

# River

# Crossings

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## Flood Plain Development Madness

Recent pictures of Hurricane Isabell's aftermath along the east coast of the U.S. were reminiscent of images displayed by the media in the aftermath of the Midwest flood of 1993. That five-month-long 1993 deluge covered 17,000 square miles in nine states and forced the evacuation of about 54,000 people. When levees failed, whole towns were swallowed in a lake of brown floodwater. High water shut down 12 commercial airports, 388 sewage treatment plants and almost all bridges over the Missouri and Mississippi rivers between St. Louis, Kansas City and Davenport, Iowa. Damage estimates ranged from \$12 to \$20 billion, not counting the toll from lost productivity and disrupted lives. And by most counts, Missouri suffered the most direct damages — at least \$3 billion.

The flood recovery effort included over \$6 billion in government payments for property losses and buyouts. It also included an extensive White House sponsored review (Galloway Report) of flood plain management policies in the interest of never having to face a similar situation in the future. And yet, according to an article in the *St. Louis Post Dispatch* (7/27/03), less than 10 years later more than \$2.2 billion in new office space, shopping centers and road developments now stand on 4,200 acres of land in the St. Louis area that was under water during the 1993 flood. And there's more development planned — projects under way or on the drawing boards in St. Louis and St. Charles counties would

convert 14,000 acres of flood plain into commercial and residential developments.

According to the *Post Dispatch*, city officials and landowners have worked hand-in-hand with developers to take advantage



**Farm house destroyed by the 1993 flood when a levee failed.**

of liberal regulations and generous public subsidies for flood plain development (emphasis added). Supporters say the benefits justify what they consider to be a small chance of flooding. "Name me a place where you wouldn't have some risk," says J. Wayne Oldroyd, community

development director for Maryland Heights, which has designed the largest new flood plain development in the region on more than 8,000 acres near the Missouri River. The plan calls for 16.5 million square feet of hotels, offices, restaurants and light industry behind a reinforced levee. "Would there be, in geological time, a point in which the river would come over that levee? Sure," Oldroyd said. "That's a business decision (to build in the flood plain). The market will decide whether it's confident in putting development there."

Critics, however, say that government subsidies also come into play. By taking advantage of subsidies, flood plain developers can transfer or "externalize" a large portion of their risk to the taxpayer. These subsidies thus put short-term economic gains of individuals ahead of the long-term safety and environmental stability interests of the public. James Lee Witt, director of the Federal Emergency Management Agency (FEMA) under the Clinton Administration, predicts that the costs of new flood plain development will outweigh the benefits to

## Inside This Issue

Flood Plain Development Madness	1	SE Water War Headed for Court	12
Missouri River Management	4	EPA Won't Regulate Ballast Water	12
Endangered Species Protection?	7	Redefining the CWA	13
Money Needed for End. Species	8	Independent Review of Regulations	15
Minnows, People and the Courts	9	Coastal Erosion Theories Collide	15
Ditches Closed to Aid Fish	9	LA Aquaculture Advisory Panel	17
Regulation of Pumped Water	10	UMR Bighead Barrier Proposed	17
Dams No Longer BOR Priority	10	Meetings of Interest	18
Groundwater Banking and Stream Fish	11	Congressional Action	18

society. "If it's in the flood plain, it's not in a good area to develop," Witt said. "I don't care how many levees you build, at some point, you will be impacted." Witt said that construction in flood-prone areas also makes flooding worse elsewhere. "We've actually caused a lot of these problems ourselves, by not protecting our environment so it can protect us," he said.

But development interests like the *Upper Mississippi, Illinois and Missouri Rivers Association* (UMIMRA) dismiss the negative impacts of levees. UMIMRA, which represents businesses along the three rivers, believes that the negative impact of levees is localized and minimal. "Levees don't cause floods. Rain causes floods," executive director Heather Hampton-Knodle said. Others say they can engineer around the problem. St. Peters Mayor Brown said the city has spent \$1.25 million on studies for a planned commercial park. The result is that the project "does not raise the level of the Mississippi River one bit," Brown said. The UMIMRA wants the Corps of Engineers (Corps) to build a uniform flood-protection system along the entire upper Mississippi River. Such a flood control system would involve raising some levees and additional levee construction since some areas are already protected by 500-year levees. How such a plan could have only "localized and minimal effects" is unknown!

So the debate goes on. But studies since the early 1970s have documented increasing flood levels for similar volumes of water on the Missouri and Mississippi rivers. Many researchers believe that levees and other man-made constrictions reduce channel storage and conveyance capacity, causing water elevations to rise higher in the channel. "You're a fool if you don't say it does," said Dennis Stephens, chief of hydrologic engineering for the Corps' St. Louis District. The question is, how much.

So as additional levees are built, water levels rise. This causes older levees to lose a margin of their flood protection ability, putting people and property behind the older levees at a higher risk than expected. Even more serious is the fact that when rivers are constricted by levees, waters become impounded upstream (as in a reservoir) as the waters must wait to pass downstream through the narrow funnel-like opening left between the levees. When the impounded floodwaters remain in place for longer and longer periods of time, levees

eventually become saturated. When this happens they become very unstable and subject to rapid, catastrophic failure — which is what happened in several locations along the Upper Mississippi and Missouri rivers in 1993.

"Even at 500 years (of protection), somewhere a levee is going to get overtopped someday," said Michael F. Robinson, a senior policy adviser at FEMA in Washington, D.C. "When it does happen, it's going to be a big disaster." The Corps says that levees generally increase flooding upstream and increase water velocity downstream, because (as noted earlier) water backs up at the levee and then shoots downstream through a narrower opening. The agency calculates the additional flooding caused by each of its levee projects and compensates other landowners for it. That might mean building a ring levee around a vulnerable water plant, for example.

The *St. Louis Post-Dispatch* examination found that:

- Missouri's aggressive development contradicts the recommendations of the White House task force headed by respected former Army Corps of Engineers Gen. Gerald Galloway. The 1994 "Galloway Report" (funded by the Clinton White House) said that new flood plain development should be avoided, levee construction should be limited, and people and buildings should be moved out of the river's way, whenever possible.
- Missouri lawmakers have declined to enact statewide flood plain regulations, allowing communities to develop flood plains without fully evaluating or compensating for negative effects on their neighbors. Some Midwestern states — including Illinois, Iowa and Wisconsin — have stricter rules on flood plain development.
- A growing body of scientific evidence has detected increased flood heights of 3 to 12 feet on the Missouri and Mississippi rivers, a trend that shows no signs of stopping. The scientists blame levees and flood plain development in part for the increase.
- Increased flooding caused by new

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development could affect a great number of people and buildings already in the region's flood plains. Up to 1.1 million people live in the historic flood plains of seven states in the Upper Mississippi River basin, according to the *Post-Dispatch's* study. Much of this commercial and residential development is in levee-protected areas, where flood insurance is not required.

- Taxpayers subsidize flood plain development through payments for levee construction, levee repair, disaster aid, insurance costs and infrastructure such as roads, bridges and drainage systems. In Missouri, more tax money has been funneled to flood plain construction through the use of an economic development tool called tax-increment-financing.

"We should be ashamed of ourselves for what we've done with the taxpayers' money," said Wayne Freeman, executive director of the *Great Rivers Habitat Alliance*, a conservation group based in St. Louis. "We can't afford to subsidize high-risk development. Nowhere in the Midwest is this growth pattern as dramatic as in St. Louis, according to the *Post Dispatch's* satellite image analysis. The newspaper hired Saint Mary's University of Minnesota to conduct the study.

Since no state or federal agency keeps detailed records on flood plain development, the study looked at development in areas that were under water in 1993 and development within the river's historic boundaries, typically defined by river bluffs. In Missouri a total of about 4,275 acres were developed, about 75% of which happened on land that had been under water in 1993. In other states, development was limited mostly to land that didn't flood in 1993.

Until the early 1990s, many Americans believed they could keep rivers safely in place through engineering and sheer tenacity, but the '93 flood challenged that thinking. Government figures show that federal taxpayers had spent about \$140 billion on flood-control structures and disaster assistance nationwide in the 25 years leading up to 1993, an average of \$5.6 billion each year. Yet flood damages in the United States have more than doubled since 1900 in inflation-adjusted dollars, rising to more than \$5 billion per year on average, according to a National Weather Service estimate. "That flood was, to me, the ultimate repudiation of the basic American approach to flooding for the past 70 years," said David Conrad of the *National Wildlife*

*Federation*, who wrote a critical report on the issue in 1998. "It pointed out that to rely exclusively on a flood-control approach, rather than managing our land use, means that we are ultimately putting more and more people and property at risk."

Gen. Galloway said it shifted the nation's collective consciousness — at least for a while. Instead of assuming that rivers should be dominated, people began to think



*Using a bulldozer to reinforce an agricultural levee along the Upper Mississippi River near Quincy, IL during the 1993 flood.*

about giving them room to roam. "The United States has made a fundamental change," he said. "Structural methods (such as levees) don't solve the problem by themselves." The federal government spent \$1 billion to buy 25,000 flooded properties nationwide to turn the land into open space. Missouri embraced that offer more than any other state, moving more than 4,700 households permanently out of harm's way. Illinois bought out about 3,000 properties, including a whole town. But the buyout program was voluntary and, in Missouri, applied only to residential property.

But before long, people were thinking about moving back into the flood plains. "You go two to three years after a flood, and human optimism prevails over human experience," said Scott Faber, water resources specialist with *Environmental Defense*. As noted earlier, most city officials and developers working in the river bottoms today play down the likelihood of another devastating flood.

All the new commercial flood plain developments in St. Louis and St. Charles counties are protected by earthen levees or built on top of plateaus of dirt designed to withstand what's called a 500-year flood. Such a flood has a 1-in-500 chance of happening in any given year. Stated another way, that would be a 1-in-10 chance of happening over 50 years, or a 1-in-5 chance of happening over a century. But as shown for the Missouri River in 1993 and in 1995, large floods can occur "back to back", and just because a 500-year flood occurs in one year, doesn't affect the chance of the same flood occurring the following year, and the year after that. The point is that you are not guaranteed a 499 year reprieve after one 500-year flood occurs — every year is just another roll of the dice with an equal chance to the year before of experiencing another large flood!

Modern 500-year levees are considered the gold standard of protection for major urban areas like Kansas City and St. Louis. None has ever had a catastrophic failure. But in recent years, bigger floods have called this standard into question. During the 1993 flood, most 500-year levees performed solidly. But a 500-year levee at Riverport, MO and a 500-year flood wall in downtown St. Louis needed reinforcements. And now the Corps has proposed building a 1,000-year levee across the Missouri River from Jefferson City where many buyouts occurred. Officials of the Corps' Kansas City office say the added protection is needed because spiraling flood levels mean the levee will offer only 500-year protection by 2031.

Another issue is the fact that no insurance or other precautions are required so long as buildings are protected from a 100-year-flood by levees, flood walls or elevation. FEMA will even remove the protected areas from its official flood plain maps upon request. "Right now, our national approach is, we're going to show you the high-risk area and then show you how to build there," said Larry Larson, executive director of the *Association of State Floodplain Managers*, based in Madison, WI.

As FEMA director Witt wanted to raise the 100-year-flood standard to at least a 200- or 300-year-flood level. "We've overbuilt and overdeveloped in high-risk areas," Witt said. "Water runs off much faster than it ever did." FEMA's Robinson agreed that the program isn't perfect, but he said it reflects a necessary compromise between preventing flood damages and respecting

private property rights. "We estimate our flood plain management regulations have saved well over \$1 billion in damages annually," he said.

But the fact is that new flood plain developments are allowed under federal rules — and some say federal policies even encourage them. Since the 1993 flood, subsidies for flood plain developments have come under scrutiny. Congress took some steps to shut off disaster aid to repeatedly flooded property and to make communities pay a little more for their own flood-protection systems. But some financial incentives still exist. For example, the Corps pays for up to 65% of new levee construction and 80% of levee repair after a flood. "We don't make a value judgment on whether that property should be protected," said Alan Dooley, a spokesman for the Corps' St. Louis District. "As long as people can show they can meet the requirements, they'll get a permit, whether we like building in the flood plain or not."

As noted earlier, the federal government has spent billions on flood insurance and disaster aid. The 1993 flood cost federal taxpayers \$4.2 billion in direct payments, plus \$1.3 billion in insurance payments and \$621 million in loans. The flood insurance program has been largely self-sustaining since 1986, but taxpayers have spent \$1.2 billion to support it since its inception, and now face another \$1 billion bill to update old flood plain maps. Flood insurance premiums aren't raised no matter how often a property floods. Steve Ellis, vice president of programs for *Taxpayers for Common Sense*, a federal budget watchdog group, says this amounts to setting the same car insurance premium for an 18-year-old in a Ferrari and a 50-year-old in a Chevette.

