River Crossings

Volume 7 March/April 1998 Number 2

Heritage Rivers Suit Dismissed

A federal judge in Washington, D.C. on 3/4/98 dismissed a lawsuit filed by House Resources Committee Chair Don Young (R/AK), Rep. Helen Chenoweth (R/ID) and other GOP committee members intended to halt President Clinton's *American Heritage Rivers (AHR)* program.

The lawsuit alleged that Clinton's executive order establishing the river protection initiative violates the 10th Amendment, which leaves zoning powers to local authorities, and constitutes a federal intrusion into private property rights. Arguing that Clinton should have submitted the program's proposal for congressional approval instead of implementing it by executive order, the legislators filed the suit after the House Resources Committee failed to pass legislation that would have blocked the initiative.

U.S. District Judge Henry Kennedy said Young and the others did not have standing to file the lawsuit because their rights were not harmed by the program. Tom Cassidy of the conservation group *American Rivers* praised the decision saying, "Chairman Young and Rep. Chenoweth know they can't stop this popular program in the Congress. And now they have failed to stop it in the courts. The winners are the communities across the country that want to restore and revitalize [their] rivers." William Pendley, director of the Denver-based *Mountain States Legal Foundation* that argued the case, said he plans to appeal.

Meanwhile, the chair of the House Commerce Committee has joined the list of lawmakers opposed to the *AHR* program. Rep. Thomas Bliley (R-VA) voiced his opposition to designation of Virginia's James River in a letter sent to the White House Council on Environmental Quality (CEQ). Bliley said he was concerned that the program would interfere with private property rights and decisions made by local officials. A CEQ spokesperson said Bliley's opposition "clearly weakens" the James River nomination, but added that the river will still be considered, with the section of river in Bliley's congressional district removed.

Oregon Sen. Gordon Smith is also urging President Clinton to keep the Willamette River and sections of the Columbia River out of the program, and Rep. Barbara Cubin (R/WY) has asked that her state be left out of the initiative. Cubin in a letter to CEQ Chair Kathleen McGinty said, "I believe the

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states and local citizens know best how to manage the waters within their borders".

Also support from the Illinois congressional delegation appears to have "softened considerably." All 22 members of the state's delegation, plus Lt. Gov. Bob Kustra (R) and Chicago Mayor Richard Daley (D), initially supported inclusion of the Illinois River in the program. But "most" southern Illinois reps now oppose the move, according to an aide to one GOPer. The *Illinois Farm Bureau* and several counties oppose it as well.

Meanwhile, progress is being made on the *AHR* designations. A Federal Review Panel (FRP) concluded its work on 12/18/98, and a White House Panel (WHP) will take the work of the FRP and recommend up to 20 rivers for designation. President Clinton will choose 10 from that list, with the selected rivers most likely being regionally diverse.

Within 90 days of designation, participating federal agencies at the local level and members of the local river community are to have drafted and signed a framework document that essentially identifies the roles and commitments of federal and local entities -- basically a partnership agreement between federal agencies, community partners, and others. Because each river and its priorities are different, each framework document will be different. Nevertheless, each will likely include the following:

- terms of agreement (background, reinventing government, existing plans, charter & mission statement);
- partnership organization (organizing structure, lead federal agency(s), river navigator roles, support for river navigator, communication and performance); and
- key officials.

In some instances the framework document will likely include specific project descriptions and objectives.

The *AHR* Program, through federal agencies, will provide a professional, experienced facilitator to each of the ten designated rivers. The facilitator:

- will take responsibility for coordinating the relevant parties, and ensuring that the framework document is completed in a timely manner,
- will remain neutral,
- will not contribute to the content of the framework document, and
- will work closely with the local community convener, the federal agencies, and the *AHR* steering committee in doing so.

A total of 126 rivers or river reaches have been nominated nationwide. Nominated rivers within the Mississippi River Basin rivers include the following (where two states are listed, sponsors in both states nominated the same or different reaches):

- Allegheny (NY, PA)
- Arkansas (AR, CO, KS, OK)
- Cedar (IA)
- Chicago-Illinois (IL)
- Cumberland (TN)
- Fox (WI)
- French Broad (NC, TN)
- Great Miami (OH)
- Kanawha (WV)
- Kaskaskia (IL)
- Levisa (VA)
- Licking (KY)
- Lower Mississippi (LA)
- Mahoning (OH)
- Mill (OH)
- Minnesota (MN)
- Mississippi River in Dubuque (IL, IA, WI)
- Mississippi River in Memphis (TN)
- Missouri (IA, KS, MO, MT, NE, ND, SD)
- Muskingum (OH)
- New (NC, VA, WV)
- Ohio (IL, IN, PA, KY, OH, WV)
- Ohio-Pigeon Creek (IN)
- Ouachita (AR, LA)
- Rock (WI),
- South Platte (CO)
- Tennessee in Chattanooga and in Decatur County (TN)
- Upper Mississippi (IL, MN, MO, WI)
- Upper Mississippi in St. Paul (MN)
- Yellowstone (MT, ND)

The following nine nominations are out of contention due to opposition by a

River Crossings

Published by

Mississippi Interstate Cooperative Resource Association
(MICRA)
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Bettendorf, IA 52722-0774

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local Congressional member (or members) whose district(s) surround the nominated areas:

- Coldwater Creek (MO),
- Gunnison (CO),
- Snonomish (WA),
- San Joaquin (CA)
- Upper Rio Grande (NM),
- San Juan (NM)
- Clearwater (MT),
- St. Mary's (MI), and
- Osage (MO).

These communities will receive a notice from the CEQ on this subject.

The USGS has prepared digitized maps of the nominated rivers with congressional overlays. These will be combined with EPA watershed water quality data, enabling the *AHR* website to provide detailed water quality information for different sections of each river. The website is located at www.epa.gov/rivers

Sources: David Whitney, *Anchorage Daily News*, 3/5/98; Peter Hardin, *Richmond Times-Dispatch*, 1/27/98; *AP/Casper [WY] Star-Tribune*, 1/20; *USA Today*, 1/27/98; Ethan Wallison, *Chicago Tribune*, 1/25; and National Journal's GREENWIRE, *The Environmental News Daily*, 1/27 and 3/5/98

Indiana Responds to Paddlefish Caviar Concerns

A daily bag limit of two paddlefish is now in effect for the Ohio River sport harvest of Indiana anglers. The emergency rule signed into effect on 3/10/98 is aimed at stopping the illegal sale of paddlefish taken by sport fishermen. Paddlefish, large filter-feeding fish, are seldom caught by conventional angling methods. Instead, sport fishermen are allowed to snag them from the Ohio River during a February I to May 10 snagging season.

Under Indiana law, anglers cannot sell any fish taken by sport fishing methods. However, the value of paddlefish eggs for the caviar market has risen dramatically as a result of world-wide shortages of sturgeon -- the traditional caviar source. This has encouraged the illegal sale of paddlefish taken by sport fishermen. "Our intent is to keep sport fishing a recreational pursuit," said Gary Doxtater, Director of the Indiana Dept. of Natural Resources, Division of Fish and Wildlife (DNR/DFW). "The bag limit removes the incentive to misuse sport fishing for commercial sale purposes." Indiana, under commercial fishing licenses issued for the Ohio River, continues to allow paddlefish to be taken with nets and sold.

Biologists in Indiana and 21 other Mississippi River Basin states are concerned about the growing harvest pressure on paddlefish for the caviar trade. A multi-state research project is underway through MICRA to learn more about the movements and harvest of paddlefish. Miniature Coded Wire Tags (CWTs) are being used to mark paddlefish captured and released by fishermen. "Much more needs to be known about this unique fish," said Bill James, Chief of Fisheries for the Indiana DNR/DFW. "At present the paddlefish population in our portion of the Ohio River appears to be holding up, but we want to ensure that over harvest does not threaten the paddlefish's future."

Tom Stefanavage Indiana DNR/DFW injecting paddlefish with MICRA's CWT.

The emergency rule mirrors a proposed fish and wildlife permanent rule that is nearing final adoption. The permanent rule was presented at public hearings around the state in late January. Under normal rule promulgation, such changes won't go into effect until late summer. This would be too late to address the 1998 paddlefish snagging season, so the DNR took emergency rule action. The emergency rule:

- prohibits the taking of paddlefish from any public water except the Ohio River,
- sets a daily bag limit of two paddlefish,
- prohibits sorting or release of lawfully snagged paddlefish,
- requires that anglers cease snagging for the day after two paddlefish are taken, and
- prohibits snagging within 200 yards of a dam on the Ohio River.

The prohibition near dams is already in effect in Kentucky and will standardize this regulation between the two states.

Contact: Jeff Wells, Law Enforcement, (317) 232-4010 or Mark Cottingham, Fish and Wildlife (317) 232-4080, Indiana DNR, 402 W. Washington St. W255, Indianapolis, IN 46204-2748

House/Senate Consider ESA

Reform of the Endangered Species Act (ESA) is high on the agenda for both the House and the Senate in the second session of the 105th Congress which began in late January. The Senate has been leading the way with its bipartisan proposal, S.1180, that is expected to be one of the first bills to be sent to the Senate floor. While the House Resources Committee plans oversight hearings, it is currently unclear whether the House will introduce its own ESA reform legislation or choose to pick up on the Senate bill and offer amendments, an option which several sources on and off the Hill say is more likely.

S. 1180 makes what its supporters say are very aggressive attempts to revamp the ESA's recovery system and put an effective recovery program in place. But most environmentalists disagree with that assertion and claim the bill will do just the opposite, slowing down efforts to get species removed from threatened or endangered status. Conservative opponents of the bill see other problems, saying the bill's flaws lie in its omission of forceful new language on issues such as property rights and water rights which are expected to appear in amendments in both the Senate and the House.

Since over half of the species listed as endangered reside on private property, ESA enforcement often impinges on

property owners, and several Western senators feel that stronger language on property rights is needed in S. 1180. Sen. Dirk Kempthorne (R/ID), the sponsor of S. 1180, has said he would work on compromise language for such a floor amendment.

The more difficult water rights issue deals with balancing state water use decisions with conservation management requirements. This is a big concern mostly to Western states. The controversial issue is not addressed in S. 1180 because, Kempthorne explained, "It seemed far better to leave the water rights issue status quo."

Congressional and stakeholder sources predict that contentious amendments on issues like property rights and water rights may receive more attention and see a bigger fight when the ESA is taken up in the House.

Despite certain complaints about the bill, S. 1180 has fairly broad support in the Senate and has also won the critical approval of the Clinton Administration, which was involved in negotiations to draft the bill. S 1180 was introduced on 9/16/98 by four key senators on the Environment and Public Works Committee. They include Committee Chairman John Chafee (R/RI), Endangered Species Subcommittee Chairman Kempthorne, Committee ranking Democrat Max Baucus (MT) and Endangered Species Subcommittee ranking Democrat Harry Reid (NV), with Department of Interior Secretary Bruce Babbitt by their side to lend the Administration's support.

The bill's recovery planning and implementation process would require:

- publishing of a draft recovery plan for newly listed species within 18 months of a final listing decision;
- publishing of a final plan within 30 months of the listing; and
- plans for those species already listed, but which do not have recovery plans, would be completed within 60 months of the bill's enactmentl, with half of those to be completed within 36 months.

The bill also makes changes to the ESA's consultation section which currently gives the Fish and Wildlife Service (FWS) primary authority to make determinations on whether a federal project will impact endangered species. Under S. 1180, other federal agencies can make the determination, although the FWS would retain the right to weigh in on the determination, but would be required to do so within a 60-day window.

Section V of S. 1180 concerns Habitat Conservation Plans (HCPs) on private property and sets up a "streamlined" program whereby landowners can develop programs with the Dept. Of the Interior (DOI) even for multiple species HCPs. The bill also codifies *"safe harbor agreements"*, which are opposed by several environmental groups but widely supported by landowners. Safe harbor agreements say that if a landowner enters into a voluntary agreement with DOI to protect and conserve listed species, those landowners and their HCPs in return would not be subject to additional liability under ESA. They are therefore intended to encourage voluntary steps to preserve species and their habitats.

Section VIII of S. 1180, which sets authorization of appropriations for the new act, calls for the FWS and the National Marine Fisheries Service to have their allocation approximately doubled by the year 2000 to $165 million and $70 million, respectively, to carry out their new responsibilities. However, that funding level is not guaranteed and may or may not be maintained during independent and annual appropriations votes. Because the bill contains a host of new requirements on FWS, especially with new deadlines for recovery planning, concern has been raised among FWS employees and other interested parties about how the FWS would be able to carry out their new responsibilities without assured funding, an issue which may arise during Senate floor debates.

Source: *Land Letter* 1/29/98, Vol. 17, No. 2

"No Surprises" Rule Issued

The U.S. Dept. of Interior (DOI) recently codified its *"no surprises policy"* into a rule and at the same time announced a five-point policy initiative to improve habitat conservation planning. The no surprises policy would also be codified legislatively under S. 1180 (discussed above).

This regulatory action comes as a result of ongoing litigation initiated by several environmental groups in which DOI agreed to conduct a formal rulemaking process for the no surprises policy and hold a public comment period. The policy has been in use since 1994, but was issued as a policy, not a rule.

Under no surprises, if landowners and federal officials agree to a Habitat Conservation Plan (HCP) and the plan is adhered to, the federal government would not require additional land, water or financial resources from the landowner for the duration of the HCP, so long as the plan proves itself to be adequate or unusual circumstances do not arise.

Endangered species protection and private property owners' concerns are very intertwined because DOI estimates that over 80% of the nation's endangered species reside on private property. DOI Secretary Bruce Babbitt said on 2/17/98 when the rule was made final that the no surprises policy evolved from the need to reconcile the expectations of private property owners and accommodate their needs with the necessity to recover listed species. Otherwise, Babbitt explained, property owners would face a threat because "a listing could cast a freeze over the entire landscape because of the possibility of a take."

Under the Endangered Species Act, if a landowner develops or alters property in a way that might effect an endangered or threatened species or its habitat, a permit is required to allow for an incidental take. In order to shield oneself from a take, a landowner can voluntarily agree to mitigate or minimize impacts on threatened species in exchange for liability relief, which was

exactly the intent of the no surprises policy. The no surprises agreements are characterized as "enormously successful" by Babbitt who said the agreements have "blossomed" over the past five years with over 200 being signed and with HCPs now applying to over 5 million acres of private land.

