APPENDIX G

RED RIVER BASIN FLOOD DAMAGE REDUCTION WORK GROUP AGREEMENT

RED RIVER BASIN FLOOD DAMAGE REDUCTION WORK GROUP

AGREEMENT

DECEMBER 9, 1998

INTRODUCTION

This agreement is the product of eight months of consensus-based, mediated negotiations by the Red River Basin Flood Damage Reduction Work Group ("Work Group"). It responds to a mandate from the Minnesota Legislature to resolve gridlock over state permitting of flood damage reduction projects in the Red River Basin. The agreement is intended as the framework for a new, collaborative approach to implementing both flood damage reduction and natural resource protection and enhancement in the Red River Basin in ways that will benefit all Minnesota's citizens. The keys to this new approach are clearly identified goals, comprehensive watershed planning, early consultation and collaboration on flood damage reduction projects among stakeholders, and a cooperative approach to permitting of those projects.

The agreement is organized in seven parts, as follows:

Part I provides background information about the Work Group's genesis, its makeup, the Technical and Scientific Advisory Committee that provided support, and a summary of meetings and other activities that led to this agreement.

Part II identifies broad goals for flood damage reduction in the Basin, along with key principles.

Part III identifies natural resource goals for the Basin.

Part IV describes the comprehensive watershed planning process to serve as the vehicle for coordinating flood damage reduction and natural resource management strategies.

Part V addresses the new project review and permitting process developed by the Work Group.

Part VI covers the Work Group's decisions about a future entity to oversee implementation of this agreement and resolve conflicts.

Part VII addresses the funding needs for implementation of these goals.

Part VIII contains the signatures of Work Group stakeholders.

Appendix

- Board of Water and Soil Resources Watershed Planning Process
- Working Papers of Technical and Scientific Advisory Committee

PART I.
BACKGROUND

A Chronology of Historic Factors

The Red River Basin was formed by glacial action. The melting of that glacier formed Lake Agassiz and as the glacier receded to the north, the lake drained, and in its place a vast region of grasslands and extensive marshes developed. Lakota, Ojibway, and Metis people are known to have lived and hunted in the region. European immigrants began settling in the Red River Basin in the 1840s, with the greatest influx occurring between 1870 and 1890. Earlier settlements have been documented in the northern areas dating back to the very early 1800s.

Documentation of major flooding began with journal entries by trappers, explorers, and early settlers recounting loss of lives, homes, and property beginning in 1824, 1825, and 1826. The 1826 event was in all probability the largest flood that has ever occurred in the Red River Basin. The floods of 1852, 1893, and 1897 were of nearly equal proportions, with the 1897 event the first to be officially recorded. Major events since that time occurred in 1914, 1919, 1950, 1974, 1975, 1978, 1979, 1985, 1989, 1993, 1996, and 1997. Significant flooding events with documented damages have occurred on the tributary rivers in equal or greater frequency than those recorded on the main-stem.

"Associations" of interested persons were initiated to address drainage and flooding beginning in 1870. A "Congress" of persons interested in water management convened annually until 1909. The "Tri-State Flood Control Association" convened in Fargo until 1919. The first discussions on upstream water retention progressed through these organizations. A "Tri-State Commission" was organized in 1937 and functioned until 1948. The installation of over forty water control structures for flood damage reduction, water supply, and hydro-power was accomplished in this time period.

In 1955 the Minnesota legislature authorized the formation of Watershed Districts, formed on tributary watershed boundaries, for the expressed purpose of managing water in a holistic manner. Eleven districts have been formed in the Red River Basin. In 1976 seven watershed districts, under jurisdiction of a Joint Powers Agreement, formed the Red River Watershed Management Board for the express purpose of funding flood damage reduction programs and projects. Two additional watershed districts have joined since that time. The watershed districts constructed thirty-five water control structures prior to 1992 ranging in control capability from under one hundred, to over thirty thousand acre feet of storage.

Flooding and a related problem, soil erosion, continues to plague the Red River Basin, therefore planning for flood damage reduction projects has continued. Concern about the potential cumulative environmental effects of proposed watershed districts' flood control projects led the United States Army Corps of Engineers and Minnesota Department of Natural Resources to initiate a joint Environmental Impact Statement

(EIS). The EIS was completed, designated as a Generic EIS for state purposes and subsequently challenged in state district court by the watershed districts and the Red River Watershed Management Board. In May 1997, the Minnesota Legislature authorized funding for a "Mediation" process to attempt resolution of the disputed issues that were addressed in the EIS, led to the court challenge, and resulted in gridlock on permitting issues.

The mediation was set up to seek resolution of the issues in a positive manner and allow for the implementation of the most effective and environmentally friendly alternatives that would accomplish flood damage reduction. This document includes the agreements that resulted from that mediation process.

Work Group Convening and Membership

Following the Legislature's mandate, the Minnesota Department of Natural Resources and the Red River Watershed Management Board jointly retained CDR Associates of Boulder, Colorado to mediate the negotiations, and worked with the mediators to convene a stakeholder group that represented all key interests associated with flood damage reduction and natural resource protection and enhancement in the Basin. In addition to the DNR and RRWMB, the Work Group ultimately included representation for federal and state agencies, public interest environmental groups, and a range of citizens from the Basin. One Native American tribe elected to participate as a special observer. Municipal governments along the Red River main stem also were invited to participate, but elected not to do so. The Work Group members are:

Ron Nargang, Minnesota Department of Natural Resources ("DNR")
Ron Harnack, Minnesota Board of Water and Soil Resources ("BWSR")
Don Ogaard, Red River Watershed Management Board ("RRWMB")
Dan Wilkens, Red River Watershed Management Board
Jerome Deal, Red River Watershed Management Board
Vernon Johnson, Red River Watershed Management Board
Gerald Van Amburg, Concordia College
Mark Ten Eyck, Minnesota Center for Environmental Advocacy ("MCEA")
Cheryl Miller, National Audubon Society
Rollin Siegfried and Jim Litzinger, U.S. Fish & Wildlife Service ("USFWS")
Keith Driscoll, local resident and farmer
Paul Borgen, local resident and farmer
Steve Zaiser, local resident
Jeff Lewis, Minnesota Pollution Control Agency ("MPCA")
Chuck Spitzack, U.S. Army Corps of Engineers ("USACE")

Chuck Meyer represented the Red Lake Band of Chippewa Indians as a Special Invited Observer.