"Here we are, building in these risky places, and at some point we're going to turn around and have to pay through the nose for these new properties," Ellis said. Larry Zensinger, acting director of FEMA's recovery division, wants to dispel notions of unlimited government largesse. Individual families and public entities qualify for disaster aid, but businesses are limited to low-interest loans. "Those people who own industrial or commercial property who tell you, don't worry, FEMA will bail us out, are misinformed," Zensinger said.

Galloway says that government programs should avoid creating what he calls a "moral hazard" — an incentive for bad behavior. "If people are well-educated and know

better, they can make decisions that are rational," Galloway said. "But if the government is creating programs that induce people to take a risk, we are creating a moral hazard."

Sen. Jim Talent, a Republican who lives in Chesterfield, MO, says the government should support both flood control and economic development, which in turn improve the region's quality of life. "There's a risk to an area of not creating jobs and not developing," he said. "I urge people who don't like these things to remember we're dependent on this happening somewhere."

So it would appear that, at least in the St. Louis area, little was learned from the 1993 and 1995 floods — in fact, the opposite seems true. As long as taxpayers continue to foot the bill, and the environment continues to absorb the impact, risky decisions will continue to be made by flood plain developers and homeowners at taxpayer expense. Without changes in laws and regulations, high risk floodplain developments will continue, and the risks and real costs of these developments will be externalized at taxpayer expense. So when the next big flood comes, taxpayers will pay for it all over again, except that next time the costs will be far greater than they were in 1993. In the words of a 1960's folk song: "When will they ever learn!"

Only when taxpayers finally understand what's going on, and get tired of subsidizing the poor management decisions of a few, will "common sense" floodplain management be the rule. The entire *Post Dispatch* series can be found online at: <http://www.stltoday.com/stltoday/news/special/flood93.nsf/other/198E2A834095C27A86256D6E006D50B7?OpenDocument>.

Source: Sara Shipley, *St. Louis Post-Dispatch*, 7/27/03

### **Missouri River Management - the Saga Continues**

The governors of Nebraska (Mike Johanns) and South Dakota (Mike Rounds) agreed in late July that the states need to seek an out-of-court settlement to the upstream-downstream lawsuits swirling around the Missouri River. But Iowa Gov. Tom Vilsack said he thought the federal government should take the lead because they have the resources and power needed to carry out any

solution. Governors Johanns and Rounds said their out-of-court settlement approach would be cheaper for the states and allow the best chance of a compromise that is acceptable to all.

But Gov. Vilsack went ahead and requested Congressional intervention. He said it will take money to reach a compromise, which may require the creation of mitigation acres for wildlife or new flood-control measures. "You're going to have to, at the end of the day, have congressional intervention," Vilsack said. Johanns disagreed. He said it was better for the states to find their own compromise than have a solution imposed by the courts or the federal government. "Not that I don't trust the people back in Washington, but I like us to be in control of our own destinies," Johanns said. Rounds said he thought more states would be willing to work toward compromise knowing that the possibility of a court-dictated settlement loomed.

All three governors said reaching an out-of-court settlement would not be easy. Johanns said other interests, including environmental groups, the barge industry and others, would have to sign off on any compromise. But, he said, it's worth trying. He noted that Nebraska spent about \$20 million in a Republican River dispute with Kansas before a settlement was reached.

Then in September Johanns, Rounds and Vilsack were joined by North Dakota's governor John Hoeven and representatives from the other four Missouri River basin states (MO, KS, MT) at a meeting in South Dakota to try to reach some river management compromise. They didn't reach any agreement, but they did agree to a follow-up technical meeting, probably in November in Omaha. Attendees at that meeting will consider a proposal put forth by Gov. Rounds to reduce releases in early spring to protect sport fish, release some water later in spring to help endangered species and increase the flow in summer to float downstream barges.

In the meantime, however, whatever the governors and their staffs decide could be dictated by the outcome of the six lawsuits that were consolidated in late July with federal district judge Paul Magnuson in Minnesota. For years, upstream and downstream states have been at odds over management of the Missouri River. The upstream states (MT, ND and SD) want more water to remain in their reservoirs during summer for recreational purposes,

while the downstream states (MO, KS, NE and IA) want more water left in the river for barges, power plants and boaters. Environmentalists filed suit, asking for changes in river flows to protect three endangered species: the pallid sturgeon, least tern and piping plover.

Sen. Max Baucus (D/MT) recently became more involved by putting a hold on the confirmation process for the incoming head of the Corps of Engineers (Corps), who ultimately control the release of water from the river's reservoirs. Baucus said he wouldn't let confirmation of John Woodley, President Bush's nominee for the assistant Army secretary for civil works, proceed until Woodley commits that the Corps' next "master manual" for the river includes more water for the upstream reservoirs. Woodley had already committed to rewriting the 50-year-old guidebook that dictates how the river is managed in a letter sent to Senate Minority Leader Tom Daschle (D/SD) earlier in July as part of his confirmation process. Woodley had said the Corps will release a new master manual within six months under his leadership. The highly contentious process of revising the manual, which has been in the works for 10 years, will establish how much water is available for reservoirs, navigation, power generation, recreation and species habitat in six mainstem Missouri River reservoirs.

The Senate Armed Services and Environment and Public Works committees have already approved Woodley's nomination, but Baucus's hold delays final confirmation. "The ball is in their court," Baucus said. "If they come back ... with a fair proposal that is action — it's deeds, not words — then I certainly will lift the hold and he can proceed. But if they do not, this will drag on a lot longer." Defense Department spokesman Glenn Flood said the agency would work to address any senator's concern, but he could not respond in detail to Baucus.

Judge Magnuson, assigned to sort out all the lawsuits, ruled in favor of environmentalists in early August, upholding Washington, D.C. District Judge Gladys Kessler's July 12 decision requiring the Corps to lower flow levels to protect the three endangered species. Magnuson ruled that while several

courts have issued contradictory rulings on how much water the Corps must release, only Kessler's order requiring the agency to drop water levels downstream from Gavin's Point Dam at Yankton, SD is still in effect. But Magnuson stopped short of imposing penalties if the Corps failed to comply with the order.

Magnuson said he had not yet received necessary information from Kessler to make a decision on whether to reinstate her threat of \$500,000 per day in fines if the Corps refused to comply with the low-flow order. The fines had been part of a contempt-of-court order imposed by Kessler on July 22 when Corps officials failed to act on her ruling requiring the agency to obey a Fish and Wildlife Service (FWS) biological opinion calling for low summer flows to ensure the survival of the three endangered species. At the time, the Corps said it could not obey Kessler's order because the earlier

starting on August 12. In its 2000 biological opinion, the FWS said the Corps must lower water levels annually from July 15 to August 15 to protect the three endangered species. Corps officials said, delaying action by more than a week after Judge Magnuson upheld Kessler's order was necessary to give adequate warning of the drawdown to commercial users. But the delay until August 12 left only three days within the time period when the FWS said low flows were necessary to provide nesting habitat for the affected species.

A FWS spokesman said even if the Corps were to drop the flows immediately, benefit to the species would likely be minimal, since the birds that nest on sandbars have for the most part fledged their young and moved on. "It probably doesn't make much difference now," said Corps' spokesman, Homer Perkins. "We think most of the birds have already left the river." Still, environmentalists who sued the Corps over its refusal to implement the FWS-recommended flow regime to protect the three species said that by waiting another week, the Corps continues to flaunt the judges' orders. "Obviously, waiting until 10 P.M. on Aug. 12 is not a good-faith effort to comply," said *Latham and Watkins* attorney David Hayes, a former deputy Interior secretary who argued the case on behalf of environmentalists. "This seems to be a belittling of the court order.

But Perkins said the Corps needed at least a week to provide river users with adequate warning of the flow change. "There are still barges on the river that need to be tied down.

There are recreational users, as well as people with docks and equipment that need to be secured," he said. "A week is the standard amount of advance warning we give river users to ensure safety." Environmentalists complained that instead of increasing the flows gradually, as the FWS requested, to avoid flooding nests on the sandbars, the Corps said it would raise the water level rapidly on Aug. 12. "It is not a sensible approach and shows a lack of effort to comply," Hayes said.

When the flows were finally reduced on August 12, the Missouri River dipped to its lowest recorded levels since the 1950s, before the upstream reservoirs were built.



**The three Missouri River endangered species. Top left: least tern (American Rivers), bottom left: piping plover (American Rivers), and right: pallid sturgeon.**

decision from the Nebraska District Court required the agency to maintain higher flows to accommodate barge traffic. However, on July 24, less than 24 hours before the penalties were set to take effect, the Judicial Panel on Multidistrict Litigation transferred the cases to Magnuson's court, and shortly thereafter the 8th Circuit Court of Appeals — which had earlier upheld the Nebraska ruling — issued a statement saying that ruling was no longer effective, making Kessler's ruling the controlling law on the Missouri River.

So after nearly a month of intense legal wrangling, the Corps announced that it would lower flows on the Missouri River

The Corps slowed Gavin's Point Dam water releases from 26,000 cubic feet per second (cfs), to 21,000 cfs and continued at those levels for three days. The reduced river flows weren't noticed in Missouri until early September when at Hermann the Missouri River was reported to be at 3.5 feet. As river levels fell, water temperatures increased and came close to exceeding Missouri's water quality standards, Missouri Department of Natural Resources (MODNR) officials said.

Some power generators were worried that if water levels fell too far, use of the river's water to cool their plants would be curtailed. Utilities officials say that increased costs and power outages could result if power plants are not able to draw enough water from the river to cool their turbines. "The water has to be at a level high enough for the plant to physically draw it in, and that's where we've had issues," said Nancy Southworth of *Associated Electric Cooperative (AEC)* in Missouri, which operates plants along the Missouri and Mississippi rivers. "We've had to lease floating pumps in past drought years to pump the water in," Southworth said. "We can take some measures, but you can only do so much. You've got to have the ability to draw water in to operate the plant at full capacity."

But drawing water into the plants is not the only problem generating stations encounter when water levels on the river get low, said Randy Asbury of the *Coalition to Protect the Missouri River*, which lobbies against proposals to drop water flows on the lower river. When water levels get too low, power companies risk violating their discharge permits, which require enough cool water in the river to dilute the heated water coming out of the plants.

But *American Rivers*, *Environmental Defense* and other groups that sued to force the Corps to obey the FWS recommendations strongly dispute these claims. Last summer, an energy consultant hired by the groups to study the issues determined that many of the warnings are overblown. After reviewing the plants' discharge permits and interviewing state environmental regulators, independent energy consultant David Marcus found that most plants would not violate their permits unless flows go far lower than they would need to be under the FWS proposal. And even if a plant were required to curtail production during a period of low flows, there are enough plants that do not depend on the Missouri River

for cooling so that service to customers would not be disrupted, he said.

"If a coal plant along the Missouri River has to be turned down during a period of low river flows, and another coal plant elsewhere increases its output, the cost is not the cost of running the second coal plant," he said. "It is the difference in the cost of fuel between the Missouri River plant and the other plant." Analyzing energy production for the entire area, including hydroelectric dams that would be changing operation under a different flow regime, Marcus found that power generators in the upper basin would actually encounter a net savings if the Corps were to follow FWS' recommendations, which include higher flows in the summer. "Assuming these savings are passed on to customers, it would mean an average reduction in monthly



electric bills for a typical customer in the upper Missouri River Basin states of between three and five cents," Marcus said.

Another issue which surfaced during the drawdown was the draining of a marina operation in Omaha, NE. Nebraska Game and Parks Commission (NGPC) officials came to the city's rescue offering to help fund a study of possible solutions for the city's N.P. Dodge Park Marina. NGPC officials said federal grant funds could also be available to pay a substantial portion of any improvements that are needed. "There might be a simple solution to all of this," said Gene Zuerlein, a fisheries biologist with the NGPC. "It can be fixed." The solution could be as simple as increasing the marina's depth, Zuerlein said. A dredging barge could be purchased and made available to all area marinas for use to preserve access to a lower flowing river

during summer. Or the solution could involve a more high-tech approach, such as a gate to hold water in the marina that could be lowered to let boats pass in and out. Omaha parks officials closed the marina on August 11 and announced that it would remain closed until at least after Labor Day. An earthen dam was used to hold water within the marina to keep its floating docks from settling into the mud until water levels rose.