Most environmental groups, however, are strongly opposed to such agreements on the basis that landowners will get locked into an advantageous agreement that cannot be easily modified. But Babbitt said that the typical HCP specifically defines what would trigger adaptive management principles to kick in if the plan is not adequate or if circumstances change. Also, Babbitt said federal land purchases could be made through the Land and Water Conservation Fund if science changes or circumstances affecting the HCP set in.

In order to ameliorate HCPs, DOI is embarking on a policy initiative focusing on using better science, stepping up monitoring efforts, perfecting adaptive management provisions and expanding public participation. DOI said it will release more information on the initiative within the next three months.

Source: *Land Letter*, 2/26/98, Vol. 17, No. 5

Habitat Conservation Plans May Threaten Species

Habitat Conservation Plans (HCPs) are potentially "powerful tools" used to protect species under the Endangered Species Act (ESA), but they can lead to the destruction of habitat and wildlife when they are not implemented properly, according to a *Defenders of Wildlife* (DOW) report released on 2/10/98. The report is the first to critique many HCPs, legally binding agreements under which landowners adopt certain conservation measures in exchange for permission from the federal government to develop property, even if some endangered species and habitat are destroyed in the process.

The report, which assessed 24 of the 225 HCPs now in place under the ESA, credits some plans with "holding promise" if they are fully funded and implemented. But the report found that "in many cases [the plans] are being approved without adequate scientific information or public input." The researchers conclude that provisions in the plans for long-term biological monitoring, "if they exist at all, are weak." And none of the HCPs reviewed provided for additional funds in the event that subsequent data indicates the need for more conservation measures.

Author Laura Hood, in the report said, "The federal government is putting species on Noah's Ark with a blind captain and no way to repair the vessel when holes appear." "Many" of the problems identified in the report "would be cemented into law" under S.1180 proposed by Sen. Dirk Kempthorne (R/ID), according Kim Delfino of the *US Public Interest Research Group (USPIRG)*.

Backed by a coalition of groups including the *Sierra Club* and *USPIRG*, the report recommends that the HCP process be opened to more independent scientific review and allow greater public input. The authors recommend that landowners be required to post bonds or other security in case additional conservation measures become necessary. And the authors said better enforcement of existing ESA prohibitions against destroying listed species and habitat would encourage landowners to develop HCPs.

Sources: James Bruggers, *Walnut Creek [CA] Contra Costa Times*, 2/11/98, *DoW/USPIRG* release, 2/10/98; and National Journal's GREENWIRE, *The Environmental News Daily*, 2/12/98

Topeka Shiner Editorial

The following editorial by Bill Hayden appeared in the *Columbia (MO) TRIBUNE* on 1/30/98. We thought it worthy of repeating for our readers.

"The Endangered Species Act is a remarkable document. It is a statutory verification of the respect for life held by the American people. In its rather arcane and stilted legal phrases, it sets out the processes for identifying and protecting those life forms with which we share the planet.

'But, some folks just don't get it. They think that the sun rises and sets on human ambitions and that nothing should get in the way of us doing whatever we want with this remarkable planet.

'Several decades ago, a new branch of biological studies was created: ecology, it was labeled. It set out a premise that had long been recognized by naturalists and theologists. There is a Web of Life. All things are connected. It is impossible to pick out one species and study it without taking into account everything that surrounds it.

'That also applies to human beings. We are an integral part of that web. What effects our surroundings effects us. If we diminish the plants and animals that inhabit our planet, we also diminish the quality of our lives.

'The religious community has very deep feelings about this. Everything was created by God, and all things are therefore sacred. The earth is not ours; we were placed here as good stewards -- to care for what God has created. In this theology, the web of life is a sacred principle, and all creatures have intrinsic values. All life is valued because all life is sacred.

'Now listen to what a leader in the *Missouri Farm Bureau* has to say about the eminent extinction of species: "It is just BAIT - if it has no value, what does it matter? Some other minnow will take its place."

'These statements - and others equally disrespectful - were made at a hearing this week on the proposed listing of the Topeka Shiner as an endangered species. The *Missouri Farm Bureau* and the *Cattlemen's Association* showed up to present statements in opposition to the listing. They never gave any evidence that would show that the Shiner is not in danger of extinction. They did give much evidence of their lack of concern about the natural world. At least they are consistent. These organizations have opposed the listing of almost every species in danger of being destroyed, from the wolf to the Indiana Bat.

'Fortunately, these agri-business organizations did not represent the feelings of real farmers who showed up at the meeting and expressed their deeply-felt opinions about taking care of the earth. A majority of the local landowners -- the hearing was in Bethany, about 80 miles northwest of Columbia -- stated that they understood that some farming practices may have degraded local streams. They stated that they wanted their streams protected, they valued clean water, they respected the gift of good land and they supported the listing of the Shiner. They also denounced the *Farm Bureau* and the *Cattlemen's Association*, and stated in no uncertain terms that those organizations' statements did NOT represent their opinions.

'One farmer went a little further. He stated that industrial style agriculture and agri-corporations were responsible for the decline of water quality and the accompanying demise of the rural way of life. He wondered why the *Farm Bureau* was supporting agri-corporations instead of family farmers. He understood perfectly the thesis that all things are connected.

'All of this, of course, was a sideline to the real purpose of the hearing which was to gather information on the decline of the Topeka Shiner, and to determine whether it should be listed as an endangered species and afforded the protection of the U.S. government. All evidence presented by fisheries biologists and other scientists was not refuted. The Topeka Shiner has disappeared from most streams that it once inhabited, and has declined by 80% across its range. The current populations continue to diminish. This species once was found in all streams of Boone County; it now is found, in ever-declining numbers, only in the Bonne Femme watersheds of the Three Creeks Conservation Area. Similar situations exist in Kansas, Iowa, Nebraska, South Dakota and Minnesota.

'The causes of the threatened extinction of this small fish are varied and several. It has evolved over millions of years in free-flowing, clear, cool, shaded prairie streams. From the tallgrass streams of Kansas' Flint Hills to the sycamore lined creeks of Missouri, this species found a niche. But evolution did not prepare it for us. We damned headwater creeks for livestock watering, we eliminated streamside vegetation, we allowed erosion and pesticides to run off into the streams. We destroyed the aquatic habitat of this fellow creature.

'Now, our mistakes have been manifested. The problems are recognized, and the solutions are available. But there are those who get stuck in the way things are done, and think that is the way things must be. We, however, are adaptable. We can change. And we should change, when it is demonstrated that what we are doing is destroying life.

'And that is what scares the agri-business organizations. They want change to be dictated by profits, not by concerns about some silly little useless piece of bait. The usual scare stories, based on half-truths and fabrications were hauled out. But the truth is this: not one farmer in Missouri has gone out of business or lost any land because of environmental regulations or the Endangered Species Act. Not one. Changing techniques does not translate as an invasion of landowners rights. Such change does recognize that landowners have stewardship responsibilities.

"Topeka shiner"

'Yes, the Topeka Shiner can be used as "bait". Yes, it can be viewed as just a "food source" for larger fish. In the end, I suppose, everything is just bait. Including us. But, somehow, I would prefer to view life as a bit more intricate and involved -- a bit more sacred -- than treating everything and everyone as only valuable for nutritional content."

A Plea For Wilderness

This commentary by Rick Bass, Yaak, MT appeared in the *Chicago Tribune* on 3/5/98. It is also worth a read.

"In my valley, the comparisons to Noah's Ark are inescapable. It's 97 percent public land--Montana's Yaak Valley--the wildest valley I know of in the Lower 48, where the last animal to go extinct, as far as I can tell, was the

mastodon. Everything else is still here: grizzly bear, gray wolf, pileated woodpecker, lynx, great gray owl, wolverines, marten--even an occasional woodland caribou, looking exactly like some reindeer down from Alaska, except he's not lost--this is his country. Rare species of trout, salamanders, frogs, ferns, orchids--this wet valley is a unique mix of the Pacific Northwest and the northern Rockies. People who live in the valley often use the word magic to describe this place, and I think that surely one of the characteristics of magic is an abundance and diversity of life. The quiet green hills, often cloaked in mist--Yaak is sometimes referred to as "Montana's only rain forest"--exude a calming sense of majesty and health. Giant cedars tower along clear-running creeks. What is rare elsewhere in the world is common in Yaak.

'Nothing has gone extinct here, but that is where the comparisons to the ark come in. So many of the threatened, endangered and sensitive species are down to single- or double-digit populations, whittled down to history's hard edge by decades of heavy road building and, in some instances, overlogging of the public lands. Fifteen grizzlies--only two known breeding-age females. Five or six wolves. A handful of wolverine. A dozen mated pair of adult bull trout.

One population of the inland redband trout, a kind of landlocked salmon. That one caribou, now and again. (He cruises back and forth across the border). You'd be hard-pressed to find two of everything for some of these species.

'And yet that is the U.S. Fish and Wildlife Service's job, and it is what nearly everyone in our country wants. Eighty-four percent of Americans want the Endangered Species Act to be retained as it now stands, or strengthened, but one of the senators from my own state, Democrat Max Baucus, as well as Sens. Dirk Kempthorne (R/ID) and John Chafee (R/RI) are presenting to Congress a bill, S 1180, which would weaken the Endangered Species Act.

'I am concerned about what this bill's passage could mean for my beloved Yaak, and for other wild and unique places in this country, and for the individual species that inhabit those places. The thing I find most shameful about the bill is that it would prohibit the general public from attending meetings of consultation between the federal agencies involved in activities affecting endangered species and the extractive industries lobbying for those various activities. We would be shut out of meetings affecting the management of our lands. I am not used to this. I am accustomed to attending those sorts of meetings. They are often long and tedious, but they are an essential part of democracy, and vital to preserving, or recovering, healthy populations.

'Another aspect of the proposed bill would let landowners "lock in" to Habitat Conservation Plans that would exempt them from any conservation obligations for up to 100 years, regardless of changing conditions or science. Imagine working in 1997, for example, with science from the turn of the last century!

'I appreciate Sen. Baucus' involvement with this issue, when our state of Montana contains many of the nation's threatened and endangered species, but I worry greatly about the message this bill gives to industry in places like the Yaak and elsewhere. I don't see that the Endangered Species Act has altered my valley's way of doing business. Technological "labor-saving" advances, yes, and the volatility of raw commodity prices and demand fluctuations in Asia, and the market-flooding of Canadian timber, yes--more so than endangered species legislation. A million logging trucks have rolled out of my valley so far--often carrying logs to be shipped to Asia and Europe--and if we had been more prudent with those logs, I think everyone agrees there'd be more money in the community than there is now. I don't want the logging culture of this place to be lost--it is as much an element of this landscape as the misty river bottoms and the heavy-antlered moose and giant larch trees--but I understand that with only 3.9 percent of the nation's timber supply coming from places such as the Yaak, we are nothing more to the national economy than a single drop, and that the path of excess that we are still allowing to be pursued on these public lands can very well lead to total prohibition of logging on the public lands. Opening the gates wider, as S. 1180 threatens, sends the wrong message, and travels backward to the good old days that are, for better or worse, long gone.

'There still are great loggers in this community. But we need to be moving forward, not backward, as the Baucus-Chafee-Kempthorne bill does. Perhaps Sen. Baucus is involved with this bill because he fears losing input in the issue altogether; there is much about politics, particularly in the Senate, that I will never understand. But with 84 percent of the public willing to help him, I would like to see him use our force to promote a stronger bill, not a weaker one, no matter how the political cards stand. We all understand that never before has industry so dominated the actions of the Congress and the administration. But what does it take--94 percent? I fear some days even if we had 100 percent, industry would still dictate the reduction of laws such as these, to their benefit.

'More than 140 years ago, H.D. Thoreau wrote: "I listen to a concert in which so many parts are wanting. Many of those animal migrations and their phenomena by which the Indians marked the season are no longer to be observed . . . I take infinite pains to know all the phenomena of the spring, for instance, think that I have here the entire poem, and then, to my chagrin, I hear that it is but an imperfect copy that I possess and have read, that my ancestors have torn out many of the first leaves and grandest passages, and mutilated it in many places. I should not like to think that some demi-god had come before me and picked out some of the best of the stars.

'"I wish to know an entire heaven and an entire Earth."

'Protecting one species, which is always linked to another, and then another, is an American tradition I wish the senators would not put up for sale or compromise. I would like to see more emphasis put on protecting complete habitats--particularly the last roadless areas of the public wild lands--our last islands or anchor points of ecological integrity and recovering those populations over whom we have assumed or been granted stewardship. It humiliates me to consider how to attempt an explanation to future generations of why we have no more leopard frogs, grizzly bears, or red cockaded woodpeckers, even when 84 percent of us wanted these things. How weak they will think us to have been, to have not stood firm, and how correct they will be."

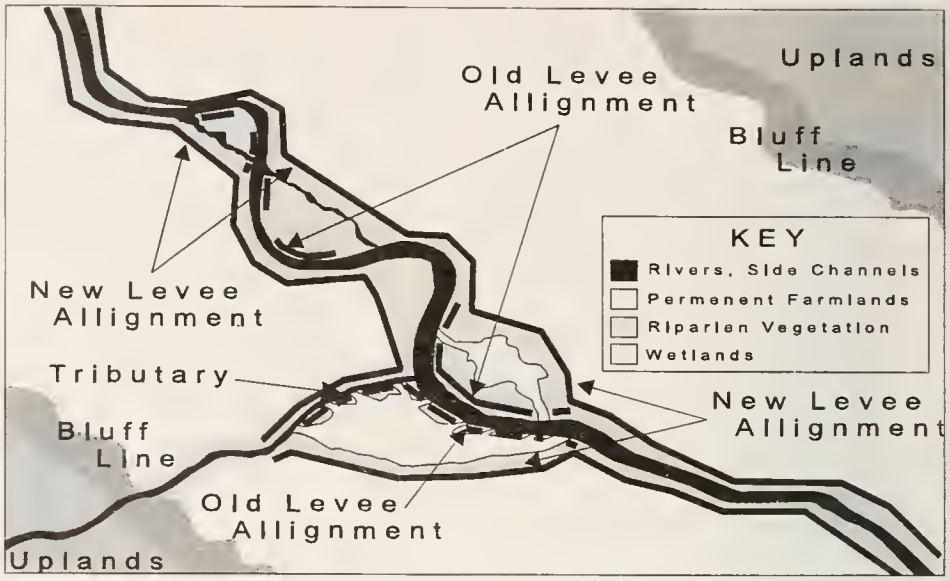
Rick Bass is the author of numerous books and is best known for his writings on wolves and grizzly bears and his firsthand account of life in the Montana wilderness. His forthcoming novel, "Where the Sea Used to Be," will be published in June.

