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# 6. Watershed District Administration

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## 6.1 Plan Implementation Procedure

### 6.1.1 Overview

This Plan is intended to guide the activities of the District for a minimum of ten years following approval by BWSR. Responsibility for plan implementation rests with the District, although some action items are lead by other organizations The SHRWD plans to annually assess the extent of progress toward implementing the WMP and expects to periodically evaluate compliance with the permit program. If necessary, based on the assessment or review, the SHRWD will take steps to ensure the WMP is successfully implemented. The District may develop standards for implementation through the permit program, update Guidance Documents and/or Rules, initiate additional engineering and administrative studies, revise the long-term work plan, and add or subtract programs or improve communication and reporting procedures.

### 6.1.2 Role of Guidance Documents

#### *6.1.2.1 General Intent*

The SHRWD intends for the WMP to guide the annual and long-range work efforts. The SHRWD does not anticipate substantive changes to the actual WMP. The WMP provides the structure and rationale for developing and using “guidance documents”. Likely guidance documents are Preliminary and Final Engineer’s Reports, documents describing District programs (e.g., water quality monitoring), policy documents, an information and education plan, and other potential studies, reports, and investigations. The use of guidance documents is intended to provide the SHRWD with the greatest degree of long-term flexibility to develop or modify specific details within the WMP in the face of emerging issues and regulations, while maintaining clarity as to management intentions and expectations.

Given the existing and emerging issues discussed in this WMP, the SHRWD recognizes that much work remains within the watershed to manage all resource related issues. The WMP

provides the framework to implement this work by identifying issues, goals, action items, projects, and programs. The products and outcomes resulting from completing the action items and work efforts is not considered a significant change to the WMP, but are results that will be incorporated into the administration and operation of the District through guidance documents.

### *6.1.2.2 Criteria and Incorporation Process*

Not all studies, reports, products, investigations or work products completed under the direction of the SHRWD will be considered guidance documents for supporting the WMP. Because of the significance of a guidance document in providing direction and guidance towards addressing an issue or topic, such studies, publications, or similar work products are expected to meet certain criteria to be considered a guidance document:

- ❖ The product should have a direct relationship with the WMP content. The relationship may be identified as an issue, goal, policies / actions, programs, or generally referenced and acknowledged within the WMP;
- ❖ The product should allow for formal input and / or review by one or more affected counties or cities, or other similar public input process; and
- ❖ The product content should provide adequate specificity in describing desired processes, outcomes, or recommendations so that implications of the proposed guidance document are clear to the Board and others.

Products proposed as guidance documents must be formally accepted by the SHRWD Board of Managers at a regularly scheduled meeting. When requesting acceptance by the Board, the SHRWD Administrator will make the Board aware that the product is intended to serve as a guidance document and generally state conformance with the criteria. Similarly, updates or adjustments to established guidance documents are anticipated to have Board acceptance.

Projects proposed in a guidance document will be programmed into the Long Range Work Plan and the Annual Work Plan and Budget for implementation. The Board shall determine the priority of any proposed project based on data specific to the issue provided in the guidance document and the priorities established by the Board within the Long Range Work Plan. If proposed projects, as described in guidance documents, exceed the criteria and scope of the goals and objectives contained in the WMP, it may be necessary to amend the WMP on a case-by-case basis.

Access to completed guidance documents will be provided through the District's web site. Counties and cities within the District will receive formal written notice (electronic or mailed) regarding updates or availability of new materials. The SHRWD will maintain a distribution list

of agencies and individuals who have received a copy of the notice and will distribute notices within 30 days of guidance document update or availability.

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## 6.2 Plan Revisions and Amendments

### 6.2.1 General Approach

The District has carefully considered its goals and its needs extending through the effective date of this WMP. Amendments to the WMP are not expected because of the use of guidance documents, as previously discussed. However, should an amendment be required by an agency, based on perceived significant changes involving goals, policies, standards, or administrative procedures, an amendment to the WMP may be necessary.

The SHRWD may revise the WMP through an amendment prior to the next required plan update if either minor changes are required or if issues and problems arise that are not adequately addressed within the WMP. However, this WMP, the authorities, and the various programs will remain in effect until the amendment is processed or an update to the WMP is completed and approved by BWSR.

All amendments to this WMP will follow the procedures set forth in this section, and as required by Minnesota laws and rules (as revised). Plan amendments may be proposed by any person or County, but only the SHRWD may initiate the amendment process. All proposed plan amendments must be submitted to the SHRWD in writing, along with a statement of the problem and need, the rationale for the amendment, and an estimate of the cost for completing the amendment and an assessment of the financial ramifications.

The SHRWD recognizes that the WMP may need to be periodically amended to remain useful as a long-term planning tool. However, the structure and intent of this WMP provides flexibility to respond to short-term emerging issues and opportunities outside of the amendment process. The structure is provided by the use of guidance documents, concise identification of broad issues in **Section 3**, and related goals and actions in **Section 4** (where located in the Long Range Work Plan). The SHRWD will review and revise its long-range work plan/implementation program through the development of an annual work plan and budget as well as through confirming the priorities established within the long-range work plan.

New technical information, especially water quality data, will require periodic reconsideration of the efforts by the District. The SHRWD intends to post updated information on their website ([www.SandHillwatershed.org](http://www.SandHillwatershed.org)) and make hard copies available upon request (in accordance with the Minnesota Data Privacy Act). Technical information produced through studies and contained in reports will be incorporated as an extension of this WMP through the acceptance

of the report as a guidance document and be posted to the SHRWD website. An electronic notification system will be developed to inform relevant and interested parties of such updates. Generally, these technical updates and studies are considered part of the normal course of District operations consistent with the intent of this Plan and not a trigger for a Plan amendment.

The SHRWD will keep records of all changes and supplemental data and will, as required for clarity, republish the Guidance Documents, or portions thereof, from time to time to provide an updated document for referral by others.

## 6.2.2 Amendments to This Plan

### *6.2.2.1 Criteria and Format*

The WMP provides the framework for implementation by identifying issues and problems, goals, and action items, organized by management area. An amendment to the plan is not required for the following situations:

1. Implementation of a project to address either a subwatershed or watershed-wide issue discussed in the Plan, but not currently listed in the long range work plan;
2. An estimated cost for an action item that is different from shown in the long-range work plan;
3. The addition or deletion of activities and/or studies to/from the long-range work plan. Such additions or deletions will be proposed, discussed, and adopted as part of the annual work plan development and budgeting process. This process involves obtaining public input and must be consistent with the goals and policies of the Plan;
4. Reprioritization of action items or District activities;
5. The development of new programs or discontinuing a program; and
6. Identification and implementation of any recommended projects contained in a guidance document, which are thus eligible for implementation by the District. Upon completion of a study, including inventory, assessment, analysis, results, and recommendations, the SHRWD Board will accept the final report, which then becomes a guidance document of the District (See **Section 6.1.2.2** for further discussion of this process).

New projects initiated under MS 103D, and identified subsequent to the completion of this plan, will be implemented in accordance with **Section 6.5.10**

Should the need for an amendment be identified, the amendment process will follow MS 103D.411.

### 6.2.2.2 Plan Amendments

A plan amendment is anticipated for the following situations:

1. The addition of new goals or actions or revision of existing goals or actions which require revision of the SHRWD rules and regulations; and
2. Changes to the goals and/or actions that directly affect the programs or budgets of other local units of government within the District.

The process for completing a plan amendment is as follows:

1. The District will submit a petition with the proposed plan amendment to the BWSR, affected cities and townships, the SWCDs, the Counties, the state review agencies, for review and comment; and
2. The BWSR will hold a public hearing per 103D.411 and 103D.401 Subd. 4.

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## 6.3 Local Units of Government

### 6.3.1 Overview

Many local, state, and federal agencies and non-profit organizations are active within the SHRWD. Some of these agencies and organizations include:

#### LOCAL GOVERNMENTS

- Counties
- Townships
- Municipalities
- School Districts
- Soil and Water Conservation Districts (SWCD)
- Adjacent Watershed Districts
- Red River Watershed Management Board (RRWMB)

#### STATE GOVERNMENTS

- Minnesota Board of Water and Soil Resources (BWSR)
- Minnesota Department of Natural Resources (DNR)
- Minnesota Department of Agriculture (MDA)

- Minnesota Pollution Control Agency (MPCA)
- Minnesota Environmental Quality Board (EQB)
- Minnesota Department of Health (MDH)
- Minnesota Department of Transportation (MNDOT)

#### FEDERAL GOVERNMENTS

- U.S. Army Corps of Engineers (USACE)
- United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS)
- United States Department of Agriculture (USDA) Farm Service Agency (FSA)
- U.S. Environmental Protection Agency (EPA)
- U.S. Fish and Wildlife Service (USFWS)
- U.S. Geological Survey (USGS)
- National Oceanic and Atmospheric Administration (NOAA)

#### NON-PROFIT ORGANIZATIONS

- The Nature Conservancy (TNC)
- Ducks Unlimited (DU)
- Minnesota Center for Environmental Advocacy (MCEA)
- Red River Basin Commission (RRBC)
- International Water Institute (IWI)
- Many more....

Most of the local, state, and federal agencies and non-profit organizations have developed some type of planning document to guide their efforts and activities within the SHRWD. By evaluating and analyzing the content of these plans, including the stated policies, goals and directives, the SHRWD hopes to maximize the opportunity for cooperative joint ventures where the goals of the organizations are common. This section of the WMP presents an analysis of other plans and indicates opportunities for cooperative, joint ventures.

## 6.3.2 Analysis of Plan Consistency

### *6.3.2.1 Adjacent Watershed Districts*

There are other watershed districts in the area neighboring the SHRWD. The Wild Rice Watershed District borders to the south and east, and includes portions of Norman, Mahanomen, Clay and Becker counties. The Red Lake Watershed District borders to the north and east and includes portions of Polk and adjacent counties to the SHRWD. In review of these neighboring watershed district WMPs, it appears that the goals and policies of these districts are consistent with the plans of the SHRWD.

### *6.3.2.2 Local Water Management Plans*

Local water plans related to the SHRWD have been reviewed to identify goals of the associated agencies. These goals have been summarized in **Table 6.1** below, in relation to consistency with SHRWD WMP.

**Table 6.1 Summary of Local Water Management Plans in the SHRWD.**

Name of Entity	Document Name/ Reference	Goals	Consistent with SHRWD WMP Update?	SHRWD Role
Polk County	Polk County Local Water Management Plan	<ul style="list-style-type: none"> <li>-New and continued monitoring of lakes in eastern Polk County and source water supply waters of the county.</li> <li>- All water monitoring done within the County and its subsequent watersheds should be documented and managed by a single "clearinghouse" for easy access.</li> <li>- Promote and educate citizens of Polk County about BMPs and the wise use of natural resources, especially as it pertains to water quality.</li> <li>- Work with federal, state, and local agencies in regards to the Impaired Waters status of these waters.</li> <li>- Assist landowners with compliance of the County's Shoreland Ordinances to protect and enhance lake water quality.</li> <li>- Ensure that county, township, watershed, and private ditch systems adequately address the drainage needed to support agricultural activities without negatively affecting water quality and other natural resources, as well as economic impacts to the infrastructure of Polk County.</li> <li>- Determine if ditch systems are of adequate size.</li> <li>- Determine whether there is proper maintenance on ditch systems.</li> <li>- Conduct a culvert inventory.</li> <li>- Perform a ditch inventory with focus on smaller and private ditches.</li> <li>- Promote and provide technical help for landowners willing to enroll marginal lands into conservation easements.</li> <li>- Protect and identify areas of threatened and endangered species.</li> </ul>	Yes	Cooperator



Norman County	Norman County Local Water Management Plan	<ul style="list-style-type: none"> <li>- Reduce unwanted soil movement. by: reducing water and wind erosion, sedimentation, and implementing State programs reduce erosion and sedimentation.</li> <li>- Maintain or improve water quality by: maintaining or improving groundwater and surface water quality, and implementing the State Feedlot Program.</li> <li>- Appropriate use of natural resources through appropriate landuse, education and promotion of County residents on BMP practices and their uses, implementation of State Shoreland Rules, and implementation of State Wetland Conservation Act Rules.</li> <li>-Control water movement across the County by: establishment of projects within identified priority areas, assisting in the maintenance or improvement of existing water control projects, and assisting in the improvement of technologies for more accurate identification of projects.</li> </ul>	Yes	Cooperator
Mahnomen County	Mahnomen County Local Water Management Plan	<ul style="list-style-type: none"> <li>-address the impaired and degraded waters within Mahnomen County</li> <li>-protect groundwater quality</li> <li>-protect and enhance riparian corridors and buffers to allow habitat connections and wildlife migration</li> <li>-address and reduce soil erosion county-wide</li> <li>-reduce streambank and in-stream erosion</li> <li>-involve communities in FDR process and strategies</li> </ul>	Yes	Cooperator

### *6.3.2.3 Plans Developed by State and Federal Agencies and Non-profit Entities*

These plans detail some of the programs and initiatives of State, Federal, and Non-profit entities that relate to the SHRWD. A description is provided in **Table 6.2** and how they relate to the SHRWD.

The Minnesota Water Plan (MWP), developed by the Minnesota Environmental Quality Board (EQB), sets out an agenda for protecting and conserving the water resources of the State. The MWP identifies principals, policies, and actions needed for managing water in the State. In accordance with general planning policies, more detailed water management plans have been developed at lower levels of government to be supportive and consistent with the overall WMP. In this lens, watershed districts in the State have developed their own WMPs accordingly. It is the intent that the SHRWD WMP will be consistent with and supportive of the MWP.

The Minnesota Statewide Conservation and Preservation Plan (MSCPP), released by the University of Minnesota's Institute on the Environment and the Legislative-Citizen Commission on Minnesota Resources, offers comprehensive assessments and recommendations pertaining to the future of Minnesota resources. The Statewide Conservation and Preservation Plan charts long-term strategies for addressing critical issues and trends impacting Minnesota's environment and natural resources. It is the intent that the SHRWD WMP will be consistent with and supportive of the MSCPP.

