



PERC REPORTS

VOLUME 20 NUMBER 5 MARCH 2002

COVER STORY

The history of the Everglades epitomizes government programs gone awry. Drained by the federal government, the Everglades receives less than one-third its historic water flow, and that water is now contaminated by fertilizer. Just about everyone expresses regret—but who gets the job of restoration?

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FROM THE EDITOR

DIFFERENT—YET THE SAME

Readers will notice that *PERC Reports* looks a little different. Our new appearance encourages readability and reflects contemporary trends and tastes in publishing. It builds on the design changes visible in our December 2001 special issue on “Enviro-Capitalists.” The new look was created by PERC’s art director, Mandy-Scott Bachelier.

The goal of *PERC Reports*, of course, remains the same. It is to spur fresh thinking about environmental matters. We offer provocative ideas and serious reporting that challenges conventional wisdom, aiming to provide a forum for exchange of ideas about free market environmentalism.

In this issue, one of the provocative ideas is government failure. PERC Research Associate Clay Landry writes an article on the troubled history of government involvement in the Everglades—a topic much talked about but rarely analyzed. This article comes from the forthcoming book, *Government vs. Environment*, edited by Donald R. Leal and Roger E. Meiners.

Government failure occurs in Britain, too. On page 7, well-known science writer Matt Ridley discusses the gradual takeover of property throughout the British countryside through national environmental policy—a takeover with regrettable results.

In a lighter vein, we chat with Marc Johnson about a play that his students at Smoky Hill High School in Aurora, Colorado, presented about the tragedy of the commons. We again offer “win-win” solutions in Linda Platts’s “Greener Pastures” column. Dan Benjamin’s “Tangents” scrutinizes academic commentary on environmental issues. As always, we welcome letters, and a hefty collection is published on pages 17–19.

Because the chief goal of *PERC Reports* is to stimulate thinking about the environment, we welcome critics as well as supporters to its pages. At the same time, *PERC Reports* is a vehicle for communicating with those who support PERC, intellectually and financially.

For that reason, I am pleased to share a “thank you” from Eric Noyes, PERC’s Development Director, to those who have contributed financially to PERC, especially at the end of last year. More individuals contributed to PERC in 2001 than in any previous year. Although PERC is generously supported by charitable foundations, we expect substantial future growth to come from individuals who see the value of alternatives to state-supported environmentalism. If you can extend our funding network by recommending PERC to other potential supporters, please contact Eric at enoyes@perc.org.

Jane S. Shaw

From left: Bachelier; Landry; Johnson; Noyes.



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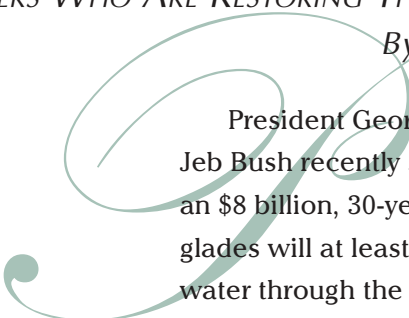
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WHO DRAINED THE EVERGLADES?

THE SAME FOLKS WHO ARE RESTORING THEM

By Clay J. Landry



President George W. Bush and Florida governor Jeb Bush recently signed an agreement affirming that an \$8 billion, 30-year federal plan to repair the Everglades will at least partially restore the natural flow of water through the wetlands. But environmentalists should not rest easy. The job of restoration is being handed over to the entity that was most responsible for the problem in the first place: the federal government, and, in particular, the Army Corps of Engineers.

The Everglades today receives less than one-third of its historic water flow, the water is contaminated by fertilizer and other runoff, and the wildlife-rich wetlands are half the size they were when the federal government started its draining projects in the 1920s. The story of the Everglades epitomizes government programs gone awry. It also shows that the private sector, however ambitious, is restricted in the environmental harms it can cause. The need to cover costs reduces the potential for massive mistakes. Even state governments are limited in the harm they can cause. But the federal government is able to override common sense and cause environmental havoc.

Early Florida settlers wanted to drain the Everglades, a swampland covering about 4,000 square miles in south Florida. The goal was to create farmland by digging canals that would draw off the swamp water and allow it to flow to the ocean. Most people thought that draining the Everglades would be as simple as pulling the plug in a bathtub (Blake 1980, 4). But the undertaking proved too costly, even with early help from the state and federal governments.

Governmental help started with the federal Swamp and Overflowed Lands Act of 1850, which gave the state title to all “swamped and submerged land” that it could reclaim (Carter 1974, 58, 60). The Florida legislature quickly began encouraging settlement of an area near Lake Okeechobee, most of which was part of the Everglades. It formed the Internal Improvement Fund

Early Florida settlers wanted to drain the Everglades. But the private sector must cover its costs. However ambitious private owners were, their potential for massive mistakes was limited. Even the state government could only cause limited harm. In contrast, the federal government was able to override common sense and cause environmental havoc.



Rich Lipski, The Washington Post

Governor Jeb Bush (left) and President George W. Bush both recently signed an agreement to restore water flow to the Everglades. Pictured behind them are David Struhs, Florida environmental secretary, interior secretary Gale A. Norton, and Fran Mainella, director of the National Park Service. Photo © 2002, The Washington Post. Reprinted with permission.

(IIF), a state agency that used public money to entice private developers to drain land.