Natural Valley Storage

Natural Valley Storage (NVS) is a cost effective and environmentally sensitive solution to flood control. The logic behind NVS is compelling because it capitalizes on the fact that Nature has already provided the least-cost solution to future flooding in the form of extensive wetlands which moderate extreme highs and lows in stream flow. Rather

than attempt to improve on this natural protection mechanism, it is both prudent and economical to leave the hydrologic regime established over the millennia undisturbed. — Believe it or not, a statement very similar to this came out of a 1972 Corps of Engineers report on the Charles River in eastern Massachusetts.

The results of the Charles River project are impressive. Total acquisition costs were approximately $10 million, while the "traditional structural or engineered" approach (construction of upstream flood control structures) would have cost an estimated $100 million. The Charles is a small river with a watershed of only 309 mi^2 containing 35 municipalities, including the City of Boston and over a million people.



Natural Valley Storage (NVS) and floodplain habitat restorations are provided between the "setbacks" or new levee alignments shown here.

Like most urban streams, the Charles was regarded historically as a convenient means for disposing of wastes from farms, cities, towns and industry. In one reach, the river would run red on Monday, blue on Tuesday, and green on Thursday, depending on the schedule of the local dye factory. Things began to change dramatically. and for the better in 1965 when the *Boston Globe* ran a series of articles lamenting the sad state of the Charles. The *Boston Society of Landscape Architects* took up the cause, recommending a citizens organization to restore the river. This quickly resulted in the founding of the *Charles River Watershed Association* (CRWA).

From the beginning, CRWA sensed that the political arena, with its laws and programs to regulate land use and water quality was where they must work to protect the Charles. In 1973, the Association hired Rita Barron, a dynamic Executive Director, who felt that citizen pressure was needed to clean up the river. Barron, calling the Charles *"The People's River"*, stepped up the campaign to help the public understand the value of a healthy urban river and to keep the pressure on the government agencies to give the Charles its due. The Association grew to a membership of 1,000 that became a network of watchdogs for the Charles. They canoed the river to spot sources of pollution, nagged bad land development projects, and put pressure on their municipalities to acquire natural areas and parks along the Charles. They formed *"Adopt-a-Brook"* committees to clean up and restore the Charles' small tributaries.

In the mid-1970s, the Charles gained an unlikely ally in the Army Corps of Engineers, who was studying flood control on the Charles in the wake of disastrous hurricane-caused floods of the mid-1950s. Against all the odds, the Corps recognized that a highly efficient flood control system was already in place -- the wetlands and meanders of the upper and middle Charles. The Corps named this system *"Natural Valley Storage" (NVS)* and concluded that the most cost-effective flood control would be to permanently protect over 8,500 acres of wetlands on the main stem and tributaries. This revolutionary, "non-engineering" approach met with a lot of skepticism in the national office of the Corps, as might be expected. But to the Corps' credit the NVS project was approved and funded, giving tremendous momentum to the *"Save the Charles"* movement.

In the course of the Corps' study, the Massachusetts (then) Department of Natural Resources proposed the concept of the *"Charles River Corridor"*, a mile-wide riparian commons from the headwaters to the sea. The Corridor concept was a logical extension of the Corps' NVS program. The State was unable to convert that concept into reality, though, because of a poor grasp of watershed residents' personal interest in their lands.

Because CRWA knew the river and its people better, it took up the task of gathering information about the river and its resources. In 1975 CRWA received a $15,000 private foundation grant and hired a landscape designer to begin the tedious but essential mapping of river frontage and inventory of properties and land uses.

In 1981, CRWA won the opportunity to translate these data into a proper workable plan. It received a second $15,000 grant, this one from the Department of the Interior's Heritage Conservation & Recreation Service (later absorbed into the National Park Service), to hire a landscape architect to develop the *Charles River Corridor Plan*. The Association's dogged promotion of the corridor plan eventually won broad support, and the plan was given official status by the Commonwealth in 1983.

It has been 20 years since publication of the Corps of Engineers' NVS plan, and the Charles is now a source of pride for eastern Massachusetts, a "people's river" where people can swim, fish, hike and otherwise enjoy the outdoors. The Corridor is being implemented through a wide variety of techniques: floodplain regulation, farm-

land restrictions, state land purchases, private land trusts, wetland protection, and municipal zoning. The recipe varies from community to community.

Rita Barron retired in 1988, but the CRWA is still going strong. The problems are tougher than ever. New diversions of water exacerbate the pollution problem, and urban growth eats away at natural lands in the corridor. But the Association has proven its staying power. They are a fierce and informed advocate for *The People's River*. Through education, activism and celebration, they keep alive the vision of the Charles as an urban treasure.

Natural Valley Storage is just another name for the concepts of riparian wetland and floodplain restoration, levee setback and removal, and residence relocation that we have been promoting nationwide in the wake of the 1993 Midwest floods (See Figure on Page 8). It is a concept that is long overdue! Thanks to Mike Davis Minnesota Dept. of Natural Resources for calling our attention to this article.

Source: *People Protecting Rivers*, River Network, April 1992

Knee Deep in Economic Data and Delta Mud

The *Delta Land Trust* has released a much anticipated economic study that establishes the financial liability of reforestation of economically marginal farmland. The study entitled, *Reforestation of the Lower Mississippi Delta Bottomland Hardwood Forest: Economic and Policy Considerations,* was published by the *Virginia Water Resources Research Center* at *Virginia Tech University* as Research Bulletin No. 185.

Led by Dr. Len Shabman and Dr. Greg Amacher, the study is based on a computer simulation model that enabled analysis of 7 different reforestation scenarios on 10 different soil types in the ARK-LA-MISS Delta. The results are encouraging for environmentalists, landowners and others who view reforestation of economically marginal farmland as a solution to both economic and environmental problems in the Delta.

Specifically, the study revealed that numerous reforestation scenarios are profitable in all three states and that several reforestation scenarios are economically superior to continued soybean production; even with the soybean crop insurance subsidy included. Especially profitable was the cottonwood/oak interplant technique, by which nutall oak seedlings are interplanted into cottonwood plantations, an Americanized version of a shelter crop technique made popular in Europe. The study also provides information on the environmental benefits of reforestation versus continued soybean production including cleaner water, cleaner air, groundwater recharge, fish and wildlife habitat and non-structural flood control.

A similar study by *Industrial Economics*, a private econometric consulting firm based in Cambridge, Massachusetts under contract for the U.S. Fish & Wildlife Service, found that non-structural alternatives to the Corps of Engineers proposed Big Sunflower River "Maintenance" Project would cost approximately $77 million if timber values were not included. This calculation was significantly different from the $121 million dollar figure the Corps of Engineers calculated for the non-structural alternative. When timber values were included, the private economists found that the cost of the non-structural alternative would drop to $32-$38 million, making the non-structural alternative vastly less expensive than the $62 million structural alternative approved by the Corps.

The Big Sunflower River "Maintenance" Project has generated significant controversy in Mississippi and throughout the nation, due not only to the Corps' inaccurate non-structural analysis, but because the project is 100% federally funded (the normal local cost-share having been waived) and because of the Corps' characterization of the project as "maintenance".

The original project entailed only 31.9 river miles of excavation (dredging), yet the purported "maintenance" project entails 104 river miles of dredging. The Corps claims that the original project, authorized in 1944, provides for follow-up maintenance to re-establish the "design flow,' characteristics of the original project. Yet environmentalists wonder how a project conceived 25 years before man landed on the moon can still be the preferred alternative for floodwater damage reduction, especially in light of all the federal policy supporting non-structural solutions that has evolved since the Upper Mississippi River Flood of 1993.

The results of *Virginia Water Resources Research Center* Bulletin 185 and the *Industrial Economics* report have led to contracting of *Virginia Tech* by the USEPA, Region IV for further analysis of the flood control benefits of reforestation. Specifically, Dr. Shabman and his team have been contracted by EPA to analyze the financial viability of the U. S. Fish & Wildlife Service's Non-Structural Flood Water Damage Reduction Strategy for the Yazoo Backwater Area.

Released on 8/5/97, the FWS Non-Structural Strategy entails purchase of flowage easements and reforestation in the Yazoo Backwater Area as the preferred method for dealing with backwater flooding of south Mississippi Delta farmland, rather than construction of the world's largest hydraulic lift pumps that would lift water over existing Corps of Engineers levees. Backwater flooding in that area depends upon two necessary conditions:

- Mississippi River floodwaters must elevate to the point that Yazoo River floodgates are closed, and
- There must be sufficient rainfall within the Yazoo River basin such that the closed floodgates and levees act not only to keep Mississippi River backwater out, but keep rainfall in.

In other words, the Corps levees act not only as levees but also as dams. The Corps of Engineers prefers to build pumps for approximately $150 million, again 100% federally funded with no local cost share, to lift the dammed up rainfall over Corps levees thus removing floodwaters from farmland faster than would occur naturally, while the federal resource agencies and many private citizens prefer that the land instead be reforested and allowed to flood naturally. These groups note that the pumps will not prevent the target farm-

land from flooding and will only reduce the amount of time the land is flooded by about three weeks. Not only would direct flood control expenditures be reduced by the non-structural method, but the ecological benefits associated with reforestation-- clean air, clean water, groundwater recharge and fish and wildlife habitat-- are significant.

An excellent discussion of the Yazoo backwater area was included in David Quammen's article in the January/February issue of *Audubon* magazine. For copies of the *Audubon* article, *Virginia Water Resources Research Center* Bulletin 185 or the *Industrial Economics* analysis, please contact T. Logan Russell c/o Delta Land Trust, Post Office Box 4384, Jackson MS 39296, 601-981-3865, roi@teclink.net.

Source: *Delta Land Trust*

Farming the Floodplain

A "Farming the Floodplain" workshop, sponsored by *The Wetlands Initiative* was held in Moline, IL on 9/4/97. The workshop's recently published proceedings present the following results and recommendations:

"...Speakers and participants were both encouraging and cautious about the prospects of moving to alternative farming systems on floodplains. They agreed that there is great potential to develop wider flood-tolerant uses of floodplains in the upper Mississippi River basin states, especially for agroforestry and forest products, but that more information is needed to make the transition from the uplands to the floodplain. Most university research has been focused on growing trees and crops on uplands where growing conditions are better. Growing food, fiber, fuel and forage on floodplains present additional challenges from flooding, weeds, insects, diseases, and wet conditions. In addition, there are environmental concerns about using pesticides next to rivers, soil erosion and compaction, and nutrients.

'On the other hand, the growth potential of trees and grasses on floodplains is much higher than on uplands, once a good stand is established, and the soil does not have to be disturbed every year. Stands of trees and grasses also provide habitat for birds and wildlife and remove sediments and nutrients from runoff waters. Wetlands used for grazing or timber harvest not only store flood waters but can provide income from hunting and trapping, or from production of specialty crops.

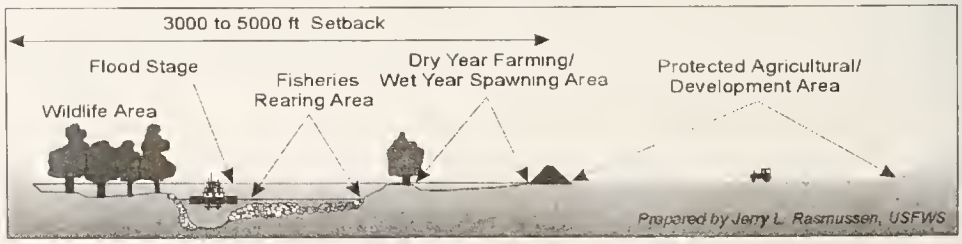
'Everyone agreed that more research on the production of flood-tolerant crops on marginal lands was needed. But, it is also important to get farmers to experiment with different economic uses of floodplain lands as part of current efforts to divert flood prone cropland into other uses through various conservation programs. Federal money available through the Conservation Reserve Program and other U.S.D.A. programs can be used to help farmers make the transition from row crops to other uses on lands subject to flooding. But, not many farmers are taking advantage of these programs because the prices currently being paid for corn and soybeans are so high.

'Based on what we now know about alternative floodplain crops, there are existing markets for pulpwood, lumber and livestock. Some specialty crops could be very profitable for a few entrepreneurs, but the potential market for these high-value crops is not known. If Congress succeeds in delinking federal farm payments from crop production during the next few years, more farmers may switch to other uses of flood prone cropland.
Two projects to encourage landowners to switch to flood-tolerant uses of floodplains stand out--the Iowa River Corridor Project and the Wes-Min RC&D Minnesota River Project. These are good models that could be applied in other states. Both projects rely heavily on technical support from federal and state agencies and university extension services, as well as financial assistance to landowners from public and private sources.

'The following recommendations for future actions were made:

'1. Maintain and expand the network of people involved in floodplain farming — *The Wetlands Initiative* (TWI) has compiled a preliminary list of people who are interested in farming in the floodplain, including farmers, researchers, federal and state agency staff, and representatives of conservation and agricultural groups. These people will form the core of a network for sharing information and ideas about floodplain farming. The transcripts and summary of the workshop will be distributed to everyone who was invited to attend, as well as to all of the participants in the Upper Mississippi River Summit. They will be invited to join the network. TWI will maintain the network list for the time being, but eventually a formal structure should be established to help promote sustainable floodplain uses. We will ask people who receive the workshop report to suggest a possible structure to build on the current network and potential sources of funding to maintain and expand the network and to share experiences with establishing other networks that might help make such an effort successful.

'2. Develop technical assistance and training programs for floodplain farming — Very little technical assistance is available to landowners that want to try alternative uses of floodplains. The technical expertise that is available for some potential uses, e.g. hybrid poplars, has not been developed for use on floodplain lands, and the information that exists is widely scattered. University extension and on-farm research are



Levees along rivers should be set back away from the channel to allow for Natural Valley Storage. Traditional farming should be practiced behind levees, while non-traditional farming such as agroforestry should be practiced between the levees.

needed to gain the knowledge to provide technical assistance to private landowners. More trained natural resource managers are also needed, especially training in agroforestry practices on private lands. The U.S. Department of Agriculture should establish a permanent program to support and coordinate research and demonstration projects on alternative uses of floodplain lands.

