

River

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MICRA Paddlefish Survey

The International Association of Fish and Wildlife Agencies (at their annual September meeting) ranked the MICRA paddlefish proposal as their number one priority for funding with year-end federal aid monies. The survey, entitled, "Documentation of Paddlefish Distribution and Movements in Mississippi River Basin Mainstem Rivers", is presently awaiting approval of U.S. Fish and Wildlife Service (FWS) Director Mollie Beattie.



If funded, the \$200,000 survey would develop a special tagging system and coordinate a multi-state, multi-year (3-5 years) effort to tag paddlefish and document habitat use and movements downstream from high dams, and between states and rivers across the Basin. Information would also be collected on paddlefish reproduction, growth and length-frequency distribution.

MICRA would develop and distribute specially marked plastic jaw tags to participating states and entities for use in marking paddlefish in their jurisdictional waters. The specially marked tags would be numbered and carry instructions for return of information and/or the tag to the

MICRA Coordinator's office. Requested information would include date and location of collection, length, weight, and general condition of the fish. MICRA would also develop informational signs and brochures for distribution by participating states and entities to strategic individuals and locations (ie. media, fishing clubs, bait shops, etc.) throughout the Basin. This measure is needed to inform the public and to enhance tag and/or information recovery.

Each participating state or entity would agree to collect and mark up to 300 paddlefish annually. Participants would complete this work either through the work of their own personnel or through subcontracts with commercial fishermen. The number actually collected and tagged would be dictated by the availability of paddlefish stock in a state or entities' assigned river reach. After tag placement and measurement of length, weight, and general condition, marked fish would be returned to the waters where captured.

States targeted for tagging and information collecting include Minnesota, Wisconsin, Iowa, Illinois, South Dakota, Nebraska, Kansas, Missouri, West Virginia, Ohio, Indiana,

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Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. Rivers targeted include the Mississippi, Missouri, Ohio, Tennessee, Arkansas, Red, and Atchafalaya. In the event that a state cannot, or chooses to not participate in the project, the Fish and Wildlife Service, Tennessee Valley Authority or other cooperator would be asked to participate in information collection for that reach.

Information and tags returned to the Coordinator's office would be compiled and analyzed by members of the MICRA Paddlefish/Sturgeon Subcommittee.

For additional information contact: Jerry Rasmussen (FWS), MICRA Coordinator/Executive Secretary, (314) 876-1911; Kim Graham (MO), Paddlefish/Sturgeon Subcommittee Chairman, (314) 882 9880; or Bobby Reed (LA), Paddlefish/Sturgeon Committee member (318) 491-2577.

Sicklefin Chub/Sturgeon Chub Survey

MICRA has received \$20,000 to conduct a survey of sicklefin and sturgeon chub distribution and abundance on the Missouri River in Missouri. This funding comes from the U.S. Fish and Wildlife Service (Region 3) endangered species program, and is, in part, a response to the petition for listing these species, reported on in the last issue of *River Crossings*.



sturgeon chub



sicklefin chub

The survey would be designed to duplicate (same sites and same level of effort) past surveys conducted by Dr. William Pflieger, ichthyologist for the Missouri Department of Conservation. It would determine present distribution and abundance of the two species, and document any changes since the last Pflieger survey.

Both species are considered potential forage for the endangered pallid sturgeon. The survey will be conducted under the auspices of the Paddlefish/Sturgeon Subcommittee.

Floodplain Management Bill Introduced

Senator Max Baucus, Chairman of the Environment and Public Works Committee, introduced the "Floodplain Management, Environmental Restoration, and Recreation Act of 1994" (S. 2418) on August 24, 1994. The bill was in response to, and addresses many recommendations of the Galloway Floodplain Management Report. It is intended:

- to improve floodplain management,
- to protect and restore floodplain environments, and
- for other purposes.

Components of the bill are summarized below:

Water Resources Council

The Water Resources Council (WRC), provided for under Section 101 of the Water Resources Planning Act (42 U.S.C. 1962a), but eliminated by the Reagan Administration, would be revitalized. WRC membership would be changed by replacing the Federal Power Commission with the Department of Energy, and adding the Federal Emergency Management Agency.

The WRC Chairman reporting directly to the President would:

- serve as the primary center for assistance concerning coordination and resolution of interstate and interagency water resources management issues;
- seek to align Federal floodplain management with other broad national goals; and

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River Crossings is a mechanism for communication, information transfer, and coordination between agencies, groups and persons responsible for and/or interested in preserving and protecting the aquatic resources of the Mississippi River Drainage Basin through improved communication and management. Information provided by the newsletter, or opinions expressed in it by contributing authors are provided in the spirit of "open communication", and do not necessarily reflect the position of MICRA or any of its member States or Entities. Any comments related to "River Crossings" should be directed to the MICRA Chairman.

- serve as an innovative planning and technology clearinghouse for floodplain management.

One of the first WRC tasks would be to prepare and submit to Congress a report evaluating the Secretary of the Army's efforts to change Corps of Engineers policies and practices concerning use of structural solutions to water resources management problems. The WRC would also oversee activities of the Upper Mississippi River Flood Management Coordinating Committee (UMRFMCC), the Lower Mississippi River Flood Management Coordinating Committee (LMRFMCC), and the Missouri River Flood Management Coordinating Committee (MRFMCC), all of which would also be established by the bill. One million dollars would be appropriated annually to the WRC.

Upper Mississippi River Study

Within two years the Secretaries of Army and Interior, in cooperation with the States of Illinois, Iowa, Minnesota, Missouri, and Wisconsin, and with approval of the Upper Mississippi River Basin Association (UMRBA), would prepare and submit to Congress a report that:

- assesses the environmental sustainability of the Upper Mississippi River system (i.e. Mississippi River and tributaries north of and adjacent to Cairo, Illinois, except for the Missouri River and its tributaries).
- evaluates on-going programs, and
- recommends additional or alternative actions to enhance and protect the long-term ecological integrity of the Upper Mississippi River Basin (exclusive of the Missouri River).
- addresses both watershed and floodplain actions.

Coordinating Committees

The Secretary of the Army would establish the UMRFMCC, LMRFMCC, and MRFMCC to review and recommend approval or disapproval of projects developed under other provisions of the Act. UMRFMCC would report to the WRC and include as members the Secretaries of Army,

Interior, Agriculture, and Transportation; and the Governors of Iowa, Missouri, Minnesota, Illinois, and Wisconsin. The LMRFMCC would be established as a subcommittee of the Mississippi River Commission (MRC). The MRC, established by Congress on June 28, 1879 already has jurisdiction over the lower Mississippi River. The LMRFMCC would report to the WRC, coordinate activities with the MRC, and include as members the Secretaries of Interior, Agriculture, and Transportation; and the Governors of Arkansas, Kentucky, Louisiana, Mississippi, Missouri, and Tennessee. The MRFMCC would be established as a subcommittee of the Missouri River Basin Association (MRBA). The MRFMCC would report to the WRC, coordinate activities with the MRBA, and include as members the Secretaries of Army, Interior, Agriculture, and Transportation; and the Governors of Iowa, Kansas, Missouri, Montana, Nebraska, North Dakota, and South Dakota.

River Basin Management Plans

The Secretary of the Army (within 2 years) would develop comprehensive river basin management plans for the Upper Mississippi, Lower Mississippi, and Missouri rivers. These would be developed in consultation with the UMRBA and the UMRFMCC; MRC and



the LMRFMCC; and the MRBA and the MRFMCC, respectively. They would address the Basin's long-term ecological, economic, and flood control needs. The plans would provide for integration of existing

flood-control facilities into an efficiently functioning flood damage reduction system, including structural and nonstructural measures, that are compatible with functioning and restoration of floodplain ecosystems. Five million dollars would be authorized for their preparation.

Habitat and Monitoring Projects

The Secretary of the Army, in consultation with the Secretaries of Interior, Agriculture, and Transportation would carry out (1) programs for planning, construction, and evaluation of measures for fish and wildlife habitat restoration and enhancement; and (2) long-term resource monitoring. These programs would be consistent with the lower Mississippi and Missouri River basin management plans, developed elsewhere under the Act. The Department of the Army would be authorized (annually for 5 years) \$13 million for the habitat rehabilitation and \$5 million for the resource monitoring programs of each river system (i.e. Lower Mississippi and Missouri rivers).

Upper Mississippi River Basin Levees

The Secretary of the Army would conduct a survey of existing levees, excluding levees constructed to less than the 10-year flood protection level and protecting lands of 5 or fewer landowners. The survey would assess the:

- physical condition of each levee;
- estimated economic benefit of the levee to the area protected;
- estimated environmental impact of the levee; and
- estimated cost of bringing the levee into compliance with Army Corps of Engineers standards, where that compliance is necessary.

Upper Mississippi River Hydrology

Within two years the Secretary of the Army would conduct a study of Upper Mississippi River Basin hydrology to determine the systemic effects of existing structural flood control measures. Ten million dollars would

be authorized for this effort.

Local Drainage Levees

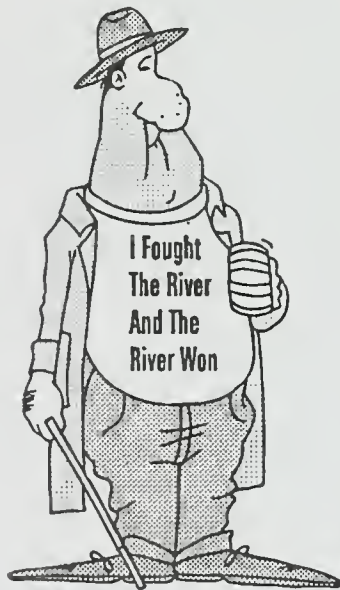
Within one year the Secretary of the Army, in consultation with the Environmental Protection Agency Administrator and the Secretary of Housing and Urban Development, would conduct a study to determine how local drainage systems may be designed and retrofitted to:

- preserve aquatic habitat,
- limit potential increases in flood discharges, and
- meet the needs of areas served by the systems.

One million dollars would be authorized for this effort.

Flood Prone Areas

Within one year the Secretary of the Army, in coordination with the Federal Emergency Management Agency Director, would conduct a study of the entire Mississippi and Missouri river basins to determine the most frequently flooded areas with the greatest loss of human life and property. One million dollars would be authorized to carry out this effort.



Flood Control Benefits Determination

Section 905 of the Water Resources Development Act of 1986 (33 U.S.C.