Grant dollars from the NGPC helped fund construction of the Omaha marina three decades ago. The NGPC has long worked to develop and encourage recreational boating on the river, and is also on record as supporting more natural flows on the Missouri River. Commission officials say restoring more of the river's natural ecosystem will not only help endangered wildlife but also create more hunting, fishing and recreational opportunities for all Nebraskans. "The Missouri is a biological system and should be able to act like one," said Don Gabelhouse, head of NGPC's fisheries division. "We need to modify the man-made structures to accommodate it." NGPC officials say they have already secured an agreement from the Corps to conduct and help fund the marina study.

Meanwhile in early September, the Corps raised the need with Kansas officials for release of water from several of that state's reservoirs in order to continue to support Missouri River barge traffic. The Corps' plans call for increasing flows from Milford, Tuttle and Perry reservoirs to 29,000 cfs, up 4,000 cfs. These releases are expected to begin in October, marking the ninth time since 1980 that the Corps has released water from the state's reservoirs to augment Missouri River flows. Gov. Kathleen Sebelius objected saying that barge traffic is not as important to the economy as it was decades ago and suggested that Corps management policies for the Missouri River are out of date.

In fact only a handful (2-6) tows were operating on the River in September — one of its "busy" seasons. But despite the governor's criticism and the lack of use, Paul Johnston, a Corps spokesman in Omaha, said that Milford, Perry and Tuttle are considered sources of water for the Missouri because they recharge relatively quickly. He also said that federal law requires the Corps to support barge traffic and does not give the agency the power to ignore that duty. "I don't think anybody wants any federal agency picking and

choosing which laws it complies with,” Johnston said during an interview.

Meanwhile, the Corps continues discussions with FWS officials over how to address the Endangered Species Act (ESA), but has said it will not make low summer flows a part of the new master manual. Instead Corps officials are proposing a new Missouri River management plan that they say will protect wildlife without the controversial flow changes. The new proposal includes:

- Widening the river wherever possible;
- Reconnecting the river with its flood plain; and
- Cutting holes in dikes from Nebraska to St. Louis in order to improve areas for fish.

Corps officials say their new approach “will achieve the biological attributes” the FWS wants. In addition to widening the river wherever possible, restoring side channels and reconnecting the river with its flood plain; the plan proposes developing an additional 2,000 acres of shallow water by 2005 and cutting holes in some of the 3,500 dikes from lower Nebraska to its confluence with the Mississippi River just upstream from St. Louis in order to improve areas near the shoreline for fish. The plan emphasizes “adaptive management” enabling changes as the populations of species are monitored.

Other provisions of the plan are aimed at conserving water upstream during droughts. For instance, the Corps would reduce water releases to the lower portion of the river and cut an entire month from what is normally an eight-month navigation season if the total amount of water in six upstream reservoirs dropped beneath 59 million acre-feet in annual measurements on July 1. Another “trigger point” reserved for particularly severe drought would cut releases into the lower river for eight months over two years if the reservoir levels upstream dropped at all between March 1 and July 1 — a time they should be replenished from snow melt and spring rains.

MODNR officials are pleased by the absence of wildlife-related flow changes in the Corps’ plans, which they say threaten water supplies and navigation. But they are worried about other parts of the plan that would hold water upstream during persistent drought and cut as much as a month from the barge-navigation season. Ron Kucera, MODNR deputy director for policy referred to these as “hair-triggers that could be hit frequently and cause significant reductions in downstream flows that would

be harmful to both the economy and environment of Missouri and other downstream states.” However, conservation groups say the new plan falls short given the pressure from biologists and the federal court to alter the river’s flows. Chad Smith, Midwest representative for *American Rivers* said, “It leaves out the most important thing as far as restoring the health of the river.” MODNR officials have complained to the Corps about their concerns, but worry that it is too late to make changes because the plan appears to be on a fast track.

Worthy of note is the fact that the Corps and FWS are carrying out a White House-ordered negotiation aimed at avoiding violation of the ESA. On the eve of an election year, the White House is pushing for solutions to the messy, multi-pronged Missouri River controversy. James Connaughton, chairman of the White House Council on Environmental Quality, said he views settling the river conflict as “an old-fashioned good-government issue” with uncertain political benefits because of conflicting needs along the river. “The president believes that we can produce a master manual that meets the stated reasons for the river’s operation and at the same time makes meaningful progress toward habitat recovery,” Connaughton said. He left no doubt about the significance of the Corps’ new proposal, calling it “a major step” and adding, “Let’s give this new approach a chance.” The White House had agreed to seek \$42 million this year from Congress to fund the Corps’ plan. That allocation would be part of nearly \$200 million the Corps hopes to spend on environmental projects along the river over the next five years.

The Corps has embodied the plan in a “biological assessment” of the River, which was forwarded to the FWS on July 30. The FWS was given until the end of August to pass judgment on the plan, which ultimately would become the basis for the long-disputed Master Manual for Missouri River operations. The FWS, at odds with the Corps for more than a decade on Missouri River issues, has in recent months been less aggressive in its dealing with the agency, leading many observers to believe that it might accept the new plan. If that happens, the next step would be a revised FWS biological opinion, paving the way for a new river-operations manual that Corps officials say they want to finish by the end of the year. Perkins noted that there would be time for public comment. But he added: “Not everybody is going to be happy with all of it, and everybody is going to be unhappy with

some of it.”

However, more court rulings are expected in the coming weeks. The 8th U.S. Circuit Court of Appeals in St. Louis could decide whether or not navigation takes priority over the ESA. The ESA prohibits federal agencies from doing anything - such as operating dams - that harms protected species or impedes their recovery. The FWS has said the river’s flow needs to be adjusted to protect the three endangered species. In addition to a summer draw-down, the FWS recommended a “spring rise” when drought is not an issue to re-create the backwaters that existed before the river was dammed and channelized.

The bottom line is that the drawdown occurred this year (if only for three days), and no one was significantly harmed! Solutions are available to correct any impacts that occurred. The question remains: Do we, as an American society, care enough about preserving our endangered species to make the necessary changes in our life styles to make it happen? Only time will tell, but time is running out for our threatened friends!

Sources: *Omaha World Herald*, 7/31/03, 8/11/03; 8/12/03 and 9/3/03; Jack Sullivan, *St. Louis Post-Dispatch*, 7/30/03; *Greenwire*, 7/25/03 and 7/31/03; Damon Franz, *Greenwire*, 7/31/03 and 8/5/03; Bill Lambrecht, *St. Louis Post-Dispatch*, 8/9/03; *Billings Gazette*, 8/12/03; *AP* and *The Billings Gazette*, 8/22/03 and 9/3/03; Henry J. Cordes, *Omaha World Herald*, 8/22/03

### **No Protection for Many Threatened Species**

The global effort to save some of the Earth’s rarest creatures from extinction is fundamentally flawed, scientists say. They have found that hundreds of endangered species live in areas which offer them no protection at all. And they believe many more will vanish in a few decades, but they say there is still a chance to save most of the creatures at risk. The alert is sounded in a report released at the *World Parks Congress* in Durban, South Africa, organized by IUCN - *The World Conservation Union*. The report is the work of the *Center for Applied Biodiversity Science (CABS)* at the U.S.-based *Conservation International*, and IUCN’s *World Commission on Protected Areas*.

In what the authors call “a global gap analysis”, they set out to see how well the world’s network of protected areas actually helped wildlife. They compared a map of all the areas with others showing the ranges of more than 11,000 bird, mammal and amphibian species. They found 260 mammals they defined as “gap species”, with no protection over any part of their range: 825 amphibians fell into the same category. All the birds they studied were threatened, and 223 of them were unprotected.

Many of the other gap species are no cause for worry, but 140 mammals and 346 amphibians are classed as threatened. Additionally, the study says, many existing protected areas are so small they are virtually useless for conservation, putting at least 943 more species at risk. Without an urgent expansion of the protected area system, the authors say, they expect “a major wave of extinctions within the next few decades”.

But Gustavo Fonseca of *Conservation International* said, “By identifying the most urgent priorities that require protection and acting strategically and quickly, we still have a chance to save the vast majority of these species.” Mohamed Bakarr, deputy chair of IUCN’s protected areas commission, said, “The single most effective way to conserve species is to maintain their natural habitats. The analysis concluded that modest action would yield impressive benefits: adding 2.6% of the world’s land area to the protected area system would cover about two-thirds of species which at present have no protection.

Source: Alex Kirby, *BBC News*, 9/11/03

### **Western Governors Want More Money for Endangered Species**

The nation’s list of endangered species is often a dead end for the animals and plants placed on it, says the *Western Governors’ Association* (WGA). Members of the WGA passed two resolutions at their mid-September meeting asking the federal government to provide more funding for endangered species and to work with states in developing specific strategies needed to move species off the list. The governors also want the Endangered Species Act (ESA) to be amended to reflect a more comprehensive, recovery-based philosophy.

Some 1,300 species are on the nation’s endangered species list. “There needs to be a great emphasis on recovery,” said Idaho Gov. Dirk Kempthorne. New Mexico Gov. Bill Richardson criticized the federal government for not helping states more with their de-listing efforts. “You need to be more engaged as a federal government,” Richardson told Steven Williams, director of the U.S. Fish and Wildlife Service (FWS). “You need to get out here and help us resolve these problems rather than join us in litigation.”



**Endangered Colorado River Fish: Razorback sucker (top), Humpback chub (Center), and Colorado pikeminnow (bottom).**

“The problems don’t always lie with the listing of a species”, Colorado Gov. Bill Owens said, “sometimes, the ESA itself is the problem. The law doesn’t force us to move towards recovery”. While Montana Gov. Judy Martz joined the call for species recovery, Montana has long been trying to prevent some species from being listed, said Chris Smith, chief of staff at the Montana Department of Fish, Wildlife and Parks. The black-tailed prairie dog of Eastern Montana is a candidate for the list, state officials said, and the state is doing everything it can — from restricting hunting on public lands to enhancing its habitat — to prevent the animal from being listed. “We’re trying to work ahead of the curve,” Smith said.

But the roadblocks to delisting species can be many and varied, he said. The black-footed ferret and the whooping crane are both endangered in Montana. Their numbers are counted in the tens, he said. But to bring them back will take a long time and a lot of money. “The ESA has been used by those opposed to development to

prevent things from happening,” Smith said. “But the act hasn’t resulted in finding ways to provide habitat development.”

When it comes to the ESA, state and federal governments both can benefit from working together, WGA officials and two of the nation’s top wildlife officials said. “We’re actively reaching out to state fish and wildlife agencies” for their experience and expertise, FWS’ Williams said. Whether the species in question is silvery minnows in New Mexico, grizzly bears in Montana or spotted owls in Oregon, ESA protections can affect a lot of land and a lot of people.

“The ESA has had huge impacts on our land-use decisions and our water rights,” said Gov. Martz, who is outgoing WGA chair. Gov. Richardson said that in his state the silvery minnow has been pitted against the city of Albuquerque’s water needs. “The silvery minnow won,” he said. Richardson was secretary of energy in the Clinton administration and also served in a variety of international roles. He chided Williams for “not engaging” with the federal Bureau of Reclamation, which manages dams, to head off listing of the little fish. “You’re letting litigation deal with these issues,” he said.

The role of the courts in ESA issues was a common theme in WGA discussions. Williams said his office is facing 34 lawsuits over ESA listings and has been formally warned of 134 more to come. “The courts are driving the bus,” he said. Part of the problem is a lack of funding, “We can only work on so many species” with the available manpower and money, he said, but existing law sets strict deadlines on when decisions must be made regarding whether or not to list a species. When those deadlines are missed, environmental groups often head to court and they often win. That means judges decide which cases get precedence. But listing a species alone does not ensure its recovery.

“You put the patient in the waiting room, but where’s the prescription?” asked Gov. Kempthorne. He noted that 1,300 plants, animals and insects have been listed over the past 30 years, while only between 11 and 40 have been removed from the list. “There’s no reason in the world we can’t start looking at the other side of the coin, and that is delisting,” he said. Kempthorne is a former U.S. Senator who worked on ESA issues.



Vice Admiral Conrad C. Lautenbacher, undersecretary of the U.S. Department of Commerce, which oversees some endangered fish, such as some salmon species, said science is lacking in some areas. He said recovering fish populations relies on better science, collaboration with states to boost the species, and managing ecosystems instead of individual creatures or plants.

While all parties agreed that it's better to help species recover before they are listed, sometimes courts are the only resort, and not just for environmental groups. Williams said the Bush administration has given states nearly \$100 million in new money to deal with the problem: the state's wildlife agency programs got \$60 million, private land ownership programs got \$40 million and the administration gave \$10 million to private stewardship programs, he said. "This is all new money states can use on listed species and to help prevent species from being listed," Williams said.