Table 6.2 Summary of Some Programs and Initiatives Related to the SHRWD.

Name of Organization	Name of Program or Initiative/ Reference	General Description of Program or Initiative	Consistent with SHRWD WMP Update?	Potential for Cooperative Efforts
Ducks Unlimited	Living Lakes Initiative <a href="http://www.ducks.org/conservation/initiative84.aspx">http://www.ducks.org/conservation/initiative84.aspx</a>	Restore and improve waterfowl habitat	Yes	Moderate
Ducks Unlimited	Grasslands for Tomorrow <a href="http://www.ducks.org/Conservation/GrasslandsforTomorrow/49/GrasslandsforTomorrow.html">http://www.ducks.org/Conservation/GrasslandsforTomorrow/49/GrasslandsforTomorrow.html</a>	Acquire and restore grassland habitats	Yes	Moderate
USFWS	North American Waterfowl Management Plan <a href="http://www.fws.gov/birdhabitat/NAWMP/index.shtm">http://www.fws.gov/birdhabitat/NAWMP/index.shtm</a>  Partners in Flight <a href="http://www.partnersinflight.org/">http://www.partnersinflight.org/</a>  U.S. Shorebird Conservation Plan <a href="http://www.fws.gov/shorebirdplan/">http://www.fws.gov/shorebirdplan/</a>  Waterbird Conservation for the Americas <a href="http://www.waterbirdconservation.org/">http://www.waterbirdconservation.org/</a>  Prairie Pothole Joint Venture <a href="http://www.ppjv.org/">http://www.ppjv.org/</a>	Protect wetland and grassland habitats for waterfowl, landbirds, shorebirds, and waterbirds	Yes	Moderate
LCCMR	Minnesota Statewide Conservation and Preservation Plan <a href="http://www.lccmr.leg.mn/statewideconservationplan/Final_plan/SCPPFinalReport.pdf">http://www.lccmr.leg.mn/statewideconservationplan/Final_plan/SCPPFinalReport.pdf</a>	Provides an plan for protection of air, water, land, wildlife, fish and outdoor recreation	Yes	Moderate

Name of Organization	Name of Program or Initiative/ Reference	General Description of Program or Initiative	Consistent with SHRWD WMP Update?	Potential for Cooperative Efforts
EQB	Protecting Minnesota's Waters: Priorities for the 2008-2009 Biennium <a href="http://www.eqb.state.mn.us/documents/2008-2009PrioritiesReportMay2007FINAL.pdf">http://www.eqb.state.mn.us/documents/2008-2009PrioritiesReportMay2007FINAL.pdf</a>	Prioritizes areas to focus on for the coming biennium, which are water quality and the Clean Water Legacy Act, water supply, and wetlands	Yes	Moderate
EQB	Minnesota Water Plan <a href="http://www.gda.state.mn.us/pdf/2000/eqb/wtr_mrk.pdf">http://www.gda.state.mn.us/pdf/2000/eqb/wtr_mrk.pdf</a>	Statewide goals are to improve water quality, conserve the diverse characteristics of Minnesota's water, restore and maintain healthy aquatic ecosystems, and provide diverse recreational opportunities	Yes	High
DNR	Minnesota Wetlands Conservation Plan <a href="http://files.dnr.state.mn.us/eco/wetlands/wetland.pdf">http://files.dnr.state.mn.us/eco/wetlands/wetland.pdf</a>	Guide stewardship of wetlands, through using a geographic system approach to the issues	Yes	Moderate

Name of Organization	Name of Program or Initiative/ Reference	General Description of Program or Initiative	Consistent with SHRWD WMP Update?	Potential for Cooperative Efforts
DNR	<p style="text-align: center;">Tomorrow's Habitat for the Wild and Rare</p> <p><a href="http://www.dnr.state.mn.us/cwcs/strategy.html">http://www.dnr.state.mn.us/cwcs/strategy.html</a></p>	<p>A strategic plan focused on managing Minnesota's populations of species in greatest conservation need</p>	Yes	Moderate
DNR	<p style="text-align: center;">Long Range Duck Recovery Work Plan</p> <p><a href="http://files.dnr.state.mn.us/outdoor_activities/hunting/waterfowl/duckplan_042106.pdf">http://files.dnr.state.mn.us/outdoor_activities/hunting/waterfowl/duckplan_042106.pdf</a></p>	<p>Recover historical breeding and migrating populations of ducks in Minnesota for their ecological, recreational, and economic importance to the citizens of the state</p>	Yes	Moderate
DNR	<p style="text-align: center;">Drought Response Plan</p> <p><a href="http://files.dnr.state.mn.us/natural_resources/climate/drought/droughtp.pdf">http://files.dnr.state.mn.us/natural_resources/climate/drought/droughtp.pdf</a></p>	<p>Respond to drought-related emergencies and prepare a statewide framework for drought response</p>	Yes	Moderate

Name of Organization	Name of Program or Initiative/ Reference	General Description of Program or Initiative	Consistent with SHRWD WMP Update?	Potential for Cooperative Efforts
RRBB	Inventory Team Report <a href="http://www.redriverbasincommission.org/Committees/Inventory/Conservation_Final_Report.PDF">http://www.redriverbasincommission.org/Committees/Inventory/Conservation_Final_Report.PDF</a>	Reviews applicable planning efforts in the Red River Basin and summarizes initiatives to focus on	Yes	High
Red River Flood Damage Reduction Work Group	A User's Guide to Natural Resource Efforts in the Red River Basin <a href="http://files.dnr.state.mn.us/aboutdnr/reports/redriver_nrefforts_pdf4.pdf">http://files.dnr.state.mn.us/aboutdnr/reports/redriver_nrefforts_pdf4.pdf</a>	Discusses strategies on how to achieve the goals of the Red River Basin Flood Damage Reduction Working Group Agreement	Yes	High
Red River Flood Damage Reduction Work Group	Technical and Scientific Advisory Committee: Technical Papers Nos. 1 through 15 <a href="http://www.rwmb.org/html/info.cfm?ID=10">http://www.rwmb.org/html/info.cfm?ID=10</a>	Technical Papers providing guidance on how to achieve the goals of the Red River Basin Flood Damage Reduction Work Group Agreement	Yes	High

Name of Organization	Name of Program or Initiative/ Reference	General Description of Program or Initiative	Consistent with SHRWD WMP Update?	Potential for Cooperative Efforts
River Keepers	<p style="text-align: center;">Red River of the North Canoe and Boating Route Master Plan</p> <p><a href="http://www.riverkeepers.org/pdf/red_river_master_plan_1_03.pdf">http://www.riverkeepers.org/pdf/red_river_master_plan_1_03.pdf</a></p>	<p>Increased canoeing and boating uses of the Red River of the North with emphasis on safety; interpretive, historical, and environmental awareness; and economic development</p>	Yes	Moderate
U.S. North American Basin Conservation Initiative	<p style="text-align: center;">Work Plan for 2007</p> <p><a href="http://www.nabci-us.org/workplan.htm">http://www.nabci-us.org/workplan.htm</a></p>	<p>Energize and provide focus for the Committee and the bird conservation community in their efforts to facilitate integrated bird conservation in North America</p>	Yes	Moderate

<p>Minnesota Department of Agriculture</p>	<p style="text-align: center;">Water Usage</p> <p><a href="http://www.mda.state.mn.us/protecting/conservation/practices/irrigation.apx">http://www.mda.state.mn.us/protecting/conservation/practices/irrigation.apx</a></p> <p style="text-align: center;">Targeting Tools (for BMPs and Conservation Structures</p> <p><a href="https://www.mda.state.mn.us/protecting/cleanwaterfund/toolstechnology.aspx">https://www.mda.state.mn.us/protecting/cleanwaterfund/toolstechnology.aspx</a></p> <p style="text-align: center;">Agricultural BMPs</p> <p>MDA Ag BMP Loan Program: <a href="http://www.mda.mn.us/en/grants/loans/agbmploan.aspx">http://www.mda.mn.us/en/grants/loans/agbmploan.aspx</a></p> <p>Sustainable Ag Loan Program: <a href="http://mda.state.mn.us/en/grants/loans/esaploan.aspx">http://mda.state.mn.us/en/grants/loans/esaploan.aspx</a></p> <p>BWSR Cost Share Funds: <a href="http://www.bwsr.state.mn.us/grants/apply/index.html">http://www.bwsr.state.mn.us/grants/apply/index.html</a></p> <p>NRCS Cost Share Funds: <a href="http://www.mn.nrcs.usda.gov/">http://www.mn.nrcs.usda.gov/</a></p> <p style="text-align: center;">Groundwater and Surface Water Management</p> <p>Groundwater Quality Data: <a href="http://www.mda.state.mn.us/chemicals/pesticides/maace.aspx">http://www.mda.state.mn.us/chemicals/pesticides/maace.aspx</a></p> <p>Source Water Protection Areas: <a href="http://gis.mda.state.mn.us/source/">http://gis.mda.state.mn.us/source/</a></p> <p>Geologic and Hydrogeologic Information: <a href="http://dnr.state.mn.us/ground_water_section/mapping/index.html">http://dnr.state.mn.us/ground_water_section/mapping/index.html</a></p> <p>Best Management Practices: <a href="http://www.mda.state.mn.us/protecting/soilprotection/fanmap.aspx">http://www.mda.state.mn.us/protecting/soilprotection/fanmap.aspx</a></p> <p>Nutrient Management Initiative: <a href="http://www.mda.state.mn.us/protecting/soilprotection/mni.aspx">http://www.mda.state.mn.us/protecting/soilprotection/mni.aspx</a></p>	<p>Provides information and guidance to agricultural stakeholders and local units of government in implementing proper conservation measures for the enhancement of agriculture in conjunction with the conservation of Minnesota's soil and water resources.</p>	<p>Yes</p>	<p>Moderate</p>
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## 6.4 Financing and Funding

### 6.4.1 Funding Approach and Rationale

The SHRWD intends to distribute costs for administration, programs, and projects as equitably as possible. The SHRWD also strives to maintain an efficient and effective implementation process that does not include disproportionate administrative costs. Therefore, the financing and funding of the various watershed efforts is carried out using the various funding methods available by law to provide a balance between equity in paying for activities and an effective process that does not create unduly high administrative costs to implement. In order to serve the watershed as a whole, as well as address specific issues, the SHRWD uses a variety of funding mechanisms that are available to the District through MS 103D.

Various programs are needed in the watershed (see **Section 3**) to address resource issues. Programs are typically non-construction related efforts intended to address resource watershed issues and problems. Programs are generally implemented at the watershed level and, therefore, financed by the entire watershed. Watershed-wide collection of funds is also generally less costly, administratively.

The SHRWD completes investigations and prepares studies and plans necessary to implement construction projects intended to solve watershed issues and problems. Studies and plans are completed in order to identify potential problems, identify reasonable alternatives, and propose necessary actions. Construction projects are needed at times to prevent or correct problems that arise in the watershed or address opportunities that exist. The projects are a necessary part of the watershed's activities, which serve to provide effective management of the resources.

The processes and procedures identified by this WMP for developing, funding and completing action items are intended to be consistent with the funding procedures established and authorized by MS 103D, as supported by the RRWMB. This intent is to maintain consistency among watershed districts within the Red River Basin.

### 6.4.2 Funding the Watershed District

#### *6.4.2.1 Overview*

A variety of mechanisms is available to fund the administration and operation of the District and to complete studies, implement programs, and plan and construct projects. (Note: an excellent summary can be found within the *Watershed District Handbook* prepared by the Minnesota Association of Watershed Districts (see

<http://mnwatershed.govoffice.com/index.asp>). Only a summary of the various funds is presented, sufficient to generally understand the intended use. The discussion is largely from the *Watershed District Handbook*. The SHRWD has responsibilities under both Watershed District Law (103D) and Drainage Law (103E). It should be noted that more than one funding mechanism could be applied to a specific project.

#### ***6.4.2.2 Funds Generated by Ad Valorem Tax Levies***

“Ad valorem” means a tax collected over an entire taxing district (e.g., a subwatershed or the entire District) based on property value “in proportion to the value” rather than the anticipated benefits received. Therefore, an advantage of an Ad Valorem tax is that the District does not need to appoint viewers/appraisers to determine benefits and divide the costs in proportion to benefits. The ad valorem tax rate is expressed as a percentage of the total value of real property. Several “funds” may be established by the SHRWD and supported financially through an ad valorem tax.

- Organizational Expense Fund (MS 103D.905 Subd. 2) – When a Watershed District is first established, or later enlarged, it may levy for an Organizational Expense Fund. The fund is to pay for organizational expenses and preparation of the WMP. Unspent funds remaining after organization and completion of the WMP may be transferred to the Administrative Fund. The District may levy only ONCE upon creation or expansion for this fund. (The District may levy each time it expands, but only in the newly included area.) The amount cannot exceed 0.01596 percent of taxable market value or \$60,000, whichever is less.
- General Fund (MS 103D.905 Subd. 3) - The purpose of this fund is to pay for general administrative expenses and for the construction, or implementation, and maintenance of projects that are of common benefit. A Watershed District may levy annually for a General Fund. The ad valorem tax levy may not exceed 0.048 percent of taxable market value or \$250,000, whichever is less. The amount of the annual levy for the fund must be determined and justified through the Watershed District’s annual budget process (M.S. 103D.911).

The Managers may annually levy to pay for the cost of basic water management features of projects initiated by petition of a political subdivision within the SHRWD or by petition of at least 50 resident owners whose property is within the Watershed District. The annual levy cannot exceed 0.00798 percent of taxable market value for not more than 15 consecutive years. Political subdivision means a county, city, township, soil and water conservation district, school district or other political subdivision of the state, but not a Watershed District. During the 2006 Legislative Session, the Minnesota Legislature passed a law that allowed the SHRWD to

increase the levy limit to 0.02394 percent of taxable market value for a three-year period (2007, 2008, and 2009). It is hoped the Legislature will continue this increased funding in the future. If not granted additional years by the legislature at this higher percentage, this tax would be limited to 0.00798 percent of the taxable market value.