'3. Develop financial assistance programs to allow farmers to experiment with floodplain farming — In addition to technical assistance, farmers need financial assistance to try out new crops or farming practices and to expand the pool of practical experience. Current economics prevent farmers from experimenting with alternative uses of flood prone land. Programs designed specifically to provide innovative farmers with financial assistance to experiment with alternative crops and uses of floodplain land should be developed. Both public and private sources of financial assistance are needed.

'4. Promote opportunities to link land retirement programs and floodplain farming — Some federal land retirement programs, such as CRP and WRP, provide direct payments to landowners to convert cropland to flood-tolerant uses. Hunting, trapping, timber harvesting and grazing may be allowable economic activities on these areas under certain conditions when done with an approved conservation plan. Greater efforts to promote compatible economic uses of floodplain lands enrolled in CRP and WRP are needed to help farmers make the switch to alternative uses of flood prone cropland."

For further in formation contact: *The Wetlands Initiative*, 53 West Jackson Blvd., Suite 101S, Chicago, IL 60604, (312) 922-0777, Fax (312) 922-1823, wetlands97@aol.com

International Action Day Against Dams

To protest river destruction, boost public awareness, and promote sustainable river management, "tens of thousands" of protestors in 23 countries on 3/14/98 staged marches and gathered along rivers in observance of the *International Day of Action Against Dams and for Rivers, Water and Life*.

More than 1,000 environmentalists formed a mile-long human chain along the Danube River in protest of Hungary's plans to build a dam on that river. Meanwhile, hundreds of potentially dam-affected people "invaded" the site of the Machadinho Dam on southern Brazil's Pelotas River, and 3,000 people seized the offices of the regional utility *CHESF* to protest the Itaparica Dam on northeastern Brazil's Sao Francisco River.

In the US, more than 100 demonstrators gathered in San Francisco to protest Chile's Ralco Dam and China's Three Gorges Dam, according to the *International Rivers Network*. River celebrations were held at the site of India's Maheshwar Dam and along Japan's Kawabe River. Among the other countries organizing events were Australia, Argentina, Canada, Costa Rica, France, Germany, Philippines, Poland, Russia, Slovakia, Spain, Taiwan and Uruguay.

Meanwhile, the *World Commission on Dams*, a joint effort by the *World Bank* and the *World Conservation Union* aimed at establishing worldwide standards for dam building, "seems to be holding" together after being created earlier this year, according to a feature in the *Wall Street Journal* on 3/19. The 12-member commission is composed of representatives from industry, environmental groups and advocates of dam-affected people. The *Environmental Defense Fund's* Deborah Moore said, "People want to get beyond the individual controversies around each individual dam. Rather than repeating the same tired arguments, it's time to ask how can we better define a common ground."

"Those spearheading the dam commission see it as a way to tackle a much broader problem afflicting a range of resource-development industries, from mining to logging to oil exploration," reports the *Wall Street Journal*. The commission's staff coordinator Richard Bissell said, "For people trying to balance development and the environment, this is the best idea to come down the pike in a long time".

Meanwhile in the U.S.'s Pacific Northwest, a determination has been made that breaching four dams on the Snake River and one on the Columbia River to help restore salmon runs wouldn't bankrupt the *Bonneville Power Administration (BPA)* in the next decade. The study by the *"Three Sovereigns"* work group-- a process involving federal, state and tribal officials in a new body to govern salmon recovery in the Columbia River Basin -- found that beginning in 2009, the cost could become a problem, rising to $307 million a year, almost three times what the federal power marketing agency now spends on salmon recovery. That figure does not include lost revenue from decreased power production.

These cost estimates represent "the most complete accounting thus far" on breaching the dams, and "they are the first to reflect some degree of consensus among states, tribes and the federal government." The work group studied 11 different scenarios, ranging from improving the current system of barging fish downstream to breaching the four lower Snake River dams and the John Day Dam on the Columbia.

Bob Lohn, BPA's fish and wildlife director, agreed that the figures mean the agency could afford the cost of breaching the dams in the short term. The BPA is "trying to anticipate its future salmon-recovery costs" in preparation for utility deregulation. The Clinton Administration is expected to make a decision about the dams in 1999.

Sources: *International Rivers Network* release, 3/14/98, *Reuters/Central Europe Online*, 3/16/98, G. Pascal, Zachary, *Wall Street Journal*, 3/19/98; Joan Laatz Jewett, *Portland Oregonian*, 3/17/98; and National Journal's GREENWIRE, *The Environmental News Daily*, 3/17, 3/18 and 3/19/98

World Water Markets or Wars?

A UN conference on managing the world's limited supply of fresh water concluded on 3/21/98 that "water should be paid for as a commodity rather than be treated as an essential staple to be supplied free."

Many environment ministers and officials from the 84 nations attending the Paris conference recommended "the gradual introduction" of a market system to capture the direct and indirect costs of providing water. But poorer countries argued that water should be free. After hearing that one-quarter of the world's 5.9 billion people lack access to clean drinking water, the delegates agreed that the problem of water shortages "was so important" that governments would need to rely on private investment for the water systems to assure future supplies.

French President Jacques Chirac told the conference that it would cost $400 billion to set up reliable water networks around the world. Noting that water shortages pose a threat to world peace, Chirac called for the creation of an international water academy to maximize resources. Chirac asked, "Are we going to allow the 21st century to be the century of the water wars?"

Sources: *Reuters/Boston Globe*, 3/22/98; *Baltimore Sun*, 3/21/98; and National Journal's GREENWIRE, *The Environmental News Daily*,

Tribes Sign New Water Accord

European settlers came to the Oregon territory four generations ago to occupy and use lands which the people of the Wasco, Warm Springs, and Northern Paiute bands of Indians had already occupied four countless generations (i.e. the Cascade rainforests, the river basins of the Columbia Plateau, and the northern Great Basin desert). The native peoples were fishers and gatherers, subsisting mainly on Chinook salmon and huckleberries.

In 1855, the Wasco and Walla Walla (Warm Springs) tribes signed a treaty with the U.S. to secure their historic rights in perpetuity. The treaty reserved the Warm Springs Reservation, which encompasses a significant part of Oregon's Deschutes River Basin, for the Tribes' exclusive use forever. The Tribes ceded to the U.S. title to more than ten million acres, while reserving hunting, fishing, pasturing, and gathering rights on aboriginal lands for which they did not seek ownership.

On 11/17/97, the Tribes signed another historic agreement, this time with both the U.S. and the State of Oregon. In settling the Tribes' treaty and aboriginal claims to water, the new agreement:

- Creates a framework for cooperative water management to protect fresh water supplies for salmon survival and other ecological purposes,
- Sets aside the entire flow of all streams on the reservation to "sustain or enhance the aquatic ecosystem," except for specified quantities that the Tribes are entitled to consume,
- Establishes minimum stream flows for the Deschutes and other major rivers needed for survival of salmon and other life,
- Recognizes that even larger minimum stream flows may be established in the future under Federal or state law,
- Protects existing and future tribal uses of water, and
- Authorizes the Tribes to market a block of their water off the reservation.

The new accord establishes an innovative link between the environment and Indian water rights by focusing on stream flows rather than "practicable irrigable acreage". It thus provides important lessons and new ideas for the many Indian water rights claims still unsettled. The agreement comes at a critical time because of regional growth in the recreational, residential, and industrial sectors, while timber, agriculture, and ranching are in economic decline and under political assault. Wild species, most visibly the Pacific salmon, are also teetering on the brink of extinction. An ecological milestone in the Basin is the leadership of several irrigation districts in voluntarily transferring water previously diverted from the Deschutes and Tumalo rivers back to instream flows.

Source: EDF Letter, Vol. XXIX, No. 2, April 1998, 3/23/98

Nutrient Flow/*Pfiesteria* Linked

Reducing the flow of nutrients into waterways is likely to curb the risk of toxic outbreaks of *Pfiesteria piscicida*, according to a study conducted by a panel of scientists in North Carolina. The report, produced by 14 chemists, biologists and aquatic ecologists who convened at the *University of North Carolina's Water Resources Research Institute* in 12/97, recommends that efforts be made to manage nutrient runoff from "all major sources" of phosphorus and nitrogen, including animal and human waste, air pollution and commercial fertilizers. However, the report "says there is not enough evidence to establish a causal relationship between specific nutrient sources and *Pfiesteria* outbreaks." The study was requested by North Carolina Gov. James Hunt (D) in response to criticism that the state, where the fish-killing microbe was first discovered, had been slow to combat the toxic outbreaks in its waters. The research "endorsed" the findings of similar studies in Maryland, which formed the basis for controversial water-quality legislation proposed by MD Gov. Parris Glendening (D).

Meanwhile, scientists in North Carolina and Maryland on 3/20 announced that the first study of long-term health problems associated with exposure to *Pfiesteria* failed to find any significant differences among people who were exposed to the toxic microbe and those who were not. Although the study of 50 people did not produce any firm conclusions, researcher Stan Music of the North Carolina Dept. of Health and Human Services said it was helpful in teaching scientists how to improve future studies. Scientists say measuring the extent of longterm symptoms such as the skin lesions, memory loss, and shortness of breath reported by those exposed to *Pfiesteria* are impossible to measure because they lack data about whether people had the problems before they were exposed.

A more detailed study using a larger sample is slated to begin this spring and continue through the summer of 1999. In this research, a team of government-appointed doctors will study the health of up to 170 people who work on the water in an effort to determine how many Marylanders are being sickened by the toxic microbe. David Oldach of the state's medical team said the study will focus on fishers and crabbers in the Tangier Sound region, which is fed by

Catfish 2000

Catfish 2000
1st International Ictalurid Symposium

When: 23-25 June, 1998

Where: River Center
Davenport, IA USA

Why: Bring together specialists from resource agencies across the nation, invited international guests, and interested fishing public to discuss and share their knowledge concerning the biology and management of "catfishes" and to help promote the "catfish family" as important sport and commercial fish species.

Potential Meeting Highlights: 3-day symposium covering catfish biology and management followed by a facilitated workshop to help determine the present needs and future direction of catfish management across the nation.

Who Should Attend? All fisheries specialists, administrators, and interested fishing public who are interested in learning about and promoting the "catfish family" as an important international fish resource.

Sponsored by: American Fisheries Society (Iowa and Illinois Chapters, and the North Central Division), Upper Mississippi River Conservation Committee (UMRCC), Quad Cities Conservation Alliance (QCCA), and In-Fisherman, Inc.

Accommodations: The meeting will be held at the beautiful River Center, in downtown Davenport. The Historic Blackhawk Hotel adjacent to the River Center will serve as the "host hotel" and reservations need to be made prior to May 22, 1998 (1-800-553-1173). Rates at the Blackhawk are $70.00 plus 12% tax for a single or double room and $99.00 for a suite equipped with a full kitchen Rooms have also been blocked at the Radisson Hotel one block away. Room Rates at the Radisson (1-319-322-2200) are $79.00 plus 12% tax for 1 to 4 people.

For Additional Information, Please Visit the Catfish 2000 Web Site: http://www.fw.umn.edu/ncdafs/cf2000

Catfish 2000

1st International Ictalurid Symposium

June 23-25, 1998
River Center
Davenport, Iowa

Registration form

Send Registration To:

Bill Bertrand • Illinois DNR • Box 149 • Aledo, IL 61231
309/582-5611 • Fax 309/582-5613 • dnrbrp@netins.net

1. Badge Information

(please print or type)

Name: _____ **Spouse's Name** *(if attending)*: _____

Occupation/Affiliation: _____

Address: _____

City/State/Provence : _____ **Zip/Postal Code:** _____

Country: _____

Daytime Phone: _____ **Fax:** _____ **e-mail:** _____

If assistive technology required please describe: _____

2. Registration

I'll Pay at the Meeting ☐

Checks or Agency PO

No Credit Cards Accepted

Early Bird Registration (must be postmarked by **March 1, 1998**) (includes proceedings, Monday night social, breaks, and continental breakfast Tue & Wed)		$ 150.00
Full Conference Registration (after March 1, 1998) (includes proceedings, Monday night social, breaks and continental breakfast Tue & Wed)		$ 175.00
One Day Registration *	*circle one* - Tue, Wed, Thur	$ 75.00
Student for Conference *		$ 50.00
Student One Day Registration *	*circle one* - Tue, Wed, Thur	$ 25.00
Spouse for Conference *		$ 50.00
Thursday workshop (no charge, but please check if planning to attend)		☐
* *proceedings NOT included*	**Total Registration**	$

3. Meals

I'll Pay at the Meeting ☐

Day	Meal/Location		Cost	No. needed	Total
	The Whole Enchilada	Includes all events and meals listed below	$61 00 x	_____	= $_____
Tue. June 23	**Lunch** Blackhawk Hotel	Deli buffet	$ 9 75 x	_____	= $_____
	Dinner Indian Bluff Forest Preserve	Fish fry - catfish, side salad and five pepper hush puppies plus transportation to dining hall ☐ check here for non-fish entree	$16 50 x	_____	= $_____
Wed June 24	**Lunch** Blackhawk Hotel	Deli buffet	$ 9 75 x	_____	= $_____
	Dinner Blackhawk Hotel and River Center	Banquet - scheduled speakers include **Doug Stange** and other international catfish experts, meal consists of choice of 2 entrees - salad plate available	$25.00 x	_____	= $_____
			Total Meals		$

Return this Registration Form and check or Agency PO payable to *Catfish 2000*

Registration + Meals = Total $

the three waterways that were closed last summer due to *Pfiesteria*-related fish kills, as well as along the coastal bays of the Delmarva peninsula, the upper Chesapeake and the western shore. The *Centers for Disease Control and Prevention (CDC)* has granted Maryland more than $1 million for the research. The money is part of a $7 million House appropriation earmarked for a CDC study of *Pfiesteria*. The bill, co-sponsored by Reps. Steny Hoyer (MD/D), Wayne Gilchrest (R/MD), and Michael Castle (R/DE), was approved in 9/97. Although Maryland's grant is the largest, Delaware, Florida, North Carolina, South Carolina and Virginia will also receive research funding from the legislation.

Meanwhile, the Maryland Dept. of Natural Resources plans to launch a $1 million *Pfiesteria* monitoring effort of Kings Creek and six Eastern Shore rivers. Kent Price, director of the *Sea Grant Marine Advisory Service*, said a technique for detecting *Pfiesteria* in waterways is now ready for trials. The test uses the "glowing enzyme from the firefly" in a genetically engineered cell that illuminates when it contacts the microbe's toxins.