The IIF had a sordid history, peppered with accusations of corruption and underhanded dealings, excessive construction costs, and poor investments. Even though a wealthy industrialist from Philadelphia saved it from bankruptcy at the end of the nineteenth century by purchasing 4 million acres of submerged land, extensive development proved virtually impossible. By 1920 fewer than 900,000 acres had been successfully drained. Florida's reclamation efforts were paralyzed by financial failure.

Unable to collect drainage taxes, borrow more money, or meet bond payments, the state turned to federal aid, specifically to aid from the Army Corps of Engineers, the only federal agency equipped to undertake such a grandiose task as draining the Everglades. One of the first projects undertaken by the corps was a flood control project on Lake Okeechobee, largely in response to the flooding and tragic deaths caused by hurricanes in 1926 and 1928. Many people blamed the catastrophic flooding on poorly designed and unfinished drainage projects left by early developers. To alleviate future flooding, the corps constructed the Herbert Hoover Dike, which was eighty-five miles long and at least three times the size of the old state-built mud levee. In total, the project cost just over \$19 million, about twice the original estimate. Florida was initially required to kick in \$2 million for the flood control project, but Congress reduced the state's obligation to \$500,000 when it was unable to raise the money (McCally 1999, 140).

The National Industrial Recovery Act of 1933 gave President Franklin Roosevelt the authority to spend an unprecedented \$3.3 billion on construction projects (Blake 1980, 147), and the Florida delegation quickly launched a campaign to fund the Cross-Florida Canal project. Building a canal across Florida had been a pet pork barrel scheme

By 1950, the federal assault on the Everglades was in full operation. The Central and South Florida Flood Control Project, completed in 1979, left environmental problems in its wake by severely disrupting the flow of water in the Everglades. Today, levees and drainage canals divert water from Everglades National Park during dry years. The park is last in line in the 250-mile system.

since Congress first allotted money for it in 1826 (Blake 1980, 151). President Nixon finally killed the project in 1969.

By 1950, the federal assault on the Everglades was in full operation. In 1947, one of the worst storms on record had flooded nearly 2.5 million acres (General Accounting Office [GAO] 1999, 3), and in 1948 Congress approved a bill for \$208 million to provide flood control for 700,000 acres (Kriz 1994, 590). The money initiated the Central and South Florida Flood Control Project, a system of more than 1,700 miles of canals and levees and sixteen major pumping stations (GAO 1999, 4). This project drains lands south of Lake Okeechobee that is now farmed primarily by sugar growers. Completed in 1979, the project arrived ten years past its deadline and nearly \$100 million over budget (Snell and Boggess 1994, 21).

And it left environmental problems in its wake by severely disrupting the flow of water in the Everglades. Signs of environmental trouble became visible in the summer of 1966, when heavy rains forced extensive pumping of excess water from farmlands. The water was deposited on land that was reserved for wildlife and home to much of south Florida's deer population. Hundreds of deer drowned and smaller animals like wild hogs and raccoons died because high water covered their food supply.

Today, levees and drainage canals continue to block the flow of water through the Everglades, including Everglades National Park. During years of adequate rainfall the park has enough water, but in dry years, water is held in drainage canals and diverted from the park. The park is last in line in the 250-mile system and thus at the mercy of other uses, from flood control for agricultural lands to municipal water demands.

In some years too much water is a problem for the Everglades. After large rainstorms, water control districts relieve flooded farmlands by releasing large volumes of fresh water in brackish estuaries adjacent to the park. The excess water disrupts the delicate mix of brackish water needed to produce shrimp and fish, a food source for many coastal birds. When these aquatic creatures are not abundant, coastal birds will desert their nests and nestlings in search of new food supplies, farther away.

Water drainage and control, paid for largely with federal

funds, opened the door for commercial sugar production in the Everglades. No single policy affected the development of the Everglades more than the sugar embargo on Cuba. In 1960 fewer than 50,000 acres of sugarcane were planted in all of Florida; but domestic sugarcane growth exploded from 1961 as Cuban sugar was entirely eliminated from the U.S. market. During the embargo Florida's sugar acreage production increased nearly fourfold, from 50,000 acres in 1959 to more than 200,000 acres five years later.

Furthermore, federal price supports ensured that more land would be drained and planted in sugarcane. Domestic sugar prices are supported by the federal government through a complex arrangement of loans and import restrictions. These programs have effectively kept domestic prices well above the world price.

By keeping sugar prices high, federal policies encourage farmers to achieve high yields through extensive use of fertilizers and chemicals. The buildup of fertilizer is particularly harmful. Phosphorus, a chemical not abundantly found in the region's natural water supply, is leaching into groundwater that is then pumped to Everglades National Park and Loxahatchee Wildlife Refuge.

Studies estimate that nearly 80 percent of phosphorus used in fertilizing crops reaches the Everglades (Coale, Izuno, and Bottcher 1994). Nonnative plants that thrive on the phosphorus (such as cattails) are crowding out naturally occurring species (such as sawgrass). Bird populations are only 10 percent of what they were at the turn of the century (Tolman 1995, 3, 6–7), primarily because of habitat loss to sugarcane production and reductions in food sources due to polluted runoff.

Sugar policies remain in force despite a coalition of environmental and fiscally conservative taxpayer groups opposing them. Rather than change these policies, Congress is taking a familiar tack—more pork barrel. To rectify years of federal abuse, Congress has authorized the Army Corps to begin what has been touted as the largest environmental restoration effort undertaken in the history of the United States. The basic

idea of the plan is to capture fresh water that has been flowing to the ocean, store it in new reservoirs, and then release some of it to mimic the natural flow of the Everglades. The remaining water will be diverted to meet the needs of sugar plantations and thirsty cities throughout southern Florida.