2282) would be amended to ensure that flood control benefits determined for projects not include benefits derived from any use of the 100-year floodplain that involves, after the date of initiation of the reconnaissance study for the project:

- construction of a new structure;
- substantial improvement to a structure; or
- any other change in a floodplain activity where the project is located that significantly increases commercial or resale value of floodplain property subject to flood damage.

Funding of Nonstructural Measures

Section 5(a) of the Act entitled "An Act authorizing the construction of certain public works on rivers and harbors for flood control, and for other purposes", approved August 18, 1941 (33 U.S.C. 701n(a)), is amended to allow the Secretary of the Army to:

- use emergency funds to replace flood control measures damaged or destroyed by flood with nonstructural measures;
 - combine emergency funds with funds available from other Federal programs, and funds available from State, local, and private sources to complete nonstructural flood control measures;
 - use emergency funds to develop mitigation plans for areas that provide for carrying out nonstructural measures to reduce damage in the event of future flooding;
 - use not less than 15% of all funds expended for each fiscal year for the purpose of flood control to study, design, construct, and implement nonstructural measures;
 - apply to the WRC and receive a waiver from the minimum funding level if there are an insufficient number of appropriate nonstructural measures on which to expend the full amount of the funds; and only to the extent that the minimum funding level cannot be met because of the insufficiency;
 - cost share 75% of an activity relating to nonstructural measures.
- Non-Federal interests with respect to such measures shall provide all land, easements, rights-of-way, dredged

material disposal areas, and relocations necessary for such measures, but shall not be required to contribute any amount in cash during the measure's construction or implementation.

Levee Maintenance and Repair

Section 5(a) of the Act entitled "An Act authorizing the construction of certain public works on rivers and harbors for flood control, and for other purposes", approved August 18, 1941 (33 U.S.C. 701n(a)) (as amended by section 108), is further amended as follows:

Levee Maintenance and Repair:

Except as provided in subparagraph (B), the Secretary of the Army shall coordinate and carry out repair and rehabilitation of a levee, after the levee is damaged by a flood or other natural disaster, if the State or local interest with respect to the levee:

- participates in the national flood insurance program;
- carries out routine levee operation and maintenance and upkeep;
- in the case of a levee that provides 100-year flood protection, requires all protected properties to comply with the national flood insurance program;
- in the case of a levee that provides less than 100-year flood protection, requires insurance on all protected structures and crops;
- with respect to the repair and rehabilitation, meets the cost-sharing requirements for flood control projects specified in section 103(a) of the Water Resources Development Act of 1986 (33 U.S.C. 2213(a)), except that the minimum non-Federal share shall be 20%;
- provides for appropriate environmental enhancements to the land protected by the levee, in coordination with appropriate Federal and State agencies;
- does not raise levee height immediately preceding or during a flood without prior agreement of the State and the Army Corps of Engineers; and
- in the case of a levee not previously subject to the Army Corps of Engineers engineering standards (as of the day before the date of the

damage), brings the levee into compliance with the standards.

Ineligible Levees: A levee shall not be eligible for Federal assistance under subparagraph (1) if the Secretary determines that the levee is:

- in a hydrologically inappropriate location, as determined pursuant to studies conducted under this Act;
- inconsistent with the Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies after its revision by this Act, or
- should be replaced with 1 or more nonstructural measures.

Levee Owners Manual: Within one year the Secretary of the Army shall prepare a manual describing Corps of Engineers' maintenance and upkeep responsibilities necessary for a non-Federal interest to receive Federal assistance under this paragraph, including responsibilities relating to compliance with the Principles and Guidelines after its revision under this Act. A copy of the manual would be provided to each non-Federal interest receiving Federal assistance under this paragraph.

Prohibition of Delegation:

Preparation of the levee owners manual shall be carried out under the personal direction of the Secretary of the Army and may not be delegated below the position of the Assistant Secretary of the Army having responsibility for civil works.

Local Cost-Share Credit for In-kind Contributions:

In meeting cost-sharing requirements non-Federal interests may:

- accept contributions of funds, materials, services, and other items of value, and in-kind contributions, for the purpose of providing a portion of the project's non-Federal cost share; and
- provide non-cash contributions.

Determination of Value: The value of noncash contributions credited towards the non-Federal cost share would be determined in advance by

mutual agreement of the Corps of Engineers and the non-Federal interest. One million dollars would be authorized to carry out this section.

Missouri River Floodway Project

To improve riparian habitat and reduce flood losses along the Missouri River, the Secretary of the Army would pay the Federal share (80%) of purchasing, from willing sellers, land along the Missouri River between Sioux City, IA, and St. Louis, MO. In determining land purchases the Secretary would consult with the Secretaries of Interior and Agriculture. Eight million dollars would be authorized to carry out this section for each of fiscal years 1995 through 2004.

Buy-Out Funding

In each fiscal year, the Secretary of the Army would purchase land or easements and relocate willing sellers in floodprone areas, or areas protected by flood control structures that repeatedly fail. To the maximum extent practicable, the Secretary would:

- combine funds made available under this section with funds of other Federal agencies available for the same purpose; and
- cooperate with other Federal agencies to identify areas that, if purchased, would be available to achieve multiple Federal purposes, including flood damage reduction, decreased repair and rehabilitation of flood control structures, and environmental enhancement.

Twenty-five million dollars would be authorized to carry out this section for each fiscal year, to remain available until expended.

Watershed Management

Section 2 of the Act entitled, "An Act authorizing the construction of certain public works on rivers and harbors for flood control, and for other purposes", approved June 22, 1936 (33 U.S.C. 701b), would be amended to require the Secretary of the Army to collaborate with Federal, State, and

local agencies during the planning, design, and construction phases of all flood control projects to adopt a watershed-wide approach to flood loss reduction.

Environment and Recreation

The Act would establish Congressional recognition for:

- rivers and reservoirs of the United States as principal sources of water-based recreation;
- water resources as habitat for numerous species of animals and plant life;
- water resources as important ecosystems whose delicate balance is critical to sustaining and preserving the environment and natural resources of the United States;
- recreation and environmental protection of water resources as proper activities for the Federal Government in cooperation with States, political subdivisions of States, and local governments; and
- recreational opportunities and protecting the environment as missions of the Army Corps of Engineers of at least equal import to provision of flood control and navigation along inland and shoreline waters and harbors and ports of the United States.

Environmental Improvement

Section 1135(b) of the Water Resources Development Act of 1986 (33 U.S.C. 2309a(b)) would be amended to allow not more than 80% of the non-Federal share to be in kind, fairly evaluated, including a facility, supply, or service that is necessary to carry out the modification. Also the Secretary of the Army would annually conduct a review of not fewer than 5 flood control projects, and not fewer than 5 navigation or other projects, constructed or assisted by the Secretary:

- in accordance with section 1135 of the Water Resources Development Act of 1986; and
- to determine the need for environmental restoration projects in river systems impacted by the

construction or operation of the flood control, navigation, or other projects. Each annual review would include geographically representative projects of all flood control, navigation, and other projects, constructed or assisted by the Secretary. Within 18 months and every 2 years thereafter, the Secretary would report to Congress on results of the reviews, including their recommendations.

Aquatic Ecosystem Restoration

Cost Share: The Secretary would be authorized to pay 75% of the cost share of projects and project components whose primary purpose is restoration of an aquatic ecosystem or a portion of an aquatic ecosystem. Any portion of the project's non-Federal cost share (including any portion of a feasibility plan) may be in kind, fairly evaluated, including a facility, supply, or service that is necessary to carry out the project. Non-Federal interests would not be required to provide all land or interests in land (including any right-of-way) with respect to the project. The Federal cost share of a project or component that is of critical national interest would be 100%.

Nationally Critical Projects: A project would be considered of critical national interest if it:

- provides national benefits by protecting and restoring the structure, function, and hydrologic regime of an aquatic ecosystem; and
- is located on Federal land or is approved by the Directors of the U.S. Fish and Wildlife Service, National Marine Fisheries Service, or National Park Service.

Reconnaissance Studies: Upon request of, and in coordination with, potential non-Federal interests and the Administrator of the Environmental Protection Agency; or the Directors of the U.S. Fish and Wildlife Service, National Marine Fisheries Service, or National Park Service, the Army Chief of Engineers may carry out reconnaissance studies for aquatic restoration projects of critical national interest. Fifteen million dollars are

authorized for this purpose each fiscal year.

Recommended Projects: Congress may not appropriate funds for an aquatic ecosystem restoration project unless the project receives a favorable recommendation from the Army Corp's Chief of Engineers and the Secretary of the Interior under the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.).

Other Agency Contributions: In the case of aquatic ecosystem restoration projects assisted under this section, the Secretary would coordinate with the heads of other Federal agencies to determine whether conservation funds available to the agencies can and should be used to contribute to the project. The Secretary would include such funds as part of project design if the project is approved by the contributing agency. Such funds would be subject to cost-sharing requirements applicable to their source, not to this Act.

Land Ownership: For aquatic ecosystem restoration projects assisted under this section, land or an interest in land may be held or acquired by any person or instrumentality of government, including any Federal instrumentality, considered by the Army Corps of Engineers to be capable of fulfilling the responsibilities of holding and maintaining the land or interest in a manner necessary for successful project completion and operation.

Multi-Purpose Projects: If aquatic ecosystem restoration is only one project purpose, the provisions of this section concerning cost-sharing, consultation, and approval would apply to each project component justified in whole or in part by that component's contribution to aquatic ecosystem restoration.

Assessment of Benefits: For water resource projects carried out or assisted by the Secretary, fish and wildlife benefits would not be considered segregable benefits, but would be considered part of aquatic ecosystem preservation or restoration

benefits.

Impact Assessments: Environmental evaluations of water resources projects carried out or assisted by the Secretary that affect the physical structure or hydrology of a river, lake, estuary, wetland, or any other component of an aquatic system, would be based on the project's impact on all functions of the aquatic system, including the impact on each aquatic organism and terrestrial organism that uses the aquatic system, on water quality, and on downstream and upstream hydrology. In carrying out such evaluations, the Secretary would consider the risk that the biological impact of an adverse alteration of the natural hydrology and physical structure of an aquatic system will be different and greater than the impact that can be predicted using scientific knowledge as of the date of the evaluation.

Mitigation: In the case of a water resources project that has an adverse effect on the natural hydrology or physical structure of an aquatic system, the focus of mitigation would be on efforts to restore the hydrology or structure of the natural system to replicate the acreage and functions lost or negatively impacted.

