

EXECUTIVE SUMMARY

The **Dakota County Rural Collaborative Local Water Management Plan** (Collaborative Plan or Plan) is prepared on behalf of 12 rural communities located in the Vermillion River Watershed, including:

Castle Rock Township
City of Coates
Douglas Township
Empire Township

Eureka Township
City of Hampton
Hampton Township
Marshan Township

Nininger Township
Ravenna Township
City of Vermillion
Vermillion Township

Preparation of the Plan was funded in part by a grant from the Metropolitan Council and Community Development Block Grant funding through the Dakota County Community Development Agency, and guidance was provided by the Vermillion River Watershed Joint Powers Organization (VRWJPO) and Dakota County Office of Planning. This Plan is intended to satisfy applicable requirements of Minnesota Statutes Chapter 103B.235, Minnesota Rules 8410, and the VRWJPO. The Plan is also intended to provide Collaborative community members a guide for thoughtful water resources management and the basis for developing local controls to effectively administer, permit, and monitor land disturbance and development activities that impact water resources.

The Rural Collaborative communities abut rapidly suburbanizing cities in Dakota County, include small rural cities, contain the majority of farmland in the Watershed, and contain half of the total farmland in Dakota County. The Rural Collaborative communities occupy approximately 210 square miles (63%) of the 355 square miles of land within the Vermillion River Watershed. The Rural Collaborative includes 12 of the 20 cities and townships (60%) in the Watershed. The 2006 estimated population in the Collaborative communities is approximately 12,000 people, which is only 7% of the total population within the Watershed. Table ES.1 provides a comparison of the Watershed and the Rural Collaborative.

Table ES.1: General Vermillion River Watershed Information		
	Total Watershed	Rural Collaborative
Area:	335 square miles	210 square miles
Stream Length:	38 miles (Main Stem)	32 miles (Main Stem)
Tributary to:	Mississippi River	Mississippi River
Land Use:	Agricultural, suburban areas and rural centers	Agricultural, suburban areas and rural centers
Number of Communities:	20	12
Number of Counties:	2	1
Trout Designation:	~ 52 stream miles (Main Stem & tributaries)	~ 44 stream miles (Main Stem & tributaries)

The Executive Summary provides a history of the Watershed, lists basic Watershed statistics, defines Plan terms, highlights priority Watershed issues, and identifies Collaborative goals. Data and information from the VRWJPO Plan is the primary source of data for this Plan, including an extensive set of maps illustrating numerous Watershed features. Additional information is included as appendices.

Vermillion River Watershed Location and History

The Watershed is located in the southwest part of the Twin Cities Metropolitan Area, encompassing 335 square miles in central Dakota County and extreme southeast Scott County. The headwaters of the Vermillion River (River) are located in New Market Township in Scott County. From there, the River flows northeast through central Dakota County to the City of Hastings where the River drops 90 feet at a falls. East of Hastings, the river splits: one branch flows north to the Mississippi River; the other branch flows south, paralleling the Mississippi River for 20 miles through Ravenna and Welch Townships before joining the Mississippi River near the City of Red Wing in Goodhue County. The Vermillion is the only river in Minnesota that has mouths that flow both north and south. There is a 420-foot elevation change between the source and the mouth of the Vermillion River.

The Vermillion River, often referred to as a "prairie river," is a relatively slow flowing river that winds its way through alternating rural agricultural and developing suburban areas, through cultivated fields and pasture lands, forested areas and suburban backyards. The Vermillion River supports a naturally reproducing population of trout. A portion of the main stem of the river and some of its tributaries, beginning in the southeast corner of Lakeville and central Eureka Township and stretching east through Farmington and Empire Township to a point just east of Highway 52 in Vermillion Township, have been designated as trout streams by the Minnesota Department of Natural Resources.

Although the Vermillion River is healthy enough to support trout, the U.S. Environmental Protection Agency lists it as impaired for high levels of fecal coliform bacteria from the headwaters to the falls in Hastings. This stretch of the river is also high in nitrates. Downstream of the falls, the Vermillion River is listed as impaired due to high turbidity (cloudiness), PCBs and mercury.

Water Management Purposes

The Metropolitan Surface Water Management Act identifies the purposes of watershed management organizations and water management programs are to:

1. Protect, preserve, and use natural surface and groundwater storage and retention systems.
2. Minimize public capital expenditures needed to correct flooding and water quality problems.
3. Identify and plan for means to effectively protect and improve surface and groundwater quality.

4. Establish more uniform local policies and official controls for surface and groundwater management.
5. Prevent erosion of soil into surface water systems.
6. Promote groundwater recharge.
7. Protect and enhance fish and wildlife habitat and water recreational facilities.
8. Secure the other benefits associated with the proper management of surface and groundwater.

It is the purpose of this Rural Collaborative Plan to comply with Minnesota Statutes Chapter 103B.225 in the preparation of a local water management plan on behalf of the Collaborative member communities.

Water Management Plan Term Definitions

Certain terms used in a variety of plan documents can be confusing because they are used differently from document to document. For the purposes of this Plan, the following Plan terms have the meanings indicated in Table ES.2.

Table ES.2: Vermillion River Watershed Management Plan Term Definitions		
Terms	Definitions/Explanations	Examples (see Plan for specific information)
Issue (problem)	<i>“a point, matter, or question to be disputed or decided”</i> An issue is an identified problem or concern that exists in the Watershed.	Water quality: Vermillion River water quality is impaired.
Goal (achieved outcome)	<i>“an objective or end that one strives to attain”</i> A goal is what the VRWJPO wants to ultimately achieve long-term in addressing Watershed issues. The JPO’s goals should be stated in a format that indicates a measurable outcome.	Improve Vermillion River water quality such that the River is removed from the MPCA’s impaired waters list. The impaired waters list is based on the exceedence of certain water quality thresholds, which is what makes this a measurable goal.
Policy (supporting or underlying philosophy)	<i>“a principle, plan or course of action, as pursued by a government, organization, individual, etc.”</i> A policy should express the JPO’s philosophy about certain watershed management concepts. What does the VRWJPO support; what does the VRWJPO value?	The VRWJPO supports research-based projects to improve river water quality. The VRWJPO supports surface water quality improvement as a means to improve groundwater quality.

Objective (measurable outcome)	<i>“real; actual;... designating a kind of test;... something aimed at or striven for”</i> Answers the question: “How are we going to measure our goal?”	Reduce fecal coliform bacteria levels in river water by 25%. This objective is more specific than the goal and the percentage provides the measure of success.
Action (strategy or activity)	<i>“the doing of something; an act or thing done”</i> An action should be an actual activity, something specific the VRWJPO intends to do to achieve its goals and objectives, and address its issues.	Adopt riparian vegetation standards that require buffers along the main channