The management of the Missouri River became a hot topic during the drought of the late '80s and early '90s. Water levels in the upper main stem reservoirs fell so low that boat ramps no longer reached into the water making the reservoirs inaccessible to most recreational users. The U.S. Army Corps of Engineers manages the six main stem dams and reservoirs on the river according to the Missouri River Master Water Control Manual (Master Manual). Changes to the Master Manual were developed in 1960 with only slight revisions, the last of which occurred in 1979.

In 1994, after many studies, the Corps released a draft EIS that described their preferred alternative for revising the Master Manual. The Corps conducted hearings throughout the basin to gather comments. Unfortunately, few residents of the eight Missouri River basin states were satisfied with the proposed revisions.

The Corps largely adopted MRBA's recommendations for its preferred alternative. Because of the extensive involvement of constituent groups by MRBA, the preferred alternative appears to be the best compromise alternative possible.

In response to the lawsuit, the Corps began a process to revise the Master Manual. Changing the management of a federally-operated project requires an Environmental Impact Statement (EIS). Among other things, the EIS ensures endangered species needs are identified.

The U.S. Fish and Wildlife Service (FWS) is concerned the current water control plan does not adequately address the needs of endangered species. Therefore, they initiated Section 7 Consultation of the Endangered Species Act with the Corps in April. This will result in the FWS publishing a Biological Opinion to meet the requirements of the Act if a consensus is not made by the Corps and FWS to protect the endangered species. These groups feel endangered species needs are being ignored in favor of maintaining barge navigation.

The Biological Opinion will identify any adverse effects from the current operation as dictated by the current Master Manual. If the FWS finds an adverse impact, they will develop a plan outlining alternatives to minimize or eliminate the potential risk to the endangered species. Adverse impacts can be grouped into two categories, either the endangered species are in jeopardy or an incidental taking may occur. jeopardy occurs when an action is expected to diminish a species' numbers, reproduce, or survive; the Missouri River does not meet any of the criteria of a jeopardy species. An incidental taking can be handled by using FWS developed measures to minimize the take.

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The challenges remain before the Master Manual can be changed. The largest of which are related to endangered species concerns. Three endangered species are of most concern on the Missouri River: the pallid sturgeon, the least tern, and the piping plover. Both species of minnow are being considered for listing as threatened or endangered species. Future changes to the Corps' preferred alternative will address the habitat concerns and preclude the need for the species to be listed.
The management of the Missouri River became a hot topic during the drought of the late '80s and early '90s. Water levels in the upper main stem reservoirs fell so low that boat ramps no longer reached into the water making the reservoirs inaccessible to most recreational users. The U.S. Army Corps of Engineers manages the six main stem dams and reservoirs on the river according to the Missouri River Master Water Control Manual (Master Manual). The Master Manual was developed in 1960 with only slight revisions, the last of which occurred in 1979. The upstream states of Montana, North Dakota, South Dakota, believed they received unfair hardships resulting from operation of the system. These states thought the Master Manual did not adequately conserve releases from main stem reservoirs during the drought, and there were not enough provisions for or attention to recreation needs. In 1990, the upper basin states and other complainants filed a lawsuit against the Corps with the objective of changing the management of the Missouri River system.

**Corps Begins The Process**

In response to the lawsuit, the Corps began a process to revise the Master Manual. The Corps asked the Missouri River Basin Association (MRBA) and other stakeholders to develop new recommendations for river management. MRBA was one of the first organizations to respond by launching a broad consensus-building process addressing future flow management and protection of native fish and wildlife. After nearly five years of meetings, conferences, and conversations with the public and constituants, MRBA compiled the information into a document listing the group’s recommendations for the management of the Missouri. Generally speaking, the MRBA recommendations focused on a mix of increased flows in upstream reservoirs during droughts; releasing water from Fort Peck Dam in Montana on an experimental basis to simulate spring rise in river levels; unbalanced releases from the three upper reservoirs; an adaptive management program; and major expansion of wetland creation and enhancement projects. Unbalanced releases means once every three years, one of the upper three reservoirs would be held stable or allowed to rise in order to improve spawning habitat for game fish and other fish species. The primary beneficiaries would be recreation, the fishery, and wildlife. An adaptive management program would include: up-front recognition that all is not known, long-term monitoring and evaluation, ability to adapt based on biological response of the river’s management, and future actions being based on science.

The tradesoffs to MRBA’s recommendations are a slightly reduced navigation season during drought years caused by holding additional water upstream for recreation and hydropower. The rise from Fort Peck Dam will benefit endangered species but cause an increased risk of flooding and bank erosion above Lake Sakakawea. Also, a marginal increase in flood risk come about from the unbalanced reservoir levels. Even though no single interest received everything they wanted, the tradesoffs seemed fair and acceptable, the foundation of consensus building.

**MRBA Recommendations**

In response to the extensive public rejection of their plan, the Corps asked the Missouri River Basin Association (MRBA) and other stakeholders to develop new recommendations for river management. MRBA responded by proposing a new preferred alternative for Missouri River management. After an opportunity for a Washington, DC level review, the Corps will produce a Record of Decision early in 2002 and make the appropriate changes to the Master Manual. The changes to the annual operating procedures and implementation of the plan will take another year and are expected to be completed by March 2003.