Purpose for the Mediation

The Work Group ultimately adopted the following statement of purpose for its negotiations:

> *To reach consensus agreements on long-term solutions for reducing flood damage and for protection and enhancement of natural resources. Such agreements should balance important economic, environmental, and social considerations. Such agreements must provide for fair and effective procedures to resolve future conflicts related to flood damage reduction.*

Technical and Scientific Advisory Committee

The Work Group relied on a Technical and Scientific Advisory Committee ("TSAC") to provide technical and scientific information and analysis in support of the mediation effort. The TSAC represented a range of disciplines, including hydrology, engineering, ecology, soils science, and economics. The TSAC developed a series of working papers to address key topics associated with flood damage reduction and modeled the use of different strategies for flood damage reduction. The TSAC did its work based on consensus, and its work products reflect consensus recommendations to the Work Group.

The TSAC includes:
Jim Solstad, DNR
Steve Apfelbaum, Applied Ecological Services, Inc.
Doug Eppich, Applied Ecological Services, Inc.
Scott Jutila, USACE
Luther Aadland, DNR
Rick St. Germain, Houston Engineering (with support from Erik Jones)
Charlie Anderson, JOR Engineering
Larry Lewis, USFWS
Greg Larson, BWSR
Jeff McGrath, USACE

Summary of Meetings and Activities

The Work Group held ten (10) negotiating sessions from May to December, 1998. Many stakeholders took time out from their personal and professional lives to participate, without remuneration. Most meetings were held in Crookston, Minnesota. In addition, Work Group members took a group tour of the Wild Rice watershed, and spent numerous hours on conference calls and in smaller *ad hoc* meetings.

Use of Consensus to Reach Agreement

This agreement is the result of a consensus-based process. The Work Group did not use majority voting to make key choices, but relied on the commitment of individual

stakeholders to craft solutions that would accommodate diverse interests. The consensus process meant that no single stakeholder was able to impose its views on the Work Group, and stakeholders were able to build consensus solutions while holding different viewpoints. The result of this process, while not perfect for any stakeholder, represents the best agreement possible at this time.

PART II.
BROAD GOALS AND PRINCIPLES FOR FLOOD DAMAGE REDUCTION

The Work Group adopted eight broad goals for flood damage reduction in the Red River Basin. These goals reflect the Work Group's efforts to identify the key interests associated with flood damage reduction and make these interests the focus for policy choices. The goals reflect the differing perspectives of Work Group stakeholders that were examined and debated during the course of the Work Group's deliberations. They also reflect the difficult choices faced by the Work Group in setting realistic yet meaningful goals.

The Work Group also identified key principles to guide policymakers as they develop strategies to implement the broad flood damage reduction goals set out below.

Flood Damage Reduction Goals

The Work Group decided to differentiate between **prevention** of damage and **reduction** in the risk of damage in setting flood damage reduction goals. This approach reflects agreement that certain damages associated with flooding are so significant that everything possible should be done to **prevent** them from occurring. This means providing the maximum feasible protection and setting high priorities on actions needed to accomplish this goal. The Work Group also agreed that for other damages associated with flooding the focus should be on **reducing** the present risk that they will occur, but not on seeking to eliminate that risk. The Work Group agreed that breaking the disaster/repair cycle by implementing flood damage reduction projects is important.

The broad goals for flood damage reduction in the Basin are:

1. **Prevent** loss of human life.
   a. Promote the development of community flood warning systems and emergency response plans.
   b. Promote the development of flood plain management plans and land use ordinance administration and enforcement.
   c. Ensure state oversight of project design and technical criteria.

2. **Prevent** damage to farm structures, homes, and communities.
   a. Promote the construction of farmstead ring dikes built to a minimum of 2 feet of freeboard over the flood of record, or 1 foot above the administrative 100-year flood, whichever is greater.
   b. Promote the construction of community setback levees and floodwalls built to the flood of record plus uncertainty (3 feet) or the 100-year flood plus uncertainty, whichever is greater.
   c. Promote the acquisition and permanent removal of flood-prone structures and establishment of greenways within the 100-year flood plain.
   d. Accelerate flood insurance studies, flood plain remapping and hydraulic/hydrologic studies in poorly defined or unmapped areas.

e. Accelerate comprehensive watershed and systems approaches to basin management.
f. Discourage the development of structures within the 100-year flood plain, with the exception of those approved in a community's flood plain ordinances.

3. **Reduce** damage to farmland by:
   a. Providing protection against a ten-year summer storm event for intensively farmed agricultural land;
   b. Maintaining existing levels of flood protection when consistent with a comprehensive watershed management plan; and
   c. Providing a higher level of protection, e.g., 25-year event, when feasible at a minimal incremental cost.

4. **Reduce** damage to transportation.

5. **Reduce** damage to water quality, including direct and chronic impacts, from floodwaters coming into contact with potential contaminants.

6. **Reduce** environmental damage caused by flood control projects.
   a. When advancing a project that requires a permit, select the least environmentally damaging (or most environmentally enhancing), feasible and prudent alternative that accomplishes the water management goals.*
   b. Design projects or packages of projects that provide net natural resource enhancement.
   c. A planned response to a flooding problem should take into account natural resource benefits, as well as negative impacts, in a watershed context (beyond the immediate project site).

7. **Reduce** social and economic damage.

8. **Reduce** damage to natural resource systems caused by flooding.

Explanation of Ten-year Storm Event

The Work Group had repeated, lengthy discussions about the different interests associated with the third goal listed above: reducing damage to farmland. These discussions covered, in part, the annual nature of agricultural flooding, the damages associated with that flooding, the fact that these damages are difficult to quantify and are not widely publicized, the important differences between spring and summer flooding events, the existing drainage infrastructure, and changes in land use. The Work Group ultimately set the "ten-year summer storm event" as the target for reducing flood damage to qualifying farmland. In technical terms, a ten-year event is defined as 3.57 inches of rainfall in a 24-hour period, or 6.39 inches of rainfall in a ten-day period,

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* "Project" means: Planning and development, construction, maintenance, repair, or improvement of a watershed district for a purpose for which the watershed district is established.

in a minor watershed, i.e., ten square miles or less. In terms of probability, for an eligible piece of farmland protection against a "ten-year event" means a ten percent chance in any single year of being flooded by runoff from another's property as a result of a summer storm event. For example, a conveyance system designed to a ten-year standard will be able to convey the ten-year runoff volume without overflowing and will allow for the drainage of adjacent lands to prevent crop damage.

The ten-year event target specifies how much protection flood damage reduction strategies should strive to provide as well as the level of risk that will remain. For example, a 25-year storm event will exceed the specified level of protection and cause damage to agricultural land. Given the unique hydrology and topography in the Basin, the ten-year event goal will need to be flexible and site-specific in its application. Successful implementation will require accounting for reasonableness of costs, the need to be sustainable, and the need to incorporate other flood damage reduction principles/criteria.

Explanation of Intensively Farmed Land

The Work Group agreed that the ten-year level of protection should apply only to intensively farmed land. This means land that was planted with annually seeded crops or was in a crop rotation seeding of pasture grass or legumes in six out of the last 10 years; excluding land incorporated within flood protection works (e.g., between setback levees), regardless of whether this land has been or will be farmed.

Flood Damage Reduction Principles

The Work Group also agreed on certain flood damage reduction principles. These principles are consistent with the broad flood damage reduction goals and are intended to guide the efforts of policymakers and project proponents to implement those goals through the comprehensive watershed planning process and project planning, design, and permitting. The principles adopted by the Work Group are:

1. Reduction of overland flooding is needed; any solution will probably require on-site and upstream solutions.

2. Water resource problems should not be passed along to others. A solution for a watershed should not create a problem upstream or downstream.

3. Water should be stored/managed as close to where it falls as is feasible and practical.

4. A systems approach should be used to manage the timing of flow contributions from multiple minor watersheds.

5. Projects should be consistent with comprehensive watershed management planning.

6. Project cost responsibilities should be negotiated project-by-project based on flood damage reduction and natural resource benefits.

8. The responsibility for mitigation of negative environmental and cultural impacts rests with the project proponent.

9. If costs are incurred in connection with a project to produce an environmental gain for the project as a whole, it may be appropriate for alternative sources of funding (in addition to project money) to be used for that gain.

9. Existing laws and procedures should be the basis for compensation to landowners adversely affected by a change in the existing condition.

10. Incentives should be developed to encourage landowners to voluntarily manage their land to achieve flood damage reduction and natural resource goals in order to avoid the need for additional regulatory controls.

11. A natural resource project should not exacerbate flooding.

Flood Damage Reduction Strategies

Accomplishing the broad flood damage reduction goals described above will require consideration of a full range of structural and non-structural strategies. Specialized strategies such as adequate flood warning systems and ring dikes will help prevent loss of human life and damage to farm structures, homes, and communities. Meeting other goals will require strategies that reduce overland flooding, provide storage, and/or maintain or provide adequate conveyance. The Work Group agreed that a combination of strategies may be needed to maximize the effectiveness of any particular strategy. These strategies potentially include:

1. Wet dams
   - A dam constructed to maintain a permanent pool of water, while providing temporary storage of stream flows for flood control, may also provide wildlife habitat and recreation.
   - Can be designed with gated or automatic draw-down control outlet structures.
   - A constant source of inflow is needed for pool maintenance.)
   - A management plan incorporating downstream predicted peak-flows is essential to maximize flood damage reduction potential.

2. Dry dams
   - A dam constructed for temporary storage of stream flows during flood events.
   - Can be designed with gated or automatic draw-down control outlet structures.
   - Duration of designed storage depends on downstream channel capacity.
   - A management plan incorporating downstream predicted peak-flows is essential to maximize flood damage reduction potential.

3. On-stream storage
    - A structure placed across the cross-section of a stream's topography causing flood flows to form a pool.
    - Utilizes existing landscape features to maximize control capability.
    - May cause alterations to pre-project plant communities in a summer storm event.
    - Allows for control of flows from entire watershed above the point of construction.

4. Off-stream storage
    - A storage structure placed adjacent to a water course to receive diverted flood flows.
    - Potential for construction and effectiveness dependent on the area topography.
    - Allows for maintaining a free flowing stream in non-flood flow conditions and can ensure a stream flow during flood events.
    - Duration of storage can be extended to ensure maximum downstream benefits.
    - Allows for control of flows from entire watershed above the point of construction.

Note: On/off stream storage can have either gated or un-gated outlet controls.
    - With gated storage the project's management plan can adapt to future conditions.
    - With fixed draw-down features, the release of stored water is pre-determined.

5. Flood storage wetlands
    - An outlet control structure is constructed on previously drained wetland which may contain a permanent pool.
    - Some natural wetland functions can be restored and maintained.
    - Can reduce the run-off from a watershed's contributing area in direct relation to the size of the temporary pool created thereby reducing downstream discharges.
    - Secondary goals may be wildlife enhancement, water quality improvement, stream flow stabilization, provide infiltration for groundwater recharge and reduce erosion.

6. Wetland restoration
    - Wetlands restored to pre-drainage hydrology and appropriate native vegetation.
    - May provide flood storage benefits based on hydrologic setting, outlet configuration, and antecedent moisture conditions.

7. River corridor restoration
- The area adjacent to a stream is restricted to non-rotational farming practices or within a city is designated as a green belt and zoned against building activity.
    - Effectiveness based on degree of flow control accomplished.

- Can be effective in reducing stream-bank erosion and downstream sediment deposition.
- Provide a haven and travel route for wildlife.
- Reduces downstream flow velocities and allows for restoration of natural ecosystem.
- May provide additional floodplain storage during flood events.

8. Setback levees
   - Levees (dikes) are built parallel to and a reasonable distance (e.g., meander belt width) away from water courses to contain flows and increase riparian storage of above-bank flows.
   - Can prevent flooding of adjacent land and resulting cross-country sheet-flooding.
   - May increase downstream flows by removing traditional routing and storage.
   - May create an impediment to drainage of adjacent land and minor watershed outlets.

