River Crossings

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Western States and ESA Revision

The Western Governor's Association (WGA) met in early December to discuss proposed changes to the Endangered Species Act (ESA), including (1) developing clearer recovery goals, (2) mandating peer-reviewed science in ESA decisions and (3) increasing collaboration between states and the U.S. Fish and Wildlife Service (FWS).

With 70% of endangered species making their homes in the 18 states west of the 100th meridian, Western governors have a huge stake in ESA implementation. The WGA governors said they do not want to eliminate the ESA, but they had differing views on how to revise it. Colorado Gov. Bill Owens (R), WGA chairman, said, "The governors recognize that the act has helped to prevent the extinction of some species and enjoys wide, popular support. However, we also understand the need to look at reforms that might make the ESA even more effective at reaching those goals."

Most of the governors agreed that recovery and getting species off the endangered species list are their primary goals; and that they want clear recovery objectives so that the states can help achieve delisting. Recovery goals are often never identified and without them, the governors say state resources are wasted on actions that do not bring about delisting. "I believe there has to be a goal," said Gov. Judy Martz (R/MT). "Ultimate recovery goals need to be set out before us so we have guidelines to focus on," she said.

But David Hayes, former deputy secretary of the U.S. Department of the Interior (DOI) under the Clinton administration, urged caution in using recovery as the sole goal. "We do need a metric for success," Hayes said. "But I think we have to be careful how we measure success under ESA. There are some 1,200 species on the list, and very few species get off the list. If the measure of success is how many species are getting off the list, I suspect we will never be successful." Hayes also said that habitat destruction over the last 50 years (which isn't going away) is the primary reason species are not recovering or getting delisted. But protecting habitat via the act's critical habitat provisions has become increasingly controversial in the last 15 years, he said.

Pallid sturgeon recovery operations on the Missouri River.

The FWS takes the position that listing provides the majority of benefits to species under the ESA and that critical habitat offers virtually no additional help. But environmental groups note that according to the FWS's own data, species with critical habitat designations are more than twice as likely to be recovering than those without it. But critical habitat designations often draw the ire of governors in affected states, and former FWS Director Jamie Rappaport Clark, now with *Defenders of Wildlife*, said if the

Inside This Issue

governors want recovery, protecting habitat is essential.

Many of the governors do support Habitat Conservation Plans (HCPs) to protect habitat on private land, but they and stakeholders from the business community noted that landowners need assurances that HCPs will help them avoid regulatory burdens in the future. Currently those proposed assurances are in question as FWS is reevaluating the "No Surprises" policy under court order. But environmental groups say regulatory certainty is an issue, and an unchangeable plan can prohibit new science, information or circumstances from being considered in the future. Increased funding for HCPs could solve both problems, they said. In addition, environmentalists suggested that the regulatory effects of critical habitat sometimes drive voluntary conservation agreements.

The governors made it clear that they want species recovered and delisted and that they want to be involved in the listing and delisting process. The trouble is, most of the time no one has any idea what it would take to get a species off the list, the governors said as they repeated over and over again that they need the FWS or the National Marine Fisheries Service (NMFS) to lay out clear recovery goals within a mandated time frame. Republican Govs. Martz, Owens, and Linda Lingle (HI) said their No. 1 priority for improving the ESA is to force FWS and NMFS to publicize recovery goals within a certain time after listing. "I would like to see a clear recovery goal put in place within a certain period of time after listing. It could be five years, it could be three years, and I would obviously hope that the goal would be enforceable," said Owens. "I would suggest that that's reasonable in terms of the ESA."

Without those recovery goals, the governors said again that they often feel hamstrung. They are hesitant to put resources into conservation efforts that in the end might not help delist the species. Recovery — and ultimately delisting — is the goal because it reduces the pressure ESA often puts on farming, ranching and development and reinstates state authority to manage that species. Greg Walcher, a former director of Colorado's Department of Natural Resources, said requiring FWS to publish recovery goals under deadline would have sweeping effects. "It would change the whole process...We need to know what the light at the end of the tunnel is," Walcher said.

Often times Western Republican governors, Republican members of Congress and industry leaders disagree sharply with environmental groups over how, or even whether, to amend the ESA. But incorporating a deadline for recovery goals may be something they all can agree upon. *Defenders of Wildlife's* Clark said, "I would like to put more emphasis on recovery planning and the development of recovery plans within a legally mandated time frame so you do know what the end point is. While many species have recovery plans, many do not."

Rep. Richard Pombo (R/CA), Chairman of the House Resources Committee who has made amending the ESA his primary legislative goal, said that without recovery deadlines people lose sight of the ultimate goal of recovery. "There needs to be a goal out there that says when we hit these population numbers, when we have this sustainable number, it will drop to a threatened species, and once we hit this goal it will be taken off the list," Pombo said. The governors suggested, and several environmentalists agreed, that while there should be a deadline for establishing recovery goals, how to meet those goals should not be mandated and instead should involve a large stakeholder process. "FWS should assign what recovery is, then have a stakeholder process to determine how to achieve it," Clark said, adding that recovery planning holds vast opportunities for bringing together stakeholders from all sides of the debate because all of them have a stake in species recovery.

The governors also expressed interest in being involved in listing decisions, critical habitat designations, recovery planning, HCPs, Safe Harbor agreements and more. Discussions even went so far as to

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suggest granting states primary authority over certain portions of ESA implementation with federal oversight, similar to that of the Clean Water Act or Clean Air Act. "It's called state primacy under the Clean Water Act," Greg Schildwachter of the Senate Environment and Public Works Subcommittee on Fisheries, Wildlife and Water said. The idea is not new and is one some legislators are open to Schildwachter said. The subcommittee has jurisdiction in the Senate over the ESA and is chaired by Sen. Mike Crapo (R/ID). Schildwachter said the subcommittee, and many others, have already discussed the idea of giving states authority over portions of the ESA.

The chairman of the *National Endangered Species Act Reform Campaign*, Mac McLennan, supports the idea of state primacy and, in general, adding provisions in the law that give states more authority. He said that those states that choose to should be able to play a larger role in ESA implementation. "It will always be with federal oversight," he added. McLennan also works for the *Tri-State Generation and Transmission Association* based in Colorado. Many people noted that while state primacy would require an ESA overhaul, authority already exists within Section 6 of the act to increase collaboration with the states. But it has not been fully explored.

Craig Manson, Assistant Secretary for Fish, Wildlife and Parks at DOI, said when he began analyzing Section 6 in depth, "I wondered why we didn't use it more...We frankly think [Section 6] can be, within the existing authorities, extremely useful. And we're certainly open to seeing where it can be expanded and adding more authority to Section 6."

But Sue George, *Defenders of Wildlife*, opposed the idea. She said federal agencies need to maintain their authority over ESA-listed species. "[Listed species] need the interstate protection provided by the federal act. State acts can be different and inconsistent and in many cases the protections at state levels are weaker than the federal act," she said. "We need to remember that the federal act came into play after the fact that species were declining under state jurisdiction." States have the opportunity to help avoid listing by being proactive and trying to prevent listing before it happens, George said, while also acknowledging that it is difficult for states to protect wildlife in the West when huge swaths of their habitats are on public land.

Section 6 of the ESA allows DOI officials to enter into cooperative agreements that give states the authority to conserve threatened and endangered species, when they have an adequate program set up. It also allows DOI to provide wildlife grants for state activities. This year DOI doled out $70 million to 28 states and one territory. But according to both state officials and environmentalists, the grant program is not fully funded. Duane Shroufe of the Arizona Game and Fish Department said states have been asking for full funding of the grant program for years.

Clark, came to the defense of her former agency pointing out the difficulties of incorporating some of the changes people were asking for. "I hope we'll all

Higginsii Pearly Mussel recovery operations on the Upper Mississippi River.

acknowledge that it's really hard, I mean it's really hard, to harmonize federal and state authorities," she said. Another problem in involving states is that they are often operating at a budget deficit, she said.

Gov. Lingle said FWS can improve collaboration by looking more to state resource agencies for data on wildlife. The state agencies are also in a better position to broker conservation deals like HCPs and Safe Harbor agreements, she said. Shroufe also noted that comments from states should be weighed much higher than comments from other stakeholders since it is the states that have jurisdiction over wildlife before they need listing and after they are recovered. "We need to be treated differently than a regular stakeholder because we do have jurisdiction over all unlisted species," he said.

DOI's Manson said, "In terms of getting to conservation, getting to recovery of species, the involvement of the states is absolutely key." "We're willing to explore the outer limits of state involvement, and we're willing to go wherever the states are wanting to explore. We won't force it, but we'll go where you're ready to go, where you're prepared to go," Manson said, adding that involvement will be tailored to the abilities and resources of each state. All of the attending governors agreed that the ESA could be better implemented by collaborating with landowners and drawing from the expertise of state resource agencies.

The governors further noted that they want to ensure that sound science is being used when making listing decisions and critical habitat designations. Many of the governors and stakeholders supporting an ESA overhaul say sound science is defined as science that has been peer reviewed. But, while it is not required under ESA, environmentalists noted that FWS already conducts peer reviews on their listing decisions and less than 2% of the time has FWS made a mistake when listing. Gov. Bill Richardson (D/NM) also urged caution: "Be careful about redefining science that we not talk about stronger science or sound science and have that diverge from the main goal of recovery. And be careful that we're not pushing a little bit toward extinction," he said.

Richardson was one of the few governors who emphasized that the act did not need a major overhaul, although he acknowledged it might need some tweaking that can be made outside the legislative process. "What is important more than drastically changing the law is to improve collaboration," Richardson said. "I believe that Congress should be careful about amending this law," he said. Past reform efforts have seen consensus between the regulated community and environmentalists on some issues, but Democrats and environmental groups openly worry that amending the ESA could result in widespread changes that they oppose.

But Pombo said, "I believe that changing the science within the act has to be our No. 1 priority…The level of science needs to be raised so we can at least have some level of confidence in that science so we don't get the horror stories we get from

our districts and our states." Some of the governors agreed, in particular Mike Rounds (R/SD), who said FWS made a mistake when it determined that the black-tailed prairie dog deserves protection under ESA. FWS put it on the candidate list, meaning the agency had determined it warranted listing, but could not afford to formally list it. But by putting the prairie dog on the candidate list, the FWS caused federal agencies to manage public lands in South Dakota for the benefit of the rodent instead of treating it as a nuisance. The result was prairie dogs eating away at tens of thousands of acres of grasslands until nothing was left, Rounds said. FWS later determined that the prairie dog does not deserve listing, a move environmental groups disagree with, saying it was politically motivated and they plan to sue over it.

The debate over the prairie dog in some ways epitomizes the larger debate over science in the ESA. Conservative members of Congress, ranchers and industry leaders — supporters of revising the statute — say the standard for best available science sometimes causes FWS to list a species as threatened or endangered, or put it on the candidate list, when the agency may not have enough information to really know whether the species is imperiled or not. Liberal members of Congress, biodiversity advocates and environmental groups, however, say the efforts to change the standard of science in ESA are thinly veiled attempts to politicize the scientific process.

Environmental groups say the best available science standard is important because it gives species the benefit of the doubt. It is impossible to bring an extinct species back from the dead, so the best available science standard encourages FWS to be cautious, environmentalists say. Moreover, while ESA critics say all they want to do is require peer review of all science involved in listing decisions, environmentalists charge that the "sound science" bill Pombo helped usher out of his committee last year was laden with language that would have politicized the science. For instance, the bill would allow a political appointee, the Secretary of Interior, to choose the peer reviewers and the eligibility requirements for being a peer reviewer.