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Master Manual. A new biological opinion may be needed on a preferred alternative, once it is defined. Some conservation groups feel the Corps and the FWS are not going far enough to protect the endangered and threatened species. In fact, several groups have threatened lawsuits, going as far as filing the federally- mandated 60-day notice of intent to sue if a conservation measure recommended by the Corps and FWS to protect the endangered species. These groups feel endangered species needs are being ignored in favor of maintaining barge navigation.

Although the FWS and conservation groups agree with the recommenda- tions in the Corps’ preferred alternative, both believe the Corps does not go far enough in terms of fish and wildlife needs. They feel a spring rise below Gavins Point Dam, on the South Dakota-Nebraska border, is necessary for the protection of endan- gered species. In addition to mimicking natural flow patterns, creation of backwater, slow water, and shallow water areas and distribution so they are no longer continuous is deemed necessary. To many downstream interests, this is unacceptable because of the increased flood potential and the reduced navigation season.

**What’s Next?**

The Corps plans to publish its Revised Draft Environmental Impact Statement early this summer. It will contain a comprehensive description of their preferred alternative, the public rejection of their plan, the Corps began a process to revise the Master Manual. Changing the management of a federally-operated project requires an Environmental Impact Statement (EIS). Among other things, the EIS ensures endangered species needs are identified.

The U.S. Fish and Wildlife Service (FWS) is concerned with the water control plan does not adequately address the needs of endangered species. Therefore, they initiated Section 7 Consultation of the Endangered Species Act with the Corps in April. This will result in the FWS publishing a Biological Opinion to meet the requirements of the Endangered Species Act. The Biological Opinion focuses on species status and habitat needs and is scheduled for completion by July 1.

The Biological Opinion will identify any adverse effects from the current operation as dictated by the current Master Manual. If the FWS finds an adverse impact, they will develop a plan outlining alternatives to minimize or eliminate the potent- tial risk to the endangered species. Adverse impacts can be grouped into two categories, either the endangered species are in jeopardy or an inciden- tal taking may occur. The FWS may be addressed with proposed revisions to the existing Master Manual. A new biological opinion may be needed on a preferred alternative, once it is defined. Some conservation groups feel the Corps and the FWS are not going far enough to protect the endangered and threatened species. In fact, several groups have threatened lawsuits, going as far as filing the federally- mandated 60-day notice of intent to sue if a conservation measure recommended by the Corps and FWS to protect the endangered species. These groups feel endangered species needs are being ignored in favor of maintaining barge navigation.

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**What’s Next?**

The Corps plans to publish its Revised Draft Environmental Impact Statement early this summer. It will contain a comprehensive description of their preferred alternative, and its economic and environmental effects. Publication will mark the beginning of the six-month comment period as required by NEPA. Public workshops and formal hearings will be part of the process. The final EIS is scheduled for completion in the summer of 2001. After an opportunity for a Wash- ington, DC level review, the Corps will produce a Record of Decision early in 2002 and make the appropriate changes to the Master Manual. The changes to the annual operating procedures and implementation of the plan will take another year and are expected to be completed by March 2003.
Managing
North Dakota’s Water Resources (Part 4)

The North Dakota Department of Agriculture is the focus of this fourth in a series of articles dealing with government agencies involved in managing North Dakota’s water resources.

Perhaps the most direct link the Department of Agriculture has to water management is the position the Commissioner of Agriculture holds on the State Water Commission. By law, the Commissioner of Agriculture, Roger Johnson, represents the interests of the state’s 30,000 family farmers and ranchers through his appointment on the State Water Commission.

“Ensuring an adequate water supply is certainly important, but we must also do everything we can to ensure that the water supply is safe for people, livestock, and wildlife. Farmers and other rural residents must be provided with water that is as pure and safe as that delivered to people living in towns and cities,” Johnson says. “At the same time, we must take the necessary steps to see that future generations will be able to depend on all of our precious natural resources.”

Another important water management-related role of the Department of Agriculture stems from their administration of two key water-related programs; the Waterbank Program and Project Safe Send.

The Waterbank Program provides participating landowners with a financial incentive to preserve wetlands, particularly small potholes and marshes most often chosen for drainage practices. Over $740,000 is currently available to landowners in select watersheds for this program. Commissioner Johnson says “this year’s funding should enable the state to sign leases with at least 40 landowners for a total of 6,500 acres.” Leases associated with the Waterbank Program are acquired for ten year periods. Priority is given to tracts of land that offer public access, have restorable wetlands, and a ratio of one acre of wetlands to three acres of adjacent uplands. Landowners are encouraged to contact the Department of Agriculture if interested in enrolling (see the phone number below).

The Department of Agriculture is also one of the primary enforcement agencies involved in implementing the General State Management Plan for Pesticides and Ground Water through their investigations of pesticide violations. The general premise of this plan is to prevent water degradation by pesticides while protecting their beneficial use. An important component of achieving this, is Project Safe Send.

Project Safe Send was developed over eight years ago, and has since helped thousands of people dispose of more than 800,000 pounds of farm chemicals safely and free of charge.

Project Safe Send offers an opportunity for farmers, and the general public as well, to get rid of old agricultural chemicals - pesticides, weeds killers, and seed treatments. Even unusable or banned chemicals like DDT, arsenic, dieldrin, chlordane, and mercury seed treatments are accepted for disposal.

After the chemicals are collected, they are carefully packed for incineration at locations outside of North Dakota. Proper disposal of these chemicals keeps them from being intentionally or accidentally dumped improperly, and potentially entering the water system.

Any questions regarding the Waterbank Program or Project Safe Send can be directed to Judy Carlson, at 1-800-242-7535.