JoAnn Burkholder, the "controversial" *North Carolina State University* marine biologist who first called attention to *Pfiesteria* was recently awarded the 1998 Scientific Freedom and Responsibility Award by the *American Association for the Advancement of Science*. Burkholder was "honored for her persistence in calling the public's public attention" to the problem, which she helped discover in 1988.

Meanwhile in Florida, "thousands and thousands" of silver mullet plagued with lesions were discovered earlier this year in the St. Lucie River near Stuart. Scientists have found "strong parallels" between the newly named toxic microorganism *Cryptoperidiniopsis* discovered in the waterway and *Pfiesteria*, but the link between the new microbe and the sick fish remains "no more than a suspicion".

Sources: Michael Dresser, *Baltimore Sun*, 1/31/98; Douglas Birch, *Baltimore Sun*, 2/20/98; Todd Spangler, *AP/Washington Times*, 2/20/98; A.J. Hostetler, *Richmond Times-Dispatch*, 2/15/98; Heather Dewar, *Baltimore Sun* 3/20 and 3/21/98; Estes Thompson, *AP/Washington Times,* 3/21 and 3/22/98; and National Journal's GREENWIRE, *The Environmental News Daily*, 2/2, 2/17, 2/20, 3/18, and 3/23/98

EPA Farm Pollution Plan

As expected, the USEPA on March 5th said it would soon develop regulations to require some 6,000 large livestock feedlots and poultry farms to get pollution permits and control waste runoff. The plan marks the first federal attempt to regulate such facilities under the Clean Water Act (CWA).

The agency's goal is to begin issuing permits by 2005, with the largest facilities and those adjacent to polluted waterways being controlled by 2002 or 2003. Over the next few years, the EPA also intends to propose regulations mandating particular pollution-control equipment for big farms. The new measures could require equipment that captures methane fumes and may proscribe the way in which manure is spread on fields. The agency estimates that manure-laden runoff is the source of 16% of all farm-related pollution problems.

The agency has had authority to regulate farm pollution for more than 20 years, but until recently "it has been a low priority." EPA Administrator Carol Browner said, "Things like *Pfiesteria* were part of the wake-up call". Environmental groups, including the 1,000-member coalition *Clean Water Network (CWN)*, praised the EPA initiative but also called on the agency to "make it stronger". The *National Cattlemen's Beef Association*. (NCBA), promised to work with EPA officials as they develop the new regulations.

Meanwhile, researchers from the *University of Missouri* on 3/17/98 announced that a new hybrid corn can help cut hog waste pollution by reducing the phosphorous in hog manure. In a study of more than 200 hogs, those fed the new hybrid corn excreted 37% less phosphorous than those fed regular corn. Phosphorous and other nutrient runoff from agriculture can pollute streams and reservoirs, "leading to rapid growth of algae" and drinking water contamination.

The new feed, called low-phytate corn, was bred to make the phosphorus in the kernels more absorbable in the digestive tract. Lead researcher Gary Adleea said the same approach could be used to reduce phosphorus excretions from poultry. *Pioneer Hi-Bred* of Johnson, IA, which helped finance the study, plans to market the new corn in two years.

To reduce nutrient runoff into the Chesapeake Bay, Maryland Gov. Parris Glendening (D) has allocated $4.5 million from his $41 million "war against *Pfiesteria*" to help farmers pay for nitrogen-absorbing "cover crops," or wheat, rye and barley that is planted after fall harvest. Maryland farmers, however, have protested Glendening's plan to force them to control nutrient runoff. But Bill Matuszeski of the USEPA's Chesapeake Bay office says that "[o]f the three major Chesapeake Bay watershed states -- Maryland, Pennsylvania and Virginia — Maryland is dead last in enforceable authority over agriculture pollution".

Sources: H. Josef Hebert, *AP/San Francisco Chronicle/Examiner* online, 3/6/98; John Cushman, *New York Times, 3/6/98;* John Fialka, *Wall Street Journal*; Heather Dewar, *Baltimore Sun*; *CWN* release, 3/5/98; *NCBA* release, 3/5/98; and William Allen, *St. Louis Post-Dispatch*, 3/18/98; Ted Shelsby, *Baltimore Sun*, 3/19/98 National Journal's GREENWIRE, *The Environmental News Daily*, 3/6 and 3/19/98

Ag Waste Legislation

Rep. George Miller (D/CA) on 2/12/98 introduced a bill that would force large-scale farmers and ranchers to prevent animal waste runoff from polluting U.S. waterways. The legislation would require farmers to

obtain discharge permits under the federal Clean Water Act (CWA), install sewage treatment facilities where contaminated runoff threatens streams and rivers, and limit the amount of waste used to fertilize cropland. It would apply to ranches and farms with more than 350 dairy cows, 500 cattle, 1,000 pigs, 5,000 sheep, 27,500 turkeys or 50,000 chickens. The U.S. Senate is currently considering similar legislation.

In Illinois, House Speaker Michael Madigan has proposed a bill that would give local authorities control over the influx of large-scale hog farms, and has asked state agriculture officials to halt approval of new farms until the controls are in place.

A Kansas House Environment subcommittee is reviewing that state's laws on agricultural waste, but Committee Chair Joann Freeborn (R) said she would not hold hearings on bills that would impose a moratorium on large-scale hog farms.

The Nebraska legislature is considering bills that would provide the state Dept. of Environmental Quality with $200,000 for improved inspection of large-scale farms and force counties to adopt zoning plans for such operations within two years.

The Oklahoma Senate Energy, Environmental Resources and Regulatory Affairs Committee on 2/12/98 approved bills that would impose tougher standards on the hog and poultry industries and require state licensing of facilities.

In Virginia, the state House has given tentative approval, 58-36, to legislation authorizing the State Water Control Board to regulate the disposal of poultry waste within the Chesapeake Bay watershed. The bill would require farmers to implement nutrient management plans that limit the amount of waste applied to fields and would set standards for the storage and treatment of poultry waste. Responsibility for complying with the laws would be shared by chicken farmers and poultry companies. Virginia Gov. Jim Gilmore (R) had hoped the legislation would be delayed to allow for further study of the issue. But Chuck Epes of the *Chesapeake Bay Foundation* said there was enough evidence to suggest a delay could be harmful to the bay.

Minnesota state Rep. Doug Patterson (D) has introduced a "long-awaited" bill calling for a two-year moratorium on large-scale animal feedlots. The bill would ban the construction or expansion of feedlots with more than 750 animal units. Earlier, more than 100 people rallied at the Minnesota Capitol, voicing concerns about odors, respiratory problems and the risk of water pollution from large livestock operations. The rally, sponsored by the *Sierra Club, Clean Water Action Alliance* and other environmental groups, also drew gubernatorial candidate Mark Dayton (D), who challenged his fellow Democratic candidates to support a two-year moratorium. Dayton, as well as his rival Attorney General Hubert Humphrey (D), said they would support legislation preventing the expansion, construction or operation of new feedlots with more than 750 animal units without completion of an environmental impact statement. A spokesperson for Humphrey emphasized that the AG doesn't want to shut down the industry; he wants "to slow the rate of acceleration." But the moratorium idea "doesn't appear to have generated sufficient support" in the legislature. Meanwhile, Gov. Arne Carlson (R) has proposed a two-year, $3 million inventory of the industry and its impacts on the environment and rural communities.

Maryland farmers opposed to the water-quality initiative proposed by MD Gov. Parris Glendening (D) have charged that mandatory limits on fertilizer use would be a threat to their property rights. Glendening's proposal, which aims to combat pollution of the Chesapeake Bay and outbreaks of Pfiesteria, is currently being considered by the MD General Assembly. Some farmers have argued that beyond the economic and environmental issues are "their rights to use their property as they see fit." They objected to Glendening's proposal to create enforcement teams that would monitor farms to ensure that farmers are complying with nutrient-management programs, arguing that voluntary programs would be fairer and more effective. But environmentalists argued that agriculture must be regulated to curb runoff, just like any other industry. They said that voluntary programs currently in place have failed to stem nutrient runoff, and that mandatory programs are the only way to protect the bay, the seafood and tourism industries, and public health from future *Pfiesteria* outbreaks.

Sources: Michael Hytha, *San Francisco Chronicle*, 2/13/98; *USA Today, 2/11/98;* Steve Painter, *Wichita Eagle,* 2/13/98; *AP/Casper [WY] Star-Tribune,* 2/12/98; John Greiner, *Oklahoma City Daily Oklahoman*, 2/13/98; Larry O'Dell, *AP/Washington Times*, 2/17/98; Greg Edwards, *Richmond Times-Dispatch*, 2/14/98; Peter Goodman, *Washington Post*, 2/14/98; Dennis Lien, *St. Paul Pioneer Press*, 2/2, 2/3 and 2/4/98 National Journal's GREENWIRE, *The Environmental News Daily*, 2/4 and 2/17/98

Toxics Wastes Shipped to Farms

"Broadly written rules have allowed steel mills, foundries and chemical plants to dispose of toxic waste" by shipping it to farms and fertilizer companies, according to a report released on 3/26 by the DC-based *Environmental Working Group (EWG)*. The report, based on data from the USEPA's *Toxics Release Inventory*, found that 454 farms or fertilizer manufacturers received some 271 million pounds of waste -- including mercury, chromium,

arsenic and lead compounds -- from 600 companies in 44 states between 1990 and 1995. The steel industry provided companies and farms with 30% of the toxic waste, with fertilizer companies in California, Georgia, New Jersey, Nebraska and Washington receiving more than half the national total.

EWG Pres. Ken Cook blamed "legal

loopholes" for the presence of toxic waste in fertilizer. Cook said that steel companies are permitted to sell their hazardous smokestack ash without testing, and that companies may also transfer waste directly to farms "if it can be safely rendered harmless on land". Cook recommended requiring that all raw fertilizer material be tested and labeled for toxic content.

Although no health or environmental risks from the toxics have been proved, Bill Leibhardt of the *University of California* at Davis, said the report raises more questions about the long-term impact of heavy metals and dioxin on the food supply. But Carl Shauble, executive VP of Ozark, AL-based fertilizer company *Frit Industries Inc.*, called the conversion of wastes into fertilizer "a safe practice [that is] beneficial to the environment." He added that the amount of toxic waste in fertilizer is "minimal".

"Responding to health and environmental concerns..." a group of state fertilizer regulators is unanimously recommending that every state adopt new standards, screening, testing and labeling for fertilizers containing heavy metals. The move by the *Association of American Plant Food Control Officials* aims to establish a national consensus for regulation despite objections of the fertilizer industry, which "concedes" that some regulation is needed.

Washington was the first state to adopt standards when Gov. Gary Locke (D) on 3/18/98 signed a law limiting the amount of industrial waste that can be recycled into fertilizer. The legislation will force fertilizer manufacturers to disclose "unadvertised" ingredients to state regulators to prove they meet standards for nine toxic metals and will require detailed information on the exact content of every fertilizer product to be posted on a state Web-site. The measure also requires a major study on dioxins in fertilizers by the end of the year. Fertilizer and food-products industry officials praised the law. But environmentalists "blasted" it for not going far enough. John Stier of the Washington *Public Interest Research Group* said, "Locke gave industry exactly what it wanted -- a license to continue dumping arsenic, lead and dioxin on the ground that grows our food".

Other states including California, Idaho, Oregon and Texas also have new laws or regulations in the works. Kentucky fertilizer regulator David Terry said, "I wouldn't go so far as to say these changes will solve the problem, but they'll give us a handle on it and give people who buy fertilizer the information they need." The fertilizer industry, however, is planning a state-by-state lobbying campaign to "keep standards loose and avoid listing ingredients in a way that exposes them to liability".

Source: *Wall Street Journal*, 3/27/98; Curt Anderson, *AP/Las Vegas Sun*,/others, 3/26/98; Duff Wilson, *Seattle Times/others*, 3/26/98; Duff Wilson, *Seattle Times*, 3/19/98; Jerry Perkins, *Des Moines Register 3/28/98*; Duff Wilson, *Seattle Times*, 2/20/98 and National Journal's GREENWIRE, *The Environmental News Daily*, 2/24, 3/20 and 3/27/98

Possible Breakthrough on Deformed Frogs

A low-budget, carefully targeted research effort appears to have produced a significant finding in the long-running scientific mystery of the grossly deformed frogs found by school children in a pond near Henderson, Minnesota, in the summer of 1995.

Since that time scientists around the country have been struggling to understand what may be causing the abnormalities, which have subsequently been discovered in a number of other states. But now a group of researchers led by David Gardiner of the *University of California*, Irvine, and Bruce Blumberg of the *Salk Institute* in La Jolla report that new evidence links the frog deformities with exposure to substances known as "retinoids."

Retinoids, compounds that are derived from Vitamin A, include the powerful hormone retinoic acid, which regulates several key aspects of development in all vertebrates, including humans. Exposure to excess amounts of retinoic acid is known to produce birth defects. In humans, for example, the retinoid-based acne treatment Accutane has produced birth defects when used by pregnant women.

Taking different approaches, Blumberg and Gardiner discovered retinoids in water samples from a Minnesota lake that has produced many deformed frogs, plus evidence that the limb abnormalities in frogs from the site were in fact caused at least in part by retinoids. The researchers stress that the findings, presented at the *Midwest Declining Amphibians Conference* in Milwaukee, are preliminary and point only to the need for further work, not to a final answer. But the results are significant, they said, because two independent lines of inquiry implicate retinoids, and because of the human health risks of retinoid exposure.

"Bioactive retinoids in water are a definite public health risk," said Blumberg. "Retinoids cause developmental deformities in every vertebrate species that's been tested, from primitive fish to humans." Frogs with extra legs, missing legs or leg parts, bizarre skin webbings, missing eyes and a variety of misshapen legs have been found throughout Minnesota, as well as in several other states, including Vermont, Oregon and Delaware, prompting investigations by a number of state and federal agencies. Frogs with similar deformities have been under study in Quebec by the Canadian Wildlife Service since

1992. Scientists are concerned about the frog deformities, as well as the possibility that amphibians in general may be declining around the world, because some biologists consider amphibians "sentinel species" that can provide early signals for serious environmental problems.