While public rhetoric highlights the restoration phase of the project, critics such as Environmental Defense and the Natural Resources Defense Council charge that, like so many corps projects, the water supply features of the plan dominate restoration efforts. It was to allay these fears that the president and the Florida governor agreed to give a high priority to restoring natural flows. Time will tell whether the result will be mostly restoration or mostly pork.

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Clay J. Landry is a PERC Research Associate. This article is based on "Unplugging the Everglades," a chapter in *Government vs. Environment*, edited by Donald R. Leal and Roger E. Meiners, forthcoming from Rowman & Littlefield (rowmanlittlefield.com).

CONTROLLING THE BRITISH COUNTRYSIDE

OFFICIALS SUBSIDIZE, REGULATE, AND ACQUIRE

By Matt Ridley

Britain's countryside is being gradually nationalized. The process is not, of course, called nationalization. It usually goes under the name of environmental policy. Yet the effect is to remove, one by one, the property rights of landowners large and small and to vest those rights in agencies of the state.

There is no dispute over whether this is happening. It has proceeded with virtually no interruption under Labor and Conservative governments alike. Only a few people, myself among them, think it is a bad thing.

It began, like other nationalizations, with direct acquisition of land. In 1919, in response to a shortage of timber during the First World War, the government set up the Forestry Commission to acquire land with government money, plant it with trees, and harvest the trees for the Treasury. This the Forestry Commission proceeded to do with gusto, gradually becoming one of the largest landowners in the country. It now owns more than 800,000 hectares (1,976,800 acres); in Scotland it owns more than 6% of the entire country. As befits a nationalized industry, the commission has lost money for 80 years—it typically loses about £50 million per year (about \$75 million).

This state forestry has also been an environmental disaster, replacing native moorland with plantations of exotic Sitka spruce in even-age, densely-spaced forests. The forests not only mar landscapes and alter the ecology but offer little employment.

Not content with owning its estate, the Forestry Commission has also acquired the rights to regulate the trees on private land as well. It did this by subsidizing tree planting by private landowners, at first through the tax system. The Commission now has general power over all planting and felling in the countryside. No landowner may fell a wood or replant it without a license from part of the Commission, which must be sought in sextuplicate and takes a month or more to process. The bureaucracy reserves the right not just to

A landowner can no longer fell a wood, plant a copse, grow a field of corn, graze a sheep, catch a trout, dredge a pond, move a footpath, alter a hedge line, or restore a barn without a specific and separate license for each and every change from the various arms of the bureaucracy.



Lorna Johnson

refuse such applications but to micro-manage them—insisting on the planting of certain species of tree, for instance.

Some other arms of government followed the Forestry Commission's example of acquiring land for themselves. But bureaucrats soon realized that the direct acquisition of land by the state was unnecessarily expensive, and that the subsidize-and-regulate route offered more possibilities for empire-building.

Agricultural subsidies, too, are tightening government control. Sheep subsidies led to overgrazing. This was solved, once more, by regulation: sheep counting to catch cheaters is now a national duty as well as a way of falling asleep. In 1992, subsidies for agriculture expanded from products to land. The Ministry of Agriculture, Fisheries, and Food (MAFF) asked farmers to file detailed maps of how every hectare of arable land had been planted every year. As expected, this system gradually became more officious. Any mistake in form filling by the farmer is punished with a heavy fine, while frequent mistakes by MAFF bureaucrats in processing the forms go unpunished.

Meanwhile, beginning with the Town and Country Planning Act of 1947, the planning laws had begun their long, slow growth. Planning was at first a matter of designating where development could not occur: hence the green belts around cities and the first National Parks. But by the 1990s, planning had changed to specifying where development *could* occur. Structure Plans and Regional Planning Guidances became ever more prescriptive, designating some areas for industry, some for housing, and some for open space. The lobbying to influence these plans fertilized a whole new industry of planning consultants who were richly rewarded for reports that were weighed rather than read.

Development quickly became the preserve of big firms who were able to lobby local government and afford consultants. The individual lost leverage, and the system blighted the countryside with large, monotonous developments. The restrictions on develop-

ment made the projects that did get through highly profitable, which perversely encouraged landowners and developers to pursue planning even more vigorously. With 40% of the price of a new house being the cost of the land it stood upon, the cost of restriction was borne by the house buyer and harvested by the landowner.

Moreover, special interests have gradually captured the "planning process" for themselves by supplying their expertise to planning authorities. All historic buildings (and an increasing number of ones of dubious value) are listed—which gives English Heritage, a semi-independent government agency (what we call a "quango") the power to decide exactly what may be done to them, indeed to *order* that things be done to them. Many of the listed buildings are effectively owned by nongovernmental organizations. For instance, English Heritage consults the Georgian Society before approving an alteration to a Georgian house. Nobody elected the Georgian Society to this position of power over the house owner.

An analogous process has occurred in the natural environment. National Parks and Areas of Outstanding Natural Beauty were invented in the 1940s. In the 1980s they were joined by Sites of Special Scientific Interest (SSSIs). These were initially few and small but have recently grown to include vast areas, such as "the North Pennines." Nearly 10% of the entire country is now in an SSSI.

Then came AOHLVs (Areas of High Landscape Value), ESAs (Environmentally Sensitive Areas), and SCAs (Special Conservation Areas). The agencies that sponsor these various acronyms compete for land. Each acquisition feeds their ambitions to acquire larger and larger regulatory estates; for with size come budgets and power.