The SHRWD is permitted to levy outside of the administrative levy for liability insurance. Minnesota Statute 466.06 "Liability Insurance" gives Watershed Districts the same authority that cities and counties have to levy in excess of their local tax rate limitation for the purchase of liability insurance. In order to exercise this authority, a District must identify the liability insurance premium as a separate line in its levy certification to the county and indicate that the premium amount is being levied under MS Chapter 466.06.

- Survey and Data Acquisition Fund (MS 103D.905 Subd. 8) - The Survey and Data Acquisition Fund is designed to pay for making necessary surveys and acquiring data. This fund is to be established only if other funds are not available to the Watershed District. The Survey and Data Acquisition Fund is established by an ad valorem tax levy. The levy may only be collected once every five years. The maximum levy is 0.02418 percent of taxable market value of real property within the District or \$50,000, whichever is less. The fund balance cannot exceed \$50,000. At the end of a five (5) year period, any balance remaining in the fund should be accounted for in the new levy in order to keep the fund balance below \$50,000. For future projects where a survey has been paid for from this fund, the cost of the survey, as determined by the Board of Managers, will be included as part of the project work and the sum repaid to the Survey and Data Acquisition Fund.
- Emergency Projects of Common Benefit (MS 103D.615, Subd. 3) - The purpose of this levy is to pay the costs of projects that protect the interest of the Watershed District when associated with a declaration of an emergency. If the work is found to be of common benefit to the Watershed District, funding may be raised by an ad valorem tax levy upon all taxable property within the watershed if the cost is not more than 25 percent of the most recent general ad valorem levy of the Watershed District. This ad valorem authority may be combined with assessments against benefited property in order to pay costs associated with emergency work performed without a contract.

#### ***6.4.2.3 Funds Generated by Assessment Levies***

An assessment levy is a special tax levied on a property to pay for a local public improvement that will benefit that property. The amount of the benefits is normally determined by appraisers (often called "viewers"). It is the responsibility of the viewers, not the

engineer, to determine the benefits and damages to the property. The engineer is responsible for providing the technical data needed by the viewers to complete their analysis. The technical basis for the benefits may be items that include the extent to which water levels are lowered, the change in the frequency of flooding, or the anticipated increase in property value. Damages typically include the loss of crops associated with constructing a project or the acquisition of land or right-of-way. An assessment may not be levied against property or corporations in excess of the amount of benefits received.

The assessments of benefits must be based upon the benefits to the property due to the project and must include:

- all property receiving direct benefits, including property owned by the state or a political subdivision;
  - all property that is contributing water to the project (i.e., within the hydrologic boundary);
  - all property for which the project provides improved drainage;
  - all property that contributes waters that are stored, handled, or controlled by the project;
  - benefits to the state by reason of improvement of lakes, streams or other bodies of water; and
  - situations identified by MS 103D.725.
- Preliminary Fund (MS 103D.905 Subd. 6) - This fund is used for preliminary work on proposed projects of the Watershed District. The fund must be established by District Court. The fund can be established both for projects that are petitioned and for projects the managers initiate. Further, the fund can be established both for projects that are to be paid for by assessment and for projects that are to be paid for by a combination of assessment and ad valorem, such as basic water management features of a project. When a project is ordered, the fund must be repaid by assessment. If a project is not ordered, repayment could be made from ad valorem.
  - Construction Fund (MS 103D.905 Subd. 5) - The purpose of the Construction Fund is to establish an account that consists of:
    - the proceeds of Watershed District bonds or notes or of the sale of county bonds;
    - construction or implementation loans from the MPCA under MS 103F.701-103F.761 or from any agency of the federal government;

- funds from special assessments, stormwater charges, loan repayments, and ad valorem tax levies levied or to be levied to supply funds for the construction or implementation of projects.

This fund is the primary repository for the construction of projects.

- Repair and Maintenance Fund (M.S. 103D.905, Subd. 7 and 103D.631) - The purpose of this fund is to provide money for maintaining the projects of a Watershed District. The cost of normal or routine maintenance of the projects and the cost of removing obstructions/foreign substances from a drainage system may be paid from the maintenance fund. Managers may assess all the parcels of property and municipal corporations previously assessed for benefits at the time of construction. The assessment must be made pro rata according to benefits determined at the time of project establishment. The collection (or levy) resulting from an assessment may be made annually. However, the fund may not exceed 20 percent of the original cost of construction of the project. Before ordering the levy, the Board of Managers may give notice of a hearing on making the assessment and establishing the maintenance fund.
- Emergency Projects for Benefited Property Fund (MD 103D.615, Subd3) – The purpose of this fund is essentially identical to the fund Emergency Projects of Common Benefit, with the exception that the benefiting properties are assessed.

#### *6.4.2.4 Funds Generated through Bond Sales (MS 103D.904, Subd 4)*

A Watershed District may establish a Bond Fund consisting of the proceeds of special assessments, storm water charges, loan repayments, and ad valorem tax levies pledged by the Watershed District for the payment of bonds or notes issued by the Watershed District. The fund is to be used for the payment of the principal, premium or administrative surcharge and the interest on the bonds and notes issued by the Watershed District, and for payments required to be made to the federal government.

#### *6.4.2.5 Funds Generated through the Collection of Charges (MS 103D.729 and 444.075)*

This provision allows a Watershed District, through the amendment of its plan or during an update to the WMP, the authority to establish one or more Water Management Districts for the purpose of collecting revenues and paying the costs of projects initiated under sections 103D.601, 103D.605, 103D.611, or 103D.730.

To establish a Watershed Management District (WMD), an amendment to the WMP or the WMP itself must describe the area to be included in the Water Management District,

the amount of the charges, the methods used to determine the charges, and the length of time the WMD will remain in effect. After adoption, the amendment or WMP must be filed with the county auditor and county recorder of each county affected by the WMD. The WMD may be dissolved by the procedures prescribed for the establishment of the Water Management District.

#### ***6.4.2.6 Funds Generated through the Collection of Fees (MS 103D.345)***

Watershed Districts are allowed by law to establish fees and charges for services provided. Fees cannot be charged to the federal government, state or a political subdivision. These fees include:

- Permit Fees: application fees for processing applications for a permit to do work in the District.
- Inspection Fees: fees charged for inspection of permitted work in the District. The fee is established by the hourly rate of the individual doing the inspection.
- Engineer Review Fees: fees charged for the review work done by the District engineer at the engineer's hourly rate.
- Wetland Delineation Fee: a fee for determining the type and boundary of a wetland. The fee suggested in statute is \$75. Some Districts have determined staff costs on an hourly rate and bill private individuals according to time involved in the delineation.

Permit fee records should be maintained in an organized manner.

The District can also collect a permit performance escrow to ensure performance of permit requirements. Escrow is generally set up so that it can be calculated by a number of different variables, depending upon which are the most appropriate to the characteristics of the District. Some Districts have set up wetland escrow accounts to cover the costs of wetland mitigation, including land acquisition, and attorney's fees.

### **6.4.3 Establishment of MS 103D.729 Water Management Districts**

#### ***6.4.3.1 Overview***

The SHRWD establishes four Water Management Districts (WMD) through this plan update. This funding option can only be used to collect charges to pay costs for projects initiated under MS 103D.601, 103D.605, 103D.611, or 103D.730. To use this funding method, Minnesota law (MS 103D.729) requires that the area to be included in the WMD be described, the

amount to be charged identified, the methods used to determine the charges described, and the length of time the WMD is expected to remain in force specified.

### 6.4.3.2 Description of the Water Management Districts

By this update to the WMP, the SHRWD establishes the four Planning Regions (as discussed in **Section 1.6**) as the Water Management Districts. The District may create different Water Management Districts under future plan amendments.

### 6.4.3.3 Annual Charge Amount

The maximum WMD revenue limit within each WMD is based on 0.05% of the taxable market value within each planning region. This value will change each year as property values increase or decrease over time. **Table 6.3** shows the probable total revenue generated by the WMD.

**Table 6.3 Potential Total Revenue by Water Management District**

Planning Region	Area (acres)	Probable Per Acre Charge*	Probable Total Revenue
Planning Region 1	106,411	\$0.50 to \$1.00	\$79,808
Planning Region 2	45,872	\$0.50 to \$1.00	\$34,404
Planning Region 3	43,045	\$0.50 to \$1.00	\$32,284
Planning Region 4	112,628	\$0.50 to \$1.00	\$84,471
<b>Total</b>			<b>\$230,967</b>

\* Probable charge per acre for illustration purposes only. The actual charge will be per parcel and determined in accordance with the procedures described within this Section.

### 6.4.3.4 Method to Determine Charges

**Table 6.3** shows the probable total revenue generated by a Water Management District. The methods proposed to establish the charges will be based upon the proportion of the total annual runoff volume and/or solids load contributed by a parcel or may be based on the drainage area of the parcel, within a Water Management District. See Table 6.4 for a listing of projects that could be funded by a WMD.

**Option 1:** The runoff volume method will:

- Use soils and land use data to determine the existing curve number for each parcel within a Water Management District;
- Use the curve number for each parcel and the annual average precipitation depth to compute the annual runoff volume for each parcel;
- Sum the annual average runoff volumes for all parcels within a Water Management District to determine the total annual runoff volume;
- Compute the percentage of the annual runoff volume from each parcel as the ratio of the annual average runoff volume from the parcel and the total annual average runoff volume for the Water Management District (i.e., the “runoff ratio”).

**Option 2:** The solids load contribution method:

- Use the Revised Universal Soil Loss Equation and a sediment delivery ratio representing the portion of the solids and sediment reaching a watercourse, to compute the annual average sediment and solids load for each parcel;
- Sum the annual average solids and sediment loads for all parcels within a Water Management District to determine the total annual average sediment and solids load;
- Compute the percentage of the annual average sediment and solids load from each parcel as the ratio of the annual average sediment and solids load from the parcel and the total annual average sediment and solid load for the Water Management District (i.e., the “sediment ratio”).

**Option 3: The combination runoff volume and solids load method.** The method used to consider both runoff volume and solids load contribution would follow the methodologies listed above for both solids contribution and runoff volume.

Calculation of charges for **Options 1 through 3** would be determined as follows:

- Add the runoff ratio and/or the sediment ratio to compute the “charge ratio” for each parcel within the Water Management District. The amount charged to a specific parcel is the sum of the runoff ratio and the sediment ratio for the parcel, divided by the sum of the runoff ratio and the sediment ratio for all parcels within the Water Management District.
- Apply the charge ratio to the total amount of revenue needed for the Water Management District to carry out the storm water related projects, programs, and activities of the SHRWD to achieve the storm water related goals within that Water Management District.

**Option 4:** The drainage area method will:



- Determine the drainage area of each parcel of land within the planning region.

Calculation of charges for **Option 4** would be determined as follows:

- The amount charged to a specific parcel is determined based on the charge ratio. The charge ratio is determined by taking the drainage area of that parcel within the planning region divided by the total area of the planning region.
- Apply the charge ratio to the total amount of revenue needed for the Water Management District to carry out the storm water related projects and programs of the SHRWD to achieve the storm water related goals within that Water Management District.

Selection of the appropriate process of determining charges will be determined and further refined in Step 3 of the process described 6.4.3.7.

#### *6.4.3.5 Duration for Existence of the Water Management Districts*

The SHRWD anticipates that the Water Management Districts will provide funding to assist with the implementation of a variety of storm water (runoff and/or water quality) related projects. The Water Management Districts will remain in existence in perpetuity. Annual assessment of charges could vary from no charges to the maximum WMD revenue limit of the planning region.

#### *6.4.3.6 Use of Funds*

The primary use of the funds collected from charges within Water Management Districts will support stormwater runoff and water quality projects that help achieve the goals of the planning regions, which benefit residents within a Water Management District(s) (also see **Section 6.4.4**).

### *6.4.3.7 Process to be Used to Create Water Management Districts*

The BWSR has provided draft guidance as to the process of creating a WMD. The process involves eight steps. The first two steps are addressed through the revision of the Watershed Management Plan. The remaining steps 3 through 8 must be completed prior to any collection of charges in any WMD. The SHRWD will evaluate the use and effectiveness of the Water Management District every ten years.

**Step 1.** Amend Watershed District Plan to create a water management district.

Amendment must include:

- Description of area to be in the water management district
- The amount to be raised by charges (total amount is necessary if fixed time for water management district to be in force, otherwise annual maximum (cap) amount)
- The method that will be used to determine the charges
- The length of time the water management district will be in force (perpetuity is acceptable)

**Step 2.** Approval of Plan amendment under M.S. § 103D.411 or as part of a revised Plan under M.S. § 103D.405.

- Revised Plan, or petition and amendment, sent to BWSR
- BWSR gives legal notice, and holds hearing if requested
- BWSR approves plan or amendment
- BWSR notifies WD managers, counties, cities, SWCDs
- Watershed District maintains file of all properties within the water management district

**Step 3.** Watershed District establishes project(s) in the water management district

- Projects implemented must be ordered by the Watershed District managers
- Order for “Project” must specify funding method(s)
- Watershed District must notify counties, cities and towns within the affected area at least 10 days prior to hearing or decision on “Projects” implemented under this section of statute

**Step 4.** Watershed District refines methodology for computing charges based on final “Project” scope.

**Step 5.** Watershed District determines and sets charges for all properties within the water management district after identifying scope of “Project” and deciding method(s) of funding “Project”.

**Step 6.** Watershed District develops collection mechanism.

- Request County or Counties to collect,
- Contract with a private vendor (e.g. electric cooperative), or
- Billing and collection by Watershed District

**Step 7.** Watershed District establishes a separate fund for proceeds collected from the fee or stormwater utility charges.