Sources: Allison Farrell, *Bllings Gazette*, 9/16/03 and Scott McMillon, *Bozeman Chronicle*, 9/16/03

## **Endangered Minnows vs People and the Courts**

The U.S. Bureau of Reclamation (BOR) is looking into buying more water to sustain endangered Rio Grande silvery minnow habitat, and Santa Fe City Council members have said they would be open to such a deal. Unless the BOR acquires more water, Ken Maxey, BOR area manager in Albuquerque, said, the agency will run short of water to release for the minnow in mid-October.

The U.S. Fish and Wildlife Service this year published a biological opinion that requires a flow of water in the Rio Grande between Cochiti and Albuquerque through Oct. 31. After that date, reduction in irrigation diversions from the Rio Grande and cooler weather are expected to allow the fish to survive without releasing more water. Water levels in reservoirs in northern New Mexico are low. The Santa Fe city and county water systems are tied together, and both get water from the federal government from the federal San Juan-Chama Irrigation Project. Together, they have a contract for 5,605 acre-feet a year.

Santa Fe now has about 5,000 acre-feet in storage in El Vado Reservoir and about

12,000 acre-feet in storage in Abiquiu Reservoir. The Bureau of Reclamation has been withholding about 15 % of water from this year's deliveries to Santa Fe and other contractors on the San Juan-Chama Project, including the city of Albuquerque and the *Middle Rio Grande Conservancy District*. Maxey said his agency is still searching for about 6,000 acre-feet of water to meet its minnow obligations this year.

Meanwhile, the attorneys general in Colorado, Idaho, Nebraska, Nevada and Utah have said they would back a State of New Mexico appeal of a recent court decision that favored the endangered minnow. The 10th U.S. Circuit Court of Appeals upheld June 12 a decision from U.S. District Judge James Parker, who said the San Acacia stretch of the Rio Grande, 50 miles south of Albuquerque, must maintain a flow of 50 cubic-feet per second for the endangered fish.

The ruling essentially means that the Endangered Species Act (ESA) should take precedence over water contracts that the city of Albuquerque and the *Middle Rio Grande Conservancy District* own. The state attorneys general said the decision would infringe on states' rights and put fish before people. A panel of three judges made the decision and the attorneys general said that they would ask the full appellate court in Denver to hear the case.

As "reclamation states where disputes over endangered species are common, we're watching developments in New Mexico closely," said Utah Attorney General Mark Shurtleff (R). "These disputes are best resolved locally ... not by the federal government coming in with a strained interpretation of the ESA." Meanwhile, Montana Attorney General Mike McGrath (D) said he would not support New Mexico because his state is counting on ESA protections to work in its favor to preserve its Missouri River rights.

Sources: *Associated Press and El Paso Times*, 9/5/03 and *Greenwire*, 7/30/03

## **Court Ruling Closes Ditches to Aid Fish**

A panel of the 9th U.S. Circuit Court of appeals has decided that the federal government can close Methow Valley (WA) irrigation ditches that cross federal land to provide additional water to help endangered fish runs. The decision was a setback for

the *Early Winters Ditch Co.*, Okanogan County and four irrigators.

The irrigators argued that the Forest Service did not have the right under the Endangered Species Act (ESA) to deny long-standing water rights to farmers. But the appellate court, in an unpublished opinion disagreed. "The permits themselves, from their inception, provided the government with unqualified discretion to restrict or terminate the rights of way," the opinion said.

The opinion upheld last year's decision by U.S. District Court Judge Robert Whaley of Spokane, who found that the case was about rights of way through federal land, not water rights. Michael Mayer, a lawyer for *Earthjustice* in Seattle, said the decision will allow the Forest Service to best manage its land for the protection of endangered salmon and steelhead runs. "It is an important decision in that it reaffirms the authority of the Forest Service to put in place limitations and protect the land under its control," Mayer said. "The irrigators argued their right to water should overcome all restrictions to protect salmon and steelhead."

Attorney Russ Brooks of the *Pacific Legal Foundation*, representing the irrigators, said the court is improperly giving the Forest Service authority over stream flows. "To us it's clearly a case where the Forest Service is regulating water and not land," he said. "The Forest Service is not allowed to regulate the use of water." Brooks said he is reviewing the opinion to determine whether it will be appealed. His clients will likely ask for another hearing in the appellate court, he said. Brooks said private property interests view this as a test case for the entire West. "It does not bode well for people west of the Mississippi," Brooks said.

In his original decision, Whaley sided with the U.S. Forest Service, which denied the use of irrigation ditches running through the Okanogan National Forest to take water from the Chewuch and Methow rivers. The lawsuit claimed the state, and not the federal government, had the authority to set in-stream flow requirements for fish. Whaley ruled that flow rates are set so the Forest Service complies with the ESA, which is carried out by the National Marine Fisheries Service and the U.S. Fish and Wildlife Service. Those agencies were also named in the lawsuit.

The 250-subscriber *Methow Valley Irrigation District* draws water from the Methow

and Twisp rivers in north-central Washington. The federal government contends that operations by the district were killing protected salmon and steelhead. The fisheries service sued the irrigation district in May 2000, seeking to force it to replace its dirt ditches with pressurized pipes and groundwater pumps to save water.

The dispute arose in 1990, when a state-commissioned study found that the district's ditches, dug in 1919, were inefficient, delivering one gallon of water to fields for every eight withdrawn from the Twisp River. A subsequent study showed one gallon delivered for every two taken, when withdrawals from both rivers were taken into account.

The Yakama Indian Nation sued the state in 1991 for allowing the district to waste water. That led to a proposal to switch to a system of wells and pressurized pipes, funded with \$2.4 million from the Bonneville Power Administration and \$1.2 million from the state. The district initially agreed to the plan, then backed away, saying it would be too costly to operate and would unfairly restrict its water.

Sources: Nicholas K. Geranios, *The Associated Press* and *The Seattle Times*, 8/20/03

### **Bush Administration Opposes Regulating Pumped Water**

The Bush administration told the Supreme Court in early September that water pumped from one channel into another water body is not pollution and should not be regulated by the federal government. Attorneys for the administration outlined this argument in an amicus or "friend of the court" brief in the matter of *South Florida Water Management District v. the Miccosukee Tribe of Indians et al.*

At issue in the case is the water management district's use of a pumping station to move water that accumulates in the heavily populated Broward County through two channels westward to a water conservation area next to Everglades National Park. The tribe sued the water district in federal district court, alleging that the transfer of water is a discharge from a point source under the Clean Water Act (CWA) and requires a National Pollutant Discharge Elimination System (NPDES) permit. In its ruling, which was later upheld by the 11th Circuit U.S. Court of Appeals, the district

court concluded that "an addition of pollutants exists because undisputedly water containing pollutants is being discharged" through the canals operated by the water district.

The water district appealed the circuit court ruling to the Supreme Court, which accepted the case. Solicitor General Theodore B. Olson weighed in on the side of the district in a Sept. 10 brief. The solicitor general argues Supreme Court cases on behalf of the Justice Department. The brief acknowledges that the CWA requires a permit if the water management district adds a pollutant to navigable waters from a point source. "The act does not require a NPDES permit, however, for activities that involve nothing more than a conveyance or connection of navigable waters," the administration asserts in the brief.

Despite the broad definition of a discharge from a point source, the threshold for requiring a NPDES permit, the term does not include a pumping station that "merely transfers concededly navigable waters from a water collection canal though a levee to a water conservation area," the government argues. Even though water conveyance can change water quality "does not, within the normal meaning of the relevant terms, constitute an 'addition' of any pollutant to 'the waters of the United States,'" according to the brief.

The *Earthjustice Legal Defense Fund* opposes the administration's position and is likely to file a brief supporting the tribe's position in the case. Under the administration's logic "ocean water could be pumped into fresh water killing thousands of fish," said Joan Mulhern, an *Earthjustice* attorney.

Source: Marty Coyne, *Greenwire*, 9/12/03

### **Dams No Longer BOR Priority**

Dams are no longer the highest priority of the U.S. Bureau of Reclamation (BOR), said John Keys, BOR commissioner. "Conservation has to be addressed first before we begin looking at new storage. The bottom line for us is the economic security of the country," he said, during a July conference on the future of water in the West. "Irrigated agriculture has the senior water rights in the West, and we have to protect those rights and livelihoods," he said. Through

conservation and efficiency, "we will be able to provide water for other uses."

Keys, a 34-year veteran of the BOR, had retired from the service, but more than two years ago was asked by the Bush Administration to return and head up water resource management for the Department of the Interior (DOI). He spoke during the latest in a series of consulting conferences around the West sponsored by the DOI and hosted by the BOR. Keys said that one of the criticisms for the conferences was that not enough was being said about building new storage facilities.



Nancy Schlepp, one of the panelists representing the *Montana Farm Bureau*, said that "with Montana being the headwaters for several major rivers, it is important to realize that once the water leaves the state, it is gone." She argued that increased storage would greatly mitigate the competing use problems, which would benefit people, conservation, wildlife and agriculture. Jim Flowers, manager of the *Heart Mountain Irrigation District* in Powell, WY, has urged BOR to ease hurdles that even modest projects must now clear before construction.

Another panelist, Laura Ziemer, of Bozeman representing *Trout Unlimited*, said "it is in everyone's interest to spend more time managing limited water resources and less time in court." Ziemer has been instrumental in expanding *Trout Unlimited's* water leasing program through legislative actions and the completing of conversions from irrigation water rights to in-stream flow rights.

Sharp increases in population growth in the West have increased the demand for water for municipalities while at the same time drought has desiccated agriculture for the past five or six years. Against a backdrop of the current drought monitor map of the West, Keys said the problem with drought is that when it goes away, people forget about

it. He referred to the situation on the East Coast a year ago, then in a drought. "I can count on one hand the times I've heard the word reservoir this year," he said. A year ago he heard the word every day.

The drought map gets worse every time I look at it, he said. As for solutions, the DOI has a plan, but Keys cautioned: "There is no bag full of money, no one answer, no one plan for everyone. "We'll need to work together." The DOI plan, called *Water 2025: Preventing Crisis and Conflict in the West*, proposed several principles and tools to mitigate the realities of fighting over water, now and the future. The goal of *Water 2025* is two-fold:

- provide a basis for public discussion of the realities of water use in the West; and
- set up a framework to identify the problems, solutions and plans of action as the DOI works with states, tribes, local governments and the private sector.

One example of a recent conflict cited by Keys centered in Klamath Falls, OR. Two and a half years ago, a water shortage forced a judicial order that gave farmers' water allocations to fish and that created a confrontation. Even now, they're still struggling. Keys said the bureau wants to be ready for the next Klamath Falls. That is the goal of *Water 2025*. He said the BOR's focus has changed over the years, but not its goals. "We still build dams, mostly replacing old ones," he said. "But they are not our emphasis. Now we manage water to serve as many as we can."

Source: Jim Gransbery, *The Billings Gazette*, 7/30/03

### **Groundwater Banking - Potential Threat to Stream Fisheries**

The Interior Department's assistant secretary for water and science, Bennett Raley, said at a Western water conference in July that groundwater banks are one of the tools states can use to end water wars. Other tools include water trading and efficiency, he said. "If we continue to apply all of these tools in California, we can make these conflicts go away," he said.

California is a leader on many water resource issues, including groundwater banking. The state has by far the largest banks, with capacities ranging from several hundred thousand acre feet to 1.65 million acre feet, according to Janine Jones of the

California Department of Water Resources (CDWR). California was also one of the first in the West to use groundwater banks and now has approximately 20 facilities, with more in the works.

Other forms of groundwater banking include conjunctive use, whereby managers use a combination of surface water and groundwater to meet demand during different times of the year, and aquifer storage and recovery (ASR), which is a type of conjunctive use.

California felt the pressure of increasing populations and fairly static surface water supplies as early as the 1950's. This gave the state decades to develop water law and infrastructure that can accommodate large-scale groundwater storage and inter-basin water transfers to fill aquifers all over the state. Not all states permit or can accommodate inter-basin transfers, but many Western states are following California's lead in groundwater banking, Jones said. Nearly every Western state now has some sort of groundwater storage facility, with Arizona and Nevada at the head of the pack, she said.

Over the last two decades, as Arizona's population skyrocketed, that state has worked to find ways to use every last drop of their Colorado River allocation. Arizona now recharges about 350,000 acre feet each year, but has capacity for more, according to Tim Henley, manager of the *Arizona Water Banking Authority*. One of their sites, Granite Reef Underground Storage (GRUS), was built by a coalition of cities in the Phoenix area so that when the Colorado River is low, the cities can withdraw water from GRUS to meet demand, he said.