In a process familiar to those who know the U.S. Endangered Species Act, the battle for control of the natural environment has elevated certain wildlife species because they provide useful excuses for demanding more restrictions on private owners. Really



The battle for control of the natural environment has elevated certain wildlife species because they provide useful excuses for demanding more restrictions on private owners. A well-placed bat or newt can justify an official interfering with almost anything—from a pylon to a picnic.

rare species are no good, because they are not present in enough places, so the agencies have increasingly turned to commoner ones that can be described as “threatened.” Bats are extremely good in this respect because they are everywhere; so are newts. A well-placed bat or newt can justify an official interfering with almost anything—from a pylon to a picnic.

The latecomer to the land-control party was the Environment Agency, child of the privatization of Great Britain’s water industry. Having lost its ownership of water companies through privatization, the agency has been busy rebuilding it through the regulatory route. It has issued more and more prescriptive plans for the management of rivers and the fish and maximized its budget by quadrupling the price of angling licenses (£14 to £57 or about \$21 to \$86) even while closing outlying offices and shifting most of its staff to the profitable activity of paper-pushing and away from the river bank.

The net effect of all these imperialist quangos is that a landowner can no longer fell a wood, plant a copse, grow a field of corn, graze a sheep, catch a trout, dredge a pond, move a footpath, alter a hedge line, or restore a barn without a specific and separate license for each and every change from the various arms of the bureaucracy. These are all property rights that have effectively been confiscated by the state.

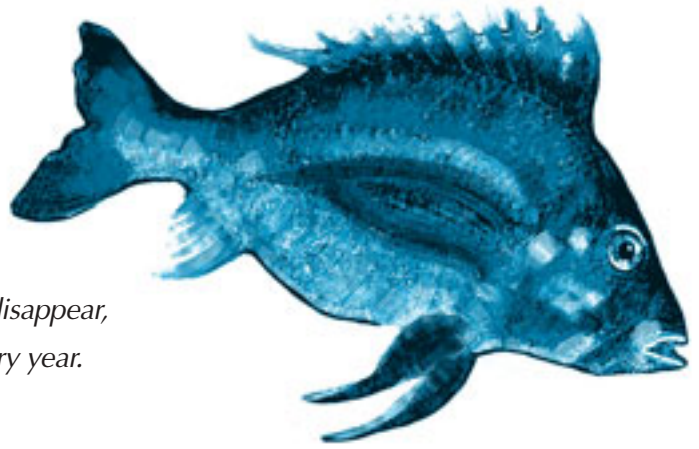
Matt Ridley is the well-known British author whose books include, among others, Genome and The Origins of Virtue: Human Instincts and the Evolution of Cooperation. This essay is excerpted from A Countryside for All: The Future of Rural Britain, edited by Michael Sissons (Random House, London).

SAVING FISH AND TEACHING ECONOMICS

AN INTERVIEW WITH COLORADO HIGH SCHOOL TEACHER MARC JOHNSON

*“Everyone fished and fished some more,
And making a profit was never a chore.
The number of fish in the lake soon went down;
Everyone stared at this change with a frown,
But nobody stopped, the money was fine;
They knew they’d lose their place in the line.
It was clear to them all that the fish would soon disappear,
But they still wanted the money and the dish every year.
No one would stop, the fish were fallin’,
A sad story for sure, a tragedy of the commons.”*

From “Saving the Fish in the World’s Oceans,” by Steve Abbott, Dan Corren, and Eric Shoup (while students at Smoky Hill High School).



Students from Smoky Hill High School in Colorado’s Cherry Creek School District competed last year in the World Affairs Challenge sponsored by the University of Denver. In this annual competition, students from the Denver area present a problem and a solution in a fifteen-minute presentation that involves some drama. The Smoky Hill students’ presentation was entitled, “Saving the Fish in the World’s Oceans,” a play written in the style of children’s author Dr. Seuss (Theodor S. Geisel). Marc Johnson, the teacher who advised the group, shared some thoughts about the experience with us.

PERC Reports: Tell us how “Saving the Fish in the World’s Oceans” developed.

Johnson: Each year the university identifies an issue that has international implications. Last year it was water. The twelve students I worked with chose the topic of the dwindling fish populations in the world’s oceans. They were an incredibly competitive bunch and they recognized that to win the competition their content must be sound and carefully researched and that the presentation should be entertaining and creative . . . hence, the play written in the spirit of a Dr. Seuss story.

PR: Tell me about the students.

Johnson: This particular effort was strictly extracurricular and voluntary. I teach economics, but only one of the students had studied economics with me. Nine of the twelve had taken American history with me in the past. Nine were seniors,

three were juniors.

PR: Can you summarize the storyline briefly?

Johnson: Through their research, the students became convinced that the diminishing fish populations in the world's oceans are indeed a tragedy of the commons. They concluded that, ultimately, there are three approaches to solving the problem:

- Moral suasion (heartfelt appeals to fishermen to restrain their fishing for the greater good);
- Regulation (externally imposed rules on fishing with accompanying penalties for violations); or
- The establishment of private property rights.

Through a bedtime story told to a little girl, they created a fictitious land (the world) which had a really big lake (the oceans). Scenery included a kiddie swimming pool with paper fish, which the fishermen began pulling out . . . and, as they did so, the numbers of fish dwindled ever more.