**Step 8.** Resolution of Disputes. Local governments may request BWSR to resolve disputes pursuant to M.S. § 103D.729, Subd. 4, except a local appeal process must be completed first for disputes involving water management districts established in perpetuity.

### *6.4.3.8 Local Appeal Procedures for Water Management Districts*

Subpart 1. **Applicability.** This part applies when an owner of land in a water management district disputes the charges to be collected for their land in the water management district. This part does not apply to the validity of a water management district being in place.

Subpart 2. **Petition.** A petition may be made by an owner of land in a water management district to appeal the charges to be collected for their land in the water management district. A petition must be made in writing to the Sand Hill River Watershed District. The petition must state the reasons the water management district charges are calculated improperly for their land.

Subpart 3. **Petition review process.**

- A. Within ten working days of receiving a petition, the watershed district, its staff, legal counsel or consultants (District), are required to acknowledge in writing to the petitioner receipt of the petition.
- B. The District must complete an assessment of the reasons stated in the petition to revise the charges. The District may request further information from the petitioner, have discussions with the petitioner or their legal counsel, view the property that is the subject of the petition, conduct onsite investigations, and such other fact finding as the District deems necessary to evaluate the petition.
- C. The Board of Managers shall review the results of the assessment and a decision made on the findings and recommendations in the assessment.
- D. Upon the Board of Managers approval of an assessment, the assessment must be provided to the petitioner or their legal counsel accompanied with notification of the deadline for the petitioner to submit evidence to the District refuting the assessment.

Subpart 4. **Decisions.**

- A. The District must notify the petitioner or their legal counsel in writing at least 10 working days before the meeting in item B takes place.
- B. On receipt of any information from, or lapse of the time period in, subpart 3, item D, the Board of Managers must:
  - 1. advise staff to conduct additional fact finding it considers necessary and report back to the managers accordingly;
  - 2. direct staff to attempt to resolve the matter and to advise the managers further; or
  - 3. issue findings of fact and conclusions of its investigation on the petition.
- C. The District shall provide written notice of the decision in item B to the petitioner or their legal counsel within five working days of the decision.

Subpart 6. **Limitations.** A petition may not be filed more than once in 5 years for a specific parcel of land unless significant land alterations or land use changes have occurred since the charges were calculated or since a previous petition was filed with the watershed district.

Subpart 7. **Withdrawal of petition.** If agreement is reached at any time before the above procedures are completed the petitioner may withdraw their petition and the District may revise the charges if needed.

## 6.4.4 Financing District Activities

### *6.4.4.1 Overview*

For administrative purposes, the SHRWD divides the activities of the District into the following categories:

- ❖ Administration and operations;
- ❖ Programs; and
- ❖ Projects.

Administration and operation activities include those activities necessary for the daily operation of the District. Programs are generally considered as cooperative efforts with other agencies or organizations where the funds of the SHRWD are used to encourage the pursuit of common goals through the completion of action items within this WMP. Projects are primarily the development, investigation, design, permitting, and construction of projects intended to manage the resource of the SHRWD.

### *6.4.4.2 Financing District Efforts*

A summary of the probable primary funding mechanism by district program is summarized in **Table 6.4**. New programs and projects maybe developed by the District during the implementation of the WMP.

**Table 6.4 Summary of Watershed District Programs and Activities and the Probable Primary Funding Sources.**

<b>Watershed District Program / Activity</b>	<b>Probable Primary Funding Sources</b>	<b>Existing or New Program</b>	<b>Description</b>	<b>Example(s) From Current District Activities</b>
<b>Administration and Operation</b>	General Fund	Existing	Daily operation of the watershed district.	Not applicable
<b>Programs</b>				
Permitting	General Fund and Collection of Fees	Existing	Developing rules for the district, operating the permit program and completing inspections of permitted projects.	Existing Permit Program
Data Collection and Management	Survey and Data Acquisition Fund	Existing	Monitoring activities intended to collect information about flow rates and stages, sediment loads, surface and ground water characteristics. General data collection efforts to better understand issues within the district. Maintaining and enhancing the district web page.	River Watch and current web page, Mediation Project Team Projects (Data necessary for engineering design)
Education and Information	General Fund	Existing	Activities, programs, and efforts intended to inform stakeholders about District activities and programs.	Annual Report and web page

<b>Watershed District Program / Activity</b>	<b>Probable Primary Funding Sources</b>	<b>Existing or New Program</b>	<b>Description</b>	<b>Example(s) From Current District Activities</b>
Natural Resource Enhancement Cost Share	M.S.A.103D-905, Subd. 3 and Water Management District Funds	Existing	Cost share program for natural resource enhancement projects as either cash or in-kind technical services. The natural resource enhancement activity may be initiated by others but must be consistent with the goals and the action items identified within this WMP. The amount of cost share is determined on a case-by-case basis by the Board of Managers.	Current program.  Ongoing cooperative program with East Polk SWCD for natural channel stabilization and erosion control.
Farmstead Ring Dike	General Fund and M.S.A. 103D-905, Subd.3	Existing	Provide cost share for the construction of ring dikes to protect farms and farm buildings.	Current program.  Approximately 5 ring dikes completed to date.
Drainage System Buffer Strip Cost Share	General Fund and 103E if required by law	Existing	Provide cost share to establish permanent vegetative strips along private and public drainage systems. The maximum cost share is 50% of the installation cost and requires a permanent easement.	Improved and redetermined systems since 1976.
Floodplain Management Program	M.S.A. 103D-905, Subd. 3	Existing	Provide financial and technical assistance for floodplain management programs currently in operation in the District.	Current program.  Polk County FIS. RRBMI.
Wellhead Protection Investigation Program	M.S.A. 103D-905, Subd. 3	Existing	Provide technical assistance or financial support for developing wellhead protection plans.	Non – new program.

<b>Watershed District Program / Activity</b>	<b>Probable Primary Funding Sources</b>	<b>Existing or New Program</b>	<b>Description</b>	<b>Example(s) From Current District Activities</b>
Surface Water Quality Enhancement Program	Water Management District Fund  M.S.A. 103D-905, Subsd. 3	Existing	Provide technical assistance or financial support for assessment of surface water quality and the development of implementation plans to improve water quality. Primary focus is 303(d) listed waters.	Non – new program.  Union Lake Erosion Control.
<b>Projects</b>				
Emergency	Emergency Projects of Common Benefit Fund and Emergency Projects of Benefited Property Fund	Existing	The planning, design, permitting, and construction of emergency projects.	None – new program.
Maintenance and Repairs	Repair and Maintenance Fund	New	The repair and maintenance of previously constructed watershed district projects.	None – new program.
Construction	General Fund, Const. Fund & Water Mgmt. Dist. Fund	Existing	The planning, design, permitting, and construction of watershed district projects.	Bear Park Flood Control, Liberty Twp Ditch, Reis Twp Ditch, Beltrami Diversion, Poject 17 and 20, and others.

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## 6.5 District Operations

Many activities are completed on a daily basis by the SHRWD to carry out the functions of the watershed district. This portion of the WMP provides a description of the most common activities.

### 6.5.1 Advisory and Related Committees

The SHRWD Board of Managers uses an Advisory Committee (AC) to guide the operation of the District, as a mechanism to obtain input from those residing within the District, and to provide direction during the WMP plan update process. The AC is also engaged in providing recommendations to the Board of Managers with regard to potential projects being considered.

The duties of the AC include:

- elect a chair from its membership;
- elect a recorder from its membership;
- establish a meeting schedule which, at a minimum, meets annually;
- consider issues pertinent to the functions and purposes of the watershed district (review and comment on reports, minutes, activities, and proposed projects of the managers);
- provide input on the annual work plan; and
- report to the managers the general content of advisory committee meetings and resulting recommendations.

The AC includes citizen members from across the Watershed District including multiple members from each of the three Counties within the SHRWD. In 2010, the SHRWD had 19 members on their AC. Membership included two members from outside the District, the RRWMB Monitoring Coordinator, and the RRBC public relations and media consultant.

The District utilizes three additional committees; i.e., a Technical Advisory Committee (TAC), a Citizen Advisory Committee (CAC), and a Project Team (PT). The primary role of the TAC is to provide honest and open technical input and suggestions to the SHRWD about the technical aspects of their proposed philosophy for managing the resources of the District. The CAC's role is to provide local citizen input to the watershed management planning process.

The concept of a "Project Team" was created through the Red River Basin Flood Damage Reduction Work Group mediation agreement, which outlines the project development process for reducing flood damage and improving natural resources in the Minnesota portion of the Red River Basin. Project Teams are responsible for working with



a project from the project concept stage to project construction and monitoring. A Project Team consists of appropriate stakeholders (watershed districts, state, federal, and tribal agency personnel, local government officials, affected landowners, and interested citizen group representatives) including at least one designated contact person from each agency. Members of the Project Team are appointed by the Watershed Board of Managers and may be added and subtracted as necessary over time. The members of the Project Team in 2011 include individuals from the following entities:

- Union Lake LID
- MCEA
- MPCA – Detroit Lakes
- The Nature Conservancy
- USFWS
- DNR Wildlife
- DNR Waters
- DNR Fisheries
- BWSR – Bemidji
- East Polk SWCD
- West Polk SWCD
- NRCS
- USACOE
- SHRWD Advisory Committee
- RRWMB Monitoring – River Watch

## 6.5.2 Long Range Work Plan

The long-range work plan consists of action items based on policies within this WMP. The long-range work plan provides only a general estimate of the cost range for an action item, the priority established by the Board of Managers for the action item and the potential implementation schedule. It is expected that as annual work plans (see **Section 6.5.3**) are developed, the cost range of action items will be improved. The implementation timeline provides a general frame of reference for District activities and is not intended to be an absolute schedule. Many factors influence the ability to initiate and complete action items, including funding availability, activities of partners or other interest groups, or other elements.

The long-range work plan will generally guide District activities for the foreseeable future. The initial long-range work plan anticipated by the SHRWD (based on this WMP and associated approach) is described for each planning region in **Appendices A-D**. While it is anticipated

that the overall long-range work plan will be periodically reviewed and updated, action items may be added, removed, or reprioritized at any time.

The long-range work plan contains a strong focus on assessing issues and providing a technical framework for resource management. The completion of assessments and / or studies will generate *outcomes* that will be added to the long-range work plan. Thus, the long-range work plan also provides for construction of improvements that have been identified in the District's past studies and assessments. Other construction projects may be identified through future studies and will be incorporated into the long-range work plan, as updated from time to time.

### 6.5.3 Annual Work Plan and Budget

The annual work plan is intended to be a fluid document that may change from year-to-year according to the District's achievements, new opportunities, or emerging issues. The annual work plan allows the District to establish an operating budget range for the short term while maintaining connection to the overall long-term actions targeted by the District. The initial annual work plan anticipated by the SHRWD (based on this WMP and associated approach) will be developed 2012. Subsequent to this initial work plan and progress evaluation, new action items may be added, reprioritized, shelved, or similarly addressed.

The SHRWD Board will provide the annual work plan and budget to the Advisory Committee for review and comment. The Advisory Committee will convene annually. With input from the Advisory Committee, the SHRWD Board will prioritize the action items in the annual work plan and establish the preliminary budget (M.S.A. 103D.911) for certification to the County. The annual work plan and budget will provide detailed tasks and budgets for projects and programs. All tasks will relate to one of the management areas described in the WMP.

The SHRWD develops an annual budget for the watershed district. The budget is developed from the action items identified within the long-range work plan and summarized by management area. Before adopting the budget, the Managers hold a public hearing on the proposed budget. Notice of the hearing is published with a summary of the proposed budget in one or more newspapers of general circulation in each county comprising a part of the watershed. According to Minnesota Statute 103D.911, the SHRWD must hold a hearing and adopt a budget on or before September 15 of each year.

## 6.5.4 Annual Report

The SHRWD annually prepares a report describing the financial conditions of the District, the status of projects, the business transacted, and other matters affecting the interests of the District. Copies of the report are transmitted to BWSR, the DNR Commissioner, County Commissioners, the Director of the Division of Waters, and on the SHRWD Web Page.

## 6.5.5 Annual Audit

The Board of Managers annually completes an audit (M.S.A. 103D.355) of the financial accounts of the SHRWD. The annual audit is completed by a public accountant or by the state auditor. The annual audit must be made by a certified public accountant, or the state auditor, at least once every five years or when cumulative District revenues or expenditures exceed an amount established by BWSR in consultation with the state auditor.

## 6.5.6 Performance Review and Assistance Program

The BWSR has been developing a Performance Review and Assistance Program (PRAP). The purpose of PRAP is to review the performance of Minnesota's delivery system of local conservation and water management organizations. The PRAP evaluation form is shown as **Table 6.5**.

Table 6.5 PRAP Greater MN Watershed District Performance Standard Checklist.