9. Riparian buffer strips
   - The land adjacent to streams is permanently seeded/planted to appropriate vegetation.
   - Reduces erosion and filter run-off from affected land.
   - Reduces cropland losses by taking land out of annual production.
   - Provides a haven/travel corridor for wildlife and access for stream maintenance.

10. Dredging and channelization
    - Channel modification or removal of accumulated sediment to increase channel capacity.
    - May increase downstream flows.
    - May reduce flooding due to increased channel flow efficiency and timing of discharge.
    - Disrupts stream ecology and equilibrium and may cause downstream erosion and sedimentation.

11. Storage easement
    - Compensation is paid to landowners for the public or private benefit of storing water on their land.
    - Offsets lost land value due to required land use change.
    - Provides an incentive for project development where needed.

12. Retirement of land
- Converts land from agricultural production to permanent vegetation.
- Reduces surface run-off during and/or after precipitation storm events.
    - Significantly reduces erosion of soil from affected area.
    - Provides for wildlife habitat.

13. Land use
    - Land use changes may alter downstream flows.
    - Increased areas of intensively cultivated crops may increase storm event run-off.
    - Land use changes are influenced by economics and federal, state, and local policy.
    - Flood plain land uses compatible with periodic flooding may accomplish flood damage reduction.

14. Best Management Practices
    - A practice or combination of practices that are determined to be the most effective and practicable means of treating a resource problem at levels compatible with environmental quality goals.

15. Gating ditches
    - Adjustable controls are placed on culverts in channels to regulate stream flow.
    - Topography of the affected area determines the technically appropriate control used.

16. Culvert sizing
    - Graduated sizing of culverts within a ditch system to provide a degree of control.
    - Equity is an important consideration.
    - The smaller the drainage area is, the more effective culvert sizing can be in accomplishing meaningful, effective control.

17. Drainage
    - Modification of the hydrology of the land by providing drainage-ways to convey surface or subsurface water from cultivated or occupied areas.
    - Water conveyed by drainage of agricultural land in the higher elevation areas of a watershed may increase downstream flows.

PART III.
NATURAL RESOURCE GOALS

This part of the agreement is intended to provide a clear statement from state, federal, and tribal agencies of goals for natural resource management in the Basin. It represents an effort by those agencies with natural resource management responsibilities to be proactive and explicit in identifying their goals. The natural resource agencies are conducting a comprehensive planning process, with residents and stakeholders of the Red River Basin, to develop water quality goals for the Basin. The resulting Plan, and goals, will be ready for implementation in September 1999.

The purpose of the natural resource goals is:

- To provide specific information about resource management objectives for incorporation in Watershed District comprehensive plans
- To assist Watershed Districts to seek balanced, integrated projects that serve multiple objectives and will provide flood damage reduction and natural resource and water quality improvement
- To facilitate permit decisions by having clearly stated natural resource and flood damage reduction goals
- To identify the benefits to natural resources that flood damage reduction activities can achieve. Such benefits should be recognized, quantified, and accounted for in evaluating net natural resource loss/gain.
- To promote clarity and agreement about the relationship between potential impacts on natural resources and impacts on flooding for individual flood damage reduction projects
- To provide guidelines for mitigation when damage to natural resources will occur as a result of a flood damage reduction action. To the extent that specific natural resource goals are articulated, acceptable mitigation can be more easily and realistically defined and identified.
- To promote appropriate cost allocation for projects according to potential benefits.

Natural resource management goals are necessarily fluid and dynamic. They will reflect variations among different watersheds as well as changes in natural conditions. Consequently, the goals identified in this agreement are subject to adjustment and refinement. They represent the best information available from the resource agencies at this time. Work Group members responsible for developing these goals commit to defining them as soon as possible for all watersheds in order to support the comprehensive watershed planning process.

Natural Resource Management Goals

1. Manage streams for natural characteristics.

a. Natural stream characteristics

- ❑ permanent vegetation in riparian corridor (meander belt width)
- ❑ channels with horizontal and vertical meanders
- ❑ stable bed load
- ❑ flow regimes that provide access to seasonably critical habitats for a variety of stream biota, with fish as a key indicator
- ❑ water free of chemical pollution
- ❑ connectivity from lower to upper reaches

b. Bed stability objectives

- ❑ establish a mix of bottom vegetation, substrates, pools and riffles consistent with natural fluvial processes and native biota needs (pools and riffles maintain oxygenation, provide resting, refuge and feeding areas for aquatic organisms, aid invertebrate production, and promote physical diversity)
- ❑ eliminate excessive degradation or aggradation of the channel slope
- ❑ eliminate the need for channel maintenance
- ❑ establish equilibrium of sediment transport throughout all reaches

c. Habitat diversity objectives

- ❑ maintain a self-sustaining, diverse biotic community that contains a variety of fish, mussels (critical indicator), birds and plants
- ❑ protect high-gradient (i.e., beach ridge area) reaches of streams
- ❑ maintain or reestablish connectivity of high gradient (i.e., beach ridge) streams with the mainstem Red River

d. For unaltered (non-channelized) reaches of streams:

- ❑ protect these reaches from alteration
- ❑ restore a more natural annual hydrograph
- ❑ maintain/establish connectivity with up- and downstream reaches
- ❑ maintain/establish riparian vegetation within the meander belt width

e. For altered reaches of streams:

- ❑ promote restoration toward natural characteristics
- ❑ increase or reestablish connectivity with up- and downstream reaches

f. For ditches (no prior watercourse):

- ❑ establish stable slopes and implement other measures to reduce sedimentation contribution
- ❑ maintain or establish minimum 1 rod buffer zone

