

Acid rain: The \$140 billion fraud?

When Congress commissioned a 10-year, \$500 million study on acid rain in 1980, no one reckoned the scientists would discover that acid rain levels are no different now than they were in the pre-industrial era. But mysteriously few policymakers seem to be aware of the study's findings. As a result, Congress and the President are going ahead with a \$140 billion cleanup plan that the study says can be accomplished for next to nothing.

By Warren T. Brookes

Last July 3 Chief Deputy Majority Whip Rep. David Bonior (D-Mich.), the fourth ranking member of the House Democratic leadership, met with the editorial board of the *Detroit News*.

During the meeting he was asked why, before the House voted on President Bush's Clean Air Act, not a single committee or subcommittee had held a hearing on the NAPAP study on acid rain.

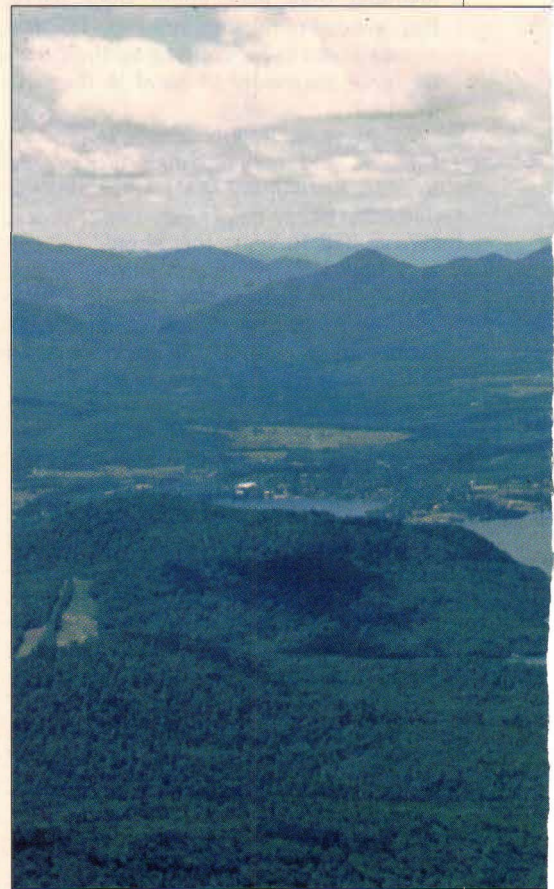
Bonior's response was instructive: "What's NAPAP?"

The editors had to tell him that NAPAP stands for the National Acid

Precipitation Assessment Project, a \$500 million, 10-year study launched by his Congress in 1980 and now complete.

He also had to be told that this massive interagency study that employed 700 of the nation's top aquatic, soil, agricultural, and atmospheric scientists shows virtually no damage from acid rain, either to crops or to forests (or humans), and only tenuous connections with acid lakes, 90 percent of which were acidic (under pH 5.5) in pre-industrial times.

It was clear when he voted for the Clean Air bill last May, with its massive \$7 billion-a-year "cleanup" of acid rain, that Bonior, like most congressmen, had



no idea of the existence of this 28-volume report and even less of its implications—namely, that President Bush's proposal for a crash program to cut sulphur dioxide emissions by 10 million

DOES ACID RAIN CREATE ACIDIC LAKES?

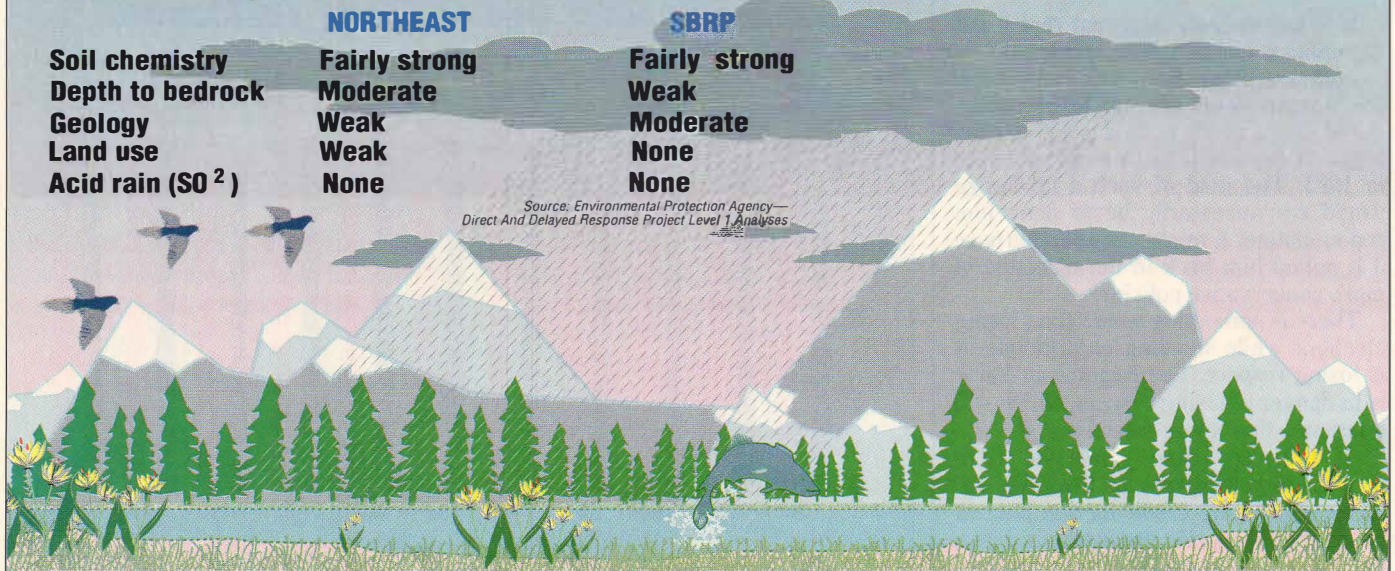
Environmental Protection Agency studies in Corvallis, Oregon, reveal no correlation between acid rain deposits and water acidity levels