Initial attempts at moral suasion (by a rather shrill character in green leotards with a big "E" on his chest, named "Enviro Man") were insufficient to solve the problem. Next, regulation (by a rather stuffy character in a three-piece suit, with tape measure, magnifying glass, and scale, named "Global Alliance Man") ultimately led to black markets and a continuing depletion of the lake's fish.

Finally, the hero ("Private Property Rights Man") rescued the day by establishing individual transferable quotas (ITQs) similar to the successful real-world experiments in New Zealand and Iceland.

PR: Where did you learn about the tragedy of the commons?

Johnson: I first encountered the tragedy of the commons about fifteen years ago in a geography course for teachers at the Center for Teaching International Relations at Denver University. But I had no clever or effective way to deliver it to students. Then, about four years ago, the Colorado Council on Economic Education offered a course on "Economics and the

Environment." A guest presenter, Don Wentworth [PERC's Director of Environmental Education], demonstrated an ingenious way to present the concept through a simulation with paper clips (representing fish) on an overhead projector. I was hooked. I've used it in geography classes when we probe into habitat destruction in Sub-Saharan Africa (causing the loss of elephants and rhinos), the threat of species extinction of North American bison, and, yes, fish populations. I also include it in an environmental unit in my economics classes.

PR: Tell us how the play developed.

Johnson: After the students settled on the topic of fish in the world's oceans, I presented to the group the simulation of the tragedy of the commons. I could instantly see the light bulbs switch on. They then proceeded to do research. We met once a week for two months.

The students consulted a wide range of sources (I believe not only in the economic marketplace, but in the marketplace of ideas as well). They read *National Geographic* articles, consulted Web sites of environmental groups, used Donald Leal's PERC publication on "Homesteading the World's Oceans," and consulted a cover story in the *Economist*. I was really impressed with the quality of their research and their objective pursuit of effective solutions.

Once they had completed all their research, an executive committee met to do the creative grunt work. Their charge was to write an imaginative and entertaining play with a Dr. Seuss rhyme scheme while still dealing with a serious problem in a sophisticated and thorough way. (Steve Abbott, now at Beloit College, Dan Corren, now at Penn State, and Eric Shoup, now at Baylor, deserve authorship credit.)

PR: What parts did the students like best?

Johnson: They loved acting the play out and hamming it up. They got a big charge out of the over-the-top characters, Enviro Man and Global Alliance Man. (I suggested to them that someone might take offense at their characterizations, but they were adamant.) They

*"I'm Private Property Rights Man!
What people don't own they quickly destroy.
Fish shouldn't be just anyone's toy.
I have a plan—it could surely save the day:
Private property rights, now there's the way!
Each fisherman here will own a number of fish,
Based on historical production, which they can use as they wish.
They can fish, they can trade, they can eat, they can sell,
Or if they like, they can wait, which is just as well."*

were assured that the combination of solid research, compelling solutions, a creative script, and superior theatrics would win them the competition.

PR: Since you teach economics, I'm sure you see environmental issues as a way of conveying economic concepts. But economics should also expand our understanding of environmental issues. Do you feel this happens as well?

Johnson: I believe strongly in economic education, because economics has such a unique and valuable way of looking at the world. In my opinion, once people truly grasp the fundamentals of scarcity, choice, and cost, and understand the crucial role of incentives in shaping behavior, these become embedded in their thinking. They will analyze issues (including environmental issues) in a different way.

All of us teachers emphasize what we're familiar and comfortable with. As teachers are exposed to the economic way of thinking, many find it so compelling that it seeps into their teaching and ultimately is infused into their geography, history, and government classes.

PR: The students presented the play at a World Affairs Challenge. How did that go?

Johnson: The students were well prepared and they performed their play with panache (I'm admittedly biased). Unfortunately for them, one member of the panel of three judges didn't appreciate their perspec-

tive. A terse note accompanied her low score: "Establishing private property rights and relying on markets just is not a realistic solution." To compete among the top teams requires top scores from all judges, so they were done. *C'est la vie!*

PR: Do you think the judge misunderstood the problem?

Johnson: My students were convinced that they knew more than the judge who berated them. They yearned for the opportunity to defend their position and even got a little testy over it. For logistical reasons, however, students didn't have the opportunity to converse with the judges. They were disappointed about the competition, but a sour grapes attitude, I lectured, is unbecoming. I tried my best to convince them that in the larger scheme of things, the knowledge they acquired, the perspective they gained, and the skills they honed throughout the experience were worth every ounce of their effort. I think they were all smart and mature enough to realize that.

Marc A. Johnson is social studies department coordinator and a teacher at Smoky Hill High School in Cherry Creek School District outside Denver. He can be reached at mjohnson@mail.ccsd.k12.co.us. The students' play will be incorporated into a series of lessons called Fish Tales by Donald R. Wentworth, to be published by PERC.

GREENER PASTURES

By Linda Platts

AUSTRALIAN FLOWER POWER

Flower power has taken on a new meaning in western Australia. Kate Delaporte, a horticulturist at Adelaide University, is cultivating native plants and flowers in an attempt to jump-start a new industry along the Murray River.

Once well known as a fruit-growing area, the region is losing agricultural production because of increasing soil salinity, decreasing rainfall, and pollution. Delaporte proposes to grow native plants that require little water and are well adapted to the local climate. She is especially interested in working with varieties of native flowers. While such flowers may seem all too commonplace in Australia, it is quite another story in Europe and Japan where the flowers are viewed as exotic, and command high prices.