2. Enhance riparian and in-stream habitats.

a. Riparian corridor objectives

- ❑ preserve and enhance riverine forest cover along 80% of riparian corridors, consisting of mixed native tree and shrub of various age and size classes
- ❑ protect and restore riparian wetlands and perennial vegetation within the meander belt width of streams
- ❑ perpetuate a component of prairie and savannah communities within riparian corridors, especially along less-meandering west banks historically exposed to wildfires
- ❑ provide a suitable complement of forest snags and large woody debris for wildlife habitats, soil nutrient replenishment, tree regeneration substrates, etc.
- ❑ manage for an unbroken riparian forest canopy, with only small gaps or patches left after harvesting trees
- ❑ preserve a substantial component of large, old trees in riparian forests
- ❑ establish native species of permanent vegetation along ditch, stream, and river banks to filter runoff, reduce erosion, and provide wildlife cover
- ❑ produce quality saw timber and other forest products from riparian forests; typical yields may be 2-4MBF/acre of saw timber and 5-15 cords/acre of firewood
- ❑ incorporate riparian areas into watershed-wide connective corridors among parks, wildlife management areas, and other natural areas
- ❑ establish permanent vegetative cover around wetlands and next to all ditches, drainages, and streams to filter runoff and provide some wildlife cover

b. Fisheries management objectives

- ❑ use DNR's Stream Management Plans as the basis for defining the fisheries management objectives for Basin streams
- ❑ modify the process of developing these plans to include additional input from other resource management agencies and appropriate stakeholders
- ❑ complete Stream Management Plans for all major drainageways in the Basin

3. Provide diversity of habitats (size, shape, connectivity) for stable populations to thrive over a long period of time.

a. Wetland management objectives

- ❑ develop wetland restoration goals based on primary wetland functions (e.g., fish and wildlife habitat, water quality, flood control) and location within the Basin (e.g., the northern or southern part of the Basin, and the valley floor, beach ridge and moraine areas of the sub-basins)
- ❑ the North American Waterfowl Management Plan goals suggest that in order to restore wetland habitat functions 10 percent of the original wetland acreage should be restored (however, the percent wetland restoration goal

for any sub-watershed must be based on the specific hydrologic and land use characteristics and the management priorities for that area. Analysis of Basin streamflow data suggests that subwatersheds with no wetland storage can receive substantial flood control benefits if wetland storage is restored.)

- ❑ restore or mitigate all drained wetlands on state lands
- ❑ promote the restoration of drained wetlands on private lands
- ❑ refer to 2a. above for restoration objectives for riverine wetlands
- ❑ identify specific, quantitative goals for wetland restoration in concert with the development of comprehensive, watershed management plans
- ❑ maintain a substantial component of diverse sizes and types of wetlands in large complexes across the Basin, including seepage zones within the beach ridge complexes

b. Prairie management objectives

- ❑ approximately 54,000 acres of native prairie and buffer lands in the Red River Basin are identified for protection under the National Tallgrass Prairie Project
- ❑ preserve remnants of native tallgrass prairie to ensure protection of unique plant communities, native fish and wildlife, and historic and cultural sites
- ❑ simulate natural disturbance patterns on the prairie complexes
- ❑ provide opportunities for native flora and fauna to disperse, migrate, colonize, and/or mix genetic varieties among prairie complexes in the watershed
- ❑ restore prairie vegetation in proximity to existing prairie tracts
- ❑ develop a series of large prairie complexes throughout the Basin (a few in each county), including both beach ridge areas and interbeach wet prairies
- ❑ enhance some of the best remaining degraded remnants of tallgrass prairie through management practices (burning, grazing, etc.) and interplanting or seeding of native species
- ❑ enhance associated natural wetland habitats including prairie wetlands, fens, wet prairie, and riverine areas
- ❑ reconstruct areas of tallgrass prairie using native plant species to buffer or connect native prairie tracts
- ❑ conserve, manage, and restore diversity and viability of native fish and wildlife populations associated with tallgrass prairie
- ❑ provide public areas for compatible wildlife-dependent uses, emphasizing increased public understanding of the tallgrass prairie
- ❑ use technical assistance and cooperative partnerships between federal, state and local governments, non-governmental organizations, and private landowners

4. <u>Provide connected, integrated habitat including compatible adjacent land uses.</u>
   - ❑ connect complexes of river, woodland, wetland and grassland habitat to promote biodiversity and genetic diversity of species
   - ❑ see 2a

5. Enhance or provide seasonal flow regimes in streams for water supply, water quality, recreation, and support of biotic communities.
   - ❑ use Protected Flow Regime Package process to identify optimal base flow and low flows for Basin streams
   - ❑ increase the coordination among water management agencies and other appropriate stakeholders in setting flows using this process

6. Provide recreational opportunities.
   - ❑ enhance recreation in tributary corridors and the Red River of the North main stem
   - ❑ reduce low head dam hazards
   - ❑ increase stream fishing opportunities
   - ❑ develop additional railroad grade trails
   - ❑ expand the grant-in-aid trail network in Norman and Clay Counties
   - ❑ develop canoeing infrastructure (e.g., access sites, camping, picnicking areas) in partnership with other agencies and organizations

7. Improve water quality, including
   - ❑ reduce erosion
   - ❑ reduce toxics
   - ❑ reduce sediment
   - ❑ reduce nutrients
   - ❑ provide drinking water source protection

8. Protect groundwater.
   - ❑ identify sensitive groundwater areas
   - ❑ establish sensitive groundwater area protection programs in conjunction with relevant state and local government agencies
   - ❑ establish and maintain suitable monitoring well networks where needed
   - ❑ establish and support improved methods for delineating aquifers and determining aquifer parameters
   - ❑ identify and protect sensitive aquifer recharge areas

9. Manage lakes for natural characteristics.
   - ❑ enhance or restore aquatic vegetation
   - ❑ minimize shoreland grading and alterations of topography to prevent soil erosion and nutrient entrapment, and to protect aesthetics
   - ❑ maintain or restore a buffer of native vegetation, at a minimum, within the shore impact zone
   - ❑ modify artificial barriers to promote fish migration where appropriate
   - ❑ maintain or enhance aquatic populations appropriate to a lake's physical and chemical characteristics
   - ❑ protect or enhance critical habitat for aquatic species (e.g., spawning habitat), non-game, and rare and endangered species

- ❑ promote operable controls (e.g., gated structures) to optimize fish and wildlife values on legally designated fish or wildlife lakes
- ❑ enhance or maintain wildlife habitats
- ❑ reduce nutrient loading, including from failing sewage treatment systems
- ❑ achieve fishability and swimability standards

PART IV.
COMPREHENSIVE WATERSHED PLANNING PROCESS

A comprehensive watershed planning process is essential for achieving the flood damage reduction and natural resource goals set out in this agreement. The next generation of comprehensive watershed plans for each of the Basin's nine watershed districts offers a unique vehicle for coordinating efforts to achieve these goals. The Work Group agrees to use this process, and to incorporate the following principles into the design of flood damage reduction strategies. A copy of the proposed administrative guidelines for the Red River Basin watershed district comprehensive planning process, administered by the Minnesota Board of Water and Soil Resources, is attached as an appendix to this agreement. These guidelines will be refined after further coordination with stakeholders.