Here's what the Corvallis group found:

Correlation of factors to current surface water acid-neutralizing capacity in the Northeast and Southern Blue Ridge Province

	NORTHEAST	SBRP
Soil chemistry	Fairly strong	Fairly strong
Depth to bedrock	Moderate	Weak
Geology	Weak	Moderate
Land use	Weak	None
Acid rain (SO ²)	None	None

Source: Environmental Protection Agency—Direct And Delayed Response Project Level 1 Analysis





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A recently released congressionally authorized study shows no damage to lakes or forests from acid rain

tons a year by 1999 has no ecological, health, or economic justification. The \$500 million study was a waste.

Yet before you blame Congress you should know that President Bush himself never consulted with NAPAP. Instead he launched a proposal that will raise electricity rates for Midwest consumers by 20 percent and risk 200,000 jobs for nothing more than raw but stupid politics.

As respected environmentalist Paul Portney, of Resources for the Future, put it recently, "Congress and the president are about to shake hands on a landmark piece of environmental law for which costs may exceed benefits by a considerable margin."

Next to the Clean Air Act, Catastrophic Health Insurance (repealed last year) looks more and more like the Magna Carta.

The acid rain program is especially stupid because, even if President Bush were personally convinced of the need to remove 10 million tons of sulphur dioxide, that can be done over 20 years at no cost simply by regulation, with no crash program to put limestone scrubbers in 108

power plants.

The Environmental Protection Agency could have tightened up slightly on the New Source Performance Standards and set a 40-year life-limit on old plants. That would reach the same sulphur dioxide emissions objective in 20 years instead of 10.

Whatever else even the greenest zealot may try to read into the NAPAP findings, the one conclusion that can't be drawn is that there is any crisis. In the only congressional committee discussion of the NAPAP study, on October 5, 1989, NAPAP Director James Mahoney was asked what would happen to lakes and stream acidity if we did nothing over the next 50 years. His answer was succinct: "Noth-

ing."

Mahoney told us in a recent interview, "While I would challenge anyone who says acid rain has no effect on the environment, I would also challenge anyone who called it an environmental crisis. It's truly dismaying that the whole level of this debate has been reduced to cutting 10 million tons now—without any reference to the science or the economics. I am very proud of the science that NAPAP performed and disappointed that it has been so largely ignored."

Instead, Bush's EPA Administrator, William Reilly, has been conducting a year-long filibuster to delay and water down the publication of the final NAPAP findings. The latest round started on April 17 of this year when Mahoney sent around NAPAP's 1989 Annual Report and its Findings Update to all agencies "to create a single document of record." His timetable was review and completion for printing by April 30.

But EPA once again submitted a long list of changes in an attempt to get more NAPAP support for the president's foolish proposal, forcing three more rounds of re-

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(LEFT) Acid levels in the Florida Everglades remain at about pre-industrial boom levels (RIGHT) EPA's Reilly held back NAPAP findings until they were suitably watered down

sponses from other agencies. A final 1989 document was finally released in mid-July. While NAPAP's science remains intact, the language and presentation now aggressively highlight largely insignificant dangers.

At the center of the controversy is Reilly's insistence on language implicating acid rain as a principal cause of aquatic acidification. Yet Reilly's own EPA Direct and Delayed Response Project in Corvallis, Oregon, shows no correlation. (*See first Chart.*)

In fact, the state with the highest level of acid deposition, Ohio, has no acidic lakes or streams. Florida has the highest level of acidic lakes in the nation (20 percent), but it has one of the lowest levels of acidic deposition. While sulphur dioxide certainly has something to do with aquatic acidity, the weight of evidence suggests it is the *least* influential factor.

That's why EPA Deputy Administrator William Rosenberg admitted to the Detroit News last fall that "we know that aquatic effects alone are not great enough to justify this program."

What creates acidity in the first place?

Last summer, the Public Broadcasting System (PBS) re-aired an interesting NOVA program on the natural recovery of the ecosystems at Yellowstone National Park following the enormous 1988 fire.

NOVA pointed out that one of the benefits of this fire would be "to improve the aquatic habitat in lakes and streams for 100 years or more," because it would de-

crease their acidity by anywhere from 20 percent to as much as 100 percent.