Delaporte plans to concentrate on developing and testing new varieties of flowers that will flourish in the area near the Murray River. She will license the new varieties to growers in other countries, rather than assume the risk of production and long-distance shipping. Because the plants will be registered with plant breeder's rights, she will receive royalties from all the flowers that are sold.

While she is not interested in pursuing large-scale production, Delaporte anticipates that her development of new floricultural crops will offer grape and citrus growers in the region alternative income-producing crops.

—*Environmental News Network*

BOTTLED ICEBERGS

On a hot summer's day, you can't beat a tall glass of ice water to cool things off. In the far northern regions of Canada, the people of Nunavut are hoping that a glass of iceberg water might be even better.

The plan is to harvest icebergs that have calved off nearby glaciers, melt them, bottle the water, and market it as clean drinking water to those who crave a taste of the Arctic. The project, which was put together by the Qikiqtaaluk Corp. and Pure Berg of Canada, would in part benefit the indigenous Inuit people who have inhabited the region for thousands of years.

Linda Platts is PERC's editorial associate and Web site manager (www.perc.org). "Greener Pastures" showcases market approaches to environmental protection and natural resource use that benefit private entities as well as the public. Send any suggestions to linda@perc.org.



Matthew Spence, the development manager, explains that iceberg water is free of any modern pollutants because it was frozen 10,000 years ago, at least in some cases. Although Spence himself does not care for the distinctive taste of the ancient water, he reports that he has had a positive response from several Asian nations, and particularly from the health food sector.

The corporation will pay \$200 a ton for icebergs, which break off the glaciers by the thousands during the summer and float into Cumberland Sound and Davis Strait. The ice will be hauled onto ships, stored in water-proof containers, and transported to bottling plants.

If iceberg water catches on somewhere—anywhere—Spence predicts that a bottling plant could be built locally providing a year-round flow of iceberg water and needed jobs to local people.

—*Nunatsiaq News*

LIFE AFTER POACHING

In Brazil, some of the country's most notorious wildlife poachers have abandoned their illegal trade and joined conservation organizations to preserve the very animals they once exploited. The turnaround was not necessarily inspired by some spiritual revelation, but rather by the long arm of the law.

A flourishing international market in exotic pets made the illegal trapping of wildlife a profitable business. Trappers spent years in the wild acquiring extensive knowledge about Spix's and hyacinth macaws, while at the same time ravaging these wild populations of brilliantly colored parrots.

In more recent years, laws against trafficking in endangered species have tightened, and enforcement has become a reality, not an empty threat. When finally apprehended and sentenced, some of the poachers were looking at years in a 10-by-10-foot cell with three other men. While it might appear that parrot populations would be safer with the poachers behind bars, a vast store of wildlife knowledge and

skills would be lost. Charles Munn, a senior biologist with the Wildlife Conservation Society, thought he saw a better solution for the poachers and for the parrots.

Released on parole, the reformed trappers are employed by Munn to assist in finding populations of rare birds, often in highly inaccessible areas. The men must weigh and measure the birds, record the data, band the birds, and release them back into the wild. Their expertise has proven invaluable to scientists working to save endangered populations.

Money for the workers' salaries comes from photographers and filmmakers eager to record the birds, as well as from eco-tourists who pay handsomely for guided tours to sites where they can see the birds in the wild. As these poachers have halted their illegal trapping and put their knowledge to work in the service of conservation, there is new hope that wild parrots will again thrive in the Brazilian jungle.

—*E Magazine*

FULL STEAM AHEAD

As energy efficiency has become a top priority for many companies, cogeneration power plants are supplying some solutions. Cogeneration provides electricity to customers along with steam that can be used in their production or manufacturing processes.

In Orange County, Texas, Conoco Energy Solutions and NRG Energy Inc. have begun operations at a 420-megawatt cogeneration power plant. Run on natural gas, the power plant will supply a DuPont Chemical facility with both power and steam. Because the plant will generate more power than Dupont requires, the excess will be sold into the electricity market.

In California, the 102-megawatt Valero Cogeneration Project will supply energy to the Valero refinery in Benecia by year's end. The power plant will use two combustion turbine engines, fueled by refinery gas, to produce all the electricity needed by the refinery. The steam will be used in refinery processes.

—*Yahoo! Finance*

TANGENTS

IS FREE TRADE GOOD FOR THE ENVIRONMENT?

By Daniel K. Benjamin

Rock-throwers at World Trade Organization meetings call themselves environmentalists. They protest that international trade is environmentally destructive, because it induces the emergence of “pollution-havens”—Third World nations that take on the dirty work of tanning leather, making paper, and the like. These nations become polluted and, it is claimed, total environmental damage also increases.

Many economists are skeptical of the pollution-haven story, but the contention that trade harms the environment is difficult to assess systematically. The links between trade and the environment are subtle and complicated, and simply *measuring* such concepts in a convincing way is daunting. Recent research has made huge strides in cracking this problem and provides us with a compelling conclusion: Freer international trade improves the environment (Antweiler, Copeland, and Taylor 2001).

Whether it is between people, states, or nations, trade can have an impact on environmental quality through three channels. These are changes in (i) where goods are produced, (ii) the scale of economic activity, and (iii) the production techniques used. Antweiler et al. are able to distinguish the effects of each of these on environmental quality.

Interestingly, changes in the location of production—the pollution-haven hypothesis—turn out to be empirically unimportant. The fact that freer trade induces increases in the scale of economic activity, on the other hand, has a modest adverse impact on environmental quality. But the third effect—changes in production techniques—swamps the other forces, and it is environmentally beneficial, not harmful. Overall, the authors estimate that for each one percent that freer trade raises per capita income in a nation, the result is that pollution (as measured by sulfur dioxide concentrations) falls by one percent.