Technical Guidance: Within one year the Chief of Engineers of the Army Corps of Engineers, in consultation with the Directors of the U.S. Fish and Wildlife Service and National Marine Fisheries Service, and the Administrator of the Environmental Protection Agency, would issue technical guidance for implementation of this subsection.

Revision of Principles and Guidelines

The Secretary of the Army would establish an advisory council to be known as the "Principles and Guidelines Advisory Council" (PGAC) consisting of the Secretaries of Army, Interior, and Agriculture; and 3 members of the public with expertise in water resources planning. The PGAC would terminate within 18 months, unless it is temporarily extended by the Secretary after

consultation with appropriate committees of Congress. Within one year, in consultation with the PGAC, the Secretary would revise the Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies issued on March 10, 1983, by the WRC to:

- establish economic and environmental benefits as co-equal objectives of water resources planning, for the purpose of reviewing projects constructed by the Secretary;
- encourage enhancement of economic development; and
- encourage restoration and improvement of environmental quality through management, conservation, preservation, creation, restoration, and improvement of natural and cultural resources and ecological systems.

The Secretary would use the revised Principles and Guidelines to revise all planning manuals used by the Secretary for operation and construction of water resources projects as soon as practicable, but not later than 18 months after the date of enactment of this Act.

Recreation and Environmental Projects

In each fiscal year, the Secretary of the Army would provide for construction of small projects that:

- are for recreation and environmental restoration and related purposes;
- are not specifically authorized by Congress; and
- the Secretary determines are advisable.

The amount provided for such projects would be sufficient to complete Federal participation in the project, except that not more than \$5,000,000 would be provided for a project at a single location. Also, the Secretary may not commit to any additional improvements, after project completion, to ensure the project's successful operation. And, the Secretary would not be required to prepare a survey or report prior to carrying out a project under this



section. From any amounts made available before, on, or after the date of enactment of this Act for general construction projects of the Department of the Army, the Secretary may allot \$40,000,000 for each fiscal year to carry out this section. These funds would remain available until expended.

Cost Share for Recreation Projects

Section 103(c)(4) of the Water Resources Development Act of 1986 (33 U.S.C. 2213(c)(4)) is amended to raise the federal cost share from 50% to 75% and to allow determination of the non-Federal share to include the fair market value of any land, easement, right-of-way, dredged material disposal area, or relocation provided by the non-Federal interest.

Local Cost Share for Environmental and Recreation Projects

Section 203 of the Water Resources Development Act of 1992 (33 U.S.C. 2325) is amended to allow non-Federal interests to accept contributions of funds, materials, services, and other items of value, and in-kind contributions, as a portion of the non-Federal project cost share; and provide noncash contributions. Value of such contributions would be determined in advance by mutual agreement of the Army Corps of Engineers and the non-Federal interest. The non-Federal interest would pay not less than 5% of the non-Federal share in cash.

Rebuilding Recreational Facilities After Reservoir Drawdowns

If a recreational facility at a water resources project carried out or assisted by the Secretary of the Army

becomes unusable or unsafe for more than 90 consecutive days because of water release or reservoir drawdown for any purpose, the Secretary of the Army may, at full Federal cost, restore the facility, or build a new recreational facility of a comparable level of development at the lower reservoir level. The Secretary would seek contribution for the Federal cost from any agency that directs or requests the water release or drawdown, including the Departments of Interior and Energy.

The Baucus Bill (S. 2418) thus includes many provisions critical to reducing flood damages and to the restoration of natural riverine ecosystems. Unfortunately, S. 2418, referred to the Senate Committee on Environment and Public Works on August 24th, was essentially killed for this year (in late September) by a coalition of senators, led by Robert Dole (R/KS) and Christopher Bond (R/MO). Reasons for this action included (1) the lateness of the session, (2) concern over "takings" of floodplain farmland, and (3) undoubtedly a desire to delay action until after the November elections.

However, S. 2418 remains under review at many levels of government, and efforts are underway to incorporate many of its provisions into a new Water Resources Development Act (WRDA), anticipated for passage either later this Congressional year or early next. Many revisions to the original language (summarized here) are expected during the legislative process.

At present there seems to be broad support for revitalizing the WRC, but under a new name, the Water Resources Coordinating Committee (WRCC); the latter to eliminate any political baggage that the WRC name may carry. There is also strong interest in using existing institutions, rather than creating the Coordinating Committees recommended by Baucus. The legislative process will undoubtedly continue over the winter, and river supporters, nationwide, will want to be involved!

Big Muddy Refuge

The first 4,500 acres of the, "Big Muddy Refuge", a national wildlife refuge along the lower Missouri River has been purchased by the U.S. Fish and Wildlife Service (FWS). The land called Lisbon Bottoms (2,300 acres) and Jameson Island (2,200 acres) lie just upstream for Interstate 70. The two tracts were severely damaged by the 1993 floods, and their former owners were denied help from the Army Corps of Engineers for levee reconstruction.

Winston Huttzell, Howard County Levee Commissioner, said most of the land was too severely damaged to put back into production. "It was cut into, had sand washed up and there were deep holes", he said. "It would have gone back to a wildlife area even if they (FWS) hadn't purchased it."

The FWS is also targeting lands where the U.S. Department of Agriculture has purchased flood easements under the Emergency Wetlands Reserve Program (EWRP). Under the EWRP farmers are paid about \$700 per acre for flood easements. The FWS is prepared to pay up to \$300 more per acre to gain fee title to the land.

The FWS plans to allow regrowth of bottomland forests, most of which had been cleared for agriculture. The purchase enables the FWS to preserve and restore the natural river floodplain, manage fish and wildlife habitats and provide for compatible public use. The land will also provide for conveyance and storage of flood waters during future floods, demonstrating the utility of open, green space in reducing flood losses.

Source: Columbia Daily Tribune, Columbia, MO, Sept. 28, 1994.

Harvesting Tax Dollars

Farmers were heavily impacted by the 1993 floods (especially floodplain farmers along the Missouri River), and the issue of floodplain use for private economic gain vs the public interest in reducing flood losses, maintaining

green space, and enhancing environmental resources has become a national major controversy.

Representative Richard Durbin (D/IL), quoted in a recent St. Louis Post-Dispatch article, summed up a portion of the economic controversy as follows: "Some farmers were defrauding taxpayers of millions of dollars and jeopardizing the crop insurance program for honest farmers. They were planting crops in areas and at times of the year when they could not grow. The plantings were designed to harvest money from the Treasury, not crops from the field."



Durbin reached this conclusion after scanning computerized maps last year showing areas of the country where farmers planted and insured the same types of crops year after year, only to see them repeatedly fail, and then file for federal crop insurance payments on their losses. Crop insurance covers losses from flooding, drought, hail and other weather-related conditions.

Angered by such incidents, Durbin said Congressional and Department of Agriculture officials have put into effect a rule that farmers whose crops have failed 70% of the time or more would be declared ineligible for crop insurance. Or they would have the option of paying higher crop insurance premiums.

The crop insurance program has been buffeted by huge losses, fraud and faulty administration. An audit made public last September by the Agriculture Department's Office of the Inspector General estimated that private insurance companies had overpaid loss claims by as much as \$82.8 million in crop year 1991 – or

roughly 8.7% of the total \$952.4 million paid to farmers. One research group estimated that since 1985, the crop insurance program has cost taxpayers nearly \$10 billion more than farmers paid in premiums. Along the Missouri River this summer (1994) it was not uncommon to see crops planted in deep sands deposited by last year's flood; with seemingly little hope of successful production.

Nationwide, 1 of every 3 farmers bought crop insurance in 1993. In Missouri (the hardest hit state by the 1993 flood) only 24% of farmers participated, about 1% of farmers in St. Charles County (the hardest hit county) bought crop insurance. Time and again in recent years, Congress has undermined the crop insurance program by giving – under a separate program – billions of dollars in free disaster aid to farmers who didn't buy crop insurance.

Many farmers – already convinced that premiums were too high – responded by ignoring crop insurance. They gambled on the government bailing them out, and the evidence suggests they guessed right! In the six years from 1988 through the Great Flood of 1993, the federal government has paid \$8.8 billion in disaster aid for crop losses. Farmers in Missouri and Illinois got \$265.8 million and \$501.8 million, respectively.

In the fall of 1993 the Soil Conservation Service (SCS) estimated that scour damages occurred on about 20% of the flooded cropland, and devastating damage at major levee breaks occurred all along the Missouri and Mississippi rivers. Some scour holes exceeded 50 feet deep and covered more than 50 acres. Seventeen hundred miles of drainage ditches were filled with sediment or debris.

All along the Missouri River floodplain, sand deposits stripped soil of its fertility. Cropland damages were estimated as follows:

- 455,000 acres (60% of Missouri River floodplain cropland were

damaged by sand deposits and scouring. The sand deposits total more than 546 million cubic yards;

- 237,000 acres (52% of the damaged acreage in the floodplain) were covered with up to six inches of sand;
- 77,500 acres (17% of the damaged acreage) were covered with 6-24 inches of sand;
- 59,000 acres (13% of the damaged acreage) were covered with more than 24 inches of sand; and
- 81,500 acres (18% of the damaged acreage) were damaged by scouring.

The SCS estimated reclamation costs as follows:

- Over \$500 million to reclaim cropland by incorporating or removing sand deposits in the Missouri River floodplain alone;
- \$190 per acre to restore fertility to flood-damaged cropland;
- \$5.6 million to repair levee breaks on upstream tributary river systems and to secondary levees along the Missouri and Mississippi rivers. This estimate does not include the costs to repair mainstem levee breaks along the Missouri or Mississippi rivers; and
- \$10.8 million to remove sediment and debris from ditches.

Instead of putting some of that land into green space and environmental use, it now appears that most "willing sellers" have disappeared, and instead, the government will subsidize restoration (at a cost of several hundred million dollars), essentially "putting Humpty Dumpty back together again". Humpty Dumpty has fallen off the shelf before – during almost every major flood, and most certainly will fall off again with the next

great flood (which could come as early as next year). Will we ever learn!

On a brighter note, Congress now appears ready to approve a revamping of crop insurance and disaster aid programs, both administered by agencies within the Department of Agriculture. The changes are expected to encourage more farmers to buy crop insurance and make it harder for Congress to continually bail out those who don't. Both the House and Senate versions would require the Federal Crop Insurance Corporation to offer farmers some protection against "catastrophic risk" for a fee of up to \$100, and incentives for farmers to buy additional subsidized coverage. They also try to ensure broad participation in catastrophic coverage by requiring farmers to buy the insurance if they are to get federal subsidies and other farm benefits.