FWS actually makes very few mistakes when listing species, according to John Leshy, a law professor at the University of California and former DOI solicitor under the Clinton administration. "…the species that are on the list are ones that basically have been shown to deserve to be on the list and very few mistakes have been made," Leshy said. When mistakes have been made, they've been corrected, he said. The National Academies of Science and Government Accountability Office (GAO) have both completed studies, in 1995 and last year respectively, that have generally supported FWS's decisions for listing species, although the GAO is highly critical of the habitat designation and recovery process.

Leshy added that in the listing process, the record stays open after a listing so people can do further studies and challenge the record. But few of those challenges have been successful. "In other words, for nearly all the species listed there is widespread consensus that they should be listed," Leshy said. He cautioned against using the few mistakes FWS has made to make significant changes to the act. "If you take the sort of handful of high-profile species and try to use them to structure changes within the act, you really sort of throw the baby out with the bath water," Leshy said.

Pombo acknowledged that the FWS has made few mistakes. But, he said, "The problem comes in when they made the wrong decision" because the economic consequences are usually quite severe. Pombo also said he wants to modernize the act and keep it current with new developments in science and technology.

But Rob Roy Ramey, a zoologist at the *Denver Museum of Nature and Science*, noted that the standard currently in the act is always current. "Best available science means what's there," Ramey said. "It's a standard that keeps current with the time." Ramey also noted that independent peer review is already part of both the listing and delisting processes.

The WGA meeting came as legislation to modify the ESA is about to be pushed by Pombo. WGA plans to vote in March on its formal legislative recommendations to Congress.

Sources: Natalie M. Henry, *Greenwire*, 12/6, 12/7, 12/8 and 12/9/04

CA Water Settlement May Impact ESA

The Bush Administration announced in late December that U.S. taxpayers will pay four California irrigation districts $16.7 million for water that was diverted from agriculture in 1992 and 1994, when a long drought threatened the survival of the area's chinook salmon and delta smelt populations. Property rights advocates hailed the settlement, and some legal experts said the pact will make it harder for the federal government to protect endangered species.

Typical irrigation operation

The first-of-its-kind decision, made by Judge John Wiese of the U.S. Court of Federal Claims in 2001 said the farmers were entitled to about $26 million including legal fees and interest for water diverted to protect the fish. A key question put before Wiese was whether water users have ownership of the water and if they should be paid if the water is diverted for species protection.

Environmentalists and property rights advocates agreed that the settlement could set a precedent for other takings cases that involve the Endangered Species Act (ESA). The farmers' lawyer, Roger Marzulla, who served in the Department of Justice's (DOJ) environmental division under President Ronald Reagan, said the government will no longer be able to deny citizens use of their land or water without compensation, even if a species is in trouble.

The National Oceanic and Atmospheric Administration (NOAA), Sen. Dianne Feinstein (D/CA), the California Department of Water Resources and California Attorney General Bill Lockyer (D) had encouraged the Bush

Administration's DOJ to appeal the decision. The settlement was a "mistake that will establish a precedent that could require the public to pay tens of millions of dollars to water users in many cases where even a small portion of their anticipated deliveries are needed to protect endangered salmon or other fish," said Feinstein in a statement.

California Chief Deputy Attorney General Richard Frank said, "I'm not going to say it will produce a sea change in federal law and policy, but it will generate additional claims and controversy." But House Resources Committee Chairman Richard Pombo (R/CA) had supported the irrigation district's claims, and his spokesman, Brian Kennedy said, "This is a very strong precedent, this should really fire a shot across the bow of federal regulators, reminding them that their actions have consequences and their actions cost money."

The case "establishes the fundamental principal that the government is free to protect the fish; it simply has to pay for the water it takes to do so," said Marzulla. He has filed similar cases in the Klamath Basin and in Stockton, CA, and is preparing for a third case in Ventura County, he said. "I think it is helpful to have this case resolved so we can pursue resolution of the other cases," Marzulla said. NOAA officials had said in a statement that failure to appeal the California case "immeasurably increases the likelihood that the [Klamath] plaintiffs will prevail."

Environmentalists were disappointed with the settlement. "They're setting the fish up for the fall," said Zeke Grader, executive director of the *Pacific Coast Federation of Fishermen's Associations*. "I can easily see them do this hand-wringing where they say, 'Gosh, we'd like to restore these fish but its just going to cost too much. U.S. Fish and Wildlife Service officials did not comment on the settlement. Tom Dresslar, spokesman for California Attorney General Bill Lockyer, said that "the claims court decision will present problems for the state, and hinder its ability to manage water to protect the environment and meet other public interests."

The California attorney general's office, the Schwarzenegger administration and attorneys for NOAA all wrote the DOJ in the last year, asking the Bush administration to appeal a U.S. Court of Claims ruling in favor of the farmers. DOJ officials had little comment on their decision not to heed those recommendations. DOJ spokesman Blain Rethmeier did not explain why the administration decided to forgo an appeal, aside from saying, "This settlement is the result of careful and deliberate negotiations between the parties." John Echeverria at Georgetown University's *Environmental Law and Policy Institute* said, "The United States government has given a great big stocking stuffer to California's cotton industry".

It was unclear how much of a legal precedent the settlement might establish. Sue Ellen Wooldridge, a DOI lawyer, said many federal and state water contracts include language that protects the government from liability when it acts to protect species. The three-page agreement between the administration and the San Joaquin Valley farmers also says the settlement should not "be interpreted to constitute a precedent or argument in this or any other case." But Marzulla said government officials had already begun to accommodate private property interests because of his lawsuit, and experts across the political spectrum said it could affect government decisions involving water used for public recreation and navigation.

"By settling rather than fighting this case, the Bush administration is simply encouraging more of these legal attacks against our water quality laws and other public safeguards," said Hal Candee, senior attorney for the *Natural Resources Defense Council*. "That hurts the taxpayers as well as the environment."

Sources: Bettina Boxall, *Los Angeles Times*, 12/22/04; Mike Taugher, *Contra Costa Times*, 12/22/04; Don Thompson, *AP/Torrance Daily Breeze*, 12/22/04; Juliet Eilperin, *Washington Post*, 12/22/04 and *Greenwire*, 12/22/04

Water or Cash for Nebraska Irrigators

Hundreds of Nebraska irrigators face decisions on whether to use water or pass it up for cash next year. And U.S. Rep. Tom Osborne, (R/NE), is betting that farmers who want the cash option will get it — if they can be patient this winter in making spring planting decisions. "I am about 95% certain that it will happen," Osborne said in referring in mid December to a proposed federal program to save water in drought-stricken areas.

Osborne met with about 220 irrigators who contract with *Central Nebraska Public Power and Irrigation District* for water stored in Lake McConaughy, the state's largest reservoir. The turnout was the largest in memory for an annual meeting of the *Central District Water Users*. Officials attributed the crowd to concerns about the drought — now in its fifth year affecting McConaughy — and *Central's* decision to allocate water next summer for the first time in history.

The federal Conservation Reserve Enhancement Program would encourage some Nebraska farmers to shut off center pivots and to keep irrigation ditches dry in exchange for an estimated $158 million over the next decade. If approved by the U.S. Department of Agriculture, the plan would cover as much as 50,000 acres in both the North Platte and Republican river basins. Farmers would be paid an average $125 per acre not to grow crops on land that's irrigated with water from those rivers or with groundwater drawn nearby.

"We've been pushing these people for almost a year now," Osborne said of his office's press for approval of the new program. "We've been pushing the state. We've been pushing the federal people." He said a decision could come as soon as late January or early February. It also could linger into March, he said, which would not be good for farmers making planting plans. A conference call in mid December between federal and state officials, including Nebraska Department of Natural Resources Director Roger Patterson, indicated that only details remain to be worked out, Osborne said in an interview.

The two river basins are in drought-stricken areas of western and south-central Nebraska where water conservation is critical if the state is to comply with major water agreements with neighboring states. Osborne said he expects the 50,000-acre allocation to be quickly snapped up in the Republican basin, where irrigators are wrestling with how to comply with a court settlement requiring that Kansas get its share of water from the river. "Those people are really stressed," Osborne said.

"A lot of them are only getting two or three inches of water (from drought-short irrigation districts). Some are getting none."

Osborne said the purpose of the conservation program is to save water in Lake McConaughy. The Ogallala-area lake ended the 2004 irrigation season at a historic low level. It now is about 27% of capacity. Using 10,000 acres of Holdrege-area farmland as an example, Osborne said that water saved in McConaughy by irrigators who enroll in the new program could save about 300,000 acre-feet of water over 10 years. The lake currently contains nearly 469,000 acre-feet. Its capacity is 1.7 million acre-feet.

Central's board is considering a resolution allowing water saved by its customers' participation in the new conservation program to be set aside in McConaughy and not be released downstream for other purposes. *Central* owns and manages the lake, which also is a popular recreation site. Osborne encouraged the irrigators to think 5-15 years into the future. He said Nebraska can't afford either to watch McConaughy flirt with disappearing or for farmers to struggle growing corn with only six inches of irrigation water year after year.

Source: David Hendee, *Omaha World-Herald*, 12/17/04

CO/KS Water War Settled

The U.S. Supreme Court ruled in early December that the state of Colorado must pay Kansas $29 million for improperly diverting water from the Arkansas River. The high court, in affixing damages as the final step in the case, rejected Kansas' appeal to get $24 million more. Justice John Paul Stevens was the sole dissenter in the decision, saying Colorado should pay interest back to 1969, when it "knew or should have known" it was violating the compact with its neighboring state. Stevens dissented on only the money issue and agreed with the rest of the court on other issues in the case.

The court also rejected Kansas' request to have an outside person, known as a *River Master*, decide disputes over how to implement the ruling. The states will make those decisions and report back to the high court. "We felt that a *river master* was not needed," said Rod Kuharich, director of the *Colorado Water Conservation Board*. The court also sided with Colorado in deciding that it can use a 10-year rolling average for how much water it uses and how much Kansas should take. Kansas wanted a one-year formula. Kuharich said the 10-year average moderates swings between dry and wetter years.

"The Supreme Court ruled in Colorado's favor on every single one of these issues," said Colorado Attorney General and Senator-elect Ken Salazar. "It creates a framework for Colorado and Kansas to create a lasting peace for water use on the Arkansas River." Salazar said litigation costs in the case topped $30 million for both states combined. Kansas Attorney General Phill Kline issued a statement saying the state had achieved victories in water use over the past two years, including a court ruling that Colorado deliver 15% more water. He said the Supreme Court had "cleared the way" for Colorado to pay for its compact violations

The case dates to 1985, when Kansas sued Colorado, charging it had violated a pact formed in 1949 to equitably apportion water from the Arkansas River. Kansas said Colorado drilled new irrigation wells and "materially depleted" the water. The Supreme Court in 1994 agreed and appointed special master Arthur Littleworth to determine how much Colorado should pay. In 1995, a unanimous Supreme Court decision said Colorado owed Kansas 428,000 acre-feet of water and Kansas requested that Colorado repay the state in money rather than water. An acre foot equals about 326,000 gallons, enough to serve up to two families for one year.

At one point, Kansas had said its damages totaled more than $320 million. The high court agreed with Littleworth that Colorado owed interest from 1985 through 1994, the years between when Kansas sued Colorado and when the high court ruled that Colorado should pay for the stolen water. But Kansas had wanted interest dating to 1950.

