## **Upstream And Out of Mind**

The feds abandon protection for our headwater streams.

## **By Ted Williams**

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**Scat,** as the biologists call it and the bumper stickers proclaim, happens. Often it floats, as the Enron employees observe. And always it travels downstream, as the Bush Administration seems not to comprehend. Since assuming power, President Bush and his people have dedicated themselves to eviscerating the Clean Water Act, most effectively by removing protection for headwater wetlands and streams—the 20 percent of America's waterways occurring wholly within a state's boundaries (intrastate) and classified as isolated and non-navigable.

On January 10, 2003 the Army Corps of Engineers and the Environmental Protection Agency (EPA) issued what they called "guidance" on how their field agents should enforce the Clean Water Act. The word was to desist from going after polluters or fillers in "isolated waters that are both intrastate and non-navigable, where the basis for asserting jurisdiction is irrigation, the Endangered Species Act, or any part of the 'Migratory Bird Rule' " (more on this presently). Then it created a nebula of gray and ordered agents to seek "formal project-specific headquarters approval" prior to enforcement. The directive required no public comment or environmental review, and it became effective the following week. It wasn't "guidance" at all, but obfuscation that created an infinite number of questions along with the impression that each must be answered by an agent's superior who must then consult his superior, ad infinitum. Much easier not to enforce, and that was the strategy.

Along with the guidance document the Corps and EPA issued an "Advanced Notice of Proposed Rulemaking," supposedly seeking public input on how best to redefine the word "isolated" and suggesting that, after 31 years, certain isolated waters may no longer require protection under the Clean Water Act. They also threw in a sentence asking about other ways they might make the law more palatable to those who find it bothersome: "Additionally, we invite your views as to whether any other revisions are needed to the existing regulations on which waters are jurisdictional under the Clean Water Act. "Along with the guidance document the Corps and EPA issued an "Advanced Notice of Proposed Rulemaking," supposedly seeking public input on how best to redefine the word "isolated" and suggesting that, after 31 years, certain isolated waters may no longer require protection under the Clean Water Act. They also threw in a sentence asking about other ways they might make the law more palatable to those who find it bothersome: "Additionally, we invite your views as to whether any other revisions are needed to the existing regulations on which waters are jurisdictional under the Clean Water Act."

The excuse for radically changing the methods by which the Clean Water Act is enforced was a January 9, 2001 finding by the US Supreme Court that strikes down traditional protection by EPA and the Corps of intrastate, non-navigable waters (in this case water-filled gravel pits in Illinois) based solely on their use by migratory birds. As disappointing as the decision was for environmentalists and sportsmen, its legal application was extremely narrow. While such wetlands are no longer safe just because they're used by waterfowl, they can be protected for all sorts of other reasons—if they are used for recreation, for example.

Where the Supremes had cracked a window, the Bush administration broke down the side of the house. "They've been very sly here," declares Julie Sibbing, wetlands policy specialist for the National Wildlife Federation. "They've skewed what the courts have been saying. In fact, their own Justice Department disagrees with them. Justice has done an outstanding job of arguing this issue, appealing the three cases that have clearly found for a broader interpretation [i.e., the interpretation promoted by the White House]. Twelve cases have found for the narrower interpretation, and Justice is vigorously defending the ones that are being appealed by developers." The guidance was not written

by any of Justice's practicing attorneys but by Jeff Clark, an acolyte of US Attorney General John Ashcroft.

The way the Administration has bent the Supreme Court's ruling to exempt biologically important streams from the Clean Water Act infuriates attorney Charles Gauvin, president of Trout Unlimited. "Nothing in the opinion limited Clean Water Act jurisdiction over tributaries of navigable waters or wetlands adjacent to those tributaries," he observes. "EPA and the U.S. Army Corps of Engineers have applied the act to such waters since passage with no controversy, and with no complaints or statutory amendments from Congress."