The reform bills also seek to erect a parliamentary hurdle that would make it harder for Congress to pass costly annual emergency disaster aid programs for crop losses. They would do this by requiring Congress, in the future, to cut the federal budget in order offset increased disaster spending. No such restriction has been in effect in recent years, and all disaster relief payments made for the 1993 flood were "off budget spending". In other words disaster spending had no effect on on-going government spending. Instead, the flood disaster payments simply contributed to the national debt!

The Baucus Bill (reported on in the previous article) addresses other parts

of the issue, but (as reported) was put on hold in late September by a group of senators led by Dole (R/KS) and Bond (R/MO).

Sources: St. Louis Post-Dispatch by-line article by Louis J. Rose and USDA, Soil Conservation Service, Columbia, MO

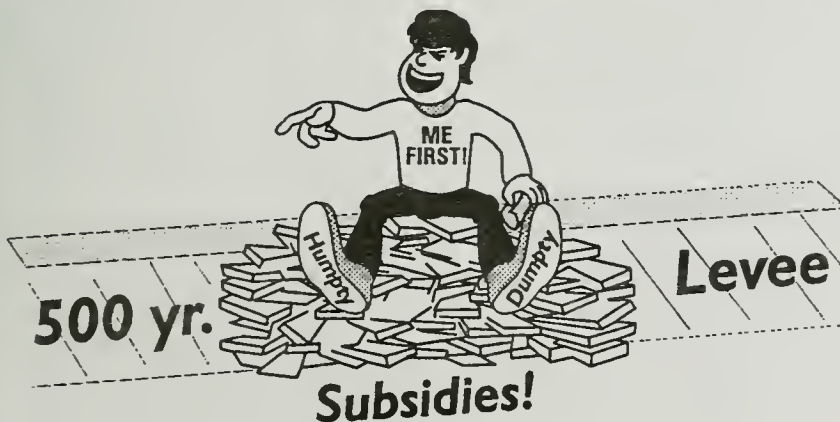
North Dakota's Missouri The Way It Was/the Way It Is

Portions of the following are summarized from an article sent to us by one of our readers. It offers an alternate view of North Dakota's Missouri River – "the way it was and the way it is".

Historians insist that if we are to understand and appreciate the present, and plan wisely for the future, we must be knowledgeable of the past. It has been 40 years since the Missouri River was shackled by large dams, and before we judge the present it is important to remember the river the way it was.

In the pre-dam era, the river began each new year at a very low level since winter rain was nonexistent and snow melt at this northern latitude was minimal. Winter river stages at Bismarck averaged only three to five feet. Low temperatures caused 3 to 4 feet of ice to form, or even more if little insulating snow was present. The frozen winter river became an important transportation artery, especially before we had our modern road and rail systems. Tracks were laid and trains crossed on the river ice at Bismarck until the bridge was built.

Spring was always a painful time for the river in North Dakota. Normally, thawing temperatures came sooner in eastern Montana than in North Dakota and large quantities of water filled the river when the North Dakota ice was still frozen hard and in no mood to move. Ice jams and sudden flooding resulted. Almost as if it wanted one last fling before being tamed, the river demonstrated how devastating ice jams could be in the spring of 1952, the last year before the Garrison Dam



was closed.

All the required conditions were present. High snow falls and early and sudden snow melt in eastern Montana, a very cold winter, low snow fall, a relatively high winter river level, and low spring temperatures in North Dakota resulted in a large amount of ice not easily moved. High flows from Montana attempted to move out the ice but merely caused an ice dam. Increasing water levels finally floated the ice dam a short distance downstream where the whole process was repeated. This continued throughout the entire state and into South Dakota. When the ice dam just north of Bismarck moved out, water flows at Bismarck reached 500,000 cubic feet per second (cfs) and a 27.9 river stage, the highest since 1917. Compare this to flows of 10,000 to 30,000 cfs and 5 to 13 foot river stage we now experience!

Flooding was severe along the Missouri River. Property damage on the high bottom lands was devastating. Most buildings, fences and other improvements were destroyed and most floated downstream. Many deer and other wildlife were unable to swim to high ground and were lost. However, because of ample warning by the weather bureau no human lives and few livestock were lost. The huge flood did serve one important function. It deposited water-borne soils on the land, thereby continuing the formation of the high bottom land.

Floods of this size were relatively rare. The past comparable ones occurred in 1881, 1884, 1887, 1910, and 1917. However, spring flooding was always possible and bottom land dwellers were very uneasy until the Missouri "went out".

The early spring runoff and the river ice break up came and went rather swiftly and the river returned to modest river stages. Snow melt in the mountains of Montana and Wyoming then began and the "June rise" of the lower Missouri resulted. Depending on the amount of mountain snows and spring temperatures, the June

rise occurred from late May through July and caused river stages of about 10 to 14 feet at Bismarck. These levels did not flood most bottom land so it was not disruptive. However, the river carried a saturated amount of soils, and flooded wooded sand bars were rapidly aggregated. Much of the formation of new land occurred at this time. The ice jam floods, which happened only rarely, completed the building of the high bottom land. The high summer river levels and the inundating of sand bars prevented any nesting of shore birds such as Piping Plovers or Least Terns. This was not their natural habitat prior to 1953.



The fish population was what might be expected of this turbid river. Catfish, bullheads, carp, sturgeon, garfish, shiners, suckers, ling, sauger and occasionally a northern pike and walleye, which likely came out of some of the tributaries, made up the fishery. Like any mud bottom river, the Missouri eroded its banks and the main channel migrated within the river valley. But this process was gradual. Since the ice jam floods came in early spring when the river banks were frozen, little or no bank erosion occurred. The June rise caused most of the bank erosion. The water then was already saturated with suspended soil, so the ability of the water to carry away soil was limited. The formation of high bottom land by the June rise likely took hundreds of years.

The natural river was honest though. It always returned as much land as it took so the amount of high bottom

land and channel always remained the same.

The natural river was forever changed with installation of the Pick-Sloan Missouri River mainstem dams. Congress had just authorized the Flood Control Act of 1944, and most North Dakotans were pleased with the Pick-Sloan Plan. They were told it would stop the devastating floods and provide affordable electric power for rural electrification in exchange for the 550,000 acres of land lost behind the dam. In addition, the project promised water needed in eastern North Dakota and development of 1.5 million acres with irrigation. Of course, hundreds of landowners and many small towns would be forced to sell their land and move. But this was an era of post World War II nationalism. Huge federal projects, such as the Tennessee Valley Authority, were being constructed. Most landowners relocated and towns moved with relatively little objection. There were few environmental constraints.

The Garrison Dam (Lake Sakakawea) was closed in 1953, the Oahe Dam (Lake Oahe) in 1958 and three smaller dams on the main stem in South Dakota were soon completed. The Missouri River was channelized from Sioux City to St. Louis at a cost of \$750,000 per mile. This channelization provided for barge navigation, flood control, and complete streambank erosion protection for 500 miles of the lower river.

The mainstem dams, as providers of flood control, hydroelectric power and storage of water for recreation and navigation have been a great success. According to the Corps, approximately \$75 million of hydroelectric power is generated annually. To date, \$7 billion of downstream flood damages have been averted including \$4 billion during the summer flooding of 1993. Except for the recent drought years, water was available for navigation and recreation needs.

However, several problems that affect North Dakotans do exist. We are all

familiar with the upstream-downstream water controversy. During drought years, North Dakota wants to retain its water for recreation and the downstream interests want it for navigation. During wet years North Dakota wants to get rid of excess water and downstream states want less. Perhaps this controversy will never be resolved to the satisfaction of all. However, North Dakota must strive to accommodate its best interests.

It is interesting to note that downstream navigation has not developed as originally projected. According to recent Corps of Engineer's analyses, it is of less economic value to the lower states than the recreation industry is to the upstream states! Navigation generates \$16 million annually, while recreation generates \$28 million for North Dakota, South Dakota and Montana.

Another serious problem is the development of deltas in the upper reaches of Lake Sakakawea and Lake Oahe. They are caused by deposition of river-borne soils where flowing river water meets still lake waters. The deltas cause rising river levels and higher water tables in adjacent lands. Deltas can cause or aggravate ice jam formations and subsequent flooding. Ice choked rivers have difficulty traversing the shallow water of the delta areas. Ironically, the recent drought and subsequent low lake levels, allowed the river to scour and deepen the river channel through the deltas, thus temporarily reducing effects of the deltas.

In the Williston area, high water tables caused by the deltas have ruined or endangered much irrigated land and are affecting the city's water plant intake. The Lake Oahe delta, south of Bismarck, is also raising water tables and may in the future, severely affect some adjacent land. There have also been moderate ice jam formation and flooding apparently caused or aggravated by the delta. There may be no economically justifiable method of curing the delta problem and it will increase in future years as the deltas

continue to grow.

The 70 miles of free flowing river from the Garrison Dam to the Lake Oahe head waters have also been affected by installation and operation of the Pick-Sloan project. The first years after closure of the Garrison Dam saw the end of ice jams and June rise flooding.

The beautiful clear water discharged seems to have transformed the rampaging "Big Muddy" into an idyllic stream. The releases of clear water, which have the ability to suspend and carry large amounts of soil, have resulted in stream bank erosion and loss of hundreds of acres of valuable bottom land. Of course the Missouri River always eroded its banks and carried away soil. But, during the June rise and the occasional high ice jam floods, it always built back as much land as it took.

This bottom land replacement no longer happens. Now the erosion is quite swift with hundreds of acres of valuable bottom land being lost since Garrison's closure. With no high flooding and little water-borne supply of soil from upstream there are only low, almost useless sandbars being rebuilt.

The Corps of Engineers stated in their Report for Water Resources development of the Missouri River in 1977 that "this bank erosion results in a permanent net loss of high valley lands that are never replaced elsewhere in the valley as in the era before the reservoirs. High valley lands are being converted to river channel and sandbar areas while the width between the high banks continues to grow. This process, unless halted, would eventually transform the present river into a wide area of sandbars and channels, occupying an increasing portion of the valley width between the high bluffs."

Recognizing the problem, during the period from 1968 to 1976, Congress authorized and appropriated funds for bank protection projects. These appropriations were made during an era when water projects were more

easily funded. These projects were never considered to be part of the Pick-Sloan project, and the Corps in spite of developing figures and reports on this reach, has never actively sought funding for its protection. The Corps continues to evade responsibility for correcting problems of the Pick-Sloan project.