Kansas and Colorado officials have fought for more than a century over the river's water and first took their case to the Supreme Court in 1902. The Arkansas flows 1,450 miles east and southeast through Colorado, Kansas, Oklahoma and Arkansas before reaching its confluence with the Mississippi River.

The $29 million settlement is the largest amount of money ever paid in an interstate water case. Gov. Bill Owens has recommended paying it out of taxes charged on those who mine minerals in the state. Also as a result of the lawsuit, farmers in the Arkansas basin must now help replenish the river. Irrigation well-users in Colorado's South Platte Basin now follow similar rules to help ensure the South Platte isn't harmed as it delivers its supplies to Nebraska.

Sources: Anne C. Mulkern. *Denver Post*, 12/8/04; Jerd Smith, *Rocky Mountain News*, 12/8/04; and *Greenwire*, 12/8/04

Southeastern Water Wars

Alabama's newest complaint in its "water wars" lawsuit with Georgia claims that the U.S. Army Corps of Engineers (Corps) is illegally storing water for recreation and drinking in Georgia and causing harm downstream in Alabama. It also claims the practice of holding water upstream jeopardizes endangered species.

Alabama attorneys filed their 85-page complaint against the Corps in U.S. District Court in Birmingham in early January, five months after the collapse of talks with Georgia put the dispute over the Alabama, Coosa and Tallapoosa rivers back in court. "The Corps has made repeated decisions to sacrifice hydropower, navigation, water quality, downstream recreation, and fish and wildlife during times of low flow in order to give undue preference to upstream recreation and water supply," the complaint states.

Birmingham attorney Buddy Cox, who represents Alabama, said the next step in the case will be a response from the

Corps. But Pat Robbins, head of public affairs for the Corps office in Mobile, declined comment. "Obviously, we can't comment on an active lawsuit," Robbins said. No trial date has been set by U.S. District Judge Karon Bowdre.

Alabama sued the Corps in 1990 over the use of rivers that originate in Georgia and flow into Alabama and Florida. Florida joined in the lawsuit, which also involves the Apalachicola, Chattahoochee and Flint rivers. The states agreed to put the lawsuits on hold during settlement negotiations. But talks over the Apalachicola, Chattahoochee and Flint rivers ended unsuccessfully in August 2003, and negotiations over the Alabama, Coosa and Tallapoosa rivers collapsed last July. That put the disputes back in court.

Trey Glenn, director of the Alabama Office of Water Resources, said that the state would prevail. "We're going to win this fight," he said. "It's critical for us." Alabama's complaint concerns the Corps' management of three federal reservoirs: Lake Lanier, which is at the headwaters of the Chattahoochee River basin, and Lake Allatoona and Carters Lake, which are at the headwaters of the Coosa and Tallapoosa rivers. Alabama claims that Congress created the reservoirs in the 1940s for hydropower, navigation and flood control. But because of population growth in Georgia, especially metro Atlanta, the Corps is using the reservoirs for drinking water and recreation at the expense of downstream users.

Alabama also claims that about 25 endangered species of fish, mussels and snails could suffer from what the state claims is the illegal management of the reservoirs. Cox said one reason that claim was added is that the northern part of the Coosa basin recently was designated as critical habitat for some species of mussel. Alabama's claims further that downstream residents pay higher electricity bills because the Corps holds water that's needed for hydropower. "All affected electric rate payers ultimately pay more for electricity so that recreational opportunities and water supply on Lanier and Allatoona can be maximized," the complaint states.

Alabama Power Co. has asked to intervene in the lawsuit. "The less hydrogeneration we have, the higher the production cost of our generation," said Willard Bowers, vice president for environmental affairs for *Alabama Power*, which operates 11 hydroelectric dams on the Coosa and Tallapoosa rivers. Bowers said hydrogeneration is the cheapest way to produce power.

Sources: Mike Cason, *The Birmingham News*, 1/24/05; and *Greenwire*, 1/25/05

MO River Lawsuit Thrown Out

Environmental concerns lost another round in their battle against a U.S. Army Corps of Engineers (Corps) plan for managing the Missouri River in mid December when U.S. District Judge Paul Magnuson, ordered that a lawsuit filed in July by *American Rivers, Environmental Defense* and the *Izaak Walton League of America* be thrown out.

Magnuson also ruled against the coalition in an earlier set of lawsuits, which are being considered together. The earlier ruling is being appealed to the Eighth U.S. Circuit Court of Appeals. *American Rivers* spokesman Eric Eckl said an appeal may be possible in the latest lawsuit as well. "The ruling is a setback, but it's not the end of the line," he said. Environmental groups wanted to see lower summer flows in the River to help the endangered fish and birds — the Missouri River's natural state is very wide and shallow.

The two Missouri Rivers -- the unchannelized, more natural river on the left and the channelized barge canal on the right.

But the Corps Annual Operating Plan (AOP) implemented last summer provides water levels high enough to support barge shipping on the lower channelized river, despite the fact that very few barges (two small companies) actually use the River. Low summertime flows are necessary for birds such as the endangered least tern and piping plovers to nest on sandbars.

The State of Nebraska intervened in the lawsuit for the Corps to protect public power plants along the river. The economic benefits of the AOP overall is estimated to be worth more than $500 million annually to the state, said Attorney General Jon Bruning. Under the low water plan some power plants would have to modify their water intakes to capture water at lower water surface elevations.

Sources: Martha Stoddard, *Omaha World-Herald*, 12/14/04; and *Greenwire*, 12/14/04

2004-05 Missouri River Water Plan Released

Citing continued drought throughout the region, the Corps of Engineers (Corps) said it is emphasizing water conservation in its 2004-05 Annual Missouri River Operating Plan (AOP). Drought has dropped water levels as much as 30 feet low in large impoundments in the Dakotas and Montana on the upper Missouri River, Paul Johnston a Corps spokesman in Omaha, NE said. Water released from those lakes determines downstream river levels, along with local weather. American Indian tribes have been working with the Corps to protect historic burial grounds exposed in the Dakotas by the low water, he said.

With regard to environmental issues, under its 2004-05 AOP, the Corps said its ability to provide steady to rising reservoir levels for the upper three reservoirs during the spring fish spawn will depend on the volume, timing and distribution of spring runoff. With normal to above-normal runoff early next year, there will be rising levels in Oahe, Lake Sakakawea and Fort Peck. If drought conditions persist, the Corps will try to provide rising levels in Oahe during April and May and in Fort Peck during May and June. Under continuing drought conditions, Lake Sakakawea's level could fall during the spring spawn, said Johnston,. When water levels drop during a spawn, many eggs are left high and dry. "If we rotate the reservoirs, everybody will have the best conditions we can give them about every other year," Johnston said.

"What we recommended to the Corps, at a minimum, was to maintain lake levels and preferably raise them in all three

reservoirs," said Greg Power, fisheries management section leader for the North Dakota Game and Fish Department. Collectively, the spawning season for all three reservoirs is from April 10 until the middle of June, Power said. In 2004, the Corps provided rising pools in each of the upper three reservoirs but only for a month, Johnston said. "We got a good spawn in each, but the reservoir declined before we got as good of a hatch as we would have liked."

The Corps initiated a strategy in 2004 to rotate emphasis among the three upper reservoirs on a yearly basis during the fish spawn, Brig. Gen. William Grisoli, Northwestern Division engineer, said in a statement. "We intend to continue to use this strategy during drought in an attempt to maximize the benefit to fish species in the reservoirs." The AOP also calls for only minimum flows from Gavins Point Dam, SD to support downstream uses. The commercial navigation season will open on April 1 at the mouth near St. Louis, but its length could be shortened 27 to 61 days, depending on the amount of runoff we see this winter and spring. A final determination on the season length will be made on July 1, based on the actual amount of water stored in the reservoirs.

Regarding endangered birds, release rates this spring will be held steady until the majority of the piping plovers and least terns have nested, usually by late May or early June, and the volume will be determined by the local spring runoff. The releases then will be adjusted to meet downstream target flows. The plan would conserve some additional water in the upper three reservoirs, Johnston said. "We're not talking feet, but inches," he stressed. To comply with the 2003 Amended Biological Opinion issued by the U.S. Fish and Wildlife Service, the Corps is developing a plan for a "Spring Rise" in 2006. There will not be a test rise from Fort Peck Dam because of the low reservoir level.

"It looks like one of these Corps trying to keep everyone happy plans, and instead every body gets frustrated with them," said Lance Gaebe, Policy Advisor for North Dakota Gov John Hoeven (R). "Some components of conservation are in the plan," he said, "Hopefully, it's not too late."

Meanwhile, South Dakota Gov. Mike Rounds (R), who hosted a meeting of governors in September 2003 to begin discussions on managing the Missouri River, has called for a second such meeting on Feb. 7 in Sioux Falls. Rounds says the Corps' AOP should be changed to reduce flows from the upstream dams this year so there is more water for a variety of uses up and down the river next year, he said. Rounds says the Corps' current plan would release too much water from the dams in South Dakota, North Dakota and Montana this year, and if the drought continues, those releases would increase the harm next year on upstream fishing, irrigation, rural and city drinking water systems, and power plants in downstream states.

The problem in 2006 could be particularly bad for downstream power plants that use Missouri River water for cooling, Rounds said. It would be better to reduce releases from the dams this year so more water could be sent downstream next year for power plants and other purposes, he said. He said he believes the Corps would consider operating changes if all states that border the river reach an agreement.

Interestingly downstream in the reach between Kansas City and St. Louis, where most of the barge traffic exists, little will change, since rains in the lower Basin have kept winter river water levels high enough, experts say. So even though water releases from upstream lakes are being held to minimum levels this winter, it's unlikely that Kansas City will see record low Missouri River stage levels, said Tom Harris, a hydrologist for the U.S. Geologic Survey.

Sources: Richard Hinton, *Bismarck Tribune*, 12/16/04; Bill Graham, *The Kansas City Star*, 12/16/04; *AP/Billings Gazette*, 1/15/05; and *Greenwire*, 12/16/04

Chicago Aquatic Nuisance Species Barrier Threatened

A new, more powerful electric barrier designed to keep Asian carp out of the Great Lakes is almost complete, but questions about how the electricity of both the existing temporary and the new permanent barrier could affect commercial shipping and recreational boating has raised questions about its safety. The temporary barrier (in place and operational since 2002) in the Chicago Sanitary and Ship Canal (see map on opposite page) became an issue with commercial shippers last spring when barge operators began observing electrical arcing between barges passing through the barrier and between barges and a shore bollard.

Nobody has been hurt, but the incident raised concerns that the fish barrier could prove hazardous for barges carrying petroleum, chemicals and other flammable commodities through the canal, which links the Great Lakes and the Mississippi River. The issue was raised again in January by Coast Guard Cmdr. David Fish. "We don't want anybody to blow up," he said, "We have to make this safe while being sensitive to commercial concerns and the environment." Fish said, shippers that use the canal to move grain, coal, chemicals and other commodities are questioning whether either barrier should be allowed to operate until officials have resolved safety concerns. Safety studies are reportedly underway, but until these are complete, mariners are reminded to avoid fleeting operations in the area of the existing barrier and to avoid lingering in the barrier area.

Early diagram of the electric Aquatic Nuisance Species barrier in Chicago.

Compounding this issue is the fact that arcing of the electrical field between barges and a shore bollard also may be impacting the barrier's effectiveness in stopping fish movements. "Field Effects Studies" have determined that barges passing through the barrier's electrical field adversely affect its strength and may greatly diminish the effectiveness of the electrical field in a small area immediately adjacent to barge hulls. This, of course, raises the question as to whether fish could or would use these reduced strength areas as protected avenues for passing through the barriers.