If the Bush Administration gets its way, no federal law will prevent, say, a factory pig farm from piping effluent into a headwater trout stream or building sewage lagoons in wetlands that previously had stored, cooled and purified runoff while recharging aquifers. The notion that pollution should be controlled in mainstems but not tributaries is insane—the equivalent of filling a country-club swimming pool with gray water from the same showers members are required to use before swimming. What's more, small streams are in many ways more important to fish and wildlife than large ones.

Jim Martin, former fisheries chief for the Oregon Department of Fish and Wildlife and now conservation director of Pure Fishing (an entity sired by tackle companies), offers this insight: "A lot of people look at a river the way they look at a tree. The most impressive part of a tree is the trunk, but the leaves are where the biological action happens. It's the same with small headwater streams, but people figure they're inconsequential.

One of my first projects back in 1969 was to research the summer steelhead of the Rogue River, one of the most famous runs in the world. What we found was that they'd spawn primarily in intermittent streams. They'd move into them for refuge when they got watered up during winter rains and the mainstems were raging. At that time the developers were diverting and damming these streams, cutting down their riparian forests, building houses next to them, all because they were thought to be inconsequential. As a result of our research we were able to get more protection for those streams. With all our salmonids, particularly coastal cutthroats, we did presence or absence and distribution studies in the summer--a huge deal in making land-use decisions. When we went back in the winter we found that these fish radiated upstream. A lot of intermittent streams that looked insignificant in summer would become major rearing and spawning habitat in winter. This led to major restrictions on logging, road building and other development."

When water comes out of the ground and forms a channel you have a first-order stream. When two such streams converge you have a second-order stream. Two second-order streams make a third-order stream, and so on. There are eight ninth-order streams in the United States. There is one tenth-order stream--the Mississippi. On the other hand, there are 1,570,000 first-order streams, and 86 percent of all river miles in the continental US are composed of first- through third-order streams—streams that could be considered headwaters.

Dr. Louis Kaplan of the Stroud Water Research Center in Avondale, Pennsylvania, which assesses impacts to ecosystems from water-chemistry changes upstream, told me this: "First-order streams have their own ecology with their own unique insects and fish [including endangered species] that live nowhere else. They are some of the most diverse and productive environments on earth because, in addition to their own production, they are heavily subsidized by the forests they flow out of. They also provide food material for organisms downstream."

From his research in the Northeast's piedmont Kaplan has found that when trees are removed from the banks of headwater streams the increased sunlight encourages grasses. Grasses trap sediments and grow sod, and streams get narrow. Kaplan and his colleagues have seen two-foot-wide meadow streams suddenly spread out to as much as 12 feet when they enter heavily shaded woodlands. In small streams almost all biological activity is associated with the bottom, so uncut, undeveloped forests create more habitat and more diverse habitat, and the shade keeps the water cooler. Trees

provide leaf litter, important food for insects, and riparian-zone trees remove nutrients. "All this makes for healthier streams," says Kaplan.

Salmonids throughout the nation use headwater streams for thermal refuge in summer and, because groundwater remains at virtually constant temperature year round, refuge from ice in winter. In one study, reported in the Transactions of the American Fisheries Society, young-of-the-year brook trout that had been spawned in a lake migrated into small, spring-fed tributaries where they spent the summer. "Small streams, even if they are fishless, are important producers of insects that drift to the downstream fish assemblage," says Dr. Judy Meyer, a professor of stream ecology at the University of Georgia. "Headwater streams are the first aquatic systems that see the input from the terrestrial environment. So they serve as a nutrient and sediment buffer for downstream ecosystems." Meyer and her co-researchers have screened all the leaves out of headwaters and recorded dramatic reduction in food available to wild brook trout downstream.

In the coal seams of West Virginia, Kentucky, Tennessee, Virginia and Pennsylvania mountaintop removal, in which the mountain is taken from the coal instead of vice versa, produces waste in the form of "overburden," as the coal companies call the broken pieces of the most diverse temperate forests on earth. They dump this waste into valleys, burying headwater streams. Stream burial is patently illegal under the Clean Water Act because the Corps can issue permits only for "fill," not mining waste. So on May 4, 2002 the Bush Administration finalized a rule that redefined mining waste as fill. ("If you call a tail a leg, how many legs does a dog have?" asked Abraham Lincoln. Five? No: "Four. Because calling a tail a leg doesn't make it a leg.")