Watershed Planning Principles

1. Comprehensive watershed management plans should be consistent with the goals and principles adopted by the Work Group.

2. Comprehensive watershed management plans need to be practical and implementable.

3. Comprehensive watershed management plans should propose goals/initiatives that are economically and ecologically sustainable over the long term and are culturally sensitive.

4. Appropriate and consistent water quality and quantity models of all tributary watersheds are an essential tool for planning.

5. Information used in the comprehensive planning process should be available and accessible to the public.

6. The comprehensive watershed planning process should be used to address changes to the flow regime resulting from increased development and land use change.

7. Comprehensive watershed planning should promote multiple natural resource benefits.

8. Comprehensive watershed planning should identify flood damage problems to be addressed by flood damage reduction projects.

9. Comprehensive watershed plans will include explicit flood damage reduction and natural resource goals and an annual process for evaluating and reporting progress toward those goals.

PART V.
PROJECT REVIEW AND PERMITTING PROCESS

The Work Group has agreed on a comprehensive Project Review and Permitting Process. This new process is intended to stimulate fundamental changes in the way flood damage reduction projects are planned and in the system for permitting those projects. This process applies to projects that address substantial water management or resource management problems and/or that would benefit from early and on-going stakeholder communication and collaboration.

Flood damage reduction projects in the Basin are subject to a permitting system based on both state and federal law. The U.S. Army Corps of Engineers St. Paul District has federal regulatory authority, and the Minnesota Department of Natural Resources and Minnesota Pollution Control Agency have state regulatory authority, over most flood damage reduction and natural resource development projects in the Red River Basin. In addition, the Corps of Engineers has responsibility for adherence to National Environmental Policy Act requirements, and state and local agencies have responsibility for adherence to Minnesota Environmental Policy Act requirements as they apply to specific projects. The agencies as stated in the cumulative EIS (Section 6.4.1c) agreed to do joint processing for projects in the Red River Basin.

The Work Group recognizes that the permitting process for flood damage reduction projects has become a forum for conflicts over important interests and public policy goals in the Basin. Stakeholders perceive a lack of certainty and finality for permit requirements and experience costly delays in responding to information requests. Stakeholders seek clarity from state agencies about their policy goals and a commitment to permitting timelines. They also seek some mechanism for making informed decisions about resource allocation that reflect the likelihood of project approval by permitting agencies. Agencies seek cooperation from stakeholders in harmonizing natural resource protection and enhancement with flood damage reduction. Public interest groups have felt excluded from the project planning process in watershed districts and from state agency permit evaluation and decision making. These groups seek expanded involvement in the project planning and permitting process.

The U.S. Army Corps of Engineers must protect its regulatory independence, but recognizes the potential benefits of early coordination and planning of flood damage reduction projects that is consistent with federal law. Before the Corps of Engineers can issue a permit the applicant must clearly demonstrate that there are no other practical project locations or methods that would avoid or minimize environmental impacts such as wetland/water losses. After the avoidance and minimization criteria are satisfied, compensatory mitigation is usually required that would replace the unavoidable wetland area/value loss to the maximum extent practical. Additionally, a permit cannot be issued if the Corps determines that the project would have a significant, adverse effect upon aquatic resources or is contrary to the public interest.

The new process is set out below.

BASIC ASSUMPTIONS

1. The mediation process will yield a set of broad goals for flood damage reduction and natural resource management in the Basin that will guide subsequent watershed planning, project development, and permit process decisions.

2. The project development, review, and permitting process will be preceded by established, coordinated watershed management plans. The next generation of these plans will incorporate the broad goals and other consensus agreements resulting from the mediation process and will be developed with full participation from all relevant stakeholders.

3. Involvement of all stakeholders in early coordination is essential to the success of the process. A key to success is partnering, a means for all the stakeholders to work together, educate respective publics, and obtain funds to make sure that an integrated plan works.

4. The identification of data and information needs for regulatory decisions must occur early in the process.

5. Federal, state, and tribal agency coordination must be improved.

6. Monitoring and evaluation is an essential component of the project review process.

7. A project team will work with the project from formation to the conclusion of either build or end. A project team consists of appropriate stakeholders (see Step 1B), including at least one designated contact person from each agency.

8. This process is designed to provide increasing likelihood of project approval as each step is completed.

9. The Corps of Engineers will participate in the early coordination conference by presenting information on Corps programs, presenting Corps studies on-going in the basin, and participating in discussion of potential solutions to basin problems and of potential partnering arrangements. The Corps' regulatory process will run concurrently with the Project Review and Permitting Process. A Corps representative, *as* authorized by the District Engineer, will serve as liaison to the project team to ensure that the Corps regulatory process and that of the State run cooperatively and concurrent to the extent possible. The Corps in cooperation with its local sponsor will put forward its studies and projects located within the Red River Watershed Management Board geographic area to those portions of this process that are associated with project planning.

PROCESS STEPS

STEP 1: EARLY COORDINATION

A. The Red River Watershed Management Board has agreed to modify the focus of its annual conference to serve as the workshop for the purpose of hearing presentations from watershed districts, resource management agencies, and non-governmental organizations regarding their top priority problem areas with flood damage or resource management needs that will be addressed by projects in the coming year. The focus is a holistic one concerning all aspects of watershed management and will be an opportunity to build partnerships among all participants.

B. The participants will include the watershed districts, state, federal and tribal agency personnel, local government officials, affected landowners and interested citizens and interest group representatives. State agency personnel will be assigned participation as part of their position description.

C. The Red River Watershed Management Board will consult with the Work Group to plan the conference.

D. At least 30 days prior to the conference the conference sponsor will send to all invitees written material that describes the presentations to be made regarding problem identification and possible alternative solutions considered.

E. Conference participants will be given the opportunity to discuss the problems or issues and the proposed alternatives for addressing them. In all cases, participants must seek solutions consistent with the broad goals for flood damage reduction and natural resource management as defined in the mediation process and in watershed management plans.