A variety of possible explanations have been proposed for the frog deformities,

ranging from relatively innocuous natural causes to possibly more alarming toxics, such as pesticide pollution.

In September, the Minnesota Pollution Control Agency (MPCA) and the *National Institute of Environmental Health Sciences* (NIEHS) announced that water from private wells in Minnesota had produced deformities in laboratory frogs, and began distributing bottled water to people whose wells were near sites with deformed frogs. The announcement was criticized by other scientists who objected that the test procedure was flawed and the drinking water warnings premature. The MPCA and NIEHS now acknowledge that further tests show no evidence of contamination in those wells -- or at more than two dozen others added to the study since then. But the picture remains muddy because five additional wells tested recently do appear contaminated and not all of them are near sites with deformed frogs. Together, the MPCA and NIEHS have spent nearly $1 million on the frog problem.

Gardiner and Blumberg said their research, which so far has cost $5,000 plus some lab time and materials, began last fall, after a two-day brainstorming session with colleagues who felt the larger investigation had failed to aggressively pursue the retinoid scenario. The meeting was organized by Gardiner and his wife, Susan Bryant, a prominent limb development expert at the *University of California*, Irvine. "Retinoids are clearly the place to start," said Gardiner. "This is a problem in development and developmental biologists have the resources available to attack the problem."

Gardiner contacted David Hoppe of the *University of Minnesota*, Morris, the state's leading field investigator, and obtained 29 frog specimens. In November, Gardiner went to Minnesota and collected water from the lake where the frogs were found. Blumberg tested the water with a sensitive assay that measures the activation of human retinoic acid "receptor" proteins. Those receptors regulate genes in human cells that are critical in limb development and patterning when they are switched on by retinoic acid. The water tested positive.

Meanwhile, Gardiner and Bryant examined the frogs with a commonly used procedure for clearing the animals' soft tissue while staining the cartilage and bone. The result is a transparent "visible frog" in which the skeleton is dyed a deep blue. In every deformed frog examined, one or more leg segments seemed to be growing back on itself in reverse, producing a "triangulated" appearance. These unique "bony triangles" have turned up repeatedly in past retinoic acid experiments. Gardiner and Bryant eventually concluded that bony triangles are a signature of retinoid exposure. "We thought we'd never seen anything like that before," said Gardiner. "But when we looked back at the literature, there they were. In chickens. In mice. In several species of frogs."

The retinoid, or retinoid-like substance, detected in the Minnesota water could be a pesticide or a derivative of one, Blumberg said. It is also possible that it's a natural compound produced by microorganisms or plants in the lake. "If it's natural in origin that just means there's nobody to blame," he said. Gardiner and Blumberg think there may be more than just a retinoid behind the frog deformities. While it is certain that a retinoid could cause abnormal leg development, evidence that retinoids alone can induce entire extra legs is mixed.

Jim Burkhart, a research biologist who heads the NIEHS frog investigation, said his agency recently found retinoids in water samples from several sites in Minnesota using a test slightly different from the one developed by Blumberg. The USEPA, which last year tested the insecticide methoprene for possible retinoid properties, is also now preparing a more general retinoid assay it will begin using this spring. By then, Gardiner and Blumberg plan to be working on more water samples. But they also hope to do something that no one else has yet managed. "I think what we've got to do now is show people that one last piece of the puzzle," Gardiner said. "We're going to have to produce a frog with extra legs in the lab."

Source: William Souder, *The Washington Post*, 3/16/98

Miscellaneous River Issues

FL Lake Restoration Problems -- Some scientists say the $91 million plan to clean up Lake Apopka in central Florida may be more dangerous to fish than the fertilizer runoff that is polluting the lake. Fisheries biologist John Benton and others said the St. *John's Water Management District's* plan to purchase surrounding farmland, flood it and pump nutrients onto vacant land could expose lake wildlife to hormonal problems that may be associated with pesticides used on the property. Sources: *AP/Miami Herald*, 2/2/98 and National Journal's GREENWIRE, *The Environmental News Daily*, 2/3/98

Fox River, WI Pollution — The *Fox Cities Chamber of Commerce & Industry* has launched an "all-out offensive" against the possible Superfund designation for the Fox River, saying the label would be detrimental to the local economy and do little to help the environment. About 40 tons of PCBs are dispersed along a 39-mile stretch of the river. Sources: *AP/St. Paul Pioneer Press*, 1/2/98 and National Journal's GREENWIRE, *The Environmental News Daily*, 2/3/98

Landslides and Clearcuts — More landslides come out of clearcuts than out of forests that have not been logged for the past 100 years, according to a continuing study of landslides in Oregon's Coast Range released on 1/29/98 by the Oregon Dept. of Forestry. The report, which studied 52 square miles of land and documented 600 landslides following heavy storms in 2/96 and 11/96, for the first time calculated that clearcutting increases the risk of landslides. The findings are based on variables such as the steepness of slope and amount of rain. Environmentalists said the report pointed to the need for "overhauls" of logging practices. But timber industry officials were "alarmed" by the report. Jim Geisinger of the *Northwest Forestry Assn.* said the industry would be harmed if harvesting was banned on steep slopes. Jim James of *Willamette Industries*, which owns 610,000 acres of Oregon timber land, suggested that more careful logging practices and construction of

fewer roads could solve the problem. The study did not address whether clearcutting affects the severity of landslides, and the *Assn. of Forest Service Employees for Environmental Ethics* "said the study was flawed because forestry officials did not report data on landslide size." The completed report is expected to be used by a special panel convened by Oregon Gov. John Kitzhaber to recommend changes to the state's logging rules. Sources: Jeff Barnard, *AP/Seattle Daily Journal of Commerce, 1/30/98;* Jonathan Brinckman, *Portland Oregonian, 1/30/98;* and National Journal's *GREENWIRE, The Environmental News Daily*,

MN River Protection — Minnesota farm officials and environmental leaders have approved a Minnesota River Conservation Reserve Enhancement Program and sent it to Agriculture Secretary Dan Glickman for support. The "ambitious" project, conceived by Gov. Arne Carlson (R), could become the largest river restoration project in the U.S. It would idle 190,000 acres of farmland along the river, turning some into buffer zones and wetlands. The plan would combine $50 million in state conservation funds with $200 million from the federal Conservation Reserve Program. A *Minneapolis Star-Tribune* editorial calls it "a sensible compromise that deserves Glickman's endorsement". Landowners would be guaranteed annual payments and up-front bonuses to retire flood-prone land and replant it with native grasses or trees. While the program is expected to improve wildlife habitat and water quality and reduce flooding and agricultural runoff, some farmers have opposed the program because it would take land out of production permanently. Sources: Dennis Lien, *St. Paul Pioneer Press*, 2/19/98 and National Journal's GREENWIRE, *The Environmental News Daily*, 2/4/98

MN Watercraft Ban— The Minnesota House Environment and Natural Resources Committee on 2/2/98 approved a bill that would ban the use of personal watercraft on lakes of 200 acres or smaller -- 87% of the state's lakes — unless local authorities choose to permit them. Because Minnesota has so many large lakes, much of its water surface would remain open. But Minnesota-based manufacturers of personal watercraft say the industry is developing quieter engines that will help curb noise. Sources: Jim Ragsdale, *St. Paul Pioneer Press*, 2/3/98 and National Journal's GREEN-WIRE, *The Environmental News Daily*, 2/4/98.

MT Waterways Suit? - The USEPA has put Montana waterways at risk by failing to review the state's water-quality standards for nine years, according to several environmental groups who filed a notice to sue in early March. *American Wildlands, Pacific Rivers Council* and the *Montana Environmental Information Center* vowed to carry through with the suit under the Clean Water Act (CWA) if the EPA does not take action to assess stream pollution throughout Montana. The move comes as environmentalists are suing the EPA to act on water-quality standards in 14 other states. In a letter to EPA Administrator Carol Browner, the groups said the state has changed its regulations governing water quality since 1989. The CWA requires the USEPA to review such changes. The environmentalists said that Montana's water pollution regulations exempt entire categories of potentially polluting activities, such as oil and gas drilling and mineral exploration, from environmental review. Sources: Erin Billings, *Billings Gazette*, 3/6/98; *American Wildlands* release, 3/5/98; National Journal's GREEN-WIRE, *The Environmental News Daily*, 3/6/98

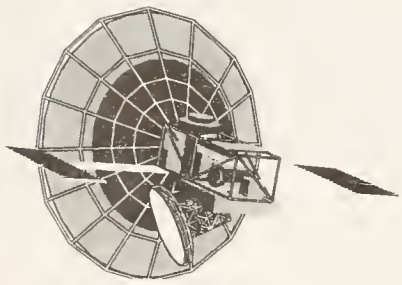
Napa County, CA Flood Control -- In early March voters narrowly approved a flood control initiative that would fund flood protection and watershed management. The measure, which "squeaked through with about 68% approval," will raise $6 million annually for the next 20 years to implement projects on the Napa River to control floods while expanding marshlands and riparian forests to improve wildlife habitat. The initiative includes plans to remove buildings from flood zones, replenish fish stocks, cleanup riverside toxics sites and limit the use of concrete to a short channel around historic buildings. Paul Bowers of the US Army Corps of Engineers called the plan's emphasis on river restoration rather than destruction "truly unique". Sources: *AP/San Francisco Chronicle/Examiner* 3/4 and 3/5/98; and National Journal's GREENWIRE, *The Environmental News Daily*, 3/5/98

NC Riparian Protection -- Starting in January North Carolina environmental officials began enforcing new rules that forbid property owners from cutting down trees within 30 feet of state waterways. Lin Xu of the state Division of Water Quality said trees serve as buffers filtering pollution that would otherwise run into the Neuse River. Sources: James Shiffer, *Raleigh News & Observer*, 1/22/98 and National Journal's GREENWIRE, *The Environmental News Daily*, 1/27/98

OK Hog Moratorium -- A House panel of the Oklahoma Legislature has approved a one-year moratorium on the expansion of corporate hog farming operations. The measure would block construction of new farms containing more than 5,000 hogs to give the state time to examine the impact of corporate hog farms. The moratorium would be in effect up to one-year or until the legislature develops "adequate" environmental and public health protections. Senate President Pro Tempore Stratton Taylor (D) backs the proposed moratorium as a "good first step," but he stressed that the legislature must also address regulations for the poultry industry. *Oklahoma Pork Producers* spokesperson Bill Wiseman said the moratorium was a "politically attractive" move and said that no evidence had linked groundwater contamination to the hog industry. He said that imposing the proposed ban on hog farms that already had permit applications pending with the state Agriculture Dept. would be unconstitutional. Meanwhile, the Oklahoma Board of Agriculture on 2/18/98 unanimously approved a fine of more than $88,000 against *Seaboard Farms Inc.* for failing to properly dispose of dead hogs at more than 30 of its "panhandle" farms. The board alleged the decomposing carcasses threatened groundwater and public health. Sources: *USA Today*, 2/20/98; Mick Hinton, *Oklahoma City Daily Oklahoman*, 2/19/98; Danny Boyd, *Oklahoma City Daily Oklahoman*, 2/19/98; and National Journal's GREENWIRE, *The Environmental News Daily*, 2/20/98.

PA Tire Fire -- An illegal tire dump

located on top of an aquifer that supplies water to three Pennsylvania towns was set afire by an arsonist on 2/7/98. The fire, which burned 1,200 truck tires, caused some ground contamination, but tire-oil runoff, which could have contaminated the water supply for decades, was "kept to a minimum," according to Richland Township Fire Marshall Jeff Stump. Truckloads of soil will have to be removed from the site, but the "quick action" of firefighters and the separation of the tires into piles limited the damage. Daniel Carr, who discarded the tires, is already serving 7-14 years in prison for a 1996 tire fire that disrupted traffic on Interstate 95 for months. The *Goodman Group*, which leased the site to Carr, was supposed to have removed the tires by 8/31/97. Sources: Richard Sabatini, *Philadelphia Inquirer*, 2/10/98 and National Journal's GREENWIRE, *The Environmental News Daily*, 2/10/98



Satellite Surveillance — Satellite photography is increasingly being used to monitor compliance with land-use regulations, but some say the use of such surveillance is an invasion of privacy, reports the *Wall Street Journal*. State and local agencies are using satellite imagery for "everything from surveying illicit crops to detecting unauthorized building." By comparing satellite photos with its permit data-base, the Arizona Dept. of Water Resources can detect farmers who are exceeding water-use rules and has fined farmers for growing cotton without irrigation permits. Larry Griggers of the Georgia Dept. of Revenue, which uses satellites to monitor the state for unreported timber cutting, said the practice saves money on other types of enforcement. *Georgia-Pacific Corp.* and other timber companies support the practice, "saying it will help to disprove accusations that they have secretly cut trees without paying taxes." Longmont, CO-based *Earthwatch Inc.* also said it plans to launch a satellite next year. The *American Bar Association* has organized a task force to determine whether the practice violates the Fourth Amendment's protections against unreasonable searches. In 1986, the Supreme Court ruled that the USEPA was permitted to photograph the *Dow Chemical* plant in Midland, Michigan, and said the practice "might be constitutionally proscribed absent a warrant". Sources: Ross Kerber, *Wall Street Journal*, 1/27/98; and National Journal's GREENWIRE, *The Environmental News Daily*, 1/27/98

Southern Water Compact — "In what is being hailed as an historic meeting," the governors of Alabama, Georgia and Florida have signed two interstate water compacts dividing up the waters of rivers flowing through the tri-state region. One compact will guarantee each state a minimum flow of water from the Chattahoochee, Flint and Apalachicola rivers, while the other will allocate water from the Alabama, Coosa and Tallapoosa rivers. Each compact will have a commission -- made of a member from each state and from the federal government -- to negotiate how much water each state will get. Bob Kerr of the Georgia Department of Natural Resources said that the allocations will be worked out by the end of the year, and that the compacts will assure Georgia the water it needs for growth. The compacts were approved by the three state legislatures last year and ratified by Congress and signed by Pres. Bill Clinton in 11/97. They are the nation's first interstate water agreements since the early 1970s and the "first ever" in the South. Sources: Charles Seabrook, *Atlanta Constitution*, 2/17/98 and National Journal's GREENWIRE, *The Environmental News Daily*, 2/18/98

Taxpayers Pay Pollution Costs-- Fees paid by Virginia industries to discharge waste into rivers cover only 8% of the costs of regulating the pollution, according to a state Dept. of Environmental Quality (DEQ) report. The report, prepared for the 1998 General Assembly, found that state and federal tax dollars pay 92% of the costs of issuing permits, monitoring rivers and related activities. In Maryland, Tennessee and North Carolina, industry pays 67%, 31% and 24%, respectively. Only in Kentucky, where state and federal taxes pay 94% of the costs, do industries pay less than in Virginia. Environmental groups say Virginia industries should have to pay more. A five-year water-pollution permit that costs $8,000 in Virginia would cost $45,000 in Maryland. State Sen. Patricia Ticer (D) on 1/23/98 announced plans to introduce legislation that would increase water pollution permit fees, saying the "everyday taxpayer" is paying too much of the costs. Her bill would require the DEQ to raise fees to cover 25% of costs in 1999 and 50% by 2003. Source: Rex Springston, *Richmond Times-Dispatch*, 1/26/98 and National Journal's GREENWIRE, *The Environmental News Daily*, 1/26/98

WA Waterway Cleanup — The Washington Dept. of Ecology has been put on a 15-year schedule to develop clean-up plans for 666 polluted waterways as the result of a "landmark" settlement of a 1991 lawsuit filed against the agency and the USEPA. Portland, OR-based *Northwest Environmental Advocates* and the *Northwest Environmental Defense Center* alleged the agencies violated the federal Clean Water Act by failing to assess and restore water quality. Sources: Laura Coffey, *Seattle Daily Journal of Commerce*, 1/27/98 and National Journal's GREENWIRE, *The Environmental News Daily*, 2/3/98.