When trade expands, the composition of output from each nation changes because trading partners can now exploit their sources of comparative advantage—doing more of what each does best and less of those things at which each is not very good. Anti-trade protestors have argued that comparative advantage moves dirty production processes to developing countries, polluting these nations and increasing overall environmental damage. What this claim misses is that a staggering array of factors help determine the location of productive activity. Even for pollution-intensive goods, considerations other than pollution-abatement costs—such as capital abundance, labor market

economist, n. a scoundrel whose faulty vision sees things as they really are, not as they ought to be.
—after Ambrose Bierce

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As free trade expands, each one percent increase in per capita incomes tends to drive pollution concentrations down by 1.25 to 1.5 percent because of the movement to cleaner techniques of production.

conditions, and transportation costs—are generally the determining forces. On balance, the authors find little impact on the environment due to trade-induced changes in the location of production.

The other effects of freer trade—increases in the scale of activity and changes in the techniques of production—are more important. Simply increasing the scale of economic activity means more material goods are produced, so more byproducts are formed, causing air and water pollution. This tends to reduce environmental quality. The authors find this effect clearly, albeit modestly, present in the data: Each one percent rise in economic activity induces about one-quarter of one percent rise in pollution concentrations due to this force.

Overall, however, Antweiler et al. find that this negative effect is overwhelmed as economic growth, spurred by trade, takes place. When people get richer they demand more environmental amenities. As free trade expands, each one percent increase in per capita incomes tends to drive pollution concentrations down by 1.25 to 1.5 percent because of the movement to cleaner techniques of production.

The conclusions one can draw from this research are limited in two dimensions. First, sulfur dioxide concentrations are the sole measure of pollution used in this paper, a fact driven simply by the need to select *some* measure. Free trade might worsen other measures of pollution, but sulfur dioxide concentrations are known to move closely with other airborne emissions. Hence, it seems unlikely that alternative measures of pollution would yield much different conclusions.

Second, the authors do not investigate exactly what regulatory or institutional changes are driving the environmental improvement caused by rising incomes. In principle, the rising demand for environmental quality might get translated into environmental improvement through explicit government pollution abatement policy or through pollution-reducing changes in private contractual arrangements. The authors do not attempt to disentangle the relative roles of these two effects; they can, however, discern the combined effect.

But the nature of these changes is clearly important in the debate over the efficacy of free market environmentalism. If rising incomes bring environmental improvement chiefly due to the growth of intrusive regulatory schemes, the environmentally beneficial effects are likely to be less appealing to many readers of this column. Still, there is little doubt about the quite conclusive finding of this research. In the words of the authors: “Free trade is good for the environment.” Perhaps this will make attendance at future international trade conferences somewhat less hazardous—albeit less interesting—to all concerned.

REFERENCE

Antweiler, Werner, Brian R. Copeland, and M. Scott Taylor. 2001. Is Free Trade Good for the Environment? *American Economic Review* (September): 877–908.

LETTERS TO THE EDITOR

READERS REACT TO WHAT WE SAY

WHERE ARE THE WOMEN?

I think it was the September issue of *PERC Reports* that first made me say, “Where are the women?” Then I dropped the thought. I’m not usually hypersensitive about noticing gender imbalance.

But the same question came back to me when I received PERC’s special issue (December 2001). By my count, fifteen people peer from the pages. They’re all men, except for the romantic, come-hitherish-looking woman on the cover, who is not identified. (Is she the one woman profiled in the magazine, Sarah-Jane Gullick?)

There’s lots of work to do to reverse the economic trends that have wreaked havoc on the planet. Surely, men aren’t the only ones doing that work.

Tracy Stone-Manning
Lolo, Montana

Editor’s Note: Yes, the person on the cover is Sarah-Jane Gullick, who, through her firm, African Horseback Safaris (www.africanhorseback.com) has expanded tourist opportunities that turn African wildlife into an asset. Yes, there *are* female enviro-capitalists. However, our researches have not discovered as many females as males. Any suggestions?

RUGGED SOCIALISM?

Andrew Morriss’ article (“Lessons of the Hot Springs,” September 2001) reminds us that, despite a public image of “rugged individualism,” much of the American West is devoted to state socialism.

The socialism Morriss found at the Thermopolis, Wyoming, State Bath House clearly extends well beyond familiar public institutions like K-12 schools, parks, and airports. In Montana, for example, government entities own and/or operate health care facilities, wholesale and retail outlets, a commanding share of the higher education

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and vocational training market, all the water in the state, large and small insurance operations, hydroelectric power plants and other utilities, and millions of acres of land.

This devotion to state socialism has colorful historical roots in frontier risk-sharing and Populist-era ideas about social organization. But it also carries a heavy cost. Socialized enterprises are uninspired at best, and often face financial crises. Over the last few decades, the economies of the three Rocky Mountain states with the proportionately largest public sectors (Wyoming, Montana, and New Mexico) have been far outstripped by the more dynamic economies of Arizona, Colorado, Idaho, Nevada, and Utah. Montana and Wyoming have slipped into relative poverty and economic obscurity. Wyoming is the state with the largest public sector, and despite a superficially business-friendly tax structure, it has the worst economic record of all.

A question so far unanswered is why, after so much adverse experience, socialist institutions and ideas should continue to predominate in much of the American West.