Nevada has a similar groundwater bank that stores about 250,000 acre feet in the Las Vegas Valley groundwater basin, said J.C. Davis, spokesman for the *Southern Nevada Water Authority*. "Ours was really born of necessity and the advances in technology that allow us to inject water into the ground, as opposed to surface storage ponds that allow water to infiltrate into the aquifer, where there is considerable loss to evaporation in this environment," Davis said. Chuck Keene of the CDWR agreed, saying new advances in the fields of hydrology and geology have helped pave the way for groundwater banking.

Other Western states are employing groundwater banking strategies, but so far on a smaller scale than California. According to *ASR Systems, LLC*, a private company involved in aquifer storage and recovery, Oregon and Washington have about a half

dozen projects each; Idaho has a couple; and Colorado has a few, too. Most projects, however, are less than 10,000 acre feet, according to Jones in California. "That's a huge difference," she said.

Colorado's Tamarack project, for example, provides an extra 10,000 acre feet of water in the drier summer months by taking water from the south Platte River and moving it to holding ponds away from the river, where it percolates through the soil and enters the river again several months later, according to the *Northern Colorado Water Conservancy District*, which runs the 7-year-old project.

Utah completed a project just two years ago to inject about 5,800 acre feet of excess runoff and reservoir water into the Salt Lake Valley aquifer every year from November through May and recover it during peak summer demand, according to the Utah Division of Water Resources (UDWR). The prospects for long-term storage are limited, but if necessary the project could store up to 33,000 acre feet to mitigate drought. According to UDWR, one reason groundwater storage appealed to Utah is because the infrastructure costs are less than for surface storage. The agency is researching the feasibility of more groundwater storage sites in the state.

And despite the usually small size of projects outside California, Idaho has a rather large groundwater banking program that the state Department of Water Resources estimates has recharged as much as 200,000 acre feet annually into the Eastern Snake Plain aquifer. Studies indicate the project could recharge up to 400,000 acre feet annually.

Eastern states have also found value in groundwater storage. Delaware, Florida, New Jersey and South Carolina have a number of small facilities for drinking water, according to *ASR Systems*. One New Jersey site was launched in 1968 — possibly the oldest site in the country — but most are much newer.

Keene said groundwater storage may be more environmentally friendly than surface water storage facilities like reservoirs. While most groundwater banks still take water from rivers, they do not impede fish migration, he said. On the other hand, officials in UDWR say they are concerned that groundwater banking could disrupt streamflows and

springs or damage riparian and wetland vegetation, which UDWR is monitoring. Also, despite Keene's comments, dry stream beds do impede fish migration and health!

Source: Natalie M. Henry, *Greenwire* 7/29/03

## **SE Water War Now Headed to Federal Courts**

The courts may now control metro Atlanta's future growth after Georgia, Florida and Alabama let a deadline expire, ending more than five years of negotiations over water sharing. Planners in the Atlanta region had counted on a water-sharing deal among the three states to guarantee enough water to support new metro residents through 2030. So a Western-style water war — launched in 1990 when Georgia tried to build a drinking water reservoir near Alabama — is back on.

Negotiations will be replaced by court filings, and compromise by more billable hours from lawyers. If the U.S. Supreme Court is asked to divide the water from the Chattahoochee, Apalachicola and Flint rivers, the court most likely would appoint a special master, as it has in similar interstate water disputes. That master could impose a freeze on new water withdrawal permits, effectively reining in growth until the court reaches a decision in several years or more.

Officials from the three states said they would rather take their chances with the Supreme Court than continue trying to work out a deal from their intractable positions. The talks broke down over the Chattahoochee River and who controls it. Georgia wants to be able to use as much water as it needs, especially for metro Atlanta's ever-growing subdivisions, malls and office parks. Georgia would guarantee only a minimum flow at the Florida state line, which environmental groups said would devastate the fragile Apalachicola Bay estuary. Florida wants to hold Georgia accountable for the water it says it needs for the next 40 years. If at some point Georgia wants more, Florida wants a say in whether Georgia can have it. Environmentalists said neither plan would leave enough water in the rivers.

The states' Republican governors had been optimistic that they would be able to settle the long-running dispute by getting personally involved. But negotiators said that extending the talks, as they have more

than a dozen times since 1998, would not have made a difference. The states could continue talking, even as they reactivate federal lawsuits over their common waters, but they are not likely to resurrect the tri-state compact that created the framework for the talks.

Just setting up the compact, in which the states agreed to lawsuit-free negotiations and several federal agencies gave financial and technical support, had required skillful intervention from former House Speaker Newt Gingrich. Under the Georgia Republican's watch, the compact was approved by Congress and each state's legislature. Walter Stevenson Jr., Alabama's former negotiator who is now a consultant, said the states are "missing a golden opportunity that probably will not occur again in our lifetimes. . . . It's really a toss of the dice taking it to court."

With the free-for-all back on, the only referee likely to gain any control is the Supreme Court. Congress also could step in, but probably won't, said George William Sherk, an attorney who specializes in interstate water disputes and advised LaGrange and Troup County in the water talks. During a telephone conference, Florida's negotiating team said they're planning to take their case to the highest court this fall. Florida officials said they have about \$500,000 for water litigation, while Georgia has about \$900,000 to spend through next June. Georgia has already spent more than \$2 million on legal fees since 1998. Together the states and the federal government have spent more than \$30 million trying to reach a negotiated settlement. All three states face similar state budget crises.

Before the Supreme Court hears their arguments, the states could reactivate separate federal court filings in Georgia, Alabama and in Washington. The most pressing case is pending in Washington, where fast-growing metro Atlanta counties worked out an agreement in January to take enough water out of the Chattahoochee River and Lake Lanier for homes and businesses to continue multiplying for the next 10 to 20 years. Florida denounced the agreement, calling it a "back-door deal" to circumvent the tri-state negotiations. Alabama sued to stop it.

Gwinnett County Chairman Wayne Hill said his fast-growing county will be able to take the water it needs while court battles drag on: "What we were negotiating is 30 years

out." But in an opinion written last year, the Army Corps of Engineers, which operates Buford Dam at Lake Lanier, said the lake can't support any more water withdrawals unless Congress reauthorizes the dam's purpose. The dam was built to generate hydropower, prevent flooding and float barges downstream, not provide drinking water.

Gwinnett, which led the nation's in fast-paced growth for several years in the 1990's, is waiting word on whether it can take another 75 million gallons of water a day out of Lake Lanier, or a 50% increase over its current withdrawal. But Hill said the county isn't critical — yet. "We've got enough water to go several more years now," he said. "We haven't come close to our maximum withdrawal amount this year, but it's been a wet year. If we have another drought, I don't know."

Source: Stacy Shelton, *The Atlanta Journal-Constitution*, 9/2/03

## **EPA Won't Regulate Ballast Water**

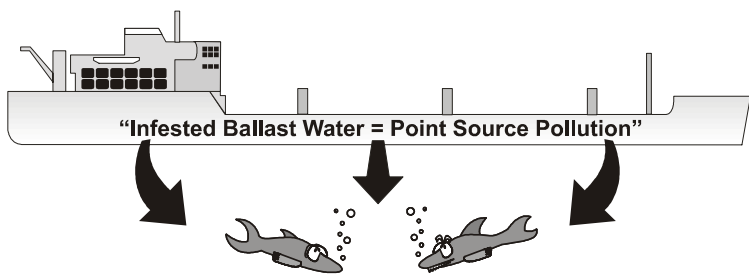
Skirting a major invasive species issue which brought zebra mussels, round gobies, and spiny waterfleas to the Mississippi River Basin via Great Lakes shipping channels, the Bush Administration announced in early September that the U.S. EPA will not regulate ballast water discharges from ships. A coalition of 15 environmental and fishing groups had asked the EPA to declare that ballast water was a pollutant that could be regulated under the federal Clean Water Act (CWA).

But the EPA said it will not step in, citing both policy and practical reasons for denying the petition, noting that the Coast Guard "is engaged in ongoing efforts to establish a quantitative ballast water treatment performance standard." In addition, existing regulations require ships to submit ballast water management reports to the Coast Guard upon entering U.S. waters, according to EPA officials. Finally, EPA believes that regulation of ballast water "would be a massive undertaking, especially if NPDES permits were required for all discharges for each such vessel." "We consider ballast water and invasive species a real concern," said Jim Hanlon, EPA's director of wastewater management in Washington, D.C. "But EPA really doesn't have a presence on vessels across the U.S. The Coast Guard is the arm of the govern-

ment there. Vessels are part of their mission. Our feeling is that adding ballast water to their responsibilities is better than adding vessel management to EPA's."

*Northwest Environmental Advocates* (NWA) petitioned EPA in 1999 to require shipping companies to obtain a CWA permit to discharge ballast water. They noted in the petition that invasive species represent the greatest risk posed by ballast water discharges. Then in 2002 NWA sued EPA for not responding to its petition.

Subsequent negotiations yielded an agreement, which the 9th U.S. Circuit Court of Appeals approved August 19, requiring the agency to act on the petition by September 2. That tactic represents the best hope, the groups said, of reigning in the billions of tiny crabs, fish, clams, plants and other organisms that are sucked into ships' ballast tanks in foreign harbors and then pumped out in U.S. waters when they



unload cargo. The tiny stowaways kill native species, clog water pipes and disrupt the food chain. The zebra mussel, which federal officials estimate will cost \$5 billion to remove from the Great Lakes, has jammed water pipes and cooling systems at power plants across the Midwest and has crowded out native clams and fish. EPA estimates ships discharge 21 billion gallons of ballast water into U.S. waters each year.

Were EPA to regulate ballast water under the CWA, it could declare large cargo ships, oil tankers and other vessels as "point sources" of water pollution — like floating factories. Under the CWA, such sources require permits and can be fined for exceeding pollution levels in those permits. Deborah Sivas, director of the *Earthjustice Environmental Law Clinic* at Stanford University, said although the Coast Guard has put in place some regulations, they are voluntary nearly everywhere in the U.S. The CWA allows citizen suits, she said, which can increase enforcement. "This is an opportunity for EPA to take the lead," she said. "Until you get some kind of federal permits in place, you aren't going to have the industry moving on it. You need

the legal leverage." "There's virtually no monitoring and enforcement," said Andrew Cohen, director of the biological-invasions program at the *San Francisco Estuary Institute*, in Oakland. "Even if caught red-handed, the maximum penalty is only \$5,000. These are multimillion-dollar vessels. That level of fine is not much to change their behavior."

Environmental groups said it is likely they will now sue the EPA to attempt to persuade a judge to force the agency to use the CWA in the fight against invasive species. "EPA has completely abdicated its responsibility," said Linda Sheehan, Pacific region director of the *Ocean Conservancy*, an environmental group based in San Francisco. "Invasive species are like chemical pollutants that mate. Once they are here, they are here to stay. They cost hundreds of millions of dollars a year to keep in check, and environmentally they

push threatened and endangered species over the edge."

California has among the toughest ballast water laws in the nation. A law passed by former Assemblyman Ted Lempert, D/Palo

Alto, in 1999 required ships from foreign ports to exchange their ballast water 200 miles from the California coastline. Critics say it is a good start but that there is little enforcement. Oregon and Washington have copied it. This summer, the U.S. Coast Guard began a process to write a similar nationwide rule that would largely mirror California's.

Meanwhile, researchers are working on systems, such as ozone treatment and nitrogen gas, that could kill the tiny stowaways. "We're on top of it," said John Berge, vice president of the *Pacific Merchant Shipping Association* in San Francisco. "We are working together with the environmental community and the state agencies to tackle this difficult problem. Eventually we hope to have technology developed that will provide onboard treatment of ballast water of ships so there is zero discharge. We're confident that will happen."

But NWA Executive Director Nina Bell said, "We have no recourse other than to look to the courts to force EPA to accept its responsibility under the law." "EPA has

employed outrageous delay tactics in an effort to avoid the CWA and protect the interests of international shippers. The costs to the environment and to the public treasury associated with EPA's refusal to obey the law are substantial," she added. NWA cited congressional testimony from David G. Davis, EPA's deputy director of wetlands, oceans and watersheds under the Clinton administration, in which he said that "the unintentional introduction of exotic species affects almost all of our nation's economically vital and fragile coastal, estuarine and inland waters."