**GREATER MN WATERSHED DISTRICT PERFORMANCE STANDARDS**

LGU Name: \_\_\_\_\_

Performance Area	Performance Standard	Level of Review	Rating	
	<ul style="list-style-type: none"> <li>★ High performance (optional) standard</li> <li>■ Basic practice or Statutory requirement (see instructions for explanation of standards)</li> </ul>	<ul style="list-style-type: none"> <li>I Annual Compliance</li> <li>II BWSR Staff Review &amp; Assessment (1/5 yrs)</li> </ul>	Yes, No, or Value	
			YES	NO
Administration	■ Annual report: submitted by mid-year, content compliant	I		
	■ Financial audit: completed within last 12 months	I		
	■ Drainage authority buffer strip report submitted	I		
	■ Rules: date of last revision or review	II	mo/yr	
	■ Personnel policies: written and reviewed/updated within last 5 yrs	II		
	■ Data practices policy: exists and reviewed/updated within last 5 yrs	II		
	■ Manager appointments: current and reported	II		
	★ Administrator on staff	II		
	★ Board training: orientation & cont. ed. plan and record for each board member	II		
	★ Staff training: orientation & cont. ed. plan and record for each staff person	II		
	★ Operational guidelines exist and current	II		
	★ Public drainage records: meet modernization guidelines	II		
	Planning	■ Watershed management plan: up-to-date	I	
★ Implementation and/or strategic review every 2-3 yrs		II		
★ Local water plans reviewed		II	number	
★ Plan goals and objectives guide annual budgeting		II		
Execution	■ Engineer Reports: submitted for DNR & BWSR review	II		
	■ Total expenditures per year (past 10 yrs)	II	attach table	
	■ Project & program \$ expended/total \$ expended (5 yr annual ave.)	II	%	
	★ Water quality trends tracked for priority water bodies	II		
	★ Watershed yield trends monitored / reported	II		
Communication & Coordination	■ Website: contains annual report, financial statement, board members, contact info, watershed mgmt plan	I		
	■ Functioning advisory committee: recommendations on projects, reports, maintains 2-way communication with Board	II		
	■ Communication piece: sent within last 12 months	II		
	★ Website: contains meeting notices, agendas & minutes; updated after each board mtg; additional content	II		
	★ Obtain stakeholder input: within last 5 yrs	II		
	★ Track outcomes for public I & E plan objectives	II		
	★ Coordination with Cty Board and City/Twp officials by managers or staff	II		
	★ Partnerships: cooperative projects/tasks done with neighboring districts, counties, soil and water districts, non-governmental orgs	II		

## 6.5.7 Administration of the Legal Boundary

The description and bounds of the SHRWD is discussed in **Section 1.1**. A figure generated to display the extent of the SHRWD can be found in this section. Legal descriptions of watershed boundaries are cumbersome to develop and adjust. The SHRWD uses geospatial data established with a Geographic Information System (GIS) to convey the legal boundary. In arriving at the most recent boundary change, the District used state-of-the-art LiDAR (Light Distance and Ranging) technology to more accurately establish SHRWD boundary locations. The results have been very satisfactory to the SHRWD and its neighboring watershed districts. The SHRWD periodically reviews parcel data to verify existing properties and incorporate any new properties affecting the watershed, thus updating the legal boundary.

At times projects are proposed or issues occur within the legal boundary of the SHRWD, but are outside of the hydrologic drainage area. These projects are approached on a case-by-case basis. Typically, the SHRWD will assume the lead role on projects or issues that are within the legal boundary. Generally, the SHRWD will coordinate with the appropriate adjacent watershed entity (if present) to ensure effective administration, project oversight and the establishment of the legal boundary.

## 6.5.8 Rules and Permitting

The SHRWD has implemented rules and a permit program. The rules of the SHRWD are intended to effectuate the purposes of MS 103D. The rules are considered necessary by the Board of Managers to implement, and make more specific, the law administered by them.

The requirement for a permit from the Board of Managers for certain uses of water or work within the District is not intended to delay or inhibit development. Rather, the permits are needed so that the Managers are kept informed of planned projects, can advise (and in some instances provide assistance), and to ensure that use of and the effects to the resources are orderly and in accordance with this WMP. The District's current Rules are included as **Appendix E** to this WMP.

## 6.5.9 Responsibilities under Drainage Law (MS 103E)

All legal drainage systems within the SHRWD are operated in accordance with MS 103E. All of the legal drainage systems are county ditch systems. The SHRWD has jurisdiction over several of the legal systems within watershed. A map showing the legal ditch systems under the Watershed District's jurisdiction is shown in **Figure 1.1**. The District plans to continue to operate in a manner necessary to address its obligations under MS 103E.

## 6.5.10 Process for Project Implementation

The SHRWD has developed a process for implementing FDR and/or NRE projects consistent with MS 103D, the Flood Damage Reduction Mediation Agreement, the planning requirements of others, and the U.S. Army Corp of Engineers permit requirements for an individual permit.

This process is described within **Section 6.6**.

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# 6.6 Project Implementation Process

## 6.6.1 Overview

The process of “developing” a FDR and/or NRE project within the SHRWD requires not only satisfying the requirements of Watershed District Law (i.e., MS 103D), but many additional planning, permitting, approval and funding requirements. Some of these requirements include:

- Policies, goals, objectives and action items identified within the Watershed Management Plan (WMP);
- Watershed Law (i.e., MS 103D);
- Red River Basin Flood Damage Reduction Workgroup Agreement (December 9, 1998) and subsequent guidance information some of which includes:
  - Technical and Scientific Advisory Papers;
  - Project Compatibility and Readiness Evaluation; and
  - Project Implementation Process and Procedures.
- Red River Watershed Management Board Funding Requirements contained within *Application Procedures for Funding Flood Damage Reduction Projects and Related Programs* (March 16, 2004);
- State Environmental Review (Minnesota Environmental Policy Act);
- Federal Environmental Review (National Environmental Policy Act);
- Federal Laws (e.g., cultural resources, Threatened and Endangered species, water quality standards);
- State Laws (e.g., work in protected waters); and
- Local approvals (e.g., zoning, consistency with land use plans).

Considerable effort is being made to develop a single, unified, consistent process capable of simultaneously addressing the alternatives analysis and sequencing requirements of several of

these laws (e.g., environmental review, Section 404). **It should be noted that this process applies only to FDR and/or NRE projects. This process does not apply to drainage projects undertaken by the District.**

The project development process begins with the identification of a problem, then proceeds to identification of alternative concepts and selection of a project concept, and ends either with the abandonment of the concept or ultimately constructing the project and implementing the mitigation and monitoring requirements. A project concept is simply an idea intended to address one or several of the Flood Damage Reduction (FDR) and / or Natural Resource Enhancement (NRE) issues or problems identified within the WMP. More thought, technical analysis, information and certainty about a concept's features, operation, the maintenance required and the adverse and beneficial affects results as a project proceeds from the concept stage through preliminary engineering and analysis, final design, the development of construction documents and construction. A limited number of answers about the project features, how the project will work, and the effects, are common early in the project development process. However, the lack of answers should be substantively reduced to seemingly minor details by the time construction documents are prepared.

Some of the proposed projects require an individual Section 404 permit under the Clean Water Act from the U.S. Army Corps of Engineers. One requirement of the Section 404 permit is evaluating consistency with the 404(b)(1) guidelines, including demonstrating the need for the project, an analysis of the alternatives to satisfy this need, identifying the Least Environmentally Damaging Practicable Alternative, and designing to avoid and minimize unavoidable impacts. Several steps in this process have recently been coined "Points of Concurrence" by those participating in and bound by the Flood Damage Reduction Mediation Agreement. State and Federal Environmental Review requirements typically contain similar requirements for demonstrating need, evaluating alternatives and avoiding and minimizing adverse environmental impacts. A single process is needed to demonstrate compliance with the myriad number of requirements.

## 6.6.2 Project Implementation Process

The SHRWD is intent on developing an efficient project development process. The perspective of the SHRWD is that this process must:

- Be based on a process identified within the Watershed Management Plan intended to achieve specific goals and objectives;
- Recognize the statutory authority given Watershed Districts by the State of Minnesota and codified in MS 103D;
- Address the planning, permitting, approval and funding requirements;

- Engage the public in the decision-making process; and
- Define clear, unambiguous criteria that can be used to determine whether the requirements for each specific step in the project development process, including the Points of Concurrence, are attained.

**Figure 6.1** shows the anticipated project development process to be used by the SHRWD. The process includes specific steps intended to satisfy the Points of Concurrence. The process is based upon early (see *Project Review and Permitting Process*, Page 20, Red River Basin Flood Damage Reduction Work Group Agreement, December 9, 1998) and subsequent guidance provided by the FDR Work Group and the U.S. Army Corps of Engineers. The SHRWD also developed specific criteria it intends to use to demonstrate compliance with the Points of Concurrence (essentially 404(b)(1) consistency) (see **Table 6.7**). These criteria will be used by the SHRWD to demonstrate “need” (Point of Concurrence No. 1), determine whether a full range of alternatives have been considered (Point of Concurrence No. 2), and evaluate the relative impacts to the environment to identify the Least Environmentally Damaging Practicable Alternative (Point of Concurrence No.3).

## 6.6.3 Determining the Least Environmentally Damaging Practicable Alternative

### *6.6.3.1 General Approach*

The purpose of this section is to present a summary of the technical approach the SHRWD plans to use to determine the Least Environmentally Damaging Practicable Alternative. The RRBFDWRWG Technical Scientific Advisory Committee Paper No. 11 will be used as an initial screening in evaluating practicable alternatives to arrive at the selection of the Least Environmentally Damaging Practicable Alternative. **See Section 7 for more information on the recommendations of TSAC Paper No. 11.**

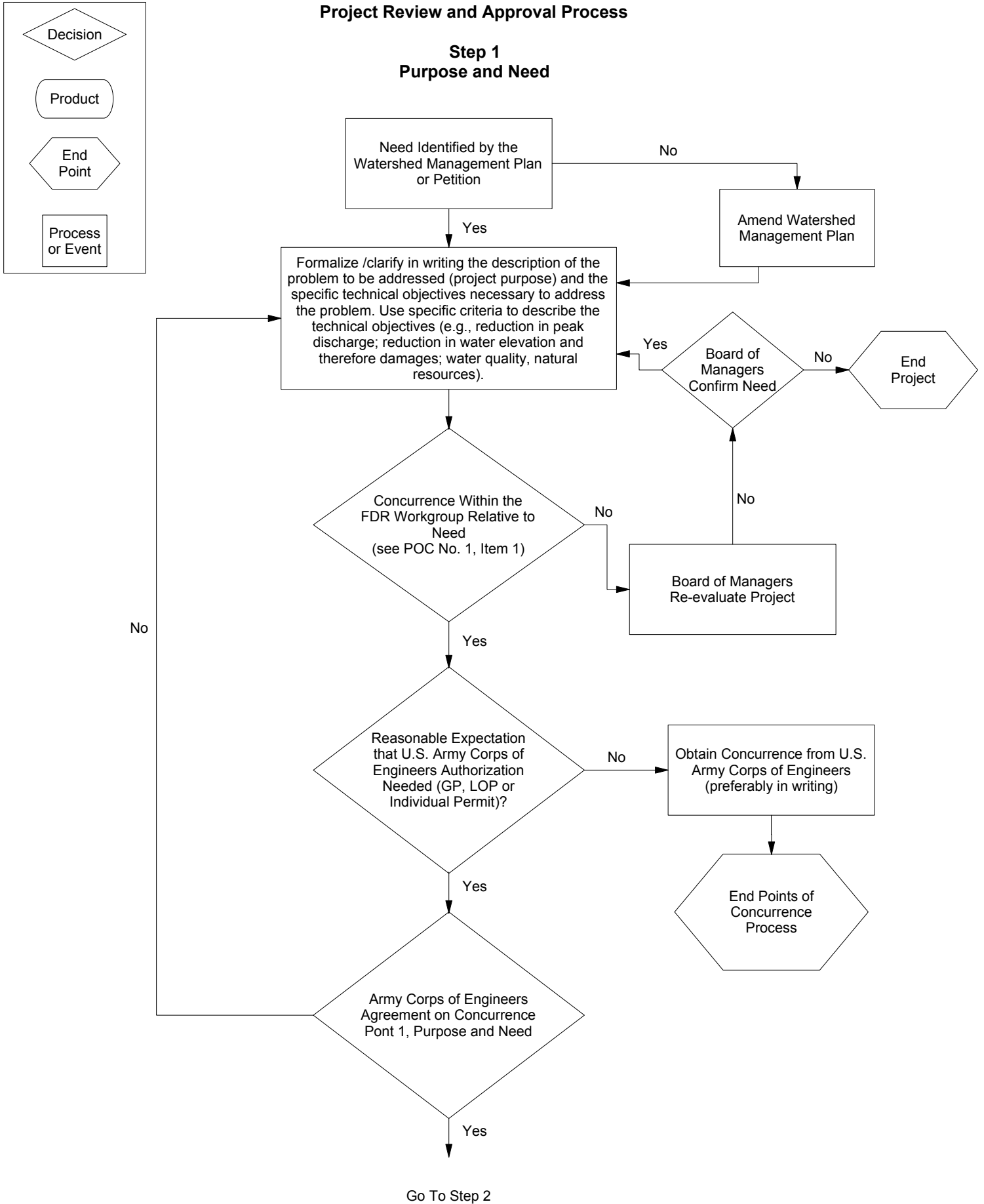
The SHRWD anticipates using professional judgment to: 1) assess and summarize the impacts to aquatic and terrestrial resources; 2) identify the Least Environmentally Damaging Practicable Alternative; and 3) assess the ability of each alternative to provide the intended benefits. The anticipated quantified impacts will form the basis for this determination.

## 6.6.4 Sand Hill River Watershed District Purpose and Need Statement

This purpose and need statement is meant to address the overall purpose and needs of the SHRWD and is not project specific. A separate purpose and need statement will be needed for each project proposed in accordance with the provisions of **Section 6**. However, each specific purpose and need statement must be consistent with the overall purpose and needs of the entire SHRWD.