Another interesting change in the river is the transformation of fish species. The cold, clear water has caused the demise of the catfish and carp types and in its place are the walleye, sauger and salmon species. Recreational fishing on the Missouri lakes and flowing river has developed beyond expectations. Water released from the bottom of the Garrison Dam is consistently between 34 to 40 degrees year around. This has reduced the river's winter ice thickness and prevented any use of the river during the winter because of the danger of thin ice.

Open water through the winter for several miles downstream from the dam entices ducks and geese to stay here longer into the winter. The birds may die when severe winter storms arrive. In the summer, the cold water does not warm enough to permit swimming even during August at Bismarck.

Since dam closure, the flowing river is changing. Any sandbars not covered by water in the summer months are rapidly covered with bar willows. These willows trap water-borne sediment at higher flows and gradually change sandbars into wooded areas. The result is a narrower channel with no bare sandbars exposed except during very low flows. Eventually, summer nesting habitat for the Least Tern and Piping Plover will no longer exist, just as before the era of dams.

Has the Pick-Sloan project been good for North Dakota? If the project had not been built the occasional ice jam floods would have discouraged any development in the valley except for agriculture and recreation. However those 550,000 highly productive acres would have had a significant positive

impact on our economy. The "settlers" along the flowing river now have flood control, and development has dramatically increased. However, development will be jeopardized or lost if bank erosion is allowed to continue and the Corps prediction of the loss of all high bottom land from bluff to bluff happens.

North Dakota has received few benefits from the promised Garrison Diversion Project. It does not receive an appropriate share of the hydropower produced at the dams, and the upstream/downstream controversy has not been resolved.

Regarding the latter issue, the Corps of Engineers has been holding public hearings up and down the River over the past few weeks on proposed changes to the Master (flow control) Manual. These changes would attempt to balance upstream and downstream interests, as well as enhance consideration for wetlands and endangered species issues.

In the past, downstream navigation interests have been the top priority, and at the hearing held in Jefferson City, Missouri Governor Carnahan (siting few specifics) called the Corps' plan "...a disaster to the environment, to agriculture, to energy conservation and to Missouri's long tradition of river commerce". At the same time Norm Stucky of the Missouri Department of Conservation said, "We applaud the Corps of Engineers for recommending an alternative that acknowledges the importance of the river's fish, wildlife and wetland resources". So the controversy over how the river should be used remains alive and well, even within the State of Missouri itself!

Arguments raised at the meeting against the plan suggested that any significant change in river management would entirely eliminate barge traffic. This may be true because the economics and justification for barge traffic (or lack of it) on the Missouri River has been coming under growing public criticism.

The basis for much of Missouri's criticism is a fear that upstream states will sell water out of the basin, as has been done in the west. However, North Dakota representatives present at the meeting testified that their state has no intention of selling water out of the Missouri River.

Farming organizations were said to have bussed in loads of floodplain farmers in to testify at the Jefferson City hearing. The American Fisheries Society comments on the Corps' preferred alternative suggests incorporating the following revisions to more closely duplicate lower Missouri River pre-development hydrology:

- A gentle rise in river stage in the spring through June to improve fish recruitment. The proposed operation does not encompass the spawning period of many of the Missouri River fishes...Spawning by riverine fish species is tied to water temperature and spring stage rises which trigger movements to spawning areas, provide access to backwaters, off-channel habitats and floodplain lakes, and allow movement back to the river by the adult fish,
- Reduce flows during the mid-summer to ensure fish recruitment. Young-of-the-year fishes require nursery areas of shallow, low velocity water in the summer and fall, and
- Increase flows in the fall during November to allow some nursery areas to reconnect with the river. If the fish reared in the spawning areas are not allowed back to the river, they may perish in off-channel areas as flows recede.

So the controversy continues, and isn't expected to end anytime soon.

Source: *North Dakota Water*, June 1994, from an article written by Andy Mork, Chairman of the Morton County Water Resource Board; *Columbia Daily Tribune*, Columbia, MO, Oct. 5, 1994; and Missouri Chapter American Fisheries Society.

Little Bighorn River Restoration

An 18-minute video prepared for the Environmental Protection Agency (EPA) shows techniques used for restoration of the Little Bighorn River channel and adjacent floodplain in compliance with an EPA issued administrative order, and in accordance with an EPA approved restoration plan. It also describes enforcement actions under taken.

A two mile reach of the River was bulldozed and channelized by the Sunlight Ranch in March and April 1987. The channel was straightened, pool and riffle complexes removed, and streambed gravel dikes constructed to contain river flow. Channel work was done without a Clean Water Act (CWA) 404 permit. EPA issued the Sunlight Ranch (e.g. Sinclair Oil Company) a CWA Administrative Order on May 5, 1987.

Using aerial photography the EPA documented the nature and extent of bulldozer work, and Sinclair hired a consulting engineer to prepare a restoration plan. EPA requested evaluation of the plan by federal and state agencies, the Crow Tribe, the Big Horn County Conservation District, and other interested parties. The final plan was approved and restoration began in March, 1989. On August 22, 1989, EPA notified Sinclair that the restoration was undertaken and completed in accordance with the EPA-approved restoration plan, resolving the issue of mandatory CWA relief.

Subsequently, the U. S. District Court in Montana ruled that the defendant had discharged material into navigable waters without a 404 permit in violation of the CWA and found Sinclair liable for violation of this statute. Finally on August 28, 1991, the Court issued a consent decree ordering that Sinclair pay a civil penalty in the amount of \$15,000.

River floodplain restoration involved restoring the meandering characteristics of the channel, constructing pools, riffles, and gravel bars, protecting eroding stream

banks, and reestablishment of streamside and floodplain vegetation.

For more information contact: John C. Peters, Environmental Protection Agency, Region 8, Denver, Colorado.

Large Dams, False Promises

Large Dams, False Promises is a video recently released through coordination of the International Rivers Network. The video exposes the devastating impact of large dams, now being built at a rate of over 200 a year throughout the world, causing immeasurable destruction to riverine ecosystems.

By bringing together the work of more than a dozen international film makers, "Large Dams, False Promises" documentary producer David Phinney delivers a pointed commentary on this continuing tragedy through the stories of India's Sardar Sarovar Dam, Brazil's Balbina Dam and China's planned Three Gorges Dam.

Combined with observations from Goldman Environmental Prize recipients Medha Patkar and Dai Qing, as well as other notable environmentalists, "Large Dams, False Promises" also challenges the common assumption that these dam projects provide low-cost electricity and efficient water management – the principal reasons used by special interests who rush to complete such projects with little regard for their long-term human and ecological consequences.

For more information contact: International Rivers Network at (510) 848-1155. Videos cost \$30 each.

Landowners vs. Endangered Species

In an ongoing attempt to insulate the Endangered Species Act from landowner criticism, Interior Secretary Bruce Babbitt announced a new series of reforms on August 11. The new policy assures that when landowners agree to set aside land for

endangered species under a habitat conservation plan, the government cannot seek additional concessions so long as the plan is in effect, even if a species' needs changes over time. The term of a habitat plan can last as long as several decades.

"We're telling landowners that a deal is a deal," Babbitt said. "The key issue for non-federal landowners is certainty," Babbitt said. "They want to know that if they make a good faith effort to plan ahead for species conservation, and do so in cooperation with the relevant agencies, then their plan won't be ripped out from under them many years down the road." The new policy allows the department to make changes to a conservation plan only in the face of "extraordinary circumstances." If further mitigation is deemed necessary to provide for the continued existence of a species in the wild, the primary obligation for such measures will rest not with the plan's adherents but with the federal government.

The move received broad praise from environmentalists and industry leaders. Babbitt and environmentalists hope the move will encourage developers to willingly enter into habitat conservation plans. "Successful habitat conservation plans are win-win situations," said John Sawhill of The Nature Conservancy. "Economic activity continues and our heritage is protected for future generations to enjoy." Since property rights issues have dominated Endangered Species Act discussions this year, many environmentalists endorse the move while others are more cautious.

Business interests, however, have hailed the move as a strong first step, but many leaders are seeking more sweeping reforms of the law. Nancy Macan of the National Endangered Species Act Reform Coalition stressed the need to see the details of the policy before proclaiming a victory for landowners. "One concern that I still have is for the small landowners" who may lack the resources to go through the habitat conservation planning

process. "We're pleased that Interior is working on it and we're anxious to see the details," she said.

While the administration continues to seek ways to make the Endangered Species Act more "user-friendly," opponents of the act are weighing in earlier in the process and voicing strident opposition to proposed listings and designations of critical habitat.

The Interior Department is expected to announce additional reforms in anticipation of the Endangered Species Act's reauthorization next Congress.

Source: Land Letter, Vol. 13, No. 23

Grazing Hearings

Another round of public hearings on the Interior Department's controversial rangeland reform proposal concluded in July, with no signs of compromise in sight. At four field hearings sponsored by the Senate Energy and Natural Resources Committee, ranchers turned out in force to voice opposition to the plan released in revised form by Interior Secretary Bruce Babbitt in March.

With the public comment period closing July 28, the Interior Department on June 8 sponsored 48 hearings of its own simultaneously at sites across the West. While ranchers dominated those hearings as well, the administration intends to continue to pursue reform plans this fall.

"This is not a voting situation," said George Ramey, a Bureau of Land Management range conservationist. "What emerges [from the process] will be real reform." During the hearings, ranchers spoke out against the plan's proposed grazing fee hike, government ownership of range improvements, government water rights, surcharges on leasing grazing land to other ranchers, and the make-up of new grazing advisory boards.

Despite criticism, the final plan will

look very similar to what is now on the table, Ramey said. Emphasis will be on improved range standards and guidelines, ecosystem management, and more efficient prosecution of "habitual violators" of stewardship standards. Currently it can take years to rescind a permit and oust a negligent rancher from the land, Ramey said.

While Westerners continue to claim that Babbitt is not listening to them, the Secretary "has recognized that grazing has done a lot for the land" when it is managed properly, Ramey said. A Congressional report commissioned in 1936 (during the dust bowl days) rated the health of rangeland conditions and found that 1.5% were "excellent," 14.3% "good," and 36.3% "poor or bad." A similar



1992 report, however, now ranks 4% in excellent condition, 33% in "good" condition and 13% poor. The trend for more than 18% of rangelands is an improving one, Ramey said, an indication that grazing and ecosystem health can go hand-in-hand.