Questions about the barrier's safety and efficacy are yet another setback for a project that biologists say is desperately needed to protect against aquatic nuisance species invasions. The future well being of Great Lakes commercial and sport

fisheries, which bring an estimated $4.5 million to the region each year, are of concern. It is feared that if Asian carp become established in Lake Michigan, they could drastically impact the lake's salmon and trout food supply and thus the fishery itself.

Asian carp have made their way up the Illinois River after escaping from Southern fish farms during the last decade, and have most recently been spotted about 20 miles away from the temporary barrier. One dead carp was spotted floating near the barrier this fall, but is thought by some to have been placed there as a prank by a fishermen.

Officials had planned to activate the new second barrier next month, "...an absolutely critical piece of the puzzle to protect the Great Lakes," said Joel Brammeier, manager of the *Lake Michigan Federation's* habitat recovery program. "We need to make sure we don't see any more delays." But even though federal and state officials have found the $9.1 million needed to build the barrier, they have not yet been able to agree on who should pay the $500,000 needed annually to keep the barrier running. Illinois contributed $1.7 million — more than any other state — to build the new barrier, while federal officials chipped in the bulk of construction money. But the U.S. Army Corps of Engineers, which finances operation of the existing barrier, has so far agreed only to pay the electric bill during three months of testing to ensure that it works.

Officials at the Illinois Department of Natural Resources say their agency's precarious financial outlook makes it unlikely they will be able to afford the operating costs. "We just have to keep banging on the doors," said Mike Conlin, the agency's director of resource conservation. "I think we'll eventually find the money, but we haven't found it yet." "The thinking [from the states] is the two (barriers) should be managed together, preferably by the Corps of Engineers," said Sam Speck, director of the Ohio Department of Natural Resources.

But even if the new barrier is permanently activated and works, other possible avenues for Asian carp invasion of the Great Lakes exist. The Dispersal Barrier Advisory Panel (DBAP) has considered the risk of Asian carp spread in conjunction with two other "connections". When the Des Plaines River floods, occasionally water from that river flows overland into the Sanitary and Ship Canal upstream of the existing dispersal barrier.

Map showing location of the electrical barrier and some of the complex connecting channels between Lake Michigan and the Mississippi River Basin via the Illinois River.

The overland flow from the Des Plaines River is relatively localized and shallow; the primary concern would involve young fish, fish eggs or larvae. Meanwhile, the connection with Deep Run Creek occurs through two culverts near Lemont, IL (a short distance above the barrier). These culverts convey storm water that collects in the Illinois-Michigan (I&M) Canal from Lemont into the Sanitary and Ship Canal. At a point some miles downstream from Lemont, the I&M Canal connects with Deep Run Creek which in turn forms a confluence with the Sanitary and Ship Canal below the Lockport Lock. Though this man-made connection at times conveys substantial volumes of water, the I&M Canal water flows through several dense and extended areas of cattails before reaching the confluence with Deep Run Creek. DBAP members hope that funds may one day be available to address the connection with the Des Plaines River and the I&M Canal but feel that pursuing the electrical barrier is the best use of existing funds at this time.

Adding to the canal controversy, on January 19, a barge carrying thousands of gallons of a gooey petroleum by-product exploded, caught fire and sank in the canal. A boiler on the barge apparently exploded, igniting the clarified slurry oil, which is a by-product created when refining petroleum, said Illinois EPA (IEPA) spokeswoman Maggie Carson. She said initial estimates indicate the barge was carrying about 13,000 barrels (more than 500,000 gallons). "This is a huge volume of petroleum by-product," she said.

IEPA investigators and clean up crews were unsure how much of the substance might have spilled into the 105 year old canal. Clarified slurry oil normally has the consistency of honey and becomes thicker in cold water, which could lessen any potential environmental damage, Carson said. "When a substance is more liquid it spreads farther," she said. "When it congeals or hardens it's easier to gather and remove. It doesn't mean there won't be any problems, but this lends itself to ease in removal." She said *Egan Marine Corp.*, operated the barge and the company would be responsible for cleaning up any environmental damage.

More than 17 million tons of goods move through the canal each year, according to the Coast Guard. On average, 30 barges cross the electrical field of the aquatic nuisance species barrier every day. The canal, completed in the early 1900s to direct Chicago's sewage away from Lake Michigan and into the Mississippi River Basin, now provides reverse access for the invasive carp and other species, which can travel up the Mississippi River Basin's Illinois and Des Plains rivers to Lake Michigan.

Sources: Michael Hawthorne, *Chicago Tribune*, 1/12/05; *AP/Chicago Sun-Times*, 1/19/05; *Illinois ANS Update*, January 2005; and *Greenwire*, 1/12/05

Wolf River Rescue

Work began this fall on a $10 million effort to save the Wolf River near Memphis, TN and its wetlands from further environmental damage. The project is designed to protect the river while allowing more canoeing, hiking and biking. It is one of the largest environmental restoration efforts in the region.

The project, located just east of Memphis, involves constructing a series of "berms" or "weirs" in the river using boulders weighing more than a ton. These 100-plus-foot-long water control structures are designed to halt what is known as "head-cutting," the process by which a river continues to erode its channel upstream, causing riverbanks to cave in and trees to topple into the water.

The Wolf River began eroding its channel when the U.S. Army Corps of Engineers (Corps) widened, deepened and straightened its lower 22 miles to reduce flooding in the early 1960s. Since then, the river has been eroding upstream at rates of up to four-tenths of a mile each year. Larry J. Smith, manager of environmental programs for Shelby County and a longtime advocate for the river, says the importance of the project can't be overemphasized. "It saves the river," he said. "No one knows how far upstream the head-cutting would go."

The first phase of the work, outlined in a $2 million-plus contract, calls for the installation of three main channel stabilization weirs, two berms to prevent the river from cutting through its bends, and three access roads. The weirs form a "hard place in the channel," said Carol W. Jones, project manager for the Corps. They slow down the current, causing silt to drop to the bottom, and prevent the river from scouring itself deeper. "Once you stabilize your bottom grade, it eventually stabilizes your banks, to keep them from eroding, too," Jones said. The first phase should be complete by next spring.

Beyond the river-related improvements, the project has far-reaching environmental and recreational features planned during the next 4-5 years. Some 2,000 acres of wildlife habitat will be acquired along the river, and plans call for biking and hiking trails and three boat ramps. The project will use $6.35 million in federal funds, with the *Chickasaw Basin Authority* and the county providing $3.55 million more.

Source: *AP/Knoxville News Sentinel*, 11/30/04

Floodplain Lake Pollution Controversy

Poor people living in and around the town of Alsen, LA about 10 miles north of Baton Rouge, rely on fish caught in nearby Devil's Swamp Lake for a significant part of their weekly food supply, despite warnings that the fish are contaminated with a potent mix of toxic industrial chemicals. Chemicals disposed in the lake by local waste operations include lead, mercury, arsenic, hexachlorobenzene and hexachlorobutadiene. The contamination is so dangerous that the U.S. EPA in March 2004 proposed adding the lake to its national list of most-contaminated sites, which would make it eligible for expedited cleanup. In part, the proposed addition to the federal Superfund list is driven by its use as a source for food.

Now the *Center for Progressive Regulation* (CPR), a new national environmental law organization, has recommending that EPA require the companies believed to be responsible for the pollution to provide groceries to those who rely on fish from the lake, and that the EPA immediately list the site under the Superfund and begin cleaning it up. The challenge is the latest incident involving one of the most infamous chemical disposal areas in the history of the state and the nation.

Devil's Swamp Lake was created in 1973 by dredging to provide soil for repairing a levee along the nearby Baton Rouge Harbor. By that time, the area already was contaminated with a toxic mix of chemicals that had leaked from a series of waste pits used by local industries for 20 years. "They'd build little dikes against the bluffs (along the Mississippi River) in the area, so they could just back a truck up and dump toxic waste into the retaining walls," said Jerry Speir, a lawyer whose late father-in-law, Dave Ewell, owned part of the property on which the lake was built. "Magically, the pits never filled up," Speir said. "But they deemed that preferable to dumping the stuff directly into the river." In 1969, a major spill at one of the nearby pits resulted in the death of cattle grazing on the land, and that led to the first lawsuit against the waste operators. The EPA eventually forced the companies that disposed of waste at *Petro Processors* to sign a consent agreement requiring the closure of the pits and the beginning of what has turned out to be a lengthy cleanup process

The CPR demand for immediate action came through use of a little-known federal law — the Information Quality Act. That Act, approved by Congress during the Clinton administration, lets individuals and companies demand corrections to written information distributed by federal agencies. CPR sent letters to the companies, *NPC Services Inc.* and *Clean Harbors Environmental Services Inc.*, and to EPA Administrator Michael Leavitt accusing the owners of the nearby *Petro Processors* hazardous waste dump of attempting to delay the cleanup. The letter was signed by several officials of the law group, including Robert Verchick, who also is an environmental law professor at Loyola University Law School.

"The fish consumption advisory currently posted is a woefully inadequate remedy to the problem because the low incomes of persons in this area force them to eat substantial amounts of fish from the lake in order to have enough food.....Rather than cooperate in cleaning up the site, NPC and its member companies have engaged in a long battle of attrition, raising arcane technical objections at every turn that have stymied any significant progress toward eliminating these threats," the letter said.

Petro Processors owner *NPC Services* contends that EPA failed to use a 1999 study that assesses the risk to humans and wildlife from contamination in the lake and surrounding swamp. Instead, the company says, the EPA used a similar study conducted in the 1980s. The company also contends that the newer 1999 study may not have met federal quality guidelines and that the EPA's recommendation doesn't indicate the contamination may have been caused by permitted releases from nearby industry. Anne Crochet, an attorney for NPC, said "I find it surprising that anyone would find it objectionable that we want the best, complete, highest-quality data used…the objective is to make sure all the available data is being considered by the agency when making a determination on whether or not it should be on the list."

"We're very concerned because CERCLA (the Superfund law) was designed by Congress to allow the government to move quickly to remediate contamination problems, to get cleanups moving fast so people aren't harmed," Verchick said in an interview. EPA has yet to come to a decision on Superfund listing.

Sources: Mark Schleifstein, *New Orleans Times-Picayune*, 1/23/05; and *Greenwire*, 1/25/05

NC Stream Buffer Program Criticized

A federal-state program meant to improve water quality under the Conservation Reserve Program (CRP) in eastern North Carolina rivers has gotten limited participation and limited success, researchers say. The CRP stream buffer program aims to improve non-point source pollution and runoff by converting 100,000 acres of cropland along streams and ditches into natural filters of grass and trees.

The state Division of Soil and Water Conservation has spent $5 million in state money so far, but enrolled only 22,000 acres, and researchers from North Carolina State University (NCSU) say many of the tracts aren't doing the desired filtering. For example, Blythe Davis, a Hyde County farmer, signed a contract not to farm a 78-acre field for 30 years and was paid to plant pine and oak trees. He got a $14,642 sign-up bonus and gets yearly payments of $7,300 — more than he made leasing the field. After 30 years, he can cut the trees and sell them. But the buffer is short-circuited by five drainage ditches that carry excess water into a drainage canal.

"The taxpayer is going to spend a boatload of money down there," said Dave McNaught, a policy analyst at *Environmental Defense* who has followed the program. "It's the obligation of the people overseeing the program to make sure we see sufficient water quality and wildlife benefits." The CRP began in 1999 as a partnership between states and the U.S. Department of Agriculture (USDA).