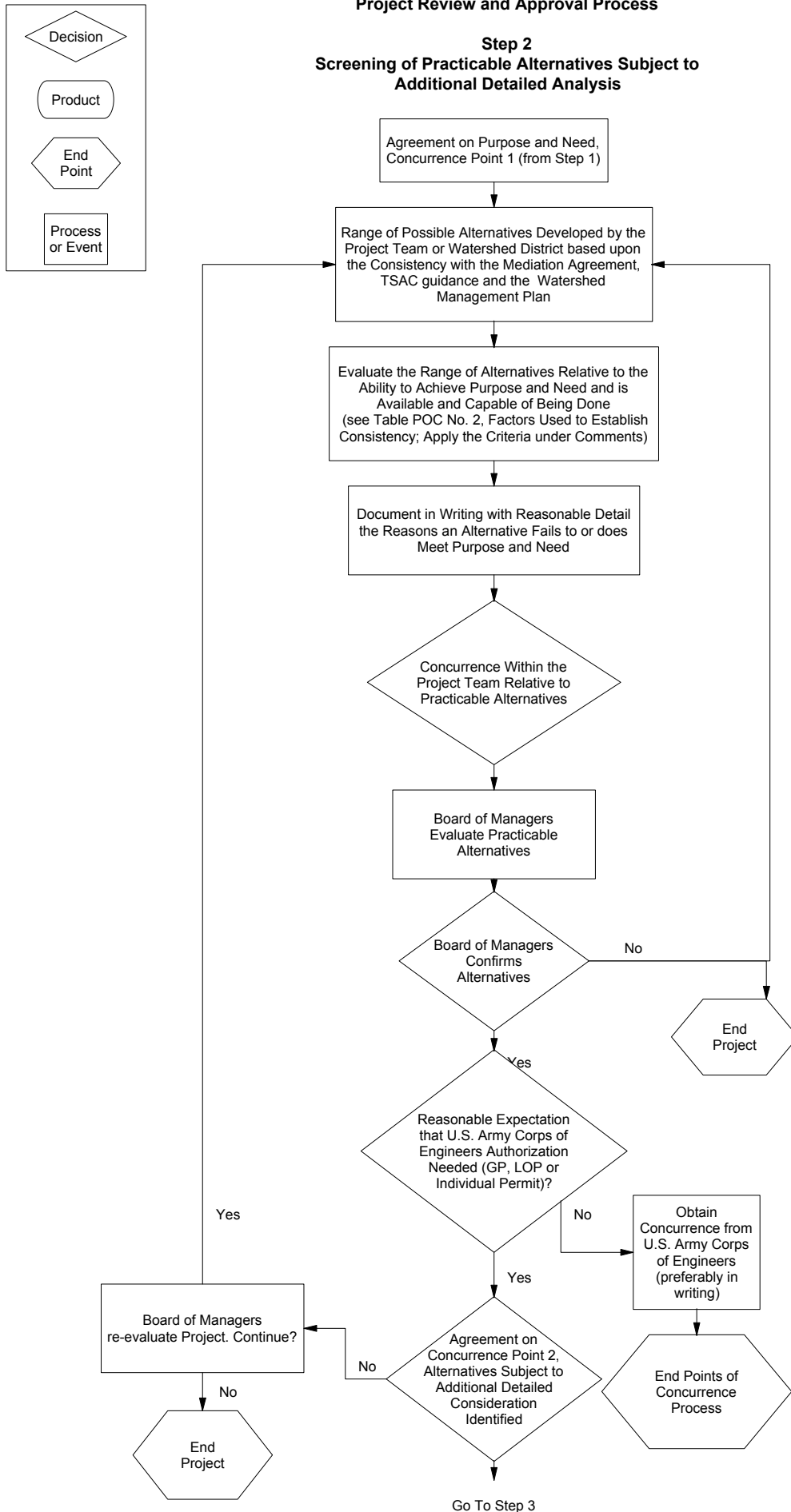


**Figure 6-1**  
Sandhill River Watershed District  
Project Review and Approval Process

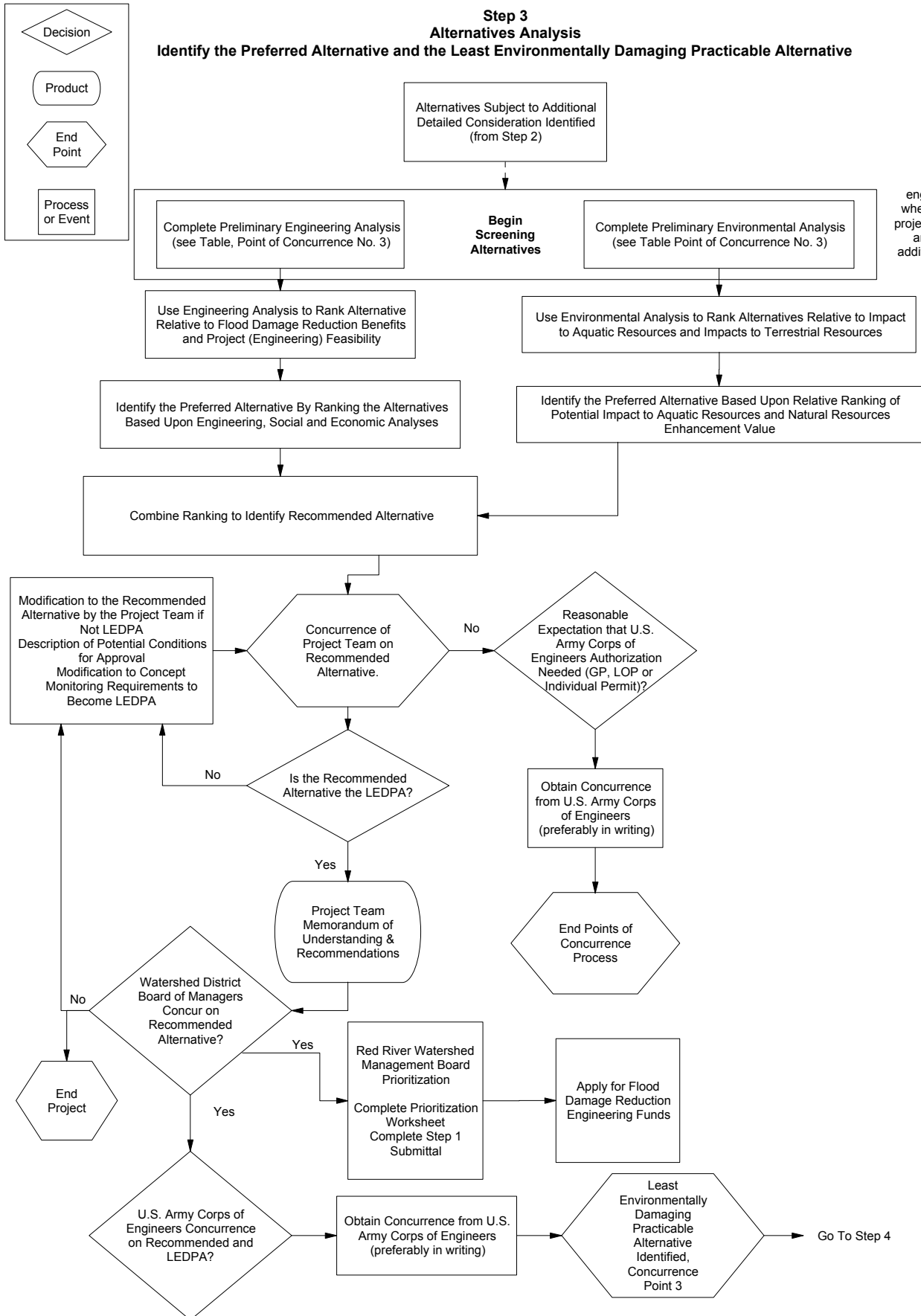


**Figure 6-1 (cont.)**  
**Sandhill River Watershed District**  
**Project Review and Approval Process**

**Step 2**  
**Screening of Practicable Alternatives Subject to**  
**Additional Detailed Analysis**



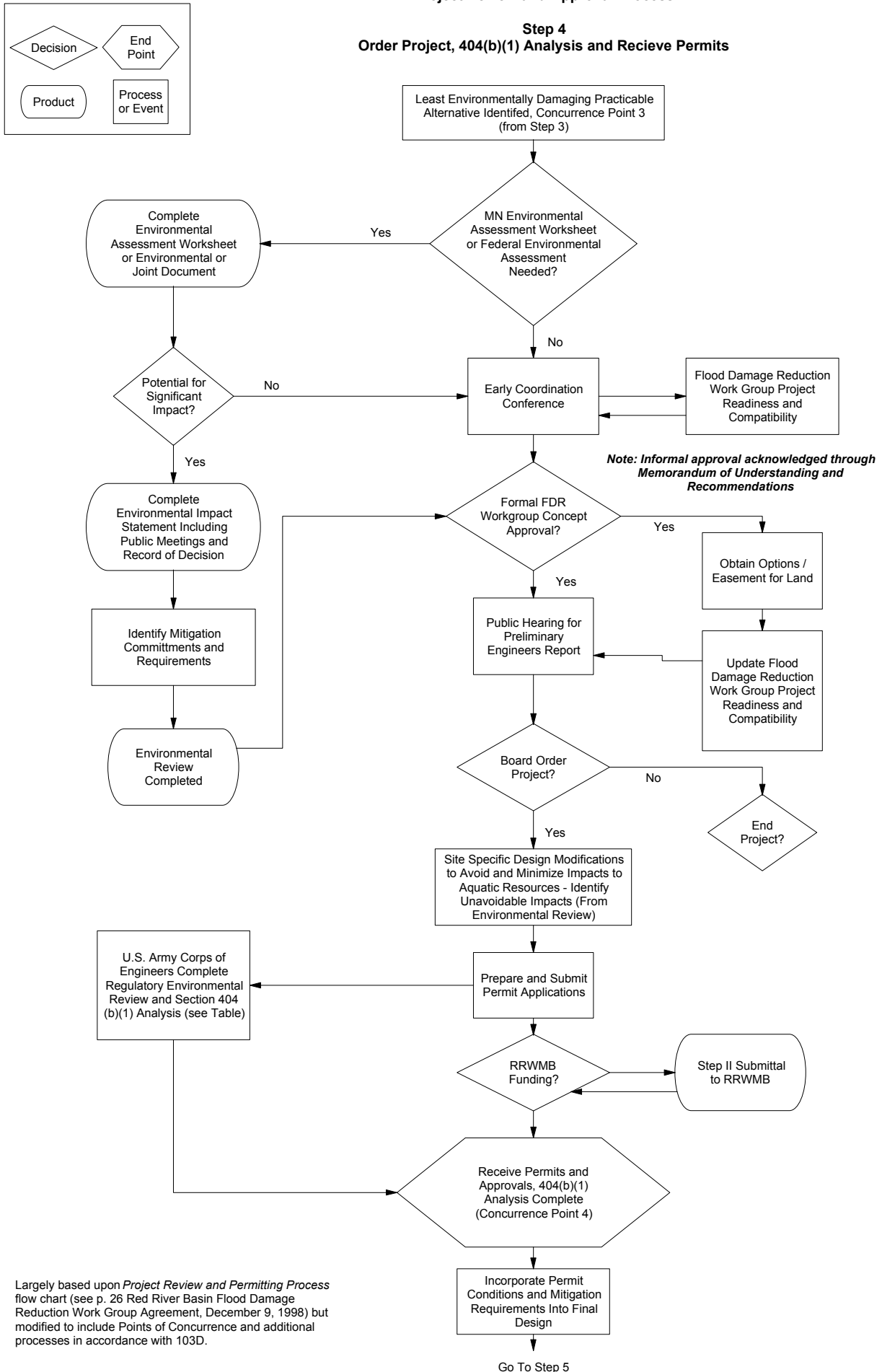
**Figure 6-1 (cont.)**  
**Sandhill River Watershed District**  
**Project Review and Approval Process**



Note: Preference can be given to engineering considerations at this step, when those considerations are related to project feasibility (e.g., geotechnical issues) and may remove an alternative from additional detailed analysis because it can not be constructed.

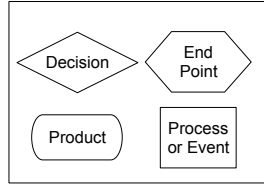
**Figure 6-1 (cont.)**  
**Sandhill River Watershed District**  
**Project Review and Approval Process**

**Step 4**  
**Order Project, 404(b)(1) Analysis and Recieve Permits**

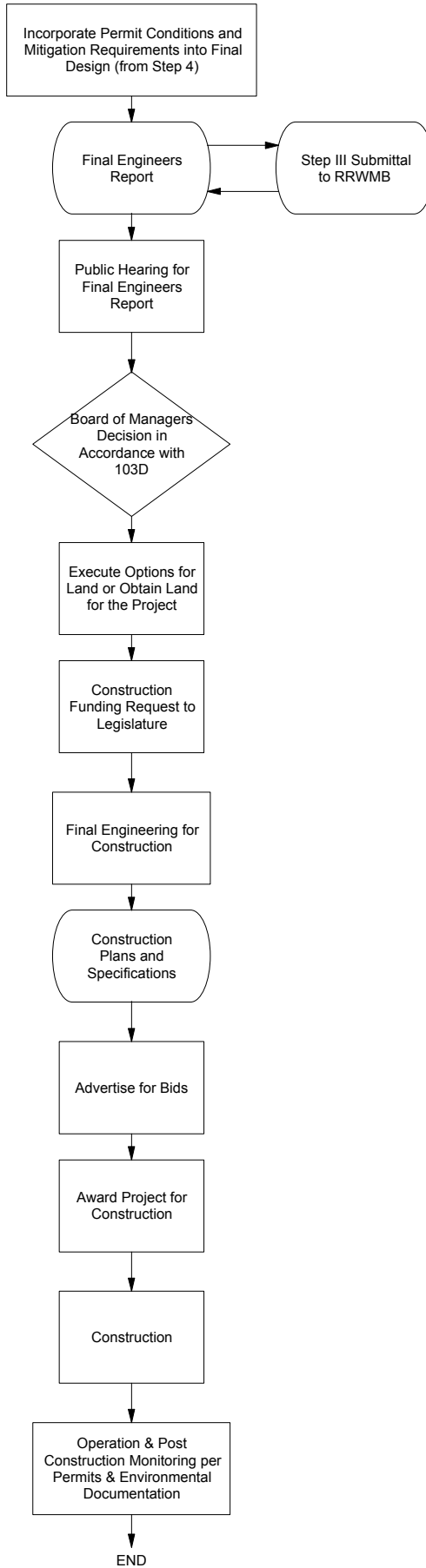


Largely based upon *Project Review and Permitting Process* flow chart (see p. 26 Red River Basin Flood Damage Reduction Work Group Agreement, December 9, 1998) but modified to include Points of Concurrence and additional processes in accordance with 103D.