Since its August 1993 release, the reform plan, which aims to bring federal grazing fees closer to market value and further improve rangeland ecosystem health, has been under constant fire from Western ranchers and legislators. A compromise legislative package was the subject of a Senate filibuster last fall, prompting Babbitt to offer a revised proposal in March.

Grazing fees, currently \$1.98/animal unit month (AUM), would rise to

\$2.75/AUM next year, \$3.50 in 1996 and \$3.96 by 1997 under the plan. The third-year increase will not go into effect until the department develops an incentive-based fee system that would give ranchers who met higher environmental standards a 30% discount, to \$2.77/AUM. Once scrapped because of concerns that it would be too difficult to administer, Babbitt resurrected the incentive idea at the request of ranching interests.

However, fourteen Western senators sent a letter to President Clinton on July 15 urging withdrawal of the plan. The letter, circulated by Sen. Conrad Burns (R/MT), reminds Clinton of his pledge to a Wyoming rancher to "take no steps that would drive ranchers off the lands." The letter quotes Clinton as saying, "I've made it clear to those working in this Administration that we should take no steps that would drive small ranchers off the land." But Burns claims the fee increase and costly regulations would do just that as many would be forced to default on their Farmer's Home Administration loans.

Western banks are reluctant to give new loans to ranchers, said Jon Doggett of the American Farm Bureau Federation. "The big cost here is not the fees but the regulations," he said. "We're opposed to the secretary's plan. He needs to scrap the whole thing. We don't see anything in the package that will enhance natural resources." Sheep farmers will be "wiped out" if the fee increase goes forward, he said.

The Interior Department will spend the next few months analyzing comments before issuing a final environmental impact statement in late fall and a final rule before the start of the 1995 grazing year in March.

Source: Land Letter, Vol 13, No. 22

Wisconsin Grazing Cost-share

The Wisconsin Department of Natural Resources (DNR) reports that intensive grazing management or rotational grazing systems are now eligible for cost-share funding for their state's farmers involved in Priority Watershed Program projects. According to the DNR, this practice can benefit water quality through reductions in soil loss, phosphorus, and organic loads from animal lots. In addition, it usually replaces row crop fields with permanent sod.

The DNR considers rotational grazing an alternative Best Management Practice (BMP), and makes decisions about eligibility on a case-by-case basis. Because rotational grazing systems usually involve extensive on-farm management changes, the DNR pays particular attention to the landowner's ability to manage such a system.

The cost-share can be applied to Wisconsin croplands that are currently contributing sediments, nutrients, or pesticides to a water resource. The practice involves a number of restrictions: streambank erosion and habitat degradation must be addressed; a grazing management plan must be developed for paddocks within riparian areas to control livestock access during critical periods; and grazing of previously ungrazed woodlots is not allowed.

At the same time, exclusion of livestock from woodland, wildlife habitat, and recreational areas is encouraged. Components eligible for cost-sharing include access lanes (including cattle crossings), fencing, pasture and hayland planting, watering systems, critical area planting, and gates. Cost-sharing is 50% and is subject to a maximum state cost-share limit of \$2,000/watering system.

The University of Wisconsin Extension (UWEX) offers a rotational grazing publication, *Wisconsin Pastures for Profit: A hands-on guide to rotational grazing* (pub. A3529). Order from UWEX Publications, Rm. 245, 30

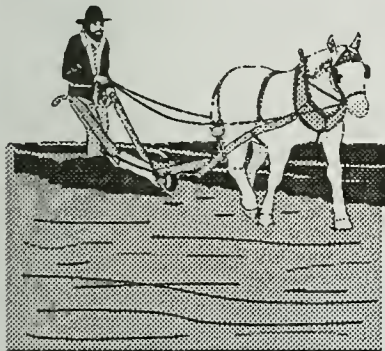
North Murray St., Madison, WI 53715.
Cost \$2.25 plus \$1.05 postage.

For additional information on Wisconsin's cost-share program contact: Don Baloun, DNR, Water Resources Management, 101 S. Webster, Madison, WI 53707. Phone: (608) 264-9222. FAX: (608) 267-2800.

Pennsylvania Manure Marketing

High land values for Pennsylvania's small farm, intense livestock operations have forced farmers to increase animal units per acre, increasing the amount of animal waste per acre used.

Crop producers in Pennsylvania's Lancaster County needed a source of nutrients for their crops. So to bring supply and demand together, Penn State Extension developed a manure marketing program as part of the Rural Clean Water Program and the Chesapeake Bay Program.



Lancaster County farmers who supply or would like to receive manure are now participating in supplier/receiver lists that facilitate manure marketing transactions, according to Extension Agent Leon Ressler. Developed to promote redistribution of manure nutrients, the lists now include almost three times as many receivers as suppliers.

Farmers on the lists reported transferring 16,270 tons of manure in 1991; that amount increased to 19,040 in 1993. Twenty-five percent of the suppliers are able to custom-apply the manure; 33% are

willing to supply the manure free if the receiver picks it up; 49% of the receivers are willing to pay for the manure; and 39% are interested only if the manure is free.

In central and east central Pennsylvania, 168 farmers interested in exporting or importing manure are listed in another manure marketing directory published by the Extension Service, according to Montour County Extension Agent Phil Durst. The ratio of farmers interested in importing manure to those interested in exporting it is 142:26.

The manure marketing directory also lists custom manure haulers and nutrient plan preparers, as well as components of a nutrient management plan and sources for soil and manure test kits.

A telephone survey of custom haulers, exporters, and importers one year after distribution of the directory highlighted the need for educating potential participants about the economics of hauling manure. The extension agent calculated that the value of the available primary nutrients, even in liquid manure, significantly exceeds the cost of custom hauling within at least a five-mile radius from the point of storage. The survey also revealed that, although poultry manure is more marketable because of its lower moisture content and higher nutrient concentration, 60% of the farmers interested in importing manure were interested in any type of manure.

As a follow-up to the multi-county manure marketing directory, the Extension Service, conservation districts, key leaders in the farm communities, and the Agricultural Stabilization and Conservation Service cooperated in planning and conducting nutrient management workshops. Each participant in the workshops received a prepaid manure analysis kit and a packet of five soil test kits to encourage them to start a three-year plan to soil test all of their farm fields.

For more information on the Lancaster

County Program contact: Leon Ressler, Extension Agent Agriculture/Environment, Lancaster County Cooperative Extension, 1383 Arcadia Road, Room 1, Lancaster, PA 17601-3149. Phone (717) 394-6851. FAX: (717) 394-3962. For information on the multi-county program contact: Phil Durst, Extension Agent Dairy and Manure Management, 114 Woodbine Lane, Suite 102, Danville, PA 17821. Phone: (717) 275-3731. FAX: (717) 271-3031.

Source: July/August 1994, Issue #37, Nonpoint Source News Notes

Nebraska Buffer Strip Research

Researchers at the University of Nebraska-Lincoln have been studying how riparian buffer strips affect the amount of contaminants entering streams during storm runoff. In cooperation with the Lower Platte North Natural Resources District and EA Engineering, Science, and Technology of Lincoln, researchers have been sampling four sites, each located on a small tributary in the Loseke Creek watershed north of Columbus. Riparian cover on the sites ranges from dense to none.

Kyle Hoagland, aquatic ecologist in the Institute of Agriculture and Natural Resources, and Marian Langan, research assistant and graduate student in biological sciences, tested stream water at sites during normal flows and analyzed samples for pesticides, nitrogen, phosphorus, and other contaminants. They found relatively few compounds at relatively low levels, typically less than 1 part per billion (ppb) in the water and sediments, according to Hoagland.

But when the researchers took storm runoff samples before field application in May and after application in June,



they saw high levels of more than one pesticide compound at the site with no riparian cover. One sample contained more than 600 ppb atrazine, more than 600 ppb alachlor, and more than 100 ppb cyanazine. That sample contained nine different pesticides. The U.S. EPA's maximum contaminant level for atrazine is 3 ppb.

"There appears to be a loose correlation between riparian cover and pesticide levels; the more riparian cover, the less pesticides in the stream," Hoagland told the Lincoln (Nebraska) Journal-Star in a news article on the research. Conclusions are at best preliminary, Hoagland said. The project, which has received funding for a third year, also seeks to identify variations in riparian zones in size, width, plant species, and composition. This will help researchers investigate how effective riparian vegetation is in preventing water pollution.

Another Institute of Agriculture and Natural Resource project is examining the little-studied synergistic, or combined, effect of more than one pesticide on stream communities.

For more information contact: Kyle Hoagland, Department of Forestry, Fisheries, and Wildlife, University of Nebraska, 101 Plant Industry, Lincoln, NE 68583-0814. Phone: (402) 472-2944.

Iowa Buffer Strip Research

A study funded by the Aldo Leopold Center for Sustainable Agriculture looked at riparian buffer strips as part Best Management Practice (BMP), part restoration project. The study entailed starting from scratch to develop buffers using native species of trees and prairie grasses.

Such a buffer, termed a *constructed, multi-species, riparian buffer strip*, was planted in a 66-foot-wide border between crop fields and Bear Creek, a third-order stream in Story County, Iowa. Beginning at the crop field edge and moving toward the stream,

the buffer strip includes a 24-foot wide strip of native prairie grass, two rows of shrubs, and four rows of trees.

Richard Schultz, multidisciplinary study team leader, is now monitoring the zone to see if it can function as a multi-purpose, economically feasible, environmentally beneficial land use. It should, Schultz explained, function as a BMP, also yielding wood products while providing additional environmental benefits, such as increased biodiversity for wildlife habitat, sequestering of carbon for reduced global warming and improved aesthetics in a rather sterile agricultural landscape.

The multi-disciplinary study team carefully selected plant materials to perform specific functions within the structure of the buffer strip as well as to provide potentially marketable products. A primary characteristic of most of the selected species is rapid growth, which allows restoration of a riparian community in the shortest possible time.

The team chose willow, cottonwood hybrids, and silver maple for the rows closest to the creek to improve bank stability and take up agrichemicals. These fast-growing trees will be harvested on an 8-12 year rotation and will resprout from the stump, leaving the root system intact and the soil undisturbed. Slower growing, high quality hardwoods like red oak and black walnut may be planted for timber in the outside rows, depending on soil type and owner objectives.