The North Carolina program initially focused on four basins overloaded with pollution: the Neuse, Chowan and Tar-Pamlico rivers and Jordan Lake. About half the land enrolled is part of a backlog of more than 450 incomplete real-estate contracts granting the state conservation easements. They will take more than a year to finish. The state program has processed only enough contracts to get $16 million in federal money. It appears unlikely that the state will draw down even half of the $221 million the USDA committed to the project, Bill Holman, executive director of the *Clean Water Management Trust Fund* (CWMTF), said. The CWMTF is a state agency that has granted the program $10.1 million.

The state CWMTF originally pledged $39 million to match that $221 million in federal payments. But the fund directors have tabled until spring a request for more money and asked leaders of the state's environmental agency to recommend improvements. Holman said he and his board of trustees were concerned by the program's slow pace and by the quality of the land enrolled. Half of the land is supposed to create permanent buffers, but only 10% has so far. "We think the program needs to be fixed before more money is invested in it," Holman said. "It's the job of the management of Division of Soil and Water Conservation to identify the problems, get them fixed ... and stop blaming other people."

NCSU researchers monitoring the program said only a few sites they visited were located properly to remove sediments and fertilizers before they washed into waterways. In some cases, the researchers couldn't find a stream that was being buffered, said Robert Evans, an agricultural engineer at NCSU. Sometimes the buffer land was on high ground so water would flow away from it rather than through it, or the entire field was taken out of production, leaving nothing to filter. The researchers' initial concerns prompted them to do a statistical survey of the more than 1,000 sites enrolled.

Four researchers visited 40 randomly selected sites and evaluated the potential to improve water quality. Overall, they concluded, many sites weren't filtering any more farmland runoff than what was occurring before the buffers were established. "The program has functioned primarily as a land conversion of some of the least productive agricultural lands to forest with little potential to improve stream water quality," the researchers said in a draft report. "In very few cases has the objective of enrolling 'sensitive' agricultural land been accomplished."

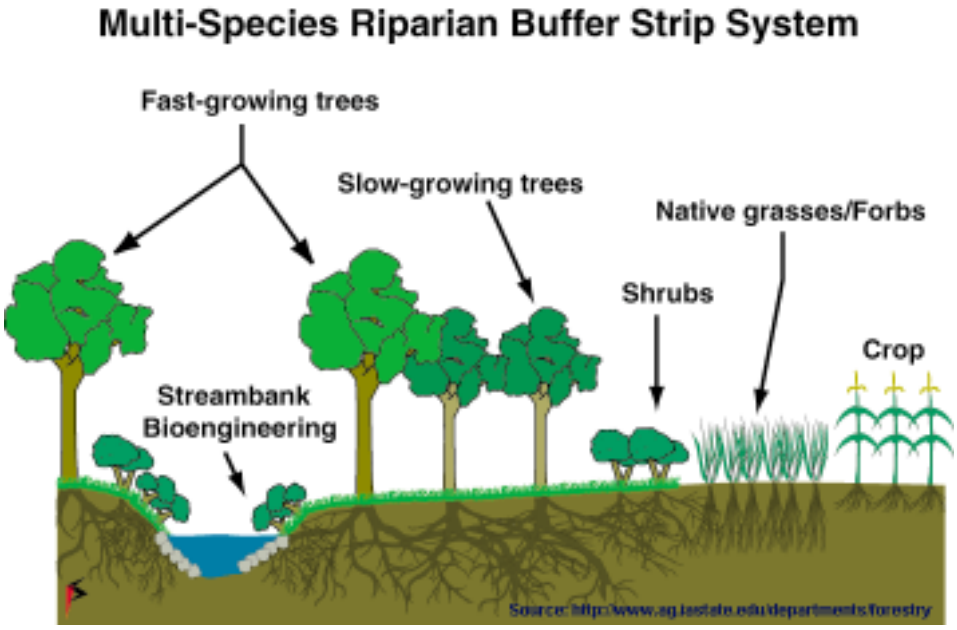
Tom Potter, program manager in the Division of Soil and Water Conservation, said the researchers had just started the monitoring. He characterized their observations as a difference in definition of a buffer. "I kind of feel like it's a philosophical difference of what they feel a buffer is versus what we feel is an effective buffer," Potter said.

Source: *Greensboro News-Record*, 1/13/05

GA Stream Protections Reduced

In December the Georgia Board of Natural Resources (BNR) weakened the state's rules protecting stream buffers — strips of land left in a natural state on either side of a waterway. The 11-5 BNR vote came after nearly two hours of public comment from developers and builders who supported the changes and from environmentalists, anglers and homeowners who opposed them. The new rules took effect before the end of the year.

The most controversial provision allows developers to fill in, build over or pipe channels they identify as "wet-weather



ditches." The channels — also called swales and gullies — carry water during and after rains. No one knows for sure how many of the channels or trenches there are, but they can be found all over the state.

Environmentalists and scientists refer to these channels as "ephemeral streams" and argue they perform a vital function in bringing rainwater to larger streams and rivers. The natural channels allow the water to soak into the ground, slowing the flow, reducing the risk of floods, and filtering out pollutants such as lawn fertilizers, animal waste and oil from streets and parking lots. "Ephemeral streams are probably the most important waterway of all waterways," said Glynn Groszmann, an engineer and environmentalist who has helped the state revise its stream protection rules.

Developers say protecting the channels has made it difficult to build on some properties. And they say they can engineer better storm-water solutions, such as retention ponds that hold the water and give sediments time to settle out. Dennis Billew, a Gwinnett County civil engineer, told the BNR, "A lake might be the best storm-water facility there is." Bettie Sleeth, a lobbyist with the *Home Builders Association of Georgia*, said the new rules are "reasonable and logical." The previous provisions treated trenches, drainage ditches and gullies as if they were lakes, rivers and streams, she said. "The rules are still complex....and they make sure we have at least as good water quality as we do now," Sleeth said.

But environmentalists fear developers and builders will abuse the rules, misidentifying a stream as a storm-water conveyance or wet-weather ditch. Alice Champagne, an environmental engineer with the *Upper Chattahoochee Riverkeeper*, said she found fish in what one developer had identified as a wet-weather ditch. "These channels will not be identified correctly," she predicted.

The new rules also allow developers to build next to any stream if they can demonstrate that the development won't harm water quality. They can make their case for a waiver of the buffer rules with computer modeling or by monitoring the stream. Environmentalists say Georgia has been eroding its stream protections since 1989, when the state first required minimum buffers to protect waterways. The original legislation called for a 25-foot strip of undisturbed land along most streams and 100 feet of buffer along the pristine mountain waters where trout breed. In 2000, the buffer along trout streams was reduced to 50 feet. Individual cities and counties can enact stricter rules and wider buffers.

The new rules are seen by critics as a further rollback, particularly since state environmental regulators acknowledge they can't enforce the current rules because of lack of personnel. One person reviews scores of requests every year by developers and contractors who want to build near a stream. "The rules of this board are extremely tight, but today you can walk to any stream bank, and you'll see rivers running red," Environmental Protection Division Director Carol Couch said. "We have had well over a decade now of lacking sufficient resources to get the job done."

Source: Stacy Shelton, *The Atlanta Journal-Constitution*, 12/08/04

MO Streams Lawsuit Settled

A lawsuit settled in late December requiring Missouri to toughen its water quality rules by 2006 so that all streams and lakes in the state are protected for swimming has sent regulators scrambling. The Missouri Department of Natural Resources (MDNR) has asked contractors to evaluate more than 100 streams to determine whether anyone swims in them. If not, the streams could be exempted from the new rules, and sewage operators could continue to dump bacteria-laden effluent into them. In addition, the Metropolitan St. Louis Sewer District (MSD) is studying four streams it would like exempted — River Des Peres, the Missouri and Mississippi rivers, and Maline Creek.

It could cost hundreds of millions of dollars for sewage operators, farmers and others to add the equipment needed to keep disease-causing bacteria from getting into the streams. But there is a loophole in the federal law — any person or agency can conduct an analysis to show that a given stream is not used for swimming, and therefore shouldn't have to be protected. In addition to MSD, a nonprofit group affiliated with the *Missouri Corn Growers*; and some small cities are seeking such exemptions.

The USEPA ultimately decides on exemptions, after a review by the state environmental agency — in this case, the MDNR. The process is allowed under the Clean Water Act (CWA), but many states have avoided using it. States that protect <u>all</u> waters for swimming include Maine, New Hampshire, Vermont, West Virginia, Pennsylvania, New York, Idaho, Oregon and Washington. The original intent of the CWA was to have all water bodies "fishable and swimmable" by 1983.

The *Missouri Coalition for the Environment* filed the subject lawsuit against the USEPA in 2003. Under the settlement, the MDNR must submit new regulations to the EPA for complying with it by April 2006. State rules say that a use analysis must consider whether a given stream has been used for swimming at any time since 1975. The analysis must also consider whether the stream is suitable for swimming. It must be at least 3.3 feet deep at the deepest part, or an average of 1.6 feet deep throughout, to be considered suitable.

If it can be proven that no one swims in a given stream, sewage plant operators don't have to disinfect the effluent discharged into that stream. John Lodderhose, assistant director of engineering with MSD, said the it would cost MSD — and its ratepayers — tens of millions of dollars to disinfect sewage effluent discharged into the Missouri and Mississippi rivers. Sewer overflows are an issue on the other two streams.

Lodderhose said the exemptions are being sought in the taxpayers' interest. "If (the streams) aren't used for swimming and we pay a lot of money for disinfection, that's kind of a waste of money," he said. Phil Schroeder, chief of the MDNR water quality monitoring and assessment section, said that most sewage treatment plants disinfect effluent by adding chlorine, which is another pollutant. "If disinfection is not a necessary treatment process, it's best not to require it," he said. The state also wants to avoid unnecessary regulation because of its cost.

But Ted Heisel, executive director of the *Missouri Coalition for the Environment*, said, "You cannot write off a stream and pollute it to the extreme. ... Using streams as a sewage disposal site is not a way to treat our resources."

Source: Sara Shipley, *St. Louis Post-Dispatch*, 12/29/04

MN Water Funding Plan Proposed

An unusual coalition of environmental, business and farm groups has proposed an ambitious plan to raise $80 million a year to clean up Minnesota's contaminated lakes and rivers by charging most Minnesotans an extra $36 a year on their water bills or property taxes. The proposal, called "*Clean Water Legacy*: a partnership to restore Minnesota's impaired waters," is certain to receive hearings at the State Capitol.

The supporters include *the Minnesota Chamber of Commerce*, the largest business association in the state; the *Minnesota Environmental Partnership*, a coalition of 88 environmental and conservation groups; *the Minnesota League of Cities*, and both the *Minnesota Farmers Union* and the *Minnesota Farm Bureau*.

Gov. Tim Pawlenty issued a statement applauding the work of the coalition, calling the plan a "positive proposal" that he will consider "in the context of our overall budget." Behind the unusual unity is a serious concern that cities, manufacturing plants, small businesses and food processing facilities won't be allowed to grow or expand in the future unless contaminated waters near them are cleaned up.

The federal Clean Water Act requires states to assess their lakes and streams, and to list those that are "impaired" because they contain too much mercury, fertilizers, phosphorus, human and animal waste, or other contaminants. Once listed, development that would increase pollution, including larger discharges from wastewater treatment plants, will not be allowed. So far Minnesota has assessed 8% of its rivers and 14% of its lakes, and more than 40% of those — about 1,900 waters — have been listed as impaired.