Sources: Paul Rogers, *San Jose Mercury News*, 9/3/03; and *Greenwire*, 9/3/03 and 9/4/03

### Redefining Clean Water Act Authority

In the landmark 2001 decision (*Solid Waste Agency of Northern Cook County v. the United States*, or the SWANCC decision), the U.S. Supreme Court, ruled that the Corps of Engineers (Corps) and the U.S. EPA could no longer use the migratory bird rule — which claimed that marginal wetlands used by waterfowl are important to interstate commerce — as a sound basis for prohibiting development. Since that ruling, multiple cases have moved through the lower courts in an attempt to redefine the federal government's authority over wetlands regulation, particularly in areas where wetlands are seasonal or only marginally valuable for flood control and wildlife.

In June, the 4th Circuit Court of Appeals ruled that the federal government may regulate wetlands far from waterways large enough to sustain navigation. The case involved property owned by James and Rebecca Deaton on Maryland's Delmarva Peninsula. The Deaton's planned in the early 1990s to build a small subdivision on their five-acre parcel. In order to develop the property, they were forced to drain wetlands, which they did by digging a ditch leading into a roadside culvert. When the Corps discovered the drained wetlands, the Deatons were fined for polluting U.S. waterways without a permit. Although the district court ruled in favor of the couple, the circuit court reversed that decision.

After the SWANCC ruling came down, the Deatons filed a motion asking the court to reconsider its ruling. But the court ruled that while SWANCC removed from federal

jurisdiction isolated waters that fall under the Commerce Clause solely because of the possibility that they might be used by migratory birds, SWANCC does not affect federal authority over waters that have a hydrological connection to navigable waterways. “Any pollutant or fill material that degrades water quality in a tributary of navigable waters has the potential to move downstream and degrade the quality of the navigable waters themselves,” the court said. While the Deatons argued that the roadside ditch cannot be considered a tributary because it does not drain directly into a navigable water, the court said that the Corps has the authority to decide what constitutes a tributary and what does not.

In late July a decision by Eastern North Carolina District Judge Terrence Boyle built upon the *Deaton* case. The North Carolina case is significant because it adds to the body of legal precedent establishing how far federal law extends upstream before responsibility for clean water is turned over to state governments. The decision is also important in that it could make it more difficult for the Bush Administration to move forward with a new proposal to remove some isolated wetlands, intermittent creeks and headwater streams from federal Clean Water Act (CWA) protection by way of an official rulemaking, according to the attorney who represented environmentalists in the case.

At issue is a 1,262-acre tract of land in Onslow County, NC near Stump Sound, that includes several hundred acres of wetlands. In the late 1990s, the owner of the tract, *Holly Ridge Associates* re-excavated some drainage ditches that had been damaged by hurricanes and dug some new ditches. Environmentalists and fishermen sued *Holly Ridge*, under the citizen suit provision of the CWA, saying ditches draining wetlands on the property were polluting the sound, which is used by local oyster growers. Because the wetlands in question flow into Stump Sound via ditches, other wetlands and periodic flooding, Boyles’ decision addresses a wide range of hydrologic connections. Central to the case is whether the federal CWA extends to the ditches and wetlands, which are located as far as three miles from the Sound.

Lawyers for the defendants argued that because the ditches and wetlands are not directly adjacent to a navigable waterway, they are not covered under the CWA, but Boyle ruled otherwise. “This court agrees with the reasoning of those courts that have

taken a narrower view of SWANCC,” he said. “Where bodies of water are hydrologically connected, discharges into wetlands adjacent to a nonnavigable tributary of a navigable water can move downstream, degrading the quality of the navigable water.”

In some respects, the ruling is similar to that of the *Deaton* case, but Boyle went a step further, ruling that wetlands connected to large waterways by other wetlands also fall under federal purview. And Boyle said the wetlands do not need to be connected to a navigable waterway all year long — seasonal flooding is enough to establish a link that could extend CWA jurisdiction to the wetlands. Boyle also said regulations drafted by the executive branch do not necessarily trump the CWA, which allows citizens to sue if the federal government



fails to take action. In addition to ruling that the wetlands fall under CWA jurisdiction, Boyle also rejected the defendants arguments that the land qualifies for a forestry exemption because the property owner has used it to harvest timber. That exemption applies only to normal runoff, not channelized ditches, Boyle said.

In August, the 6th U.S. Circuit Court of Appeals found a Michigan landowner who filled 50 acres of wetlands on his property guilty of violating the CWA despite arguments that the wetlands were too far from a “navigable waterway” to fall under the federal law’s jurisdiction. The ruling closely follows decisions in the *Deaton* and *Holly Ridge* cases affirming that wetlands draining into man-made ditches leading to larger waterways do fall under CWA protection. While the ruling does not extend CWA jurisdiction beyond the ruling from the 4th Circuit in June, it is significant in that it reinforces the broad federal authority established by that decision and others.

At issue was a 175-acre plot in Bay County, MI, owned by John Rapanos. In order to make the land more suitable for sale to

developers, Rapanos filled wetlands on the property in spite of warnings from the Michigan Department of Resources that a permit was required. Rapanos also destroyed paper evidence that the wetlands existed, according to court records. In the late 1990s, the Michigan District court found Rapanos in violation and ordered him to pay \$185,000 in damages. But that court overturned its own ruling after the SWANCC decision. However, according to the federal 6th Circuit Court’s written opinion, CWA jurisdiction is far-reaching. “As common sense makes clear, the CWA cannot purport to police only the navigable-in-fact waters in the United States in order to keep those waters clean from pollutants,” the three-judge panel wrote. “A pollutant can contaminate non-navigable water and pollute the navigable-in-fact waters downstream.”

In September, the 4th Circuit’s decision in *Treacy v. Newdunn Associates* reverses a lower court ruling and builds upon an earlier decision made by the same appeals court in the *Deaton* case. Similar to *Deaton*, the 4<sup>th</sup> Circuit ruled that, “Because there exists a sufficient nexus between the Newdunn wetlands and navigable waters-in-fact, the Corps’ jurisdiction in this case is amply supported by the CWA and the Corps’ regulations under the act.” The court likened the waters in question in *Newdunn*, essentially a manmade ditch along Interstate 64 that ebbs and flows with the tide from Virginia Beach, to those in *Deaton*.

The Corps sued *Newdunn Associates* for developing parts of property the group had owned since the 1970s without a wetlands permit. “To the extent that *Newdunn* challenges the Corps’ decision to label the manmade, I-64 ditch a tributary, that argument has also been foreclosed by *Deaton*,” the judges write. “The *Deaton* court recognized that the Corps has defined the word tributary to include the entire tributary system,” including roadside ditches. The 4th Circuit also agreed with the Corps’ broad characterization of a discharge of fill material into a wetland, which was outlined in the government’s brief in *Newdunn*. “The discharge of a pollutant into a waterway generally has the same effect downstream whether the waterway is natural or manmade,” the judges ruled. “Indeed, given the extensive human modification of watercourses and hydrologic systems throughout the country, it would be difficult to identify a principled basis in this case for distinguishing

between natural watercourses and watercourses that are wholly or partly manmade or modified.”

Don Parrish of the *American Farm Bureau Federation* predicted that *Deaton* or another case with similar facts would be appealed to the Supreme Court to further clarify the Corps and EPA’s jurisdiction over isolated wetlands. But Joan Mulhern, an *Earthjustice Legal Defense Fund* attorney, said industry’s interpretation of SWANCC is flawed. “They read the ruling to say that there should only be protection when a waterway is persistently wet. Under that logic, it’s impossible to know where to draw the line. Should it be streams that are wet once every 10 years or every 100 years? If that’s the case, then the Corps and EPA will be protecting very little,” Mulhern said.

Derb Carter, an attorney for the *Southern Environmental Law Center*, which filed the *Holly Ridge* suit, said decisions like this would make it more difficult for Bush to execute a rule change. Although the administration could still move forward with the rule, the White House would risk having its own rule nullified by the courts, and developers would have little assurance that the regulation could be safely followed.

“The *Deaton* case reaffirms the CWA and finds that SWANCC did not disrupt the federal authority as much as some people would like to believe,” said Mulhern. “It’s significant in that it comes out of the 4th Circuit, which has been viewed as not very receptive to environmental concerns.” After the appeals court decision and other recent rulings, case law is now leaning solidly in favor of broad CWA authority, she said. “Cases like *Raponos* and others really put the nail in the coffin.”

Sources: Damon Franz, *Greenwire*, 6/16/03, 8/4/03 and 8/6/03; and Marty Coyne, *Greenwire*, 9/16/03

### **OMB to Require Independent Reviews for Studies on Regulations**

The Office of Management and Budget (OMB) in late August proposed to standardize the regulatory process, requiring government agencies to start using independent panels to review scientific studies used to develop regulations. The process, set to take effect next February, would require all agencies to compile an annual list of planned scientific studies and reviews. OMB, the White House Office of Science

and Technology, and the agencies would then discuss the plans, requiring a more comprehensive review for studies with the biggest potential impacts on regulations.

Peer review by “respected” scientific journals could allow scientific studies to meet the requirement. The U.S. EPA already uses the process of peer review extensively, but the Agriculture Department and the Army Corps of Engineers do not, a senior OMB official said.

Reaction to the idea was mixed, with scientific organizations generally supportive of the proposal. Other scientists questioned whether it is possible to separate the peer review process from White House policy. “One would hope this kind of review would prevent the kind of abuses that the administration has engaged in pretty systematically,” said Kurt Gottfried, a professor emeritus of physics at Cornell and the chairman of the board of the *Union of Concerned Scientists*. “I have to say I’m pretty skeptical about what the intention is here.”

Groups that oppose many regulations on industry also expressed skepticism. “There’s unfortunately a belief out there that if we just get the science right then we can more easily adjudicate the disputes at EPA and elsewhere, but that’s just naive,” said Jerry Taylor, the director of natural resource studies at the *Cato Institute*.

Sources: Andrew C. Revkin, *New York Times*, 8/29/03 and *Greenwire*, 9/2/03

### **Coastal Erosion Theories Collide**

Geologists researching Louisiana’s coastal marshes, and why they are disappearing have stumbled across a major difference of opinion. “Are the losses caused by natural faults in the earth or by the effect of oil and gas drilling off shore in the Gulf of Mexico?” The answer to this question will likely have a major impact on a variety of federal and state proposals for rebuilding the coastline.

Sherwood Gagliano, often cited as the first scientist to recognize the extent of the state’s wetlands-loss problem in the 1950s, says his new research indicates that natural activation of more than 100 geologic faults has caused some areas to drop as much as 3.5 feet within a year or two in the recent past, and he warns that the trend could

continue indefinitely. The faults along Louisiana’s coastline are unlike those that cause earthquakes in places such as California. Those faults are areas where two blocks of hard rock are attempting to move in opposite directions horizontally. When they slip, an earthquake occurs. Along Louisiana’s coast, the faults more often represent areas where blocks of softer earth slide downward, often without the shaking that occurs with horizontal slippage.

The evidence of fault-caused sinking of wetlands, Gagliano said, is seen in the rapid formation of lakes where wetlands once were. The lakes often have straight sides that coincide with fault lines, rather than jagged or rounded edges that would indicate erosion caused by storms. The fault line marks the beginning of a block of earth that has sunk, letting water flow in over wetlands. Gagliano claims that as much as 50% of wetlands lost along Louisiana’s coast during the past half century may have been caused by such fault activation. And he warns that similar rapid subsidence events could occur at any time. “What we have reported here is the identity of an underrated natural hazard,” Gagliano said, adding that state and federal officials should analyze the risk that hazard represents as part of its decision-making process in determining how to rebuild Louisiana’s coastal wetlands.

Robert Morton, a U.S. Geological Survey (USGS) researcher, says that he has also identified areas of rapid sinking along the coast that are linked to geologic faults. But Morton contends that many of these areas are related to a definitely unnatural process: the recent withdrawal of billions of gallons of oil and brine, and trillions of cubic feet of natural gas from deep underground deposits. When the timing of those withdrawals is matched with the record of subsidence along the coast, he says the period of most rapid sinking occurs during or just after the removal of the greatest amount of fluids and gases — the 1960s and 1970s. And, Morton said, as oil and gas production from wells in Louisiana’s wetlands dropped off, so did the rate of wetlands loss.

During the 1970s and 1980s, scientists with the Army Corps of Engineers estimated that the state was losing wetlands at a rate greater than 40 square miles/year. But a recent survey by the USGS indicates that during the past 20 years the loss of coastal land and wetlands has dropped to 24 square miles/year or less. Morton argues that the reduction tracks the reduction in oil and gas

production, and he says it can be expected to continue.

There's a lot at stake in this argument:

- If Gagliano is right, officials may want to hold off on the proposed \$14 billion *Louisiana Coastal Area Plan* to rebuild the state's wetlands in the most rapidly eroding areas of Jefferson, Lafourche and Terrebonne parishes for fear that areas near existing faults could continue sinking at rapid rates and could take expensive restoration projects with them.
- If Morton is right, the rapid erosion in those same areas may be leveling off and the restoration projects will work.

