaping, the administration should not intervene in such civic efforts or try to unnecessarily duplicate them.

Summary

Despite broad agreement on the need to retool our environmental laws to meet new challenges, the drive to make those changes has stalled. Putting

environmental modernization back on the front burner will be one of the administration's most important tasks in the next four years. Pressing issues such as global warming, ongoing deterioration of the nation's oceans, rivers, lakes, and streams, and degradation of lands that are part of the American legacy cannot be put off much longer. It will take bold new thinking to solve these and other second-generation environmental challenges.

Fortunately, the philosophies, policies, technologies, and tools that will be needed to surmount these challenges already exist. All that is missing is the courage to break free from outdated orthodoxies and the will to implement policies that are more suited to the problems of the new century. To complete this transformation, PPI strongly encourages the president to pursue a three-pronged strategy that begins with resurrecting flexible, market-based, and information-rich approaches. Second, it should reinvigorate place-based approaches, such as the CalFed effort, and expand popular programs such as the habitat conservation planning effort pioneered by the Clinton administration. Finally, it should applaud and support (but not supplant) collaborative conservation efforts sponsored by important new ranching, hunting, and angling constituencies.

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