Mike Robertson, environmental policy consultant to the *Minnesota Chamber*, said the Legislature does not have a choice about whether or not to deal with the problem. "We see it as a very significant economic development issue for the state," he said. "If we wait, the cost and difficulty of addressing the problem will only get worse." Tourism, manufacturing and agriculture rely heavily on water resources, and Minnesota can't afford to delay, Robertson said.

Maryland's legislature passed a similar funding plan last year to restore parts of Chesapeake Bay. Craig Johnson, environmental and land use adviser for the *League of Minnesota Cities*, said cities recognize a need to tackle the problem before lawsuits and other roadblocks interfere with business and residential growth. Tax incentives have been used to encourage new or expanded businesses in some rural zones, but such growth could be jeopardized in areas near impaired waters, he said.

The *Clean Water Legacy* program would raise $80 million a year by imposing $3 monthly charges on water bills, and higher amounts on businesses, depending upon how much water they use. Rural areas served by septic systems would have an annual $36 added to each household's property taxes. There would be hardship exemptions from the fee for low-income residents. The *Association of Minnesota Counties* is opposed to the property-tax approach, according to executive director Jim Mulder. "Everything has to be on the table" as far as possible funding sources, he said, including the state's general fund.

Steve Morse, senior fellow at the University of Minnesota and a former legislator, said counties would benefit from the plan because much of the money would be devoted to improving rural water quality. Morse was chairman of the group of business, farm and environmental leaders brought together by the *Minnesota Environmental Initiative* to design the proposal over the past two years. Fees would need to continue for several years, Morse said, and would be used not to establish new programs, but to bolster existing efforts by state environmental agencies, local watershed boards and other groups. The new state money could be matched by $40 million in federal funds under the recent farm bill, Morse said. Other federal or private matching grants also could become available. "We're behind the curve in getting this implemented," he said. "In a few years we expect there'll be more than 10,000 contaminated waters listed in the state."

Louis Smith, *Rivers Council of Minnesota* and the *Minnesota Lakes Association* noted "This is a great opportunity for the state to invest in one of its most important assets — her lakes and streams. It is encouraging that the proposal includes increased citizen water quality monitoring, locally led conservation and incorporates a protection element in addition to the restoration of polluted waters."

Sources: Tom Meersman, *Minneapolis Star Tribune*, 1/20/05; *Thalweg*, 1/20/05; and *Greenwire*, 1/21/05

PA Toughens Longwall Mining Operations Under Streams

An unprecedented decision made by the Pennsylvania Department of Environmental Protection (DEP) and upheld by the state Environmental Hearing Board (EHB) could change the way coal mines can operate near seasonal streams in the state. At issue was whether an unnamed intermittent tributary of Maple Creek in Washington County should be classified as a perennial stream and thus subject to protection from pollution.

Robert E. Murry, owner of *UMCO/Maple Creek Inc.* had planned to expand his *High Quality Mine* (HQM) using the longwall method to exploit a coal seam under the creek. Underground coal excavation, called longwall mining, often employs a giant shearer to remove panels of coal up to 1,200 feet wide and 15,000 feet long. In sensitive areas, the excavation can cause the earth's surface to sink 3-4 ft., crack or even collapse. The HQM is 215 feet below the unnamed tributary, making it the shallowest longwall mine operating in the state. Most longwall mining is done 350 to 600 feet below the surface. Opponents say subsidence caused by such mining has resulted in the destruction of historic homes and other properties in the state and threatens 3,500 acres of national park, wilderness lands and historic properties.

Murray's HQM has been allowed to longwall under other tributaries of Maple Creek during the past year by promising to mitigate any subsidence damage. Murray has done so by injecting grout into streambed cracks caused by the subsidence and lining stream channels to help them hold water. He also augmented the reduced stream flows by pumping

water from wells and buying more than 11 million gallons from the Charleroi municipal water company. But on Nov. 12, the state DEP ruled that the creek, previously classified as intermittent, is a perennial stream. It said that entitles the creek to protection from pollution, which includes diminished flow, contained in the state's Clean Streams Law. The DEP ruling was in response to an UMCO request to reclassify the brook as ephemeral, which means it flows only when it rains. UMCO asked the state EHB to overturn the ruling, but the appeal hearings ended in denial.

An example of subsidence in a coal mining area. When the ground gives way trees and everything else simply cave into the open space below.

Mining industry officials said that if DEP recognizes longwall mining as a threat to intermittent streams, it would mark a major change in the way mining is conducted in the state. "If the DEP is able to change the protection requirements it historically followed for streams that crisscross the coalfields, our concern becomes which coal reserves are mineable and which are sterile," said George Ellis, president of the *Pennsylvania Coal Association*. "The continuous flow definition is used because it's the same as the definitions used in other coal-producing states. If we follow a biological definition for perennial streams, Pennsylvania will be at a disadvantage compared to other states where the level of protection is less."

Pennsylvania's policy towards stream management has changed over the past two years, with the DEP now requiring mining companies to apply for stream encroachment permits where subsidence could be possible. "It's a learning process that comes after eight years of walking along streams over longwall mines," said Mark Frederick, an assistant compliance manager at the DEP. "Our belief in 1997 was that we did not expect to see stream impacts if the depth of [the mine] was 400 feet or more, but that's not what I was seeing."

The DEP's slowly evolving policy on stream protection was hastened by the change from the Republican administration of Gov. Tom Ridge to the Democratic administration of Gov. Ed Rendell. Throughout the 1990s and until 2001, the DEP paid little attention to the effects of longwall mining on streams, believing, as the mining industry said, that any damage and loss of flow was temporary. This belief persisted despite a U.S. Fish and Wildlife Service study that found longwall mining had degraded or dewatered hundreds of springs and 81 streams in Washington and Greene counties.

Michael Heilman, a DEP attorney, said UMCO's shallow longwall operation would completely dry up the springs and the brook, killing aquatic bugs, fish and wetland species. "We're not talking about nibbling around the edges here, this is the full Monty," he said, adding that the Clean Stream Law should be applicable to mining companies, just as they are to surface landowners. "We don't contest that UMCO can create a channel to convey water", he said, "but it's not the Clean Conveyance Law, it's the Clean Streams Law. This is a nice stream. It supports fish, bugs and wetlands, and we have few enough of those left." "The nearly complete elimination of springs, seeps, wetlands and a stream does not preserve the stream's value or protect its reasonably foreseeable uses, whatever they may be," EHB Judge Bernard Labuskes wrote in his 29-page opinion.

George Jugovic Jr., attorney for *Citizens for Pennsylvania's Future*, which intervened in the appeal on the DEP's side, said the company was unable to prove it could mine without damaging the water flows. "They have every right to remove the coal under the stream. They just can't damage the stream in the process," he said.

The new policy will require mining companies to conduct premining flow rate studies and detailed biological assessments before longwall operations are approved. According to testimony at the hearing, mining companies, including UMCO, understood that they need only mitigate damage involving perennial streams — those with a continuous flow. In the past, simply by showing regulators a single photograph of a dry streambed, they could get the DEP to reclassify streams as intermittent or ephemeral, classifications that required no protections.

Murray, who mines 19 million tons a year in five states as the nation's 12th-largest coal producer, said he had invested almost $130 million in the mine based on a state permit issued in 1999 that allowed longwall mining. Referred to the creek as a ditch in his testimony at the hearing, he said the DEP order "was an illegal action without due process," issued by an "out-of-control bureaucracy directed by people with long environmental careers," an apparent reference to DEP Secretary Kathleen McGinty, an environmental official in the Clinton administration.

The DEP order prohibiting longwall mining allows Murray to continue to mine using the room-and-pillar method, which minimizes subsidence and stream damage. But he said that method was slow and uneconomical. The HQM's longwall operation can carve out 12,000 tons a day, compared with 1,000 tons for a continuous mining machine used for a room-and-pillar operation. Murray laid off the mine's 495 employees, including 308 union miners, after getting the DEP order and said he might be forced into bankruptcy by creditors.

But UMCO's business practices past and present were apparently as much on trial in the hearing as was environmental law, based on a significant section of the 29-page order issued by Judge Labuskes. In the order, Labuskes wrote, "UMCO is at least partially responsible for where it finds itself due to its (1) aggressive business plan and (2) questionable course of conduct leading up to the current state of its operation." The judge noted that the mining company has claimed it is "in dire financial straights," but questioned whether a favorable ruling would "merely delay where this operation was headed anyway." "If we could have been assured that UMCO could be restored to good health with a supersedeas, that the miners would thereafter have a steady source of long-term employment (a point very much in dispute), that there would be no similar environmental concerns at future panels (again, very questionable according to the record at this point given the mine's shallow cover), we might have been more

inclined to remove the road-block to Panel 6E mining."

Sources: Don Hopey, *Pittsburgh Post-Gazette*, 11/28/04 and 12/1/04; Chris Buckley, *Valley Independent*, 12/2/04; ; and *Greenwire*, 12/1/04

Kansas River Dredging Study

State officials are embarking on a study of the Kansas River (also known as the Kaw) that will reignite a long-running battle between environmentalists and sand dredging operators. "The Kansas River is a valuable resource that needs to be managed," said Ken Grotewiel, director of the Kansas Water Office (KWO).

The Kansas Water Authority, a 24-member panel within the KWO that advises the governor and legislature on water resource issues, is interested in finding out what factors are contributing to the degradation of its channel, including the role of aggregate dredging. The 170-mile river runs through the most populated part of Kansas, traversing 10 counties that are home to more than a million people, about 40% of the state's population. In some bends, the river looks like a garbage dump, and the nonprofit conservation group *American Rivers* routinely lists the Kaw as an endangered river laced with loads of pesticides and bacteria. But in other areas, the river's beauty shines through, and many see its potential as a major recreational resource for canoeing and other activities.

Environmentalists are looking forward to the Kaw study. "I think this is a positive step," said Laura Calwell, the *Kansas Riverkeeper* for *Friends of the Kaw*, an organization dedicated to environmental protection. "The state of Kansas is finally taking a serious look at the degradation on the Kansas River and how to protect the river," she said. But Edward "Woody" Moses, director of the *Kansas Aggregate Producers Association*, said he was puzzled by the KWO proposal. He said numerous studies had already been done on the effect of dredging on the river. "I don't know what new information they're going to find," Moses said. "We don't feel sand dredging is having any negative impact on the river. There's plenty of room for everybody on that river," he said.

Each year, about 1.8 million tons of sand is taken from the Kansas River, with much of it removed from the river bed through hydraulic dredging operations. The high-quality sand is a primary source of aggregate for cement that is used in construction projects in the Kansas City area. *Friends of the Kaw* has called for suspending sand dredging on the river and has lobbied the U.S. Army Corps of Engineers (Corps) to reject the approximately dozen site permits for dredging operations.

Friends of the Kaw and other environmental groups say dredging is ruining the Kansas River by removing the Kaw's natural filtering system and degrading river banks, which in turn destroys the vegetation that can filter agricultural runoff. The sediment dumped back into the water from the dredging hurts fish and their spawning grounds, the groups say.

Current dredging permits expired in 2003 but have been indefinitely extended by the Corps, and the agency has asked for the state's position on aggregate dredging before it takes action on renewing those permits, according to the KWO. Meanwhile, other federal agencies, such as the USEPA and the U.S. Fish and Wildlife Service, have weighed in with letters to the Corps that say before the permits are renewed more study is needed to determine the effects of dredging on wildlife.