**Figure 6-1 (cont.)**  
**Sandhill River Watershed District**  
**Project Review and Approval Process**



**Step 5**  
**Final Engineering, Environmental Mitigation and Construction**



**Table 6-7.** Criteria established by the Sand Hill River Watershed District for completing the 404(b)(1) consistency analysis and evaluating consistency with the Points of Concurrence established by the U. S. Army Corps of Engineers.

Point of Concurrence No.	Factor(s) Used to Establish Concurrence Point	Comments
<p><b>No. 1 – Demonstration of Need and Project Purpose</b></p>	<p>Need is demonstrated if an existing condition is identified within the Watershed Management Plan as either an issue or problem, leading to a specific policy, goal, action item, project, or program. Need for action may also be established by, the work of the Flood Damage Reduction Project Team or based on the planning or technical documents of other local, state, federal agencies or a non-governmental organization. If petitioned projects can not demonstrate a direct relation to an identified issue or problem identified in the plan “need” will need to be proven on its own merits.</p> <p>Purpose can be demonstrated if the Proposed Action addresses an issue or problem identified within the Watershed Management Plan and can show that progress will be made towards achieving the desired future conditions or goal described in the Plan.</p>	<p>1) The impetus for establishing need may come from several sources:</p> <ul style="list-style-type: none"> <li>• Formal recognition by the Watershed District Board of Managers as an issue or problem of sufficient importance to pursue resolution through the watershed management planning process;</li> <li>• Acknowledgement in some written form, of agreement among the Project Team members based upon the collective professional judgment of the Project Team members. Formal recognition by the Project Team as an issue or problem of sufficient importance to pursue resolution through the mediation process;</li> <li>• Identified within other planning documents (e.g., those of other agencies) provided these plans have been subject to solicitation of input from the Watershed District and a formal public review and comment process.</li> </ul> <p>Meeting any one of the above items listed will be considered sufficient to constitute need in accordance with the National Environmental Policy Act/</p> <p>2) Establishing need for a project petitioned through MS 103D is only necessary if requiring Clean Water Act Section 404 Authorization (Letter of Permission, General Permit or Individual Permit) from the U.S. Army Corps of Engineers;</p> <p>3) For projects petitioned through MS 103D requiring Clean Water Act Section 404 Authorization from the U.S. Army Corps of Engineers that cannot show a direct relationship to an identified issue, problem or goal identified in the Watershed Management Plan, need can be established in accordance with “<i>Guiding Principles</i>” (See sec. 4). Petitions presented to the Board of Managers per MS 103D subject require concept approval (see Figure 6-1).</p> <p>4) At the discretion of and request of the Board of Managers, projects petitioned under MS 103E can be voluntarily subjected to the points of concurrence process. Provided these projects are the maintenance of a legal drainage system they may be exempt from requiring Clean Water Act Section 404 authorization from the U.S. Army Corps of Engineers. Drainage improvement and establishment projects may require this authorization from the U.S. Army Corps of Engineers.</p> <p>5) The nature and extent of need is to be expressed in accordance with the following:</p> <p style="padding-left: 40px;">Flood Damage Reduction and/or Natural Resource Enhancement need(s) for a problem may be expressed solely as a local need (i.e., planning region), mainstem/basin wide need, or combination of local and mainstem/basin wide need. Flood Damage Reduction will be expressed as or as a combination of peak flow reduction, runoff volume reduction, reduction in stage or general land experiencing the issue or problem relative to an established goal. This goal can be a goal established at a key locations including the designation of problem or flood damage areas and Regional Assessment Location in the Watershed Management Plan. Natural Resource Enhancement need to be expressed in some quantifiable resource metric (e.g., acres of wetland; pollutant load reduction) relative to a definable and quantifiable goal.</p>

Point of Concurrence No.	Factor(s) Used to Establish Concurrence Point	Comments
<p><b>No. 2 – Range of Alternatives Subject to Detailed Analysis</b></p> <p><i>Note: the range of alternatives needs to consider location (on the landscape and within the watershed).</i></p>	<p>The following guidance is provided for assessing the flood damage reduction and natural resource enhancement practicability of the alternatives.</p> <ul style="list-style-type: none"> <li>• Ability of an alternative to meet need may be evaluated relative to the goals established at regional assessment locations within the Watershed Management Plan.</li> <li>• An alternative must meet need to be considered practicable and to be carried forward and subjected to detailed analysis.</li> <li>• Range of alternatives considered for flood damage reduction are those identified and described by Technical Scientific Advisory Committee Paper No. 11, <i>Red River Basin Flood Damage Reduction Framework</i>. Alternatives should include the type of feature (e.g., wetland restoration, off-channel impoundment) as well as the location within the watershed relative to the location of the problem area). When TSAC Paper No. 11 is used for justification, rationale for dismissing any alternatives in that paper should be provided.</li> <li>• A range of Natural Resource enhancement efforts for consideration are identified in “A user’s Guide to Natural Resource efforts in the Red River Basin” and to further assess the project area for natural resource enhancements Technical Scientific Advisory Committee Report Paper No. 14, <i>Incorporation and Evaluation of Natural Resource Benefits in Red River Basin Flood Damage Reduction Projects</i>.</li> <li>• An Alternative is practicable if it is “available” and “capable” of being done (see comments for various criteria).</li> <li>• Natural Resource Enhancement and Flood Damage Reduction alternatives not capable of achieving need are eliminated from additional detailed analysis (i.e., is no longer considered).</li> </ul>	<p>Use of the following criteria is anticipated for determining whether an alternative is available and capable of being done. The criteria will be applied to alternatives differing in types (e.g., storage versus levee) and location. An alternative must attain all of the following criteria to be considered available and capable of being done. Failure to meet a single criteria is sufficient to conclude an alternative is not practicable.</p> <ul style="list-style-type: none"> <li>• Reasonable expectation of obtaining land. The following constitute a reasonable expectation: <ul style="list-style-type: none"> <li>○ Absentee landowner.</li> <li>○ Non-active farm.</li> <li>○ Non-cultivated land lacking quality natural resources.</li> <li>○ Known landowner willing to execute legal documents for option to buy, provide easement or participate.</li> <li>○ State or federally owned and support for project.</li> </ul> </li> <li>• Position in the watershed relative to the problem area. <ul style="list-style-type: none"> <li>○ Alternatives with local benefit. <ul style="list-style-type: none"> <li>• Must be located in sufficient proximity to influence the problem area.</li> <li>• The relative contribution of peak flow and runoff volume to the problem area from the contributing drainage should exceed some minimum threshold (e.g., 10% of the peak discharge for the design event).</li> </ul> </li> <li>○ Solutions with mainstem benefit <ul style="list-style-type: none"> <li>• RRWMB STAR Value acceptable for funding</li> <li>• Subject to Mainstem Effectiveness Analysis per TSAC Technical Paper No. 11, Figure 26.</li> </ul> </li> </ul> </li> <li>• Technical feasibility. All of the following must apply to be considered technically feasible. <ul style="list-style-type: none"> <li>○ Suitable soils and subsurface conditions</li> <li>○ Physically possible (i.e., topography and hydraulic gradeline work)</li> <li>○ Operationally feasible (e.g., if dependent upon the operation of other facilities, obtain written agreement; operation is not so complex as to create doubt about realizing anticipated benefits).</li> </ul> </li> <li>• Willingness to pay and cost. Those alternatives failing the following will no longer be considered available and capable of being done. <ul style="list-style-type: none"> <li>○ Local cost component can be no greater than the 75<sup>th</sup> percentile unit costs for similar projects (e.g., \$ per acre-foot, \$ per acre of wetland restored) evaluated separately for Flood Damage Reduction and Natural Resource Enhancement benefits.</li> <li>○ Willingness to pay for local benefits received exemplified by acceptance at Preliminary Hearing under 103D.</li> </ul> </li> <li>• Existing Technology. Reasonably demonstrated technique, method or approach within the practitioner community. Technique, method or approach should not be untested or considered experimental. There should be some example(s) of application of the technique, method or approach in a similar landscape setting showing some reasonable measures of feasibility and success.</li> <li>• Logistics. The following are necessary to achieve affirmation of logistics. <ul style="list-style-type: none"> <li>○ Reasonable expectation of obtaining the financial resources necessary for project component construction/implementation (i.e. structure construction/ag. BMP installation).</li> <li>○ Reasonable expectation of obtaining permits and necessary approvals (i.e., project is not contrary to agency statute or rule, requiring revision of statute or rule) nor requiring special legislative authorization to proceed.</li> <li>○ Some level of assurance that voluntary participation in applying identified needed BMP’s will take place.</li> <li>○ Materials necessary for constructing the project are available.</li> </ul> </li> <li>• Environmental <ul style="list-style-type: none"> <li><i>Related to Ability to Implement the Project</i> <ul style="list-style-type: none"> <li>○ Jeopardy to continued existence of federally listed endangered and threatened species or their critical habitats</li> <li>○ Potential impact to lands with special protection or management status (e.g., state or national park)</li> <li>○ Special resource designation (e.g., wild and scenic river; state natural and scientific area)</li> <li>○ Resource with special protection status under state or federal laws (e.g., outstanding resource value water)</li> <li>○ Potential impact to lands with special protection or management status (e.g., state or national park)</li> </ul> </li> <li><i>Likely Affecting Alternative Selection Process</i> <ul style="list-style-type: none"> <li>○ Documented high quality ecological resource (e.g., from Minnesota Biological Survey)</li> <li>○ Native American or other substantive cultural resources</li> <li>○ Relative amount of aquatic resources impacted (e.g., wetland acreage)</li> </ul> </li> </ul> </li> </ul>

Point of Concurrence No.	Factor(s) Used to Establish Concurrence Point	Comments
<p><b>No. 3 – Identify the Preferred Alternative</b></p>	<p>Using Environmental Factors to Rank Alternatives</p> <ul style="list-style-type: none"> <li>• Determine the Least Environmentally Damaging Practicable Alternative by ranking the relative impacts of the alternatives to the <i>aquatic ecosystem</i>.</li> <li>• Use the relative ranks to identify the Least Environmentally Damaging Practicable Alternative to the <i>aquatic ecosystem</i>.</li> <li>• Determine the potential impacts of each alternative by ranking the relative impacts of the alternatives to other resources including protected species, water quality and terrestrial.</li> <li>• If you select an alternative other than the Least Environmentally Damaging Practicable Alternative to the <i>aquatic ecosystem</i> justify why (e.g., impact to terrestrial or Threatened and Endangered Species).</li> <li>• Demonstrate sequencing based on the process used to evaluate the practicability of the alternatives and selection of the preferred alternative.</li> </ul> <p>Using Additional (Social, Economic and Feasibility Factors) to Rank Alternatives</p> <ul style="list-style-type: none"> <li>• Land availability ( How challenging will it be to acquire the needed property to meet the project purpose(s) and need )</li> <li>• Cost of total project (project component costs should be know as well for purposes of downsizing the project to reduce project total cost)</li> <li>• Public acceptance ( what is the project acceptance of landowners up and down gradient from project area)</li> <li>• Legal/political issues</li> <li>• Other permit concerns</li> <li>• Technically feasible</li> </ul> <p>Project Purpose: After the environmental and technical analysis and related issues are identified and project modifications are made to satisfy these concerns can the project purpose still be met?</p>	<p>The Preliminary Engineering analysis is expected to be functional in nature, completed for each of the alternatives subject to detailed analysis, and should include at a minimum:</p> <ul style="list-style-type: none"> <li>• Identify Location and Characteristics of Primary Project Features</li> <li>• Describe Proposed Operation</li> <li>• Complete Functional Analysis <ul style="list-style-type: none"> <li>○ Change in Peak Flow at: <ul style="list-style-type: none"> <li>▪ Project Location</li> <li>▪ Damage locations</li> <li>▪ Subwatershed Outlet</li> <li>▪ Regional Assessment Locations</li> <li>▪ Nearest Mainstem Population Center</li> </ul> </li> <li>○ Change in annual runoff volume at: <ul style="list-style-type: none"> <li>▪ Damage locations</li> <li>▪ Subwatershed Outlet</li> <li>▪ Regional Assessment Locations</li> <li>▪ Nearest Mainstem Population Center</li> </ul> </li> <li>○ Change in water surface elevation at: <ul style="list-style-type: none"> <li>▪ Damage locations</li> <li>▪ Subwatershed Outlet</li> <li>▪ Regional Assessment Locations</li> <li>▪ Nearest Mainstem Population Center</li> </ul> </li> </ul> </li> </ul> <p>The initial environmental analysis is expected to be completed in sufficient detail for use now in completing the 404(b)(1) consistency analysis. The analysis is to be completed for each of the alternative subject to detailed analysis, and should include at a minimum:</p> <ul style="list-style-type: none"> <li>• Quantify Physical Alteration to the Aquatic Resource <ul style="list-style-type: none"> <li>○ Change in wetland acreage</li> <li>○ Change in riverine habitat</li> <li>○ Modification of geomorphic flows and stream stability</li> <li>○ Modification in riparian flows</li> <li>○ State aquatic species of special concern</li> <li>○ Federally listed threatened and endangered species</li> </ul> </li> <li>• Quantify Physical Alteration to the Terrestrial Resource <ul style="list-style-type: none"> <li>○ Change in acres of native prairie</li> <li>○ Change in acres of woodlands</li> </ul> </li> <li>• Quantify Physical Alterations to Geological Formations <ul style="list-style-type: none"> <li>○ Impacts to calcareous fens</li> <li>○ Impact to rich fens</li> </ul> </li> <li>• Change in Water Quality <ul style="list-style-type: none"> <li>○ Use annual runoff volume to estimate change in total suspended solids load</li> <li>○ Use annual runoff volume to estimate change in total phosphorus load</li> <li>○ Assess likelihood of causing or contributing to water quality standards exceedance</li> </ul> </li> <li>• Identify Relative Progress toward NRE Goals Identified within the WMP</li> </ul>