Chief US District Judge Charles H. Haden agreed with Lincoln, and struck down Bush's rule five days later. "Only Congress can rewrite the Clean Water Act," he wrote. The administration is appealing, and with excellent prospects of success because the case is before the Fourth Circuit Court of Appeals, the most conservative in the nation.

Another ruse of mountaintop removers and their government enablers is to redefine streams. For example, a study funded by Arch Coal to assess productivity of Pigeonroost Branch, a headwater it wanted to bury in Blair, West Virginia, yielded only three, five and six taxa of benethic invertebrates at three sampling stations, indicating that the stream was basically a "dry wash." But Pigeonroost Branch didn't look like a dry wash to the Fish and Wildlife Service, which found 30, 13 and 24 taxa at the same three stations. Nor did it look like a dry wash to me when I hiked along it, flushing the wild brook trout said by Arch not to exist. A survey of the Eastern states by the US Fish and Wildlife Service—incomplete because some mining regions weren't evaluated—turned up 897.2 miles of stream buried by mountain-top removal. In West Virginia the service checked only five of 13 coal counties but still found 470 miles of obliterated stream. Reaches of the Little Coal River that once supported commercial barge traffic are now so choked with mining waste from headwaters they can't even float a canoe.

Ben Stout of Wheeling (West Virginia) Jesuit University has found headwater streams in mountaintop-removal country to be even more biologically important than the streams they feed. "The Coal industry prefers to call these streams 'dry washes,' " he told me. "But at 175 permit-application sites in West Virginia and Kentucky we found all eight orders of aquatic insects we were looking for—in all, 80 taxa, including perennial species. The biological community begins in watersheds as small as six acres. In fact, the most diverse communities start right up there at the spring seeps. The majority of taxa we found are leaf-shredders; when they shred leaves the particles feed the whole downstream community. And emerging insects export this energy back to the forest in a form that's available to salamanders, frogs, fish and birds. An intermittent stream is the link between a forest and a river. Fill it, and you break that link." Once a headwater stream gets buried, the rest of the system is not only starved but poisoned. "The runoff from the toes of these valley fills is laden with aluminum, iron and manganese," says Stout. "It's nasty, nasty stuff."

With its guidance and advanced rulemaking proposal the Bush Administration has rejected the advice of the people who know most about the value of headwaters, among them the professional biologists

and managers who make up the International Association of Fish and Wildlife Agencies, the Wildlife Society and the American Fisheries Society and who, with groups such as Ducks Unlimited, wrote EPA, the Corps and the White House Council on Environmental Quality as follows: "Removing protections for non-navigable tributaries of navigable waters would jeopardize many important wetlands that comprise significant fish and wildlife habitat [and support] a diversity of flora and fauna, in addition to providing enhanced water quality, flood attenuation and groundwater recharge. Isolated wetlands, ephemeral streams and tributaries are an integral part of our nation's watersheds, and thus affect the health of all waters of the United States."

The administration also rejected the advice of 43 of the nation's leading stream authorities - PhD senior scientists who are members of the National Academy of Sciences and its boards, officers of other national scientific organizations and leading authors on stream ecology and water quality. In an impassioned letter to the Corps they painstakingly detailed the many ways seemingly inconsequential headwater streams "provide valuable ecological goods and services" and urged that they be protected.

President Bush's assault on the Clean Water Act didn't start with his guidance and advanced rulemaking proposal. It started when he moved into the White House. In 2000 there had been 40,000 discharges of untreated sewage, laden with viruses and bacteria, into the nation's lakes, streams, streets, basements and playgrounds. But among the first things Bush did on taking office in January 2001 was derail improvements in sewer systems that would have cost \$1.92 per household per year, block regulations designed to control overflows of raw sewage and set the EPA on a course of relaxing sewer-system guidelines.