Yellowstone Bioprospecting Suit - Yellowstone National Park and Interior Dept. officials illegally "struck a secret deal" with a California firm to mine and sell the park's microbial resources, according to a lawsuit filed in early March in Washington, DC, by a coalition of environmental and other groups. The complaint alleges that the deal to harvest commercially valuable microbes in the park was made through a research and development agreement to avoid the environmental review required by the National Environmental Policy Act. Plaintiffs' attorney Joseph Mendelson, of the DC-based International *Center for Technology Assessment*, argues that federal law bars any natural resources from being removed from national parks. Mendelson said, "The precedent set by this agreement threatens not only Yellowstone, but all of our parks" The "bio-prospecting"

deal completed in 8/97 gives *Diversa Inc.*, a San Diego bio-tech firm, the right to take microbes from Yellowstones's geysers and patent the exclusive rights from any products or processes resulting from the effort. In return, the park would receive "a small yearly fee" and a confidential percentage of royalties. Sources: Smith/Siegel, *Salt Lake Tribune*, 3/6/98 and Kathleen Schmidt, *Medill News Service/Billings Gazette*, 3/6/98; and National Journal's GREENWIRE, *The Environmental News Daily*, 11/11/97.

Climate Change Attitude Shift

"In a major shift in the debate over global warming, a growing number of leading oil company executives are acknowledging that fossil fuels may be changing the world's climate and have begun focusing on how to reduce greenhouse gas emissions," reports the *Washington Post*. Although most industry officials oppose the "sweeping" agreement negotiated at the 12/97 climate change conference in Kyoto, Japan, and many energy executives dismiss the science that suggests global warming, recent statements from oil company executives indicate that the lines between industry and environmentalists are becoming blurred.

Mark Moody-Stuart of *Royal Dutch Shell* at a February meeting with energy executives in Houston said, "I find myself increasingly persuaded that a climate effect may be occurring." John Browne of *British Petroleum* said the industry had moved "beyond denial." According to *Texaco* spokesperson Christopher Gidez, company head Peter Bijur said the debate was more about remaining competitive than about the science behind the issue. Gidez said, "It's about what companies are doing ...to look at the next generation of technologies and improving efficiencies of operations, reducing emissions of refineries."

Daniel Yergin of *Cambridge Energy Research Associates* attributed the shift to increasing social awareness among corporations. Evolving attitudes have also been noted among utilities and automakers that want to help guide the rules emerging from the Kyoto talks, according to Daniel Dudek of the *Environmental Defense Fund*. Although European oil companies were first to accept concerns about climate change, Red Cavaney, head of the *American Petroleum Institute* said the U.S. industry is now acknowledging "different views" on the subject.

"In the debate over global warming, there has been a widespread assumption that if humans are changing the earth's climate, the effects will be felt gradually and smoothly, making it easier to adapt to the change." But a "growing accumulation of geological evidence is making it ever clearer" that the climate has changed abruptly in the past, and might do so again in the future, reports the *New York Times*.

American scientists led by Jeffrey Severinghaus of the *University of Rhode Island* has studied corings of ancient ice in Greenland and "determined that when the world began its final ascent out of the last ice age ... temperatures in Greenland initially spiked upward by about 9 to 18°F ... in, at most, mere decades and probably less than a single decade."

Many scientists are saying that the climate may adapt slowly to changes until a threshold is reached, at which point dramatic shifts in climate could occur. Speculating about human-induced climate change, Kendrick Taylor, a paleoclimatologist at the *Desert Research Institute* of Nevada at Reno, said, "If we find out that we're far away from one of these thresholds, we might be able to change atmospheric carbon dioxide a lot and not have any impact. On the other hand, we may find we're very close to one of these thresholds".

Scientists say only satellites can provide them with the information they need to predict how the climate will respond to the combination of natural occurrences and human impacts such as the emission of greenhouse gases.

With a satellite system known as the *Earth Observing System (EOS)*, NASA will focus on global climate change. Among the information the system is expected to provide are data on aerosols and cloud properties. Researchers say that lack of such data is the "biggest impediment" of using computer models to simulate and predict the behavior of the global climate. The launch of AM-1, the "flagship" of the EOS, is planned for 6/30/98.

Meanwhile, according to scientists at *Louisiana Tech University* the "sequestration of carbon," using trees to soak up carbon dioxide from the atmosphere, could be a "significant weapon" to combat climate change,. Studies indicate that increasing the sequestration of carbon would cost only a few dollars per ton of the gas -- which is "considerably cheaper" than the cost of controlling industrial emissions of carbon dioxide.

A researcher at the *Massachusetts Institute of Technology* has also noted a link between the frequency of lightning and global temperature. Earle Williams, who has assembled comprehensive data on global lightning activity, said the connection could be used to track trends in global warming.

Sources: William Stevens, *New York Times*, 2/17/98; Martha Hamilton, *Washington Post*, 3/3/98; John Cushman, *New York Times* 3/3/98; Robert Cowen, *Christian Science Monitor* 3/3/98; and National Journal's GREENWIRE, *The Environmental News Daily*, 1/27, 3/3/98

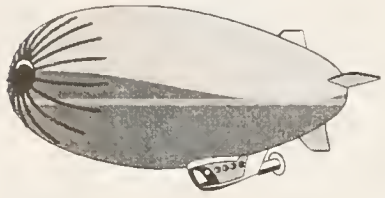
Ships vs Boats

Carl von Gablenz, a German a lawyer-cum-logistics expert, thinks blimps can provide a reasonable alternative to ships for carrying heavy cargo. How else, he asks, can you get a 160-ton power-plant turbine from Germany to the Amazon jungle without reinforcing roads, moving bridges and having to manhandle it on and off ships?

Mr. von Gablenz and a handful of fellow airship enthusiasts are designing a helium filled blimp, just outside of Frankfort, that could revolutionize the global heavy-haulage business. Their *Cargo Lifter 160*, an 808-foot long, 201-foot-wide *Queen Mary* of the skies would be able to hoist heavy, bulky objects such as 160-ton turbines or an empty *Boeing 747*, wings and all, 10 times faster and an average 20% less expensively. The *Cargo Lifter's* cargo

bay would hold 520 cubic yards.

An even bigger airship still on the drawing board would haul as much as 450 tons - equivalent to a fully loaded, fully fueled 747-400. Such unprecedented carrying capacity could lead to challenges not only in the way companies deliver things, but in the way they design and build them, too. "Lighter-than-air technology allows you to think big," says Mr. von Gablenz.



If all this makes you think Mr. von Gablenz is getting lightheaded, you're not alone. Something he calls the "giggle factor" has plagued airship research ever since the hydrogen-fueled Hindenburg, a rigid-framed dirigible as opposed to the less rigid blimp, burned in 1937. The helium that gives blimps their lift doesn't burn, while hydrogen combines explosively with oxygen. Airship engineers focus on advertising and passenger transport also hasn't helped.

Blimps were used in Oregon to transport logs in the 1970s, and the U.S. military has always had a small fleet. *Pan Atlantic Aerospace Corp.*, a Canadian research company, has drawn up plans for a 1,500 foot airship that could lift 500 tons and be competitive with ships and trucks. But so far, most cargo blimps have never left the drawing board. "The hard part is coming up with the money for the first airship," says *Pan Atlantic* Chairman Fred Ferguson. Getting Federal Aviation Administration approval in the U.S. is also a hurdle because there are no design standards in place. All the same, airships appear to be on the comeback, helped in part by the U.S. government's 1996 decision to sell off its strategic helium reserve, as well as by the commercial availability of new, lighter weight materials.

CargoLifter AG, just an idea three years ago, has moved at fever pitch to raise capital, rally partners and get a prototype aloft. Mr. von Gablenz has told shareholders the company would start construction of its first hangar near Berlin and float a prototype blimp in May. It just signed *Praxair Corp.* of the U.S., the world's largest helium producer, to supply it with helium and technology. From 1999 onward, the company wants to build three to four *CargoLifters* a year. Its goal: to operate 44 blimps and capture 1-2% of the $9 billion international market in oversize cargo--Items over 100 tons and longer than 66 feet--by 2010. It aims to go public around 2000, show a positive cash flow In 2001 and break even on its investment In 2002. "It's a tall order." acknowledges Mr. von Gablenz, "but the risk is becoming more calculable." *Commerzbank AG*, as well as the corporate finance unit of *ABB AG* and increasing numbers of small holders agree.

Unlike most German start-ups, *CargoLifter* began as a joint stock company. It has signed up 835 shareholders, making it one of the most popular nonlisted companies in Germany. Some 60% is held by individuals, most of whom buy shares over the Internet. The unlisted stock sells at a fixed 27.50 marks ($15.44) a share. Several big engineering, shipping and logistics companies were among the first shareholders -- both to profit from the investment and to book space early. German engineering heavyweights including *ABB*, *Slemens AG* and *Thyssen AG* see a potential competitive advantage in speeding deliveries to remote customers.

A full 50% of *CargoLifter's* carrying capacity for the first three years is reserved for shareholders. But other potential clients are calling up to reserve space Mr. von Gablenz says. The U.S. Federal Emergency Management Administration and the United Nations have asked about using cargo blimps in disaster relief, auto makers about moving assembly lines and franchisers about delivering prefabricated restaurants.

Perhaps one day we'll see blimp-loads of coal and grain flying directly between points of origin and points of use, replacing some of the barges which now crowd our large rivers.

Interior Budget Proposal

The Interior Department budget proposal released by President Clinton for FY99 has scored points in the environmental community, but it could do even more, some conservationists are saying. "It's not everything that we would want," said Mary Beth Beetham, legislative associate for *Defenders of Wildlife*. But, "we also really believe it's the best natural resources budget that's come out of the administration in years."

The administration "raised the bar this year" by channeling more funding to the four land management agencies, particularly for working on their massive maintenance backlogs, said Sue Gunn, director of budget and appropriations for the *Wilderness Society*. "At last they're beginning to listen to the enviros, and I haven't felt that previously," she said.

The total $8.1 billion Interior spending proposal marks a $491 million or 6% increase over the 1998 enacted level. It starts two five-year programs to increase funding for maintenance and construction needs within the agencies and further contribute to the *Land and Water Conservation Fund (LWCF)* for "priority" land purchases.

The Interior Department is requesting a total of $546 million for maintenance in FY99, which reflects an increase of $82 million from last year. Also, the department plans to enact a policy of organizing safety and repair needs into prioritized lists to submit during annual budget requests.

House Appropriations Interior Subcommittee Chairman Ralph Regula (R/OH) at a hearing earlier in February estimated the backlog for the National Park Service, Fish and Wildlife Service, Bureau of Land Management and Forest Service at $12.8 billion.

The administration also requested about $270 million to go to the LWCF for land acquisition related to restoration projects under the four land management agencies. The "priority" land purchases in FY99 would include land in the Florida Everglades, Southern California and northeastern states. The department plans to allocate a total of $1.9 billion from LWCF to the agencies over five years.

"They're kind of remembering the importance of LWCF and they've highlighted it, even though they haven't fully funded it," said Beetham. The LWCF may be funded up to $900 million annually through offshore oil and gas lease receipts, but for the past few years has received much less. Since much of the funds have been used for other purposes, an $11 billion credit has accumulated, according to congressional sources.

Funding the LWCF at below the maximum amount allowed "forces parks to put off proactive natural resource protection activities," said Tom Kiernan, president of the *National Parks and Conservation Association* (NPCA). Last year, $699 million was appropriated to the fund in the FY98 Interior and related agencies budget as a one-time allocation ordered under the bipartisan budget agreement.