Rob Natelson
Professor of Law
University of Montana

CHECK OUT THE HOBO POOL

While I sympathize with the libertarian rhetoric of government vs. private control” (“Lessons of the Hot Springs,” September 2001), it strikes me that the issue is not so clear-cut. To understand why, one need look no further than my favorite spring—the Hobo Pool in Saratoga, Wyoming.

The Hobo Pool is owned and run by the town of Saratoga, but it happens to be open 24 hours a day, 365 days a year (more convenient hours than those private springs up in Thermopolis). No time limits are imposed here—take a brief dip or soak for hours at your leisure. The few simple rules are based more on common decency and respect for fellow bathers (no swearing,

no nude bathing, no alcohol) than government command-and-control. There is no entrance fee (though there is a fee for the regular swimming pool on the grounds), yet I find that the facility is quite passably maintained.

According to Morriss, the Hobo Pool should not be possible—it is an enterprise owned and controlled by a government entity that does not regiment its patrons within the straitjacket of one-size-fits-all regulations. I begin to wonder if the issue is not always public vs. private, but often also central vs. local or even simply controlling vs. free. We risk damaging our own cause if we paint all phenomena with too broad a brush.

Peter Saint-André
Denver, Colorado

ANDREW MORRISS REPLIES: Peter Saint-André is correct that local control often mitigates some of the worst of features of public ownership—but sometimes it doesn’t. Clint Bolick describes some of the major defects of local control in his excellent book, *Grassroots Tyrannies: The Limits of Federalism* (Cato Institute, 1993).

However, I did not suggest that the Hobo Pool should be impossible. The question is what kind of pool might exist in Saratoga, Wyoming, if the government wasn’t crowding out the local competition by providing a publicly funded alternative. I suspect a private pool might offer Saint-André many of the same virtues he finds in the Hobo Pool—long hours, few rules that prevent having fun, and so forth. It might also offer other services—a section for those who wish to both imbibe and bathe, for example. (To experience that sort of hot springs, readers might want to visit Chico Hot Springs in Pray, Montana.)

Governments don’t always make a mess of things; they’re just more likely to do so than private enterprise, and their mistakes tend to linger longer. Saint-André’s excellent points do make clear one thing: my future research agenda will have to include a trip to Hobo Pool.

HANDS-OFF MANAGEMENT

Holly Fretwell discussed the tendency of government agencies to restrict uses of federal land (“Hands-Off Management,” June 2001). She didn’t mention geothermal energy. Yet the Forest Service and Bureau of Land Management have put a lot of land with potential geothermal resources off limits. These include many areas in the Cascade Mountains of Washington and a large block of land near the Steens Mountains in south-central Oregon.

At a time when there is interest in new sources of electrical power generation and domestic sources of energy, these restrictions are limiting the development of a non-hydrocarbon source that is generally considered environmentally friendly.

Daniel H. Vice
Pottsville, PA

Daniel Vice, who managed Burlington Northern’s geothermal exploration program from 1974 to 1982, teaches at Pennsylvania State at Hazleton and Schuylkill.

HUNTERS PAY FOR WOLVES

The sportsmen of Montana were the first organized conservationists. Through the decades-long, tireless efforts of sportsmen, huntable game became plentiful in western Montana. Sportsmen have long been willing to make this investment because they understood that they were investing in a savings account of huntable game for their children and grandchildren.

When the call to restore grizzly and wolf populations began to be heard publicly, there was little discussion of how this might dovetail with the goals of the anti-hunters or what these enhanced populations of

predators might eat.

Early in the process, Ed Bangs, the federal wolf recovery coordinator, gave an estimate of how many pounds of food a grown wolf would eat per year. He gave data about the weight of an adult mule deer. Then he divided the annual diet weight of a wolf by the weight of an adult mule deer, and multiplied that by the minimum number of wolves designated for delisting, to portray the maximum predicted impact of wolves on hunting. He conveniently failed to mention that wolves hardly ever eat all of anything they kill, unless they are *very* hungry and there’s nothing else to catch and kill. He conveniently failed to mention that wolves will kill for sport and to train their young. And he failed to mention that a disproportionate amount of the annual killing wolves do is the taking of elk calves and deer fawn in the spring, when game animals and populations are at their most vulnerable point.

The predator advocates presume that it is ethically

okay for them to insist on filling the woods with their pet animals, which will feast off and gradually consume the savings account that sportsmen have built up over nearly a century. The savings account for my children and grandchildren is being raided without apology.

Now, along comes Hank Fischer (“Who Pays for

Wolves?” December 2001) explaining what a splendid thing predator advocates have done to ante up for an occasional calf or lamb. The best light I can put on this is that predator advocates made a smart, tactical decision to buy off stockgrowers so as to diminish politically those who would oppose predator enhancement. Of course, the supposed promise to pay for lost livestock will be history when all the game is gone, and all that’s left for the predators to eat is livestock. At that point, any funds for livestock compensation will be quickly bankrupt, and the motive for potential donors to donate to such accounts will be gone.



Defenders of Wildlife

PERC REPORTS

The goal of PERC REPORTS is to stretch our minds and yours—to explore a broad range of ideas and information about environmental problems. We offer multifaceted discussions of environmental issues, presenting our views but also introducing those of others.



Doug Loneman

As our readers know, we at PERC do not see government as an automatic way to solve problems such as pollution and species extinction. While regulation is sometimes necessary, we believe that voluntary activities—including markets—often achieve environmental objectives more effectively. Find out more inside!



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