Within that scientifically correct statement is the key to one of the worst environmental boondoggles ever perpetrated, President Bush's \$140 billion acid rain program.

Summed up quickly: Forest fires raise alkalinity (reduce acidity) of soil, lakes, and streams by replacing acidic forest floor organic buildup with ash. That also releases the base cations (aluminum and calcium) from the soil so they can better neutralize naturally acidic rain (5.0 pH). Soil analyses show that clear-cutting of fir forests raises soil pH from 5 to 7 (lowering acidity), and slash-and-burn fires raise it from 4.95 to 7.60.

Conversely, unfettered forestation promotes the acidity of lakes and streams precisely because it builds up highly acid organic forest floors which tie down acid-neutralizing cations.

If you understand this, you now understand the main reason some 8 percent to 10 percent of lakes in the Adirondacks (about 2 percent of the surfaces) have seemed to acidify in the last 40 years.

A 1988-89 comprehensive core sediment analysis of all acidic Adirondacks lakes with a pH of less than 5.5 shows that not only were 90 percent of them acidic in 1850 but their average acidity

today is virtually unchanged from pre-industrial times. (*See chart on next page.*)

In November 1986, the National Research Council admitted in a paper that core sediment analysis "suggests that these types of (acidic) lakes were relatively common in the Adirondack Mountains and New England before the Industrial Revolution."

One of the "acid lakes" most often cited by environmentalists in attacking acid rain is Woods Lake. Its current pH is about 4.9. That's more acidic than it was in 1915 (5.6) but it's virtually unchanged from the 5.0 pH it showed for 1860.

To put it bluntly, these lakes have been returning to their natural acidic state. Their temporarily lower acidity during the 1900-1940 period was due to the slashing and burning of Adirondacks forests.

By the year 1910 there was hardly any of that virgin forest left and, in the first two decades of this century, close to 1 million acres (40 percent) were burned. Then came Smokey the Bear.

As a result, from the 1930s through the 1980s fewer than 20,000 acres burned per decade. In the 1970s only 5,221 burned. Small wonder that a sampling of 106 Adirondack lakes in 1975 and again in 1985, a period when rain acidity and sulphur dioxide emissions declined 20 percent, showed no average change in lake acidity.

This is why, even with the president's costly \$7 billion per year crash program to remove 10 million tons of sulphur dioxide per year by 1999, the NAPAP study will not project a "re-

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(LEFT) Hysteria over the effects of acid rain caused many to support the \$140 billion cleanup effort (RIGHT) Dr. James Mahoney, NAPAP director, is disappointed that his 10-year study on acid rain is being largely ignored

covery" of more than 75 lakes from acidity between now and the year 2040. That's an average cost of \$4.7 billion per lake. Perpetual liming would cost under \$50,000. The same amount of sulphur dioxide could be removed over 20 years for nothing.

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"Changes in surface water acidity are controlled by diverse watershed characteristics such as soil chemistry, vegetation, and hydrology and, despite the sul-

fate decreases in the Northeast, most lakes show little change in acidity. Indeed, some lakes are continuing to acidify." Why? Contrary to media horror stories, the Northeast is "greening" up (acidifying) from forestation.

NAPAP found that, contrary to all those specious reports of "dying forests," acid rain had little or no direct effect on forest health and only modestly reduced the resistance to natural stress (droughts, freezes) of red spruce at high elevations.

In the two areas most impacted by acid rain, the North and the South,

growing wood volume from 1952 to 1987 rose by 79 percent and 66 percent respectively. In the West, where there is no acid rain, wood volume has fallen 10 percent.

The scandal is that not only are Congress and the President ignoring NAPAP's scientific evidence, but the EPA who sold us this scare in the first place is trying desperately to rewrite NAPAP findings to make them sound more convincing.

One reason: It was the EPA in 1980 who told us that acid rain had increased acidity (decreased pH) by at least 2 full points since pre-industrial times. Now it seems there was no change.

In 1981 the National Academy of Sciences told us that, "at current rates of emission (of sulphur dioxide) the number of affected lakes can be expected to more than double by 1990." But there was no change. NAPAP says Eastern lakes and streams "may be said to approach a steady state."

So why, then, do we need a \$140 billion "crash program"? ■

Financial writer Warren Brookes, rated four stars by Harpers Media Guide, draws on both his Harvard economics education and over 20 years' experience in business and marketing.

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ACIDIC LAKES THEN AND NOW

EPA studies show that many lakes are no more acidic now than they were in the mid-1800's

	pH in 1850	pH in 1986-88	pH change	Actual
Adirondack acidic lakes				
Under pH 5.5	4.95	4.78	-.17	none
Under pH 5.0	4.78	4.63	-.15	none
Florida acidic lakes				
Under pH 5.5	5.11	4.81	-.30	none
Under pH 5.0	5.00	4.65	-.35	more acidic

Note: Standard error 0.30 pH.

Source: Environmental Protection Agency Paleolimnology PIRLA I and PIRLA II