Details of the various proposed agency budgets follow [Interior Department Budget is shown in millions of dollars FY95 (actual), FY96 (actual), FY97 (actual), FY98 (enacted), and FY99 (proposed)]:

Bureau of Land Management (BLM)

	FY95	FY96	FY97	FY98	FY99
Total Budget	1,182	1,157	1,196	1,232	1,326
Land/Resource Mgmt	597	567	576	583	660
Forest Resources	7	5	6	6	6
Riparian/Aquatic Resources	20	14	16	16	20
Threatened/Endangered Species	18	16	17	17	18
Rec/Cult Res/Wilderness Mgmt	51	44	46	49	50
Recreation Resources	26	26	28	31	32
Cult. Resources	12	11	12	13	13
Wilderness Resources	13	14	15	16	16
Resource Plans/Analysis	10	10	10	13	13
Realty/Ownership Mgmt.	73	69	70	71	73
Wild Horses/Burros	17	15	16	16	19
Facilities Maintenance	39	30	33	35	42
Hazardous Mat'ls Mgmt.	17	15	15	15	16
Rec. Operations (fees)	1	4	5	5	5
Workforce/Organization	120	116	116	117	119
Construction	12	3	4	3	4
Payments in Lieu of Taxes	104	114	114	120	120
OR/CA grant lands	97	97	101	101	99
Land Acquisition (LWCF)	15	13	10	11	15
Central HAZMAT Fund	13	10	12	12	10
Range Improvements	10	9	9	9	10
Fire fighting	236	236	252	280	298
Trusts/Permanent Appropriations	95	89	247	94	92

U.S. Fish and Wildlife Service (FWS)

	FY95	FY96	FY97	FY98	FY99
Total Budget	1,284	1,190	1,287	1,361	1,422
Resource Management	513	506	524	595	676
Ecological Services	138	125	136	146	188
Endangered Species	70	60	67	77	113
Refuges/Wildlife	168	169	179	221	246
Fisheries	38	37	37	38	39
Gen. Administration	91	94	98	104	110
Construction	54	38	43	45	37
Wetlands Acquisition	9	9	10	12	15
Land Acquisition (LWCF)	67	37	44	63	61
Natural Res. Damage Assessment	7	4	4	4	8
Endangered Species Cons. Fund	9	8	14	14	17
Wildlife Cons./Appreciation	2	1	1	1	1
Trusts/Permanent Appropriations	613	585	633	616	596

National Park Service (NPS)

	FY95	FY96	FY97	FY98	FY99
Total Budget	1,470	1,457	1,571	1,882	2,001
Park System Operations	1,078	1,082	1,152	1,246	1,321
Resource Stewardship.	172	171	193	221	228
Visitor Services	250	252	272	303	301
Maintenance	347	349	368	384	446
Park Support	221	221	229	240	241
Everglades Restoration Fund				120	128
National. Recreation/Preservation	43	38	38	44	47
Land Acquisition (LWCF)	88	49	54	143	138
Historical Preservation Fund	41	36	37	41	101
Construction	185	145	163	215	175
Trusts/Permanent Appropriations	80	96	149	223	248
Rescission, LWCF Contr. Auth.	-30	-30	-30	-30	-30

U.S. Geological Survey

	FY95	FY96	FY97	FY98	FY99
Surveys/Investigations/Research	571	730	740	760	807

Office of Surface Mining

	FY95	FY96	FY97	FY98	FY99
Reclamation/Enforcement	293	270	303	309	347
Regulation/technology	110	96	95	95	94
Abandoned Mine Reclamation Fund	182	174	177	178	183

Minerals Management Service

	FY95	FY96	FY97	FY98	FY99
Total Budget	671	701	707	799	833
OCS Lands	87	95	95	103	111
Royalty Management	68	70	70	69	72
Gen. Administration	33	33	33	31	33
Oil Spill Research	6	6	6	6	6

Bureau of Reclamation

	FY95	FY96	FY97	FY98	FY99
Total Budget	838	869	811	878	945
Water/Related Resources	731	697	679	693	666
Loan Program	10	12	13	10	12

Gen. Administrative Expenses				
54	48	46	48	48
Working Capital Fund				
-3	0	0	0	-26
CVP Restoration Fund				
45	47	38	33	49
CA Bay-Delta Ecosystem Rest.				
0	0	0	85	143

Central Utah Project. Compl. Acct.

	FY95	FY96	FY97	FY98	FY99
Total Budget					
	40	45	44	41	42
Construction					
	29	26	32	30	28
Reclamation./Mitigation/Conserv.					
	11	19	12	12	12

Source: *Land Letter*, 2/16/98, Vol. 17, No. 4

Religion and the Environment

"Americans of all faiths increasingly are looking at the environment through a spiritual lens," reports the *Washington Post*. Ecumenical Patriarch Bartholomew I, the spiritual leader of the Orthodox Church, in 11/97 declared the degradation of the environment a sin. And now faith-based activists are beginning to incorporate environmental preservation "into long-standing social justice agendas."

Underpinning the faith-based environmental trend is, in most cases, a "theological shift" from the notion that people pass through a temporal world to the idea that the world was entrusted to humans by God to be safeguarded. Litter, oil spills, tainted drinking water, deforestation, and polluted runoff are being sermonized "not simply [as] legal infractions" but as morally wrong.

Paul Gorman, of the NY-based *National Religious Partnership for the Environment* said, "What's really happening here is that the ... environmental problem is calling us to rediscover some of the most fundamental teachings of every major faith tradition".

Source: Caryle Murphy, *Washington Post*, 2/3/98; and National Journal's GREENWIRE, *The Environmental News Daily*, 2/3/98

Public/Congress Environmental Attitudes Differ

A survey of attitudes about environmental issues among senior congressional staff members reveals large differences between their opinions as a group and those of the general public, according to a recent poll conducted by the McLean, VA-based research firm *Wirthlin Worldwide*.

For example, in 8/97, one in four Americans said it is acceptable to sacrifice economic growth in order to protect the environment, a result the pollsters called "surprisingly high" and the most pro-environmental reading of the firm's annual poll since 1992. Seventy percent said it does not have to be a choice between the two. That survey, which questioned 1,040 adults nationwide, had a margin of error of +/-3%).

But later last fall, the pollsters for the first time posed the same questions to 151 senior congressional staffers. Only 4%, all Democrats, said protecting the environment requires sacrificing economic growth, while 94% said the nation can achieve both goals without having to choose.

In addition, the public was found to be "much more supportive" of increased environmental regulation than Congress. In general, 49% of the public said there is too little environmental regulation, while only 13% of congressional staffers said the same. Some 47% of congressional staffers said there was too much regulation, compared with 21% of the public.

Congressional offices also gave "moderate" grades to government and businesses for their performance on environmental protection. On a scale of 1 to 10, with 1 being the worst and 10 being the best, congressional staffers gave business an average rating of 6.2 and government a 5.8. The public rated business and government performance nearly the same, at 5.6 and 5.7, respectively. The chart below breaks down responses by party affiliation:

Do you think there is too much, too little, or about the right amount of government regulation and involvement in the area of environmental protection?

	Congress	General Public
GOP:		
Too much	82%	33%
Too little	1%	40%
Right amount	12%	26%
Democrat:		
Too much	10%	12%
Too little	26%	53%
Right amount	56%	34%
Independent:		
Too much		18%
Too little		60%
Right amount		20%

[On a scale of one to 10], how good a job do you feel (businesses or government) are doing in terms of pollution control and environmental performance?

	Congress	General Public
GOP:		
Business	7.0	5.7
Government	5.6	5.7
Democrat:		
Business	5.4	5.7
Government	6.0	5.1
Independent:		
Business		5.3
Government		6.4

Source: National Journal's GREENWIRE, *The Environmental News Daily*, 1/28/98

Riparian Habitat Restoration Video

The U.S. Fish and Wildlife Service recently contracted with *Virginia Tech* to produce a half hour video on riparian habitat restoration and its benefits to landowners and biological resources. The focus of the video is the Southeastern U.S., but footage can include other geographic areas as well.

Dr. Dick Neves, Project Leader, has requested information from anyone on any existing videos that address riparian habitats, and whether there are good case studies in the Southeast or lower Midwest that are suitable for a videography crew to get on-site footage and interviews. Neves is seeking before and after footage, and examples of quantifiable changes in habitat quality and species diversity/abundance as a result of restoration actions.

If you or your agency or organization

knows of or has access to such videos or projects please contact Dr. Neves at: Department of Fisheries and Wildlife Sciences, College of Forestry and Wildlife Resources, Blacksburg, VA 24061-0321, (540) 231-5573 or Fax (540) 231-7580.

River Biology Curriculum Guide Published

The *Rivers Curriculum Project* of *Southern Illinois University Edwardsville* (SIUE), an educational organization working to increase scientific literacy through river study, announces the publication of its *Rivers Biology Curriculum Guide*. Developed under a *National Science Foundation* grant and published by *Addison-Wesley*, the *Guide* is sure to be a teacher favorite! Focusing on hands-on stream-monitoring activities, the *Guide* incorporates the study of living organisms in rivers, streams, or lakes which can be easily captured or documented to alert students to the connections between living organisms, water quality, and overall environmental quality. By stressing experiential educational activities, the *Rivers Biology Curriculum Guide* affirms the legitimacy of local activities and hands-on learning.

Also available through the Rivers Project are three other curriculum guides: Chemistry (testing river water and analyzing data to explore the impact of society on the quality of North American rivers), Earth Science (evaluating the physical features of a river system and exploring clues to historical development within a local area) and Geography (understanding the link between people and rivers--from human migration to industrial development). Language Arts and Mathematics Guides will be available soon. All Rivers Project Guides are available through the Rivers Project for $23.95.

The *SIUE Rivers Curriculum Project* (SIUE) will also be conducting its sixth annual summer training on the campus of *North Park University* in Chicago, IL (July 19-24, in cooperation with the Friends of the Chicago River) and on the campus of SIUE (August 2-7). In an effort to increase scientific literacy through river study and promote interdisciplinary teaching, teachers participating in the Rivers Project training will focus on one of the six curriculum areas (noted above). Project Trainers, some of who have contributed to the curriculum units, are practicing Rivers Project teachers who are supported by the University and other professionals.

Teachers and other professional interested in working with water testing education can attend the training scheduled for July 19-24 at *North Park University* in Chicago, which will focus training on urban rivers, or at SIUE. Tuition (two semester hours, Summer 1998) and curricular materials will be available. A non-credit option is also available. Lodging and food will be available at a low cost. Interdisciplinary teams from the same school are encouraged.

Contact: The Curriculum Rivers Project (618) 692-3788, FAX (618) 692-3359, e-mail: rivers@siue.edu, or via the World Wide Web at URL http://www.siue.edu/OSME/river

Fish Guts Software

New software entitled *"Fish Guts: A Multimedia Guide to the Art and Science of Fish Anatomy, Health, and Necropsy"* is available. This is an interactive program that uses sound, color photographs, and video to review anatomy and necropsy techniques. The program is available on CD ROM format for $179 (plus $12 shipping) from the *University of Maryland*, Dept. of Pathology, Aquatic Pathobiology Center, 10 South Pine St., Baltimore, MD 21201-1192. More information on the program is available on the World Wide Web at: www.som1.ab.umd.edu/AquaticPath/fg

Laserguns for Cormorants Control

The *DESMAN Company* in France has designed a laser to chase away cormorants and herons without harming them. Its operating range is up to 2.5 km (1.5 miles), and it can be used directly at the roosting site. According to manufacturers, the *DESMAN* Laser projects only a laser beam - no bullets and no lead shot - and its usage is silent and in no way damages the environment or the bird. It can be rented or purchased without authorization.

This method of startling birds optically was developed in 1987 by *DESMAN* and has been well received by civic authorities, governments and private individuals. The birds are startled by the strong contrast between the ambient light and the red laser beam, or its blur, which the user aims at the bird under the required light conditions. The *DESMAN* laser is said to be most effective at lower light levels - overcast sky, dusk and dawn. Its use in very strong light is not effective. *DESMAN* says the laser has a wide operating range, is simple in its usage, produces no noise, in no way harms the birds; and the birds do not become used to the laser. Roosting sites are cleared with up to 90% effectiveness.

"Double-crested Cormorant"

DESMAN says to just wait for the required light conditions, shoulder the DESMAN Laser, take aim, apply the trigger for as long as necessary to disperse the bird or birds, and continue the method until the birds have left their roosting sites. The apparatus looks like a typical firearm, is 100 cm long, weighs about 6 kg (with batteries), operates for about 3 hrs on a battery charge, has a 3x to 9x scope, and conforms to the specification of the European Standard EN 60825. There is no injury or shock to the bird's vision. Purchase and use are not restricted. For further information contact: DESMAN S.A.R.L., Ste Marie de Campan, 65710 CAMPAN, FRANCE, Telephone: +33.5.62.91.84.32; Fax: +33.5.62.91.86.95; or email: Desman@wanadoo.fr

Meetings of Interest

April 29-May 3: Rivers - The Future Frontier, Anchorage, AK. Contact the River Management Society at (406) 549-0514; email: rms@igc.apc.org

May 3-6: Watershed Management: Moving from Theory to Implementation, Denver, CO. Water Environment Federation. (703) 684-2400 or email confinfo@wef.org

May 7-8: Symposium on the Harvest, Trade and Conservation of North American Paddlefish and Sturgeon, Chattanooga Clarion Hotel, Chattanooga, TN. Sponsored by the Southeast Aquatic Research Institute (SARI), the Tennessee Aquarium and TRAFFIC North America. Contact: Dr. George W. Benz, SARI, 817-B N. Market St., Chattanooga, TN 37405, (423) 785-4073 or email GWB@tennis.org

May 17-22: Flood Mitigation Technology: Times Are Changing, Milwaukee, WI. Sponsored by the Association of State Floodplain Managers. Contact: Leslie A. Bond, P.O. Box 427, High Rolls, NM 88325, (505) 682-1359, Fax (505) 682-1369 or email bond@wazoo.com

May 26-30: Specialty Conference on Rangeland Management and Water Resources, Reno, NV. An interdisciplinary forum to exchange ideas about how to better understand and respond to conditions and trends related to water in grassland ecosystems. Sponsored by the American Water Resources Association and the Society for Range Management. Contact: AWRA, 950 Herndon Parkway, Suite 300, Herndon, VA 20170-5531, (703) 904-1225 or Fax (703) 904-1228.

June 8-12: 19th Annual Meeting of the Society of Wetland Scientists, Anchorage, AK. Contact: Terry Brock, Box 22014, Juneau, AK 99802, (907) 586-7863, FAX (907) 586-7922, e-mail: tbrock@ptialaska. net or visit the SWS web page at http://www.sws. org

June 8-12: GCIP Mississippi River Hydrometeorology Conference "Predicting Climate Variability and it's Implications for Water Resource Management. Regal Riverfront Hotel, St. Louis, MO.

June 23-28: First International Ictalurid Symposium - Catfish 2000 Davenport, IA. Contact Steve Eder, Missouri Dept. of Conservation, P.O. Box 180, Jefferson City, MO 65109-0180, (573) 751-4115,FAX(573) 526-4047, http://www.fw.umn.edu/ncdafs/cf2000.

August 23-27: 128th Annual Meeting of the American Fisheries Society, "Challenges for the New Millenium: Shaping the Future of Fisheries Science and the Fisheries Profession, Harford Civic Center, Hartford, CT. Contact: Paul Brouha, (302) 897-8617, Ext. 209.

September ?: 88th Annual Meeting a the International Association of Fish and Wildlife Agencies. Contact: Georgia Department of Natural Resources.

Congressional Action Pertinent to the Mississippi River Basin

No New Legisation or Legislative Action - See Volume 7, Number 1

River Crossings

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