"It's an important question that needs to be resolved," said Karen Gautreaux, Gov. Mike Foster's executive assistant for coastal activities. "If the science indicates this is something caused in recent times by extraction of minerals and it looks like the activity has peaked and we're moving towards an equilibrium, that's a lot more hopeful for the restoration of the coast." Gautreaux added, however, that federal-state efforts to develop a restoration plan cannot afford to be delayed while officials wait for an answer to the question, which could take years of research.

Based on early versions of his research, Gagliano has been forwarding an alternative vision for rebuilding the coast to that contained in the still-incomplete *Louisiana Coastal Area Plan*. In a paper sponsored by the *Louisiana Landowners Association*, which represents many individuals and corporations who own wetlands along the coast, he's urging federal and state officials to identify areas along the coast less likely to sink as result of faulting and to build freshwater and sediment diversions that would build new marshes on those spots.

The centerpiece of his proposal is a project called the *Third Delta Conveyance Channel*, which is being considered as part of the federal-state plan. A diversion almost as big as the Old River Control Structure would funnel as much as 200,000 cubic feet per second of water through the west bank of the Mississippi River and down a new path just downstream of Donaldsonville. That's more than a third of the water the river carries on most days before a similar amount is diverted to the Atchafalaya River at the Old River Control Structure north of Baton Rouge. The new waterway would run south just to the east of the existing Bayou Lafourche for 30 miles and then divide into two pathways. The western one would cross Bayou Lafourche, and both

would flow another 30 miles to open-water areas of the Barataria and Terrebonne basins, where they would build new wetlands. Some early versions of the plan would dig the new waterway deep enough to be used for shipping from Port Fourchon to a proposed cargo airport and port facility near Donaldsonville.

Gagliano's landowner proposal also calls for another seven diversions that would build new sub-deltas all along the coast. That differs dramatically from most of the *Louisiana Coastal Area Plan*, which calls for a variety of small and large diversions aimed at either reducing the speed of wetlands loss, maintaining existing wetlands at their current levels or restoring wetlands in areas where they have previously existed. At the moment, that plan does not include targeting areas for wetlands creation on the basis of their potential for fault-caused sinking. Instead, it uses the recent USGS estimate of reduced wetlands loss as a base for where to target its projects.

The study on which the plan will be based is expected to be presented to Congress next July in support of a request to authorize the beginning of a long-term program for restoring the coast as part of the federal Water Resources Development Act (WRDA). Gagliano says Morton's suggestion that oil and gas production is the major cause of recent subsidence ignores similar subsidence incidents from the past. "This is not a process that started occurring when we put a few soda straws in and removed some fluid," he said. But Morton said studies of subsidence rates in the geologic past, using radioactive carbon dating of drilling cores, indicate the rate of subsidence was only .09 of an inch per year 4,740 years ago, and even smaller only 425 years ago, while at the height of oil and gas production in the 1970s, the coast was sinking at a rate of almost an inch a year. "The delta plain's surface had thousands of years to adjust, and then it just fell apart in the 1960s and 1970s," Morton said. "This was pretty dramatic and pretty rapid, and there was a correlation (in time and place) with oil and gas production," he said.

Meanwhile, four environmental organizations are urging state and federal officials to slow their process of drafting a coastal restoration plan by a few months, saying the public needs time to review recommendations and the science on which they are based. In a memo sent to federal and state officials in August, the *Coalition to Restore Coastal Louisiana*, *Environmental Defense*,

*National Audubon Society* and *National Wildlife Federation* said they don't think their recommended delay would hinder efforts to present a draft plan to Congress in July for inclusion in the WRDA of 2004.

Federal and state officials have been working at breakneck speed to choose between more than 200 alternatives, including a variety of freshwater and sediment diversion projects, that could be included in a \$5 to \$20 billion plan to rebuild Louisiana's coast over the next 30 years. "While we all share the sense of urgency for the timely authorization of a delta restoration project, the pressure to select a preferred plan before we have the necessary stakeholder and scientific input with real opportunity for engagement by national as well as state stakeholder groups is counterproductive," the memo says.

The Army Corps of Engineers, which is leading the multi-agency task force developing the restoration plan, expects to issue a draft environmental impact statement outlining the preferred plan this fall. It would be the fastest such a monumental project has ever gone through the complicated federal approval process necessary for congressional consideration. Observers have said the restoration program could be the largest engineering project in U.S. history.

What the environmental groups recommend, however, is that the Corps' environmental impact statement be more general and include alternatives instead of just a final choice. Comments by the public and various stakeholders, both within Louisiana and elsewhere, could then be considered in a second, supplemental statement that would winnow the alternatives to a single plan. That document could be released in late December, allowing public comment on it before it is bundled with a recommendation by the Corps' chief of engineers and presented to Congress. "This planning effort is so huge, complex and unprecedented that the Corps should be able and willing to adjust its internal planning and review procedures accordingly," the memo says. *Environmental Defense's* Jim Tripp said that although the Corps, other federal agencies and the state have made dramatic progress in developing the plan in the past 18 months, "we don't have to rush to the finish line."

Corps officials said that the environmental groups' recommendations will be considered. There's normally a 45-day review period of environmental impact statements.



Randy Hanchey, deputy director of the Louisiana Department of Natural Resources and leader of the state's restoration program, agreed that the speed in which the plan is being drafted has been causing problems. Those include complaints by a *National Research Council* oversight committee that it hasn't been getting timely information about the science on which project decisions are being made.

Source: Mark Schlefstein, *The New Orleans Times Picayune*, 8/20/03 and 9/3/03

### **Aquaculture Advisory Panel Formed in Louisiana**

Louisiana Gov. Mike Foster in late August signed an executive order forming an advisory commission to supervise fish farming in the state. Foster said the new Commission will allow the development of aquaculture while controlling the importation of dangerous non-native species.

His order, which established the *Louisiana Aquaculture Advisory Council* within the governor's office, ended wrangling between the state departments of Wildlife and Fisheries and Agriculture over who would oversee the aquaculture industry. Foster vetoed a bill in July that would have created the Council within the Agriculture department, where officials said they hoped to promote fish farming by easing restrictions on cultivating non-native fish species, after biologists with Wildlife and Fisheries warned it would open dangerous holes in Louisiana's efforts to control invasive species.

The new Council is similar to the one detailed in the Legislature's original plan, with its 22 members drawn from state government, farm groups, the aquaculture industry and conservation organizations. "We're glad to have a forum to move forward," said John Rousell, assistant secretary for Wildlife and Fisheries. "We plan to work on solving (farmers') issues without creating some of the risks that can be associated with exotics." Those risks became apparent when a Metairie angler reported catching more than a dozen Asian carp — massive non-native fish (see photo above right) with a tendency to leap from the water toward lights and vibrations, including passing motorboats.

Both supporters and opponents of easing aquaculture restrictions cited the fish as

evidence supporting their case. Supporters said the fish proved existing rules weren't working. Opponents said the fish were a tangible warning about the dangers of allowing farmers to cultivate exotic species.

Source: Aaron Kuriloff, *The Times Picayune*, 8/28/03

### **UMR Bighead Carp Barrier Proposed**

Minnesota Department of Natural Resources (MNDNR) officials said in late September that they are studying the possibility of building an underwater electric barrier across the Mississippi River to prevent the northward spread of Asian carp. The barrier, consisting of electrified cables or bars on the river bottom, would block fish movement by shocking them as they swim toward it. Such a barrier might be installed somewhere between the Iowa border and the Twin Cities if a study concludes that it would work.



***Bighead carp, one of several Asian carp species.***

The bighead and silver carp have been expanding upriver since the 1980s, after they were imported by Arkansas fish farmers and apparently escaped. The carp, which can weigh more than 60 pounds, are dangerous to boaters, personal watercraft users, and water skiers. When motorboats pass through waters infested with bighead and silver carp, the fish routinely jump several feet out of the water and sometimes land in boats. The jumping fish have broken people's bones and caused lacerations, as well as damaged equipment.

Jay Rendall, MNDNR exotic species coordinator, said bighead carp have been reported near the Minnesota border south of La Crosse, WI while the silver carp appear to be farther south in Iowa. He said the MNDNR has hired *Smith-Root Inc.*, a fisheries technology company in Vancouver, WA, to look at stretches of the Mississippi — mostly narrow sites including locks and dams — where an electric barrier might be installed. The study will cost up to \$5,000, he said.

*Smith-Root* built a \$1.2 million experimental electric barrier in a canal that connects Lake Michigan to the Illinois River last year to prevent Asian carp from entering the Great Lakes. That barrier consists of several spaced bundles of electric cables across the bottom of the 165-foot-wide canal and emits enough electricity to deter fish from swimming upstream. Illinois officials, working with *Smith-Root*, the Army Corps of Engineers and others, are planning a \$7.5 million permanent barrier nearby.

Authorities from several state and federal agencies and universities are scheduled to discuss the preliminary results of the MNDNR study in late October. After that, the agency will decide whether the project is worth studying further. Ron Martin, Wisconsin Department of Natural Resources (WIDNR) said an electrified barrier also would affect native fish, which need to move up and down the river to spawn. Martin said, however, that he supports the study. "Any time you get 3-or 4-foot carp that are virtually eating machines, they're going to have an effect on the system," he said. "Instead of food that would be producing walleye, northern, bass or a number of other desirable species, all of a sudden that biomass is going into producing carp."

Vern Wagner, conservation director for the *Minnesota B.A.S.S. Federation*, said his group also hopes that the invasive carp can be blocked. "It is a subject of concern," he said. Scott Elkins, state director of the *Sierra Club*, said constructing barriers "is kind of like putting your thumb in a dike once the dam is crumbling." Money would be better spent to educate people about exotic species and to prevent others from being introduced, he said. Most people agree, but still want something done about the obnoxious carp.

Source: Tom Meersman and Mark Brunswick, *Minneapolis Star Tribune*, 10/1/03

## Meetings of Interest

**Oct 30-31:** Ecosystems: Restoration and Creation, Tampa, FL. See: [www.hccfl.edu/depts/detp/eco-conf.html/](http://www.hccfl.edu/depts/detp/eco-conf.html/).

**Nov 4-8:** North American Lake Management Society 2003: Protecting Our Lakes' Legacy, Mashantucket, CT. See: [www.nalms.org](http://www.nalms.org). Contact: [nalms@nalms.org](mailto:nalms@nalms.org), (608) 233-2836

**Nov 16-18:** Total Maximum Daily Load 2003 Conference, Chicago, IL. See: [www.wef.org/pdf/files/TDML03Call.pdf](http://www.wef.org/pdf/files/TDML03Call.pdf). Contact: (614) 247-7984

**Dec 6-10:** 64th Midwest Fish and Wildlife Conference, Kansas City, MO. Contact: Bill Eddleman, [weddleman@biology.semo.edu](mailto:weddleman@biology.semo.edu)

**Mar. 1-5, 2004:** Aquaculture America 2004: Triennial meeting of the World Aquaculture Society, National Shellfisheries Association, and AFS Fish Culture Section, Honolulu, HI. See: [www.was.org](http://www.was.org). Contact: [worldaqua@aol.com](mailto:worldaqua@aol.com)

**May 2-6, 2004:** AFS, 4th World Fisheries Congress - Reconciling Fisheries with Conservation: The Challenge of Managing Aquatic Ecosystems. Vancouver, BC. See [www.worldfisheries2004.org](http://www.worldfisheries2004.org). Contact [fish2004@advance-group.com](mailto:fish2004@advance-group.com), (800) 555-1099.

**May 3-7, 2004:** River Voices, River Choices. River Management Society's 7th biennial symposium, Lake Tahoe, CA.

Contact: [rms@river-management.org](mailto:rms@river-management.org). See: [www.river-management.org](http://www.river-management.org)

**Aug 21-26, 2004:** 134th Annual Meeting of the American Fisheries Society, Madison, WI. Contact: Betsy Fritz, [bfritz@fisheries.org](mailto:bfritz@fisheries.org), (301) 897-8616

**Sept. 12-17, 2004:** 5<sup>th</sup> International Symposium, ECOHYDRAULICS, Madrid, Spain. The main focus will be restoration of aquatic habitats. Contact: Dr. Diego García de Jalón, [ecohydraulics@montes.upm.es](mailto:ecohydraulics@montes.upm.es) or Secretariat: [ecohydraulics@tileasa.es](mailto:ecohydraulics@tileasa.es). See: [www.montes.upm.es/congresos/ecohydraulics](http://www.montes.upm.es/congresos/ecohydraulics), [www.tileasa.es/ecohydraulics](http://www.tileasa.es/ecohydraulics)

## Congressional Action Pertinent to the Mississippi River Basin

### Endangered Species Act (ESA) of 1973

**S. 369.** Thomas (R/CA). Amends the ESA to improve the processes for listing, recovery planning, and delisting, and for other purposes.