F. The outcome will be broad agreement on the problems to be addressed and the preliminary identification of feasible alternatives for further investigation. Concept documents, one for each problem area, will identify the problem to be solved, an array of potential alternatives, and a list of project team members.

G. The conference may also include status reports on specific projects that are further along in the approval/implementation process.

STEP 2: PROJECT PLANNING

A. The project team meets to evaluate alternatives identified in Step 1, formulate new alternatives as necessary, and identifies their preferred alternative(s), using an evaluation process that is consistent with the flood damage principles identified in

Part II. At this stage in the process, the Corps of Engineers will not be able to participate in selection of a preferred alternative.

B. The project team identifies data and information needs for the environmental review associated with the review and permitting process. The use of "Information Required to Evaluate Most Impoundment Projects" and other sources or checklists will be used where appropriate and available.

C. The project team collaborates with the Responsible Governmental Unit (RGU) to help prepare an environmental assessment worksheet (EAW) for the preferred alternative.

D. The RGU publishes an EAW for the proposed project which includes the preferred alternative, other alternatives considered, proposed mitigation for any adverse effects, and operating plans, if the project involves on-going operation.

E. Permit applications are submitted to regulatory agencies along with information and data needs identified in Step 2B.

STEP 3: PUBLIC REVIEW

A. The EAW developed in Step 2 is processed through normal public review channels.

B. Each watershed district with proposed projects will conduct public review meetings for all interested persons to hear and comment on engineers' and resource managers' preferred project alternatives. The watershed district will keep a formal record of the meeting. In some cases, a RGU-Federal-State joint public meeting will be held.

C. The RGU consults with the project team at the end of the public review period to determine the need for an environmental impact statement (EIS).

D. The RGU issues a negative declaration (Finding of No Significant Impacts, FONSI) or an EIS preparation notice.

STEP 4: PRELIMINARY ENGINEERING (EIS PREPARATION)

A. Regulatory agencies identify additional information needs to supplement that identified and collected as a result of STEP 2B. The same tools are used to assist in this step. The project team meets with the project proponent to reach a mutual understanding on information requirements.

B. If an EIS is required for the project, the preparation of the EIS by the RGU is conducted during this time and runs parallel to the other elements of this step. The EIS will be consistent with federal environmental review requirements.

C. Project proponents prepare draft preliminary engineers report with enough information and analysis to determine project feasibility.

D. The project team reviews and comments on the draft preliminary engineers' report.

E. Project proponents make necessary revisions to the preliminary engineers' report and resubmit it to the reviewing agencies for formal review and comment.

F. The product of this step is concurrence of the project team on the adequacy of the preliminary engineers report and the adequacy of the Final EIS, if one is prepared.

STEP 5: PROJECT PERMITTING

A. ***Notice by State Agencies.*** For certain classes of public waters projects, a preliminary decision on a permit is published in legal newspaper in the county where the project is proposed. The preliminary decision and a copy of the draft permit is distributed to those listed on an appropriate public mailing list by the regulatory agency. Projects developed through this planning and permitting process which are subject to this notice requirement include filling of over 200 cubic yards (excluding shore protection), excavation of over 200 cubic yards, new water level controls, and drainage ditch improvements or new public drainage ditches.

B. ***State of Minnesota Contested Case Hearing.*** A request for a contested case hearing on the draft permit with supporting documentation may be made to the permitting agency. A contested case hearing will be held if:

1) there is a material issue of fact in dispute concerning the matter pending before the agency;
2) the agency has the jurisdiction to make a determination on the disputed material issue of fact; and
3) there is a reasonable basis underlying the disputed material issue of fact such that the holding of a contested case hearing would allow the introduction of information that would aid the agency in resolving the disputed facts in making a final decision on the matter.

C. ***Final decision.*** Regulatory agencies make final permit decisions. Decisions are based upon applicable statute and rule, and shall be consistent with existing flood damage reduction and resource management policy goals developed through the mediation process and approved watershed management plans to the extent authorized by the controlling law. Any permit requirements or project modifications should be reviewed by the project team before being finalized in the permit.