Though the proposed study has a major focus on dredging, it will also look at issues including the effect of dams on the river. When sediment piles up behind dams, the result is the release of relatively clear water with a large material-carrying capacity that "downcuts" the riverbed, according to a Kansas Water Plan concept paper. The study will also look at streambed degradation of the Missouri River, of which the Kaw is a tributary, and whether that affects the reach of the Kaw in the Kansas City area. Grotewiel, the head of the KWO, said the study was not aimed at placing blame with the sand dredgers, but in getting facts that could be used to help balance the economic, recreational and drinking water uses of the river. "We're not just picking on people. We want to get away from that," he said.

The study will lead to policy recommendations for state officials to consider by the 2007 legislative session.

Source: Scott Rothschild, *Lawrence Journal-World*, 1/24/05

Gravel Mining and Dredging in Great Lakes Connecting Channels

Extensive gravel mining and dredging for navigation on a key Great Lakes' tributary may have permanently lowered Lakes Michigan and Huron more than previously thought, threatening the region's economy, according to a report released in late January by U.S. and Canadian environmental groups. The report by the *National Wildlife Federation* (NWF) and other groups concludes that widening and deepening Michigan's St. Clair River — not the cyclical changes in snowpack — have lowered the lakes' water levels.

Decades of work on the St. Clair have caused a 32-inch permanent withdrawal in the lakes — "equivalent of 28 times the volume of water in Lake St. Clair or one quarter of the volume of water in Lake Erie," the groups said in a statement. While mining for gravel and other stone harmed the river, a 1962 shipping channel project thought previously to cause a one-time water loss "effectively opened a bigger drain hole in the Great Lakes," said John Pepperell, president of the *Georgian Bay Association*, which funded the report. The project deepened the channel to 27 feet, but the erosion that resulted has caused a 12-inch drop in the lakes since 1970, NWF's Tim Eder said.

"Everyone knew about a one-time water loss that was caused when the channel was first opened. However, we have now discovered that ongoing erosion is making the outlet from Lake Huron larger, allowing water to leave faster than had been recognized," Pepperell added. The channel needs to be 30 feet deep for adequate navigation, but it has eroded to 60 feet in critical spots causing increased outflow from Lake Michigan and Huron, the report states.

The economic consequences of the water shift are potentially severe because the low water levels on the two Great Lakes force companies to spend more on barges to carry coal, iron and other goods to and from the region. The environmental groups also warn that if lower Great Lakes levels persist, native fisheries could decline permanently. The erosion has destroyed wetlands and forced wildlife

away from steep, rocky shorelines, the report says.

Officials at the U.S. Army Corps of Engineers (Corps), which manages navigation, has not commented on the situation. But a Great Lakes industry official, who declined to be identified, suspects the report is "part of the environmentalists' greening the Corps' agenda." Jennifer Nalbone of *Great Lakes United* said the discovery of additional erosion in the St. Clair means the Corps should put on hold its plans to deepen the St. Lawrence Seaway. The report shows that the lakes and their tributaries "cannot be scooped and molded to fit our short-term economic goals."

Source: Marty Coyne, *Greenwire*, 1/24/05

KY "Mussel Wars"

Kentucky's rich freshwater mussel fauna is exceeded in number of species by only Alabama and Tennessee. And of the 103 native mussel species known from Kentucky, 53 (51%) can be found or historically occurred in the Licking River drainage. Now that river, an Ohio River tributary, has become a prime target for poachers looking for washboard mussels. Washboards can live up to 100 years and grow to the size of dinner plates, and because of their color, Licking River washboards are highly coveted for use in making cultured black pearls.

"The mineral content of the Licking gives these mussels black blotches on their shells that will create a black pearl," said Mickey Craig, a Kentucky wildlife and boating officer. State wildlife officials say the freshwater mussels are being collected in vast numbers and shipped to Japan and China, and their shells can fetch up to $8 per pound, with poachers sometimes hauling away 2,000 pounds or more of the shells in a single night. "The Licking is a gourmet river for these shells. And we're talking about a mega-money operation," Craig said.

Craig has been involved in 17 mussel-poaching busts on the Licking River over the past two years. He says poachers usually come from western Kentucky, Tennessee, Alabama or Arkansas, and that one group he arrested last year collected 1,500 pounds of shells in a couple of hours. "You couldn't pick up rocks any faster," Craig said. "It's a cut-throat business, kind of like the cocaine trade of natural resources. And right now, I'd say the Licking is the hottest river in the eastern U.S."

Poachers typically scuba dive to collect their illegal bounty, wearing spiked boots that keep them stationary under water against the current. They'll place lookouts on the roads, while using radios and night-vision goggles to watch for law enforcement. Once in Asia, the black shells are cut into small pieces that are inserted into oysters. The oysters secrete fluid around the small pieces of shell that result in pearls after about 18 months.

Col. David Casey, director of law enforcement for the Kentucky Department of Fish and Wildlife (KDFW), said his officers have taken to calling the cat-and-mouse game they play with poachers the "mussel wars." "As with any wildlife species, when a dollar value is attached to it, there are people out there who will try to harvest them to excess so they can make a buck," Casey said. "And these people can make a great deal of money."

State forfeiture laws apply to poaching, just like the drug trade. That means people risk losing their trucks, boats, scuba gear and any other equipment used during the crime. Forfeitures from northern Kentucky alone have brought in about $60,000 in revenue to the department over the past few years.

Craig said people boating on the river can help spot poachers by looking for a couple of telltale signs — drag marks on the river banks from people hauling bags full of shells out of the water, along with the burlap or nylon sacs poachers use. "I feel like we're doing a great service because of the importance of these animals to the environment," Craig said. "This work is important, and it's got to be done."

Mussels are vital to streams because they filter pollutants out of the water, acting as a natural stream cleaner. They also provide a vital link in the food chain, because they often release undigested food into the water that insect larvae feed on, and those insects become food for fish. Monte McGregor, a biologist with the KDFW, said many species of Kentucky mussels are among the most endangered animals in the world. Some harvesting is allowed by the state, but that harvesting must be done with a tool that is capable of capturing only about 1% of the mussels in a bed. Poachers can wipe out entire mussel beds, McGregor said. "Of the 103 species in the state, we've lost seven to extinction and another 14 are on the federally endangered species list." McGregor is trying to raise endangered mussels in captivity with the hope of eventually restocking streams.

Sources: Neil Relvea, *WCPO.com*, 1/23/05; *AP*, 1/24/05; and Dan Klepal, *The Cincinnati Inquirer/ Lexington Herald Leader*; and Ellis L. Laudermilk, *Naturally Kentucky*

Citizen's Agenda for Rivers

More than 2,500 conservation and river advocacy groups from across the country have joined hands to develop the first-ever *Citizens' Agenda for Rivers* (CAR) with the goal of protecting and restoring the health of our rivers and watersheds. Steering Committee members include representatives from the following groups: *American Rivers, Amigos Bravos (NM), Kentucky Waterways Alliance, New York Rivers United, River Alliance of Wisconsin, River Network, Rocky*

CAR photo.

Mountain Watershed Network (CO), South Yuba River Citizens League (CA), Stony Brook – Millstone Watershed Association (NJ), Tennessee Clean Water Network, Trout Unlimited, and *Waterkeeper Alliance.* The CAR is also backed by hundreds of thousands of members and volunteers, as well as scientists, academic experts, and state and federal agency staff.

CAR's message to elected officials and other decision-makers is clear — Americans demand clean water and healthy rivers. CAR members are alarmed by trends showing that river health across the country is deteriorating, and they plan to hold America's leaders accountable for

reversing these trends. CAR members see river health as intimately related to the health of our children, our elders, our local economies, the quality of life in our communities, and our natural heritage.

The CAR agenda contains proactive steps that, if taken today, will improve river health, and by taking these actions, decision-makers can demonstrate their commitment to the growing numbers of constituents who care deeply about river health. CAR members reviewed the range of problems threatening our rivers, and concluded that three issues represent the most acute threats to the largest number of rivers:

- eroding water quality,
- insufficient water for river health, and
- urban sprawl.

In addressing these threats, CAR members developed the following series of recommended solutions:

Protect water quality

1. Protect streams and wetlands

- EPA and the Army Corps of Engineers should rescind their January 2003 guidance that improperly limits the scope of waters covered by the Clean Water Act, and should instead comply strictly with the Clean Water Act and its implementing regulations.
- Congress should pass the Clean Water Authority Restoration Act to reconfirm its intent that the federal Clean Water Act protect all of our nation's waters, not just some.

2. Improve water quality.

- EPA should reduce the amount of untreated sewage flowing into rivers, including abandoning its proposed policy that would allow inadequately treated sewage to be released into rivers.
- EPA should abandon its attempt to weaken the rules for watershed clean-up plans, or the total amount (Total Maximum Daily Load) of pollution allowed in rivers.

3. Enforce the law.

- Congress should provide EPA and states sufficient funds to enforce the Clean Water Act.
- Courts should assess water quality violation penalties in amounts that exceed the profits polluters make by polluting.

Ensure enough water for people and rivers

1. Stop wasting water.

- State and federal agencies should meter all water users. Meters allow water users to gauge how much water they are using and how much it costs.
- States should require best practices for water supply and stormwater management to protect and replenish natural water flows, including groundwater stores and stream recharge zones.
- EPA should implement voluntary programs to promote water conservation, including a labeling system for water efficient products.
- The Departments of Interior and Agriculture and state agencies should create and promote incentive programs for agricultural and other landowners to conserve water, and return conserved water to instream uses.
- Counties and municipalities should make accurate forecasts of population growth and water use to avoid placing undue water withdrawal burdens on already overtaxed rivers.

2. Protect underground water sources.

- States should require metering and reporting of all groundwater withdrawals.
- States should regulate groundwater withdrawals, requiring analysis and mitigation of impacts to ecology and surface and groundwater supplies before issuing a permit.

3. Restore more natural flows.

- States should adopt ecologically based instream flow standards.
- In support of state efforts, EPA should direct states to include flow standards in water quality criteria.
- Agencies that regulate dams should incorporate ecosystem health into their operating rules and reservoir release schedules.
- States should create and promote programs to purchase, lease or allow donations of water rights to be used for instream purposes.
- USGS should continue and expand its monitoring of river flows and groundwater.

CAR photo. Dry stream bed.

Protect watersheds

1. Make federal investments in transportation and water infrastructure less damaging to rivers.

Water infrastructure

- Congress and EPA should restrict funding under the Clean Water State Revolving Fund to projects for existing communities, concentrating resources in the neediest communities and reducing subsidies for sprawl. Projects to service new communities should be limited to those whose overall environmental benefits far exceed any new impacts on water resources.

CAR photo. Urban sprawl.

- Congress and EPA should require at least 10% of Clean Water State Revolving Fund dollars be directed to stormwater and wastewater approaches that use natural soil and vegetation and other "non-structural" methods to minimize runoff and maximize natural infiltration.
- Congress and EPA should direct states to maximize available funding for source water protection under the Drinking Water State Revolving Fund.
- States should direct Drinking Water State Revolving Fund funds to meet existing environmental and public health needs, not to subsidize sprawl development.
- States should adopt incentives and other innovative programs to promote watershed protection and nonstructural stormwater management.

Transportation

- Congress and the U.S. Department of Transportation should strengthen environmental review requirements for federally funded projects to ensure that

their impacts, including stormwater runoff, meet local water quality requirements.

- Congress and the Department of Transportation should require all new federally funded projects to use nonstructural approaches to manage runoff.
- Congress should direct states to apply a minimum of 2% of Surface Transportation Program funds to address water quality damage caused by existing transportation projects.