The shrub rows develop a perennial root system, and their multiple stems slow floodwaters. Researchers chose shrub species that enhanced biodiversity and wildlife habitat, but some species, such as hazel, can be harvested for their nut crop.

Wildlife can benefit from the cover and food provided by the diverse plant community. "We are developing corridors that are favored by edge species of wildlife. In an agricultural landscape management scheme, these corridors would, ideally, connect larger tracts of perennial plant

communities which would provide habitat for interior species. However, in the Cornbelt region of the Midwest, these corridors might provide the only respectable wildlife habitat in the county," Schultz acknowledged.

In the outer rows of the buffer, native, non-bunch prairie grasses and woody plants penetrate the soil with deep, extensive, well-established root systems that stabilize the riparian zone, increase infiltration of runoff, and help restore soil structure. Above the ground, their dense, stiff stems slow runoff, reduce flooding, and trap eroding sediment.

Less clear is the impact of the buffer strip on nitrates and atrazine. Initial soil water quality data indicate that the buffer strip is producing a zone of lower agrichemical concentrations along the creek. The study team has not yet clearly established the processes responsible for these reductions, but they suspect that plant uptake, microbial activity, and soil immobilization play roles. Effects on the stream are complicated by field drainage tiles, which carry water rapidly under and through the buffer strip.

To address this problem, researchers constructed a small cattail wetland at the end of a field tile in the spring of 1994. They are now collecting inflow and outflow water samples to determine how well the wetland can reduce agrichemical concentrations.

Researchers also successfully used a system of willow posts and cuttings inserted directly into the streambed and streambank to immediately strengthen some eroding banks. The willow post system proved its worth by dramatically reducing erosion during the 1993 floods. Along vertical streambanks, bundles of dead trees are staked into the bank to protect it while willow cuttings planted among them become established.

In addition to water quality benefits, bank stabilization, and habitat for aquatic and terrestrial animals, the researchers think the buffer zone will provide economic benefits to

landowners. Some hardwoods could be slated for timber harvest. Hazelnuts are another potentially marketable product. One of the most promising future markets is, according to Schultz, fuel biomass.

"Presently, biomass can be used on-farm, but ethanol can be produced from woody plants and switchgrass, and biomass can be mixed with coals to co-fuel power plants. Our buffer strip model can produce large quantities of biomass, and we think the markets for this are getting closer and closer," said Schultz.

According to the final report, the tree and shrub zones can be combined, and the buffer design can easily be adapted to the USDA riparian buffer strip recently approved for cost-sharing on agricultural lands or that suggested by the Forest Service for the northeastern states.

A number of other cost-share programs can also fund a buffer strip based on this model. The economist on the team estimated that the installation would cost between \$350 and \$400/acre. A mile-long, 66-foot wide strip on both sides of a stream occupies only 16 acres of land, and along meandering streams, much of this land cannot be efficiently row-cropped, according to the researchers.

Now in its fifth growing season on the property of a cooperating farmer, the strip will need to be monitored for at least 10 to 15 years to fully understand how it works. More research is needed to identify and quantify the processes responsible for agricultural and sediment reductions, and a longer stretch of buffer strip should be installed to identify impacts on the instream ecosystem.

"The ability of this riparian plant community to modify soil, trap sediment, sequester carbon and agriculturals, and provide wildlife habitat is far superior to riparian zone communities consisting of annual crops, such as corn or soybeans, or pastures composed of cool-season grasses," Schultz said.

For more information contact: Richard C. Schultz, Department of Forestry, 251 Bessey Hall, Iowa State University, Ames, IA 50011, (515) 294-7602, FAX (515) 294-2995.

Source: July/August 1994 Issue #37, Nonpoint Source News Notes

Compromise Fails On Mining Reform

House conferees were optimistic that their latest compromise position would yield agreement on mining reform, but key Western senators and mining industry officials remained opposed.

Since June 29, House and Senate conferees worked with Chairman J. Bennett Johnston's (D/LA) draft bill, but the measure received little support. Consequently, Johnston negotiated with Western senators through July and revised his mark August 2 to address some of the mining industry's concerns. House Natural Resources Committee Chairman George Miller (D/CA) unveiled a counter offer August 5 that was immediately panned by Western senators. Western Republicans on the conference committee threatened to filibuster any reform bill, including Johnston's mark, that could result in a loss of jobs for the region.

On August 16, Miller presented an offer he characterized as close to final to Johnston and a group of reform-minded senators led by Sen. Dale Bumpers (D/AR), aides said. The House's latest version removed language opposed by industry that would give federal managers authority to determine whether lands are suitable for mining. In its place, Miller proposed giving federal agencies the authority to impose conditions on mine operators during the permitting process, particularly when mining activities pose a potential hazard to "national conservation units." Such units include national parks, forests, wilderness areas, monuments, and wild and scenic river system lands. The mining industry opposed the provision.

The August 16 offer also included new royalty language. Miners would be assessed a 5% gross royalty on the value of the minerals they produce. Earlier drafts established a 5% minimum royalty tied to the price of the commodity. The mining industry agrees some royalty should be imposed, but they maintain that Miller's provision will put some operators out of business. The Miller bill remains firm on ending the mineral patenting program and setting minimum federal cleanup standards for mine operations. Johnston's latest mark would allow some patenting to continue.

The conferees tried but failed to reconcile widely-disparate reform bills passed in the two chambers this spring. Mining on public land is still governed by an 1872 law that permits prospectors to patent, or take title to, federal land and minerals for as little as \$5.00 an acre without paying any royalty for the resources.

Source: Land Letter, Vol. 13, No. 23

Gramm Introduces Tough "Takings" Bill

Senator Phil Gramm (R/TX) on August 19 introduced the most sweeping private property rights protection bill yet. S. 2410 would require governments to compensate private landowners whenever regulations reduce property values by 25% or \$10,000 or more. Gramm was joined in introducing the bill by Sens. Conrad Burns (R/MT), Larry Craig (R/ID), Dirk Kempthorne (R/ID), and Richard Shelby (D/AL).

"This bill is just what the American property owner has needed for some time," said Nancie Marzulla of Defenders of Property Rights. "It allows people to use their property in a responsible manner without having to live in fear that the government can take it away without paying for it." Property rights guru Rep. Billy Tauzin's (D/LA) version would require compensation when 50% of land value is lost to regulation.

Hunting and Fishing Safe on Wildlife Refuges

Seeking to reassure lawmakers as they consider overhauling the National Wildlife Refuge System, Fish and Wildlife Service (FWS) Director Mollie Beattie pledged not to ban hunting and fishing on wildlife refuges during a House Merchant Marine subcommittee hearing on August 9.



While the FWS is attempting to weed out blatantly incompatible uses, such as military bombing and mineral activities, hunting and fishing generally will not be affected. The Senate is scheduled to take up consideration of Sen. Bob Graham's D/FL) S. 823 which is designed to provide guidance and direction for the refuge system. The system includes 500 refuges, and 51 coordination areas, encompassing 91 million acres across the country. Currently, no refuge bill mark-ups are scheduled in the House.

Source: Land Letter, Vol 13, No. 23

FWS Announces Recreational Fisheries Changes

At the Outdoor Writers Association of America (OWAA) meeting in Orono, Maine, FWS Director Mollie Beattie announced that the FWS is proposing to create a Branch of Recreational Fisheries. The new branch is intended to be the FWS's liaison with the sport fishing constituency and will promote the overall conservation and enhancement of the nation's sport fisheries. The branch also will work

closely with sport fishing organizations and the industry to promote fishing opportunities and aquatic education and outreach.

Director Beattie noted that the FWS has a continuing mandate to support recreational fishing within the framework of the FWS's overall mission to conserve the nation's aquatic ecosystems, and the Branch of Recreational Fisheries will help better meet this mandate and serve to provide fishing and aquatic education opportunities to our nation's increasingly urban population. "We especially hope to give children in urban areas more opportunities to fish and to learn about aquatic resources," Beattie said.

In another important message regarding the Endangered Species Act, Director Beattie said, "In short, endangered species must be seen as indicators of trouble in the natural systems that support wildlife, game and non-game alike, so the protection of endangered species and the restoration of their habitats will mean, in the long run, more sustainable hunting and fishing.



At the same time, however, I don't want to leave the impression that I think everything about the Endangered Species Act is working smoothly. The FWS must do a better job of administering the Act. For whatever reason, previous Administrations have not taken advantage of the flexibility Congress built into the Act. In no small part, this has had the effect of delaying actions to conserve species until the populations were so low that there is

what Secretary Babbitt calls a "train wreck" – a point at which a species and its habitat are so depleted, you have no choice but drastic action to conserve whatever is left.

The Endangered Species Act includes a number of provisions that allow the Service to work with landowners to balance economic and conservation needs. I also believe that in many cases we can use these kinds of agreements to balance stocking of recreational fisheries with protection of endangered species. I am aware there is a lot of concern about limits on stocking because of endangered species, particularly in the Southwest, where a large percentage of the recreational fisheries is based on introduced species. We have had to halt some our stocking programs in that Region while we evaluate the effect on native fishes. While I regret this, it is a fact that we cannot ignore the impact of our fish stocking activities on endangered species any more than we could ignore the impact of a dam or a major water diversion. We are committed, however, to working closely with the states and our other partners to find ways to make the restoration of endangered species compatible with recreational fishing programs."

Source: ASA Bulletin No. 453
May/June/July 1994

Ecological Restoration Proceedings Issued

Symposium on Ecological Restoration, the proceedings of a conference held March 2-4, 1993, has been published. Containing 33 papers by many leading experts in the field, the publication provides an overview of the issues surrounding ecological restoration.

The document is available by contacting the Watershed Branch (4503 F), U.S. EPA, 401 M St. SW, Washington, DC 20460. Phone: (202) 260-7074. FAX: (202) 260-7024.

Source: July/August 1994 Issue #37,
Nonpoint Source News Notes

Rivers Handbook Volume 2 Published

The Rivers Handbook Volume 2, edited by P. Calow, University of Sheffield, and G.E. Petts, Loughborough University was recently published. In two volumes, The Rivers Handbook provides a comprehensive reference and guide to application of ecologically sound practices in waterways management.

Volume 1: Hydrological and Ecological Principles begins with an overview of river systems, covers the physicochemical environment and describes the various biota and their importance in rivers, from microorganisms to vertebrates.

Volume 2: The Science and Management of River Environments develops the scientific principles expounded in the first volume into the

sphere of practical management. Its chapters are divided into five broad sections covering: perturbations and biological impacts; monitoring programs; modelling, forecast and prediction management options; and case studies.