STEP 6: FINAL PROJECT DESIGN

A. Project proponent prepares final engineers' report.

B. For projects initiated by a watershed board, a public review meeting is held.

C. Project proponent prepares final project design plans.

D. Project proponent makes a final build/no-build decision.

STEP 7: IMPLEMENTATION

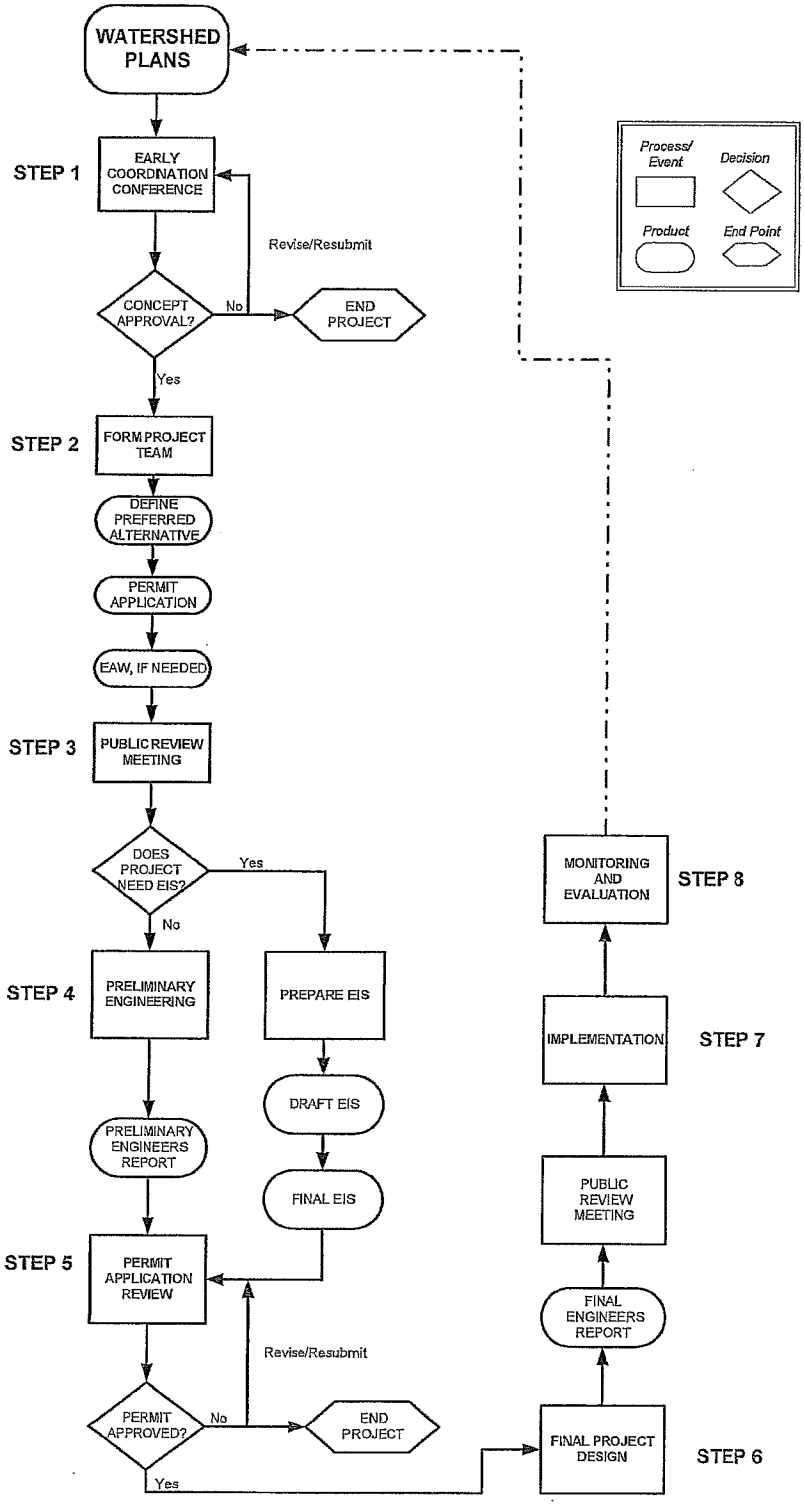
A. Project proponents constructs project.

STEP 8: MONITORING AND EVALUATION

A. The project team should conduct construction monitoring and post-construction monitoring for the purpose of ensuring compliance with design parameters and measuring the effectiveness of the project in meeting the hydraulic and environmental goals initially identified. It includes responsibilities for maintaining and communicating the data developed during the monitoring process. All these activities will be defined during the permit process and incorporated in project permits.

B. Project team recommends adjustments in any operating plans as necessary.

PROJECT REVIEW AND PERMITTING PROCESS



PART VI.
IMPLEMENTATION AND CONFLICT RESOLUTION

Implementation

The Work Group recognizes the importance of establishing a mechanism to ensure implementation of this agreement. With this goal in mind, the Work Group agrees to continue the current stakeholder group beyond the scheduled end of the mediation.

The continuing Work Group will be composed of current mediation Work Group members in order to promote continuity, build on the relationships established during the mediation, and benefit from the shared knowledge base of stakeholders. Leadership of the Work Group will be vested in co-chairs from the Minnesota Department of Natural Resources and the Red River Watershed Management Board, who will rotate responsibilities on a schedule to be determined

Meetings will be held, at a minimum, quarterly for the first year, beginning after the scheduled March 1999 Red River Watershed Management Board conference, and at the discretion of the Work Group thereafter.

The Work Group should arrange for independent technical and scientific consultation similar to that provided by the Technical and Scientific Advisory Committee to the mediation Work Group. While consultants may come from within state and/or federal agencies, such consultation should be independent of agency review and permitting processes and of agency policy constraints.

Funding for the Work Group must be addressed promptly. Reimbursement mechanisms for stakeholders may depend on formalization of the Work Group. Funding for support services and meeting space will be needed, as well as for technical and scientific support.

Conflict Resolution

One aspect of the agreed purpose for the mediation is to develop fair and effective procedures to resolve future conflicts related to flood damage reduction. The mediation Work Group believes the collaborative nature of negotiations leading to this agreement indicates that the continuing Work Group is an appropriate forum for fairly and effectively addressing conflicts over implementation of the agreement. The Work Group commits to using the following general approach for resolution of future conflicts associated with implementation of this agreement.

- Use the new planning and permitting process to prevent and resolve disputes.
- When existing or new procedures are not successful, bring issues to the Work Group for resolution.

PART VII.
PROPOSED FUNDING STRATEGIES

Accomplishing the flood damage reduction and natural resource management goals listed above will require an integrated, long-term funding program. The Work Group's preliminary estimate to achieve significant progress toward accomplishment of the flood damage reduction and natural resource goals within a fifteen-year period is $250,000,000.

Based on this preliminary estimate, the Work Group believes that an initial biennial appropriation to begin the implementation should be $9,000,000 for planning, flood damage reduction, natural resource management, and research and assessment. This proposed appropriation is intended to reflect a realistic schedule for project implementation in a two-year period. It is understood that state funds would be used in combination with standard local funding sources to achieve short-term objectives. The Work Group anticipates that future biennial requests will increase to achieve the fifteen-year goal.

The Work Group agrees to pursue a joint strategy in the Legislature in the coming Legislative session. In addition, the Work Group will continue to develop its fifteen-year strategy for implementation.

In light of federal legal requirements and policy considerations, federal agency representatives on the Work Group did not participate in making this recommendation for state funding and will not participate in pursuing state funds for accomplishing the flood damage reduction and natural resources goals.

PART VIII.
SIGNATURES*

By their signatures, representatives of federal and state agencies and entities participating in the Work Group commit their respective agencies and entities to active support for this agreement and its implementation. Representatives of non-governmental organizations make the same commitment, and agree to support the agreement to their members and the broader NGO constituency. Stakeholders signing in an individual capacity also commit to active support for the agreement and its implementation.

Minnesota Department of Natural Resources

Red River Watershed Management Board [4]

National Audubon Society

Minnesota Center for Environmental Advocacy

U.S. Army Corps of Engineers

Board of Water and Soil Resources

U.S. Fish & Wildlife Service

Minnesota Pollution Control Agency

Paul Borgen

Gerald Van Amburg

* Three of the original Work Group members were unable to participate through the end of the mediation process.