**S. 1178.** Enzi (R/WY). Amends the ESA to require the Federal Government to assume all costs relating to implementation of and compliance with that Act.

**H. R. 1194.** Herger (R/CA). Amends the ESA to enable Federal agencies to rescue and relocate any endangered or threatened species that would be taken in the course of certain reconstruction, maintenance, or repair of Federal or non-Federal manmade flood control levees.

**H. R. 1235.** Gallegley (R/CA) and Gibbons (R/NV). Provides for management of critical habitat of endangered and threatened species on military installations in a manner compatible with the demands of military readiness, and for other purposes.

**H. R. 1662.** Walden (R/OR) and 18 Cosponsors. Amends the ESA to require the Secretary of the Interior to give greater weight to scientific or commercial data that is empirical or has been field-tested or peer-reviewed, and for other purposes.

**H. R. 1835.** Gallegley (R/CA) and 3 Cosponsors. Amends the ESA to limit designation as critical habitat areas owned or controlled by the Department of Defense, and for other purposes.

**H. R. 1965.** Gibbons (R/NV). Amends the ESA to limit the application of that Act with respect to actions on military land or private land and to provide incentives for voluntary habitat maintenance, and for other purposes.

**H. R. 2602.** Otter (R/ID). Amends the ESA to make the authority of the Secretary to designate critical habitat discretionary instead of mandatory, and for other purposes.

**H. R. 2933.** Cardoza (D/CA) and 17 Co sponsors. Amends the ESA to reform the process for designating critical habitat under that Act.

### Energy

**H. R. 1013.** Radanovich (R/CA), Hastings (R/WA), and Walden (R/OR). Amends the Federal Power Act to provide for alternative conditions and alternative fishways in hydroelectric dam licenses, and for other purposes.

### Federal Water Pollution Control Act (FWPCA) Amendments:

**S. 170. Clean Water Infrastructure Financing Act of 2003.** Voinovich (R/OH)

and **H.R. 20.** Kelly (R/NY) and Tauscher (D/CA). Amends the FWPCA to authorize appropriations for State water pollution control revolving funds, and for other purposes.

**S. 473.** Feingold (D/WI) and 3 Co sponsors and **H.R. 962.** Oberstar (D/MN) and 21 Co sponsors. Amends the FWPCA to clarify the jurisdiction of the U.S. over waters of the U.S.

**H. R. 738.** Pallone (D/NJ) and 16 Co sponsors. Amends the FWPCA to clarify that fill material cannot be comprised of waste.

**H. R. 784.** Camp (R/MI) and 17 Co sponsors. Amends the FWPCA to authorize appropriations for sewer overflow control grants

**H. R. 1560.** Duncan (R/TN) Amends the FWPCA to authorize appropriations for State water pollution control revolving funds, and for other purposes.

**H. R. 1624.** Pallone (NJ/D). Amends the FWPCA to improve enforcement and compliance programs.

### Floodplain Management

**H. R. 67.** Flake (R/AZ) and Hayworth (R/AZ). Provides temporary legal exemptions for certain management activities of the

Federal land management agencies undertaken in federally declared disaster areas.

**H.R. 253. Two Floods and You Are Out of the Taxpayers' Pocket Act of 2003.**

Bereuter (R/NE) and Blumenauer (D/OR). Amends the National Flood Insurance Act of 1968 to reduce losses to properties for which repetitive flood insurance claim payments have been made.

**Forestry**

**S. 32.** Kyl (R/AZ) and 4 Cosponsors and **H.R. 460.** Hayworth (R/AZ) and 7 Co sponsors. Establishes Institutes for research on the prevention of, and restoration from, wildfires in forest and woodland ecosystems of the interior West.

**S. 1208.** Collins (R/ME) and Reed (D/RI). Amends the Cooperative Forestry Assistance Act of 1978 to establish a program to provide assistance to States and nonprofit organizations to preserve suburban forest land and open space and contain suburban sprawl, and for other purposes.

**H. R. 750.** Udall (D/CO). Provides for a study of options for protecting the open space characteristics of certain lands in and adjacent to the Arapaho and Roosevelt National Forests in Colorado, and for other purposes.

**H. R. 1042.** Udall (D/CO) and Udall (D/NM). Authorizes collaborative forest restoration and wildland fire hazard mitigation projects on National Forest System lands and other public and private lands, to improve the implementation of the National Fire Plan, and for other purposes.

**Global Warming**

**S. 17.** Daschle (D/SD) and 15 Cosponsors. Initiates responsible federal actions that will reduce global warming and climate change risks to the economy, the environment, and the quality of life and for other purposes.

**S. 139.** Lieberman (D/CT) and McCain (R/AZ). Provides for scientific research on abrupt climate change, to accelerate reduction of U.S. greenhouse gas (GHG) emissions by establishing a market-driven system of GHG tradeable allowances to be used interchangeably with passenger vehicle fuel economy standard credits, limit

U.S. GHG emissions, and reduce dependence on foreign oil, and ensure benefits to consumers from the trading in such allowances.

**H. R. 1578.** Udall (D/CO). Promotes and coordinates global change research, and for other purposes.

**Invasive Species**

**S. 144.** Craig (R/ID) and 9 Co sponsors and **H.R. 119.** Hefley (R/CO). Requires the Interior Secretary to establish a program to provide assistance through the States to eligible weed management entities to control or eradicate harmful, nonnative weeds on public and private land.

**S. 525.** Levin (D/MI) and 15 Co sponsors and **H. R. 1080.** Gilchrest (R/MD) and 67 Co sponsors. Amends the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 to reauthorize and improve it.

**S. 536.** DeWine (R/OH) and 5 Co sponsors and **H.R. 266.** Ehlers (R/MI) and Gilchrest (R/MD). Establishes the National Invasive Species Council, and for other purposes.

**H.R. 273.** Gilchrest (R/MD) and Tauzin (R/LA). Provides for the eradication and control of nutria in Maryland and Louisiana.

**H. R. 989.** Hoekstra (R/MI). Requires the issuance of regulations pursuant to the National Invasive Species Act of 1996 to assure, to the maximum extent practicable, that vessels entering the Great Lakes do not discharge ballast water that introduces or spreads nonindigenous aquatic species and treat such ballast water and its sediments through the most effective and efficient techniques available, and for other purposes.

**H. R. 1081.** Ehlers (R/MI) and 67 Co sponsors. Establishes marine and freshwater research, development, and demonstration programs to support efforts to prevent, control, and eradicate invasive species, as well as to educate citizens and stakeholders and restore ecosystems.

**H. R. 2310.** Rahall (D/WV) and 17 Co sponsors. Protects, conserves, and restores native fish, wildlife, and their natural habitats on Federal lands and non-Federal lands through cooperative, incentive-based grants to control, mitigate, and eradicate harmful nonnative species, and for other purposes.

**Mining**

**H. R. 504.** Udall (D/CO). Provides for the reclamation of abandoned hardrock mines, and for other purposes.

**Public Service**

**S. 89.** Hollings (D/SC) and **H.R. 163.** Rangel (D/NY) and 5 Co sponsors. Provides for the common defense by requiring that all young persons in the U.S., including women, perform a period of military service or civilian service in furtherance of the national defense and homeland security, and for other purposes.

**H. R. 2566.** Kind (R/WI) and 3 Co sponsors. Reforms the Army Corps of Engineers.

**Public Lands**

**S. 124.** Roberts (R/KS). Amends the Food Security Act of 1985 to suspend the requirement that rental payments under the conservation reserve program be reduced by users, through the establishment of a National Forest Ecosystem Protection Program.

**H. R. 380.** Radanovich (R/CA). Provides full funding for the payment in lieu of taxes program for the next five fiscal years, to protect local jurisdictions against the loss of property tax revenues when private lands are acquired by a Federal land management agency, and for other purposes.

**H. R. 652.** Andrews (D/NJ). Assures that the American people have large areas of land in healthy natural condition throughout the country to maximize wildland recreational opportunities for people, maximize habitat protection for native wildlife and natural plant communities, and to contribute to the preservation of water for use by downstream metropolitan communities and other users, through the establishment of a National Forest Ecosystem Protection Program.

**H. R. 749.** Udall (D/CO). Directs the Secretary of the Interior to establish the Cooperative Landscape Conservation Program.

**H. R. 2169.** Leach (R/IA) and 89 Co sponsors. Saves taxpayers money, reduces the deficit, cuts corporate welfare, protects communities from wildfires, encourages Federal land management agency reform and accountability, and protects and restores

America's natural heritage by eliminating the fiscally wasteful and ecologically destructive commercial logging program on Federal public lands, restoring native biodiversity in our Federal public forests, and facilitating the economic recovery and diversification of communities affected by the Federal logging program.

**Water Resources**

**S. 323.** Landrieu (D/LA) and Breaux (D/LA). Establishes the Atchafalaya National Heritage Area, Louisiana.

**S. 426.** Daschle (D/SD) and Johnson (D/SD). Directs the Secretary of the Interior to convey parcels of land acquired for the Blunt Reservoir and Pierre Canal features of the Oahe Unit, James Division, SD, to the Commission of Schools and Public Lands and the Department of Game, Fish, and Parks of the State of SD for the purpose of mitigating lost wildlife habitat, on the condition that the current preferential leaseholders shall have an option to purchase the parcels from the Commission, and for other purposes.

**S. 454.** Harkin (D/IA) and Grassley (R/IA) and **H. R. 590.** Leach (R/IA) and Boswell (D/IA). Directs the Secretary of the Army to convey the remaining water supply storage allocation in Rathbun Lake, Iowa, to the Rathbun Regional Water Association.

**S. 531.** Dorgan (D/ND) and Johnson (D/SD). Directs the Interior Secretary to

establish the Missouri River Monitoring and Research Program, to authorize the establishment of the Missouri River Basin Stakeholder Committee, and for other purposes.

**S. 561.** Crapo (R/ID) and 5 Co sponsors. Preserves the authority of States over water within their boundaries, and delegates to States the authority of Congress to regulate water, and for other purposes.

**S. 993.** Smith (R/OR). Amends the Small Reclamation Projects Act of 1956, and for other purposes.

**S. 900.** Burns (R/MT). Conveys the Lower Yellowstone Irrigation Project, the Savage Unit of the Pick-Sloan Missouri Basin Program, and the Intake Irrigation Project to the pertinent irrigation districts.

**H.R. 30.** Bereuter (R/NE). Amends the Water Resources Development Act of 1992 to authorize the Secretary of the Army to pay the non-Federal share for managing recreation facilities and natural resources to water resource development projects if the non-Federal interest has agreed to reimburse the Secretary, and for other purposes.

**H. R. 135.** Linder (R/GA) and 3 Co sponsors. Establishes the "Twenty-First Century Water Commission" to study and develop recommendations for a comprehensive water strategy to address future water needs.

**H. R. 961.** Kind (D/WI) and 5 Co sponsors. Promotes a Department of the Interior effort to provide a scientific basis for the management of sediment and nutrient loss in the Upper Mississippi River Basin, and for other purposes.

**H. R. 1517.** Graves (R/MO) and 6 Cosponsors. Amends the Land and Water Conservation Fund to limit the use of funds available from the Land and Water Conservation Fund Act of 1965 to use for maintenance.

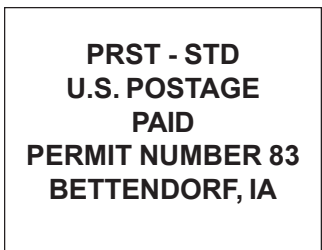
**H. R. 2557.** Young (R/AK) and 4 Co sponsors. Authorizes the Secretary of the Army to construct various projects for improvements to rivers and harbors of the United States, and for other purposes.

**H. R. 2890.** Saxton (R/NJ). Protects the public's ability to fish for sport, and for other purposes.

**Wild and Scenic Rivers**

**H. R. 987.** Herger (R/CA) and Doolittle (R/CA). Amends the Wild and Scenic Rivers Act to ensure congressional involvement in the process by which a river that is designated as a wild, scenic, or recreational river by an act of the legislature of the State or States through which the river flows may be included in the National Wild and Scenic Rivers System, and for other purposes.

Source: *U.S. Congress On Line*; <http://www.access.gpo.gov/congress/cong009.html>



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