2. States should apply "water smart" principles to growth and development planning.

- States should provide technical and financial assistance to local municipalities and counties to identify and protect critical areas, including stream corridors, wetlands, and critical recharge zones.
- States should require county and/or municipal plans for groundwater and surface water use, and counties and municipalities should ensure that long-term water supply plans are integrated with others in the same watershed.
- States should condition infrastructure funding for communities on compliance with river-friendly principles, including compact development, reduced imperviousness, stormwater infiltration, and other "water smart" considerations.

3. States should vigorously implement Clean Water Act protections through stormwater discharge permit programs.

- States should require local stormwater management plans to address cumulative impacts, limits for pollutants of concern, and protection of existing uses.
- Municipalities should set stringent standards in their stormwater discharge permits to protect areas critical to river health, such as: headwaters and other high quality waters, habitat for rare or sensitive species, significant drinking water sources, and important recreational waters.
- States should require that municipalities, counties, and other entities subject to stormwater permits utilize watershed protection principles, and low-impact and nonstructural stormwater practices as a primary basis for their approved permits and stormwater management plans.

What is a Healthy River?

In further defining their perspective on rivers, the CAR defines a healthy river similar to the health of a human. "Just as there is no single measure for human health, there is no single measure for river health. Rather, a healthy river is comprised of many facets — biological, physical, chemical, and even human. It does not have to be a pristine river, untouched by any human development or activities. But a healthy river does have to be resilient and able to recover from natural and man-made disturbances. A river's health is measured on a continuum, just as a human's health is. A river in the wilderness may rank the highest, but a river flowing through a major metropolitan region is not inherently unhealthy. Rather, the traits of an ecologically healthy river will have certain components that fall within a range that allows the river to maintain its ecosystem functions.

Fundamental characteristics of a healthy rivers include:

- **A natural flow that varies in magnitude, frequency, duration, timing, and rate of change.** A natural flow regime is a critical component for a healthy river because the flow of water provides the base on which all other river functions are built. The plants, fish, and wildlife in any given river have evolved to adapt to that river's unique rhythms.

- **Transportation of sediment and nutrients.** Rocks, gravel, sand, silt, and organic debris are important components of a healthy river, creating floodplains, sandbars, riparian areas, and nourishing a river's bed and channels. A healthy river in equilibrium does not allow too much erosion or excessive scouring of the riverbank and riverbed.

CAR photo.

- **Strong and varied plant communities.** Native plant species provide critical habitat for fish and other riverine animals, regulate water temperatures, prevent excessive erosion of riverbanks, and can remove pollutants from river water. Vegetation as it decomposes is also an important source of nutrients and habitat.

- **Productive and diverse habitat that can support numerous animal species.** The natural movement of sediment throughout a river creates riffles, pools, side channels, and backwater areas providing both spawning and rearing habitat for many species of fish.

- **Good water quality.** A healthy river has temperature levels, dissolved oxygen content, salinity, turbidity, hardness, acidity, and alkalinity (water pH) that are all within a natural range for that river and its species. A healthy river will also have minimal amounts of pollution and toxics, such as pesticides, nitrogen, phosphate, fecal coliform, and heavy metals.

- **Many macro invertebrates (bugs!).** Aquatic insects are the primary food for many riverine species. Abundance and diversity of insect species can be a strong indicator of river health.

- **Diversity of fish and wildlife species.** While the number of fish and wildlife species will vary with each river, a diverse number of species is often an indicator of river health.

- **A community that protects it through wise management and community planning.** For example community groups work to ensure that new development is as river-friendly as possible or organize river clean up days and engage other community members in issues related to river health. A healthy, caring community is an essential facet of a healthy river.

The CAR can be found on line at: http://www.healthyrivers.org/

New Hybrid Weed May Pose ANS Threat

Scientists have discovered a new form of invasive aquatic plant species in Wisconsin that could make the job of controlling aquatic weed infestations that much harder. The state Department of Natural Resources (DNR) said in early January that the new invasive species turned up last summer in 16 of 36 lakes that were tested across the state. The new hybrid was pollinated from the seeds of the northern water milfoil, a native Wisconsin lake plant, and the Eurasian water milfoil, a troublemaker that has choked lakes, harmed fish populations and diminished

the recreational experiences of boaters and swimmers for years.

The discovery only makes the job of controlling Eurasian water milfoil, and perhaps the hybrid, more difficult, according to Ron Martin, aquatic invasive species coordinator for the DNR. That's because the hybrid is virtually impossible to differentiate from the Eurasian water milfoil, he said. One way to tell the difference — spend about $50 for DNA analysis.

Typical Eurasian water milfoil infestation.

Eurasian water milfoil forms thick mats just beneath the surface of the water. In some cases, it nearly chokes out any other plants, wiping out plant diversity and harming the health of a lake. The weedy environment also makes it difficult for predator fish to see smaller fish, driving up the panfish population until the lake can no longer support them.

The Eurasian water milfoil can be controlled by chemical spraying and occurs in about 400 Wisconsin lakes. Martin said one way the DNR will find out whether the new hybrid is harming state waters is if spraying for the Eurasian water milfoil doesn't work. The hybrid has characteristics of both the Eurasian and native species. Spraying doesn't affect native milfoils, and it is unclear how spraying will affect the hybrid.

The plant was discovered in Wisconsin in 2003 by Michael L. Moody, a graduate student at the University of Connecticut. But it wasn't until last summer that the plant was discovered in more lakes than the state realized, said Laura Herman, an aquatic plant management specialist with the DNR in northern Wisconsin. The agency said it found new lakes with Eurasian water milfoil last year, but it is believed the increase is due to better surveillance.

Invasive species are transported to new lakes and rivers primarily on boat trailers, in live wells on boats and in bait buckets.

Source: Lee Bergquist, *Milwaukee Journal-Sentinel*, 1/11/05

China's Mercury Pollution and the U.S.

Nearly 30% of the mercury that contaminates U.S. water bodies and soil comes from coal-fired power plants in other countries, with China being one of the world's largest source of mercury emissions. China's 600 tons of annual mercury emissions account for nearly 25% of the planet's anthropogenic sources, said Jozef Pacyna, director of the *Center fore Ecological Economics* at the Norwegian Institute for Air Research. Growing energy needs in China have resulted in increased power plant construction. Under Chinese law, facilities can pay annual fees in lieu of installing pollution control devices.

The International Energy Agency estimates that coal will continue to play a huge part in providing China's future energy. The anticipated 650 gigawatts of coal-fired power plants by 2030 — nearly half of the global coal construction slated in that period — includes 450 GW of new plants and 200 GW to replace existing capacity. For comparison, California's peak energy demand is about 53 GW.

Chinese government officials are requiring some new coal facilities to use flue gas desulfurization scrubbers to reduce SO2 emissions. Such controls can often filter mercury as well. The best way to approach a solution to global transboundary air pollution would be to zero in on regulating mercury, a pollutant most everyone agrees is a hazard to human and environmental health, U.N. Environment Program Executive Director Klaus Toepfer said.

The global transboundary nature of air pollution makes international climate treaties like the Kyoto Protocol, which incorporates neither the United States or China, harder to achieve, said Toepfer.

Sources: *Wall Street Journal*, 12/17/04; and *Greenwire*, 12/17/04

Meetings of Interest

Mar. 15-17: 61st Annual Upper Mississippi River Conservation Committee Meeting. Grand Harbor Resort, 350 Bell Street, Dubuque, IA. Contact: Sue O'Loughlin@dnr.state.ia.us

Mar. 16-19: 70th Annual North American Wildlife and Natural Resources Conference, Crystal Gateway Marriott, Arlington, VA, Contact: *The Wildlife Management Institute*, 1146 19th Street, NW, Suite 700, Washington, DC 20036, (202) 371-1808, FAX (202) 408-5059

Mar 24-26: Second National Fisheries Management Conference: Managing Our Nation's Fisheries II: Past, Present, and Future, Washington, DC. See: www.managingfisheries.org. Contact: (707) 923-7501.

Apr 7-8: New Currents in Conserving Freshwater Systems: A Biodiversity Science Symposium, New York, NY. See http://cbc.amnh.org/symposia/freshwater/ Contact: Fiona Brady, brady@amnh.org, (212) 496-3431.

May 15-18: 2005 Freshwater Mussel Conservation Society Symposium. Radisson Riverfront Hotel, St. Paul, MN. See: http://ellipse.inhs.uiuc.edu/FMCS/Symposium/2005FMCSregistration.doc

May 20-24: National River Rally 2005, Keystone Resort, Keystone, CO. See: http://www.rivernetwork.org/rally

May 22-25: 9th Annual Missouri River Natural Resources Conference, Ramkota Hotel, Pierre, SD. Contact: Jim Riis, (605) 223-7701, jim.riis@state.sd.us. See: http://infolink.cr.usgs.gov/events/05.htm

May 23-27: B04: Interactions Between Physical and Biological Processes in Riverine Landscapes: New Insights from

Interactive Research, New Orleans, LA. See: www.agu.org/meetings/sm04/.

Jun 3-8: 2006 International Symposium on Society and Resource Management, Vancouver, British Columbia, Canada. Contact: Robert Ditton, r-ditton@new.tamu.edu, (979) 845-9841.

Jul 6-11: American Society of Ichthyologists and Herpetologists, Tampa, FL. Contact: Mark Pyron, MPYRON@bsu. edu, (765) 285-8852.

Jul 12-14: River and Lake Restoration: Changing Landscapes, UCOWR/NIWR conference (Universities Council On Water Resources). See: http://ucowr.siu.edu/

Jul 18-22: Seventh International Congress on the Biology of Fish, St. John's, Newfoundland, Canada. Contact: Bill Driedzic, wdriedzic@mun.ca.

Aug 16-19: Second North American Lake Trout Symposium, Yellowknife, Northwest Territories, Canada. See: www.laketrout symposium2005.ca/. Contact: Dave Tyson, tysond@dfo-mpo.gc.ca.

Sep 11-15: 135th Annual Meeting of the American Fisheries Society, Anchorage, AK. Contact: Betsy Fritz, bfritz@fisheries.org, (301) 897-16, ext. 212.

Congressional Action Pertinent to the Mississippi River Basin

Conservation

H. R. 135. Linder (R/GA) and 8 Co Sponsors. Establishes the "Twenty-First Century Water Commission" to study and develop recommendations for a comprehensive water strategy to address future water needs.

Endangered Species Act

H. R. 93. Gilchrest (R/MD). Assists in the conservation of flagship species throughout the world

Energy

H. R. 140. McHugh (R/NY). Promotes use of anaerobic digesters by agricultural producers and rural small businesses to produce renewable energy and improve environmental quality.

H. R. 174. Millender-McDonald (D/CA). Encourages greater use of geothermal energy resources.

Federal Water Pollution Control Act (FWPCA) Amendments:

H. R. 74. Davis (R/VA). Amends the FWPCA to impose limitations on wetlands mitigation activities carried out through the condemnation of private property

Water Resources

H. J. RES. 3. Davis (R/VA). Acknowledges a long history of official depredations and ill-conceived policies by the U.S. Government regarding Indian tribes and offers an apology to all Native Peoples on behalf of the U.S.

H. R. 109. Herseth (D/SD). Provides compensation to the Lower Brule and Crow Creek Sioux Tribes of South Dakota for damage to tribal land caused by Pick-Sloan Projects along the Missouri River.

Source: http://www.gpoaccess.gov/bills/index.html

River Crossings

Mississippi Interstate Cooperative Resource Association
P.O. Box 774
Bettendorf, IA 52722

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