The following July President Bush set in motion a major weakening of EPA regulations for controlling such non-point pollution as oil, street grit, salt, pesticides, animal waste and fertilizers—all the pollution we haven't got a handle on. Written into the Clean Water Act is a provision that might have been effective at controlling non-point pollution—the Total Maximum Daily Load (TMDL) program. It requires the states and the EPA to identify "impaired" waterways, rank them according to which is in most need of rehabilitation, then come up with discharge limits. For years the TMDL program was ignored, but in 2000, responding to a barrage of citizen lawsuits, Clinton's EPA implemented a moderately effective TMDL rule. When Bush took office polluters urged him to make it go away. Accordingly, the administration hatched a proposal to redefine "impaired" waters as clean, and let the states—which had ignored the TMDL program—worry about discharges.

Sportsmen and an element of the environmental community (the practical, politically savvy one) urged President Bush to preserve Clinton's TMDL rule. "We liked it," says Trout Unlimited's Eastern conservation director and general counsel, Leon Szeptycki. "It set up a road map for states and localities to clean up impaired waters. The centerpiece, which we thought was great, was the required implementation plan--a narrative on how you were going to clean up an impaired water. And there were enforceable deadlines. We thought that people in the watershed actually sitting down and writing up how they were going to do a cleanup, especially when you're talking non-point-source pollution, was a really positive thing. The point polluters loved it because it was going to take some of the burden off them. The ag and timber people hated it." Bush killed the rule on Dec. 27, 2002. So now its back to the old, useless TMDL standards, and some insiders say they'll get disappeared, too.

Last year President Bush liberalized the Corps' nationwide permit program by which it can virtually waive Clean Water Act prohibitions against discharging fill or dredged material into wetlands and streams—provided the damage is deemed "minimal," whatever that means. Stream alterations carried out under such permits do not require public notice or comment or rigorous review. The new nationwide permits let the Corps discard the 300-foot limit for destruction of ephemeral streams, reduce protection for floodplain wetlands, and do away with the requirement that at least one acre of wetlands has to be created or protected for every acre destroyed.

Meanwhile, the Clean Water Act provisions that survive aren't being enforced. Almost a third of the nation's largest industrial, municipal and federal facilities were in serious violation of their Clean Water Act permits at least once between January 2000 and March 2001, according to EPA documents

obtained under the Freedom of Information Act by the US Public Interest Research Group. In the face of this gross defiance the Bush administration has cut the EPA's enforcement budget for 2003.

Now is the worst of times to weaken the Clean Water Act. No other environmental law in the world has been more effective. American rivers don't catch fire anymore. Lake Erie has risen from the grave to produce the best smallmouth and walleye fishing in the nation. Where Maine's Kennebec River threads through the capitol city of Augusta, under the same trees festooned with toilet paper in the 1970's, brown trout and even brook trout are now alive and well. But largely because of non-point pollution the percentage of impaired lakes, streams and estuaries—based on water-monitoring data collected by states and tribes—has increased for the first time since the act was passed in 1972.

As Bush, Vice-President Cheney and other members of the administration were gutting the Clean Water Act, they were appearing at celebrations for its thirtieth birthday, whooping it up for its successes, trying to take credit. "I encourage Americans to join me in renewing our commitment to protecting the environment and leaving our children and grandchildren with a legacy of clean water," proclaimed the President.

Cheney is a dedicated, passionate fly fisher. He adores trout—except, apparently, when they get in the way of rich developers. When he served in Congress he was one of only eight House members to vote against reauthorization of the Clean Water Act, and he voted seven times against authorizing clean water programs.

"These guys have been masterful at talking about regulatory streamlining," says Jamie Clark, former director of the Fish and Wildlife Service and now a senior vice president for conservation with the National Wildlife Federation. "They're great at saying this is all about good government, clarification, reduced bureaucratic process, putting the decision back in the hands of the people who are closest to the waterway." It's all talk.

And talk is how George W. Bush got most of America's sportsmen to vote for him. He told them he loved guns, hunted, fished and that, therefore, he was their friend. The first three claims may have been true, but the fourth was not; nor did it follow logically. The Bush Administration's attack on the Clean Water Act is more proof for those who need it that one can never judge a politician by what he says, only by what he does and, especially, by what the people who work for him do.