		<p>Note: The use of a ranking system or some other defensible method (for example Minnesota Routine Assessment Method or MNRAM) is preferred for describing and documenting the advantages and disadvantages of the alternatives subject to detailed analysis. Reasonable methods which can be defended and described are acceptable. These may include un-weighted numeric scoring, weighted numeric scoring, the use of plus or minus or similar methods.</p> <p>Use a formal ranking system based upon the anticipated impacts with equal weight assigned to each aquatic resource category (see <i>Project Implementation Process</i> for a description of the ranking methods). The ranking process will consist of:</p> <ul style="list-style-type: none"><li>• Rank the potential adverse and beneficial impacts of the alternatives with regard to <i>aquatic ecosystem</i> for:<ul style="list-style-type: none"><li>○ Shellfish and fish habitat</li><li>○ Wetland impacts</li><li>○ Riparian areas</li></ul></li><li>• Rank the potential adverse and beneficial impact of the alternatives with regard to terrestrial habitats and species for:<ul style="list-style-type: none"><li>○ Grasslands</li><li>○ Woodlands</li></ul></li><li>• Rank the potential adverse and beneficial impacts of the alternatives with regard to Threatened and Endangered species and Species of Special Concern<ul style="list-style-type: none"><li>○ Presence / absence of species</li><li>○ Presence / absence of critical habitats</li><li>○ Potential for jeopardy of species or habitats if present</li></ul></li><li>• Rank the potential adverse and beneficial impacts of the alternatives with regard to water quality.<ul style="list-style-type: none"><li>○ Potential to cause or contribute to violations of a water quality standard</li><li>○ Consistency with the nondegradation provision of the Clean Water Act</li></ul></li></ul>
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Point of Concurrence No.	Factor(s) Used to Establish Concurrence Point	Comments
<p><b>No. 4 –Permit Application, Impact Mitigation During Design and Documentation of 404 (b)(1) Analysis</b></p>	<p>Applies to site-specific design modifications of the project features to avoid and minimize adverse impacts preferentially to the <i>aquatic resource</i>. Can include the site-specific design modifications to avoid and minimize adverse impacts to other resources. The mitigation detail shall be formally stated and identified within the U.S. Army Corps of Engineers Individual Permit or other applicable Environmental Review documents.</p> <ul style="list-style-type: none"> <li>• Analyze Consistency with the 404(B)(1) Guidelines. <ul style="list-style-type: none"> <li>○ Aquatic ecosystem resources</li> <li>○ Terrestrial Habitats and Species</li> <li>○ Surface water quality</li> <li>○ Threatened and Endangered Species and Critical Habitats</li> </ul> </li> </ul>	<p>This analysis may be completed by the applicant and provided to the U.S. Army Corps of Engineers for their independent review prior to use or completed by the U.S. Army Corps of Engineers. Submission to the U.S. Army Corps of Engineer's by the applicant in no way obligates the U. S. Army Corp of Engineers to accept or use the analysis. The U. S. Army Corp of Engineers however, may use the information provide as a base for their independent analysis.</p> <p>The 404(b)(1) consistency analysis is expected to be based on the environmental analysis completed during Step 3, with site specific modification and input from the environmental review process ( if one was completed). The 404(b)(1) consistency analysis consists of evaluating and ranking each alternative subject to detailed environmental analysis, including the preferred alternative, relative to the:</p> <ul style="list-style-type: none"> <li>• Potential adverse impact to aquatic ecosystems based on ranking analysis</li> <li>• Potential to cause or contribute to violations of State water quality standards</li> <li>• Consistency with water quality non-degradation provisions</li> <li>• Demonstrating a lack of jeopardy to continued existence of federally listed endangered and threatened species or their critical habitats</li> <li>• Documenting deliberate sequencing for the selection of the desired alternative and provide for mitigation of unavoidable impacts to aquatic resource</li> </ul> <p>Documenting sequencing is expected to come from Concurrence Point No. 3. The consideration and use of mitigation measures, adaptive management or monitoring can be included in this analysis.</p>

Flooding and the associated damages are well documented within the Red River of the North watershed. The need for flood damage reduction has led to the establishment of peak flow reduction goals for Minnesota watershed districts within the Red River basin. The Sand Hill River Watershed District (SHRWD) has **adopted a goal of 35% peak flood reductions** at the confluence of the Sand Hill and Red Rivers to reduce flood damages on the Red River.

#### *6.6.4.1 General*

Any projects being proposed by the Sand Hill River Watershed District (SHRWD), located in northwestern Minnesota, are within the contributing drainage area of the Red River of the North. The Mission of the SHRWD is to serve the residents of the District by wisely and judiciously managing water resources in a manner which sustains and enhances the social, economic and natural resources of the District. In accordance with its Watershed Management Plan (WMP), the SHRWD has established a Flood Damage Reduction Goal: Minimize existing and future potential damages to property, public safety, and water resources due to flood events in urban and agricultural areas. To achieve this goal, the District has adopted several policies, specifically:

FDR-4: Protect natural waterways from channel instability induced by runoff, especially when used as outlet for agricultural drainage systems.

FDR-3: Reduce the likelihood of exacerbating downstream flood damages by controlling where feasible, the peak discharges and runoff volumes for areas subject to frequent flooding within the District.

FDR-5: Adopt the flood damage reduction goals established by the Flood Damage Reduction Mediation Agreement into District planning, programs and the development of projects.

FDR-6: Plan, design and construct projects for local flood damage reduction benefits, while considering and targeting a “fair share” portion of the Red River main stem contribution to flooding and flood damages from the District.

#### *6.6.4.2 Primary Project Goal (Purpose and Need)*

- A. The primary problem (**need**) to be addressed by SHRWD Flood Damage Reduction Projects (FDRP) is to reduce flood damages by reducing peak flood discharges and volumes on the lower reaches of the Sand Hill River, and especially the Red River of the North.

The need to reduce frequent flooding along the lower reaches of the Sand Hill River (in the Glacial Lake Plain from its junction with Kittleson Creek to the Red River) and the Red River of the North is well documented. The lower reaches of the Sand Hill River as described, flow through what is known as the Beltrami Marsh. Beginning in the late 1800's a series of drainage and flood control projects were constructed to constrain the overland flooding in this

area. As a result, this reach of the Sand Hill River was essentially replaced by the Sand Hill Ditch in 1958 to control these flood flows. This project is continuously stressed by frequent high flood discharges resulting in channel and side slope instability, erosion and downstream sedimentation. Furthermore, flood peaks on the Sand Hill River and Red River of the North typically occur simultaneously, resulting in an increase in main stem flood stages.

Whenever possible, proposed project(s) shall be designed and operated to have the capability to manage floodwater so as to avoid contributing to downstream peak discharges on the Sand Hill River and the Red River of the North. It has been the District's specific goal to aide in reduce the 100-year peak discharge of the Sand Hill River at its Red River outlet by 20%. This target reduction goal has been articulated by the Technical and Scientific Advisory Committee (TSAC) of the Red River Watershed Management Board as a reasonable flood damage reduction goal for the Red River at Emerson, Manitoba for a 1997 historic flood event. However, until recently, there have been no specific target reductions allocated to each tributary. A recently completed hydrologic modeling investigation has offered the first quantifiable estimates of target flow reductions for the Red River tributaries that would result in an overall 20% reduction on the main stem. The Sand Hill River target peak flow reduction, due to its strategically central location within the Red River basin, was computed to be 35%. Therefore, **the SHRWD is adopting this new target of 35% for peak flood reductions at the confluence of the Sand Hill and Red Rivers.**

- B. The overall objective, or desired outcome (**purpose**), of the SHRWD is to provide as much gated flood storage as possible to assist the District in meeting its peak flood discharge goal of 35% and volume reduction goal of 21% at the confluence of the Sand Hill River and the Red River of the North.

The SHRWD, as part of the development of a new Watershed Management Plan (WMP), has developed a hydrologic model of the Sand Hill River. The HEC-HMS model has the capability to model flood flow development and behavior from the perspectives of peak discharge rate and timing, as well as volumes at various locations throughout the District. The modeling effort evaluated several flood damage reduction (FDR) alternatives a various strategic locations throughout the Sand Hill River tributary basin. This analysis revealed that it is possible to achieve at least a 35% reduction in peak discharge at the Red River confluence through a combination of FDR potential projects at multiple locations within the Sand Hill River contributing watershed. These potential FDR projects include:

#### **1. Garden Slough Drainage Area Alternatives**

The in-basin Garden Slough Alternatives have been presented to the SHRWD PT. Five alternative impoundment sites have been identified which can be configured as either gated or un-gated, gated being more effective in reducing Red River peak flood flows. In

reviewing the storage potential for these sites, there is much more storage potential than can be generated from the 13 square mile drainage area. Therefore, further studies and modeling analysis is needed to arrive at an optimum site or combination of sites that produce the needed storage. For example, if it were decided to set a goal of retaining 4 inches of runoff from the Garden Slough drainage area, then only about 2,400 acre-feet of storage would be needed. This could be accomplished at individual sites or some combination of multiple sites.

## **2. Sand Hill River Main Stem Alternatives**

### **a. Modification of SHRWD Project No. 1 – Bear Park Dam**

There are several Sand Hill River Main Stem impoundment opportunities available. One of these would involve retrofitting an existing un-gated impoundment structure with control gates. This project is known as Project No. 1 of the District – Bear Park Dam. The current un-gated storage capability of this project is 3,800 acre-feet. The drainage area of the Sand Hill River at the dam is 146 square miles. This represents about 33% of the total Sand Hill River drainage area (440 square miles at the Red River). Retrofitting the outlet structure with gate(s) would substantially increase peak flood flow reduction (20-22% reduction at Red River confluence) benefits to the Red River according to the criteria in TSAC Technical Paper No. 11. This action would require an analysis of temporary impoundment easement impacts and a revision of the operations plan. Further engineering analysis and modeling will be required to evaluate this alternative further.

### **b. Development of Main Stem Impoundment(s) East of US Highway 59**

Reaches of the Sand Hill River south and east of US Highway 59 near Winger have been previously studied by the SHRWD for flood water storage potential. There are possible configurations of one large impoundment or two smaller impoundments. The contributing drainage area to these impoundments is about 90 square miles. This represents about 21% of the total Sand Hill River drainage area (440 square miles at the Red River).

The larger single impoundment would consist of an earthen dam on the Sand Hill River, creating a temporary flood impoundment of about 960 acres with a storage capacity of 6,800 acre-feet. The outlet works could be gated or un-gated. However, providing gated storage would substantially increase peak flood flow reduction (20-22% reduction at Red River confluence) benefits to the Red River according to the criteria in TSAC Technical Paper No. 11. Further engineering analysis and modeling will be required to evaluate this alternative further.

A second alternative would involve developing one or two smaller impoundments. The lower impoundment would consist of an earthen dam on the Sand Hill River just to the

east of US Highway 59, creating a temporary flood impoundment of about 750 acres. The upper impoundment would consist of an earthen dam on the upstream side of Polk County Road No. 1, or a reconstruction of the county road into multipurpose dam and road system. This would create a temporary flood impoundment of about 501 acres. Together, the two impoundments would generate about 7,300 acre-feet of storage capacity. The outlet works for both structures could be gated or un-gated. However, providing gated storage would substantially increase peak flood flow reduction (21-25% reduction at Red River confluence) benefits to the Red River according to the criteria in TSAC Technical Paper No. 11. Further engineering analysis and modeling will be required to evaluate this alternative further.

#### ***6.4.4.3 Secondary Project Goals (Purpose and Need)***

- A. A secondary problem (**need**) to be addressed by the SHRWD Flood Damage Reduction Projects (FDRP) is to reduce substantial erosion and channel instability throughout the Beach Ridge Area of the Sand Hill River.

Substantial erosion and channel instability is evident throughout the Beach Ridge Area of the Sand Hill River, extending from the upstream end of the Sand Hill Ditch to several miles east of Fertile. This erosion during high flow events result in substantial sedimentation within the downstream reaches of the Sand Hill River, and the Red River of the North.

- B. A secondary objective, or desired outcome (**purpose**), of the SHRWD FDRPs is to provide a significant cumulative reduction in the 10-year discharge at the outlet of the Sand Hill River, with corresponding discharge reductions throughout the lower reaches of the river in the Glacial Lake Plain; resulting in: erosion mitigation, enhanced channel stability, reduced sedimentation, and enhanced water quality in downstream reaches of the river system. The District's project(s) should also contribute to a reduction in stream erosion and enhance channel stability through the Beach Ridge area of the Sand Hill River sub-basin.
- C. Another secondary problem (**need**) to be addressed by the SHRWD Flood Damage Reduction Projects (FDRP) is Natural Resource Enhancement (NRE). NRE is also addressed as a District-wide goal in its Watershed Management Plan (WMP). The SHRWD has contracted with the Minnesota Center for Environmental Advocacy (MCEA) to provide natural resources assessment of the District, including Planning Regions 1 through 4. These planning regions include a diverse mix of agricultural land, grasslands, wetlands, woodlands, and shallow lakes. The Sand Hill River is the dominant aquatic habitat and includes numerous riparian wetland areas. Numerous small streams and ditches are tributary to the river in this basin. These small streams and ditches may provide for some aquatic habitat on a seasonal basis.
- D. A final secondary objective (**purpose**) to be addressed by the SHRWD FDRPs is to provide or

take advantage of flood damage reduction project opportunities along or next to many of the tributaries to the Sand Hill River. Numerous water and sediment basin opportunities exist on the Sand Hill River tributaries. The Districts project(s) should also contribute to natural resource enhancement within sub-basins, as well as throughout the District. The following NRE objectives relating to the SHRWD WMP are outlined for all four Planning Regions in the WMP:

- Develop and build at least two multipurpose projects in this planning region.
- Implement agricultural and drainage BMP's along all drainage systems and promote land use changes (e.g., side inlets, buffer strips and grassed waterways, residue management, etc.)
- Promote and encourage installation of sediment basins and prioritization of areas for conservation programs.
- Reduce sedimentation and erosion in watercourses and uplands.