Available from Blackwell Scientific Publications the two-Volume Set is priced at \$290.00.

Meetings of Interest

October 31-November 5 Managing Water Resources In the 21st Century: Finding Workable

Solutions, Orlando, FL. Contact NALMS, 1 Progress Blvd., Box 27, Alachua, FL 32615. (904) 462-2554.

November 13-16, 1994: "Dredging '94", Buena Vista Palace, Buena Vista, FL. Contact E. Clark McNair, Coastal Engineering Research Center, U.S. Army Corps of Engineers, Waterways Experiment Station, 3909 Halls Ferry Rd., Vicksburg, MS 39180-6199; (601) 634-2070.

November 14-16, 1994: "Watershed WISE: A Workshop on Watershed Protection", Grand Junction, CO. Contact Susan Foster, Thorne Ecological Institute, 5398 Manhattan Circle, Suite 120, Boulder, CO 80303. (303) 499-3647, FAX (303) 499-8340. Objectives are to encourage and support practical and effective approaches to watershed stewardship, and to share experiences and exchange ideas, tools, technology, philosophy, and values useful to watershed initiatives.

November 16-18, Watersheds '94: Respect, Rethink, and Restore: Watershed Management Council Symposium, Ashland, OR. Contact Hannah Kemer, University of California, ESPM Extension, Forestry, 163 Mulford Hall, Berkeley, CA 94720, (510) 642-2360. The conference will address issues of integration and communication in watershed management and will demonstrate

understanding and respect for the functions and values of watersheds.

December 4-7, 56th Midwest Fish and Wildlife Conference - The Future of Fish and Wildlife Is Now, Indianapolis, IN. Contact Debbie Fairhurst, Division of Fish and Wildlife, Atterbury Fish & Wildlife Area, Edinburg, IN 46124, (317) 232-7535.

February 23-24, Water, Nitrogen, and People: An International Conference, Everett, WA. Contact Craig MacConnell, Washington State University Extension, Whatcom County, 1000 North Forest St., Suite 201, Bellingham, WA 98225-5594, (206) 676-6736. Focuses on sustainability of the water resource and understanding the effect of nitrogen on water. Targets health officers, land use planners, public policy makers, agricultural commodity groups, environmental groups, tribes, local governments, conservation districts, and agricultural and water quality professionals.

February 28-March 3, International Erosion Control Association's 26th Annual Conference and Trade Exposition, Atlanta, GA. Contact John T. Price, IECA Program Chair, Price & Company, Inc., 425 36th Street, SW, Wyoming, MI 49548, (616) 530-8230, FAX (616) 530-2317. Topics include policy and management practices, methods and techniques, case histories, research and development, product introduction, and special topics.

April 3-7, 1995: "National Wetlands Workshop", Clarion Hotel, New Orleans, LA. Contact U.S. Army Engineer Waterways Experiment Station, Wetlands Research & Technology Center, Attn: CEWES-EP-W, 3909 Halls Ferry Road, Vicksburg, MS 39180-6199, (601) 634-2569/4217; FAX (601) 634-3664.

May 14-18, Water Resources at Risk - 1995 Annual Meeting of the American Institute of Hydrology, Denver, CO. Contact James R. Kunkel, Advanced Sciences, Inc., 405 Urban Street, Suite 401, Lakewood, CO 80228, (303) 980-0036, FAX (303) 980-1206. Purpose is to describe issues, management strategies, and technologies in hydrology, hydrogeology, and mining hydrology. Conference will feature sessions on subjects of current concern in hydrology, poster sessions, short courses, and field trips.

May 31-June 2, 1995: "East Coast Trout Management and Culture Workshop II", Penn State University, State College, PA. Contact Marty Marcinko, 450 Robinson Lane, Pennsylvania Fish Commission, Bellefonte, PA 16823, (814) 359-5223. Theme of the workshop is "Looking to the Future: How Can We Meet the Need?", Co-sponsored by the American Fisheries Society's Northeastern Division and Southern Division's Trout Committee, Duke Power Co., National Park Service, Pennsylvania Fish Commission, and Tennessee Valley Authority.

June 5-9, 1995: "Sustainable Forests: Integrating the Experience International Conference", Sault Ste. Marie, MI, and Sault Ste. Marie, Ont. Contact Joan Jaffit, Conference Manager; (705) 759-2554; FAX (705) 256-6156.

June 12-14, 1995: "Third Reservoir Fisheries Symposium", Chattanooga Marriott at the Convention Center, Chattanooga, TN. Contact Steve Miranda, Chair, Third Reservoir Fisheries Symposium, Mississippi Cooperative Fish and Wildlife

Research Unit, P.O. Drawer BX, Mississippi State, MS 39762; FAX (601) 325-8726.

July 16-19, Interdisciplinary Conference on Animal Waste and the Land-Water Interface, Fayetteville, AR. Contact Patti Snodgrass, Arkansas Water Resource Center, 113 Ozark Hall University of Arkansas, Fayetteville, AR 72701, (501) 575-4403, FAX (501) 575-3846. The purpose of the conference is to provide a forum for interdisciplinary, holistic discussion of animal waste,

soil and water interactions. Proposed topics include waste characteristics and edge-of-field losses, impact on stream and lake ecology, watershed management, BMPs, alternative uses, regulatory vs. voluntary programs, and socio-economic considerations.

September 28-30, Watersheds '94 Expo. Bellevue, Washington. Contact Andrea Lindsay, U.S. Environmental Protection Agency WD-125, 1200 Sixth Ave., Seattle, WA 98101; (800) 424-4EPA.

Congressional Action Pertinent to the Mississippi River Basin

Agriculture

On August 2, a House Agriculture panel held a hearing on the costs of extending the Conservation Reserve Program, and on August 11 a hearing to review the status of conservation compliance provisions for the 1985 Food Security Act.

S. 2437 (Conrad, D/ND) amends the 1985 Food Security Act to extend, improve and increase flexibility and conservation benefits of the conservation reserve program.

Forests

S. 2383 (DeConcini, D/AZ) authorizes the Agriculture Department to establish and carry out a sustainable ecosystem and economies demonstration program to promote ecosystem management on national forest lands.

H.R. 5007 (LaRocco, D/ID) to authorize the Agriculture Secretary to use stewardship contracting under which receipts from the sale of timber and other forest products from the forest system lands would be used for the improvement and restoration of healthy forest ecosystems.

Government Affairs

On August 11, a House Government Operations panel approved for full

committee action **H.R. 4771**, which aims to reduce the number of unfunded federal mandates that are imposed on state and local governments.

Mining

By a 318-to-64 vote on September 13, the House agreed to a Rep. Ralph Regula (R/OH) motion to instruct Interior Department appropriators conferees to insist on a provision that imposes a one-year moratorium on the patenting of hardrock mineral claims.

Parks

A House Natural Resources panel on July 21 approved for full committee action **H.R.4533**, which provides for the entrepreneurial management of the Park Service.

On July 27, a House Public Works panel held a hearing on legislation and regulations affecting scenic overflights above national parks.

A Senate Energy panel concluded hearings July 28 on **S. 2121**, a bill to promote the entrepreneurial management of the park service.

H.R. 5044 (Vento, D-CA) would establish the American Heritage Areas Partnership Program.

Public Lands

H.R. 4946 (Satngmeister, D/L) and **S. 2398 (Simon, D/IL)** establishes the Midewin National Tallgrass Prairie in Illinois.

H.R. 5000 (Glickman, D/KS) establishes the Tallgrass Prairie National Preserve in Kansas.

Takings

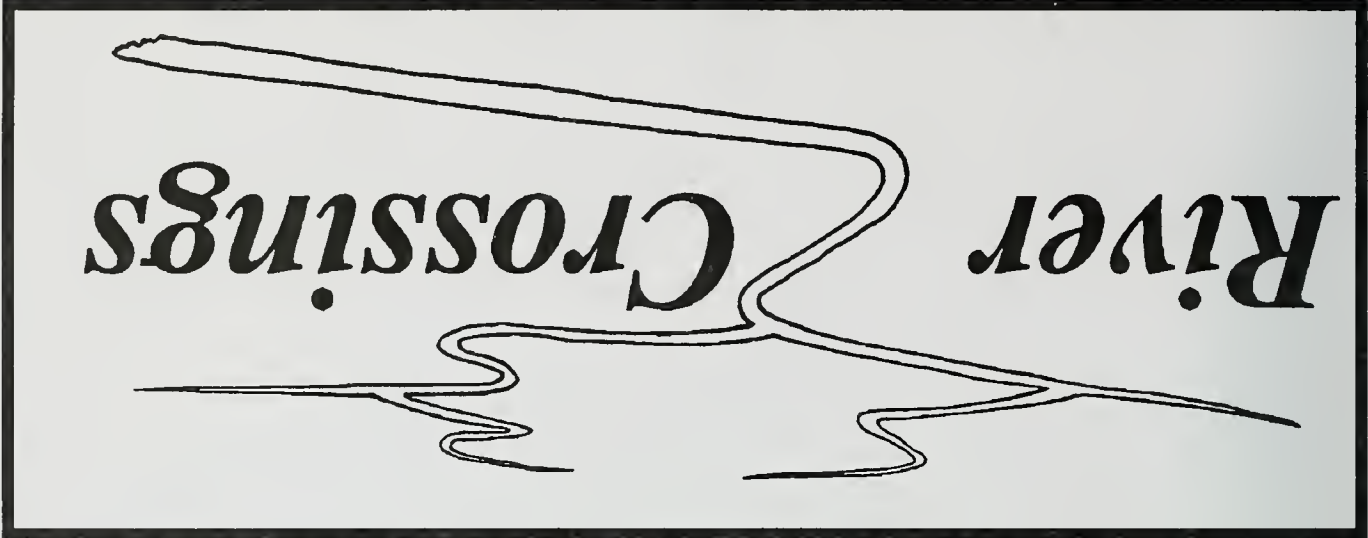
S. 2410 (Gramm, R/TX) requires the federal government to provide compensation for regulations that reduce property values by \$10,000 or 25%.

Water and Wetlands

On September 13, the House passed **H.R. 4308**, which amends the North American Wetlands Conservation Act to authorize appropriations for allocations under the act for wetlands conservation projects.

S. 2418 (Baucus, D/MT) improves the management of floodplains, and protects and restores floodplain environments.

Source: Land Letter STATUS REPORT September 15, 1994, Vol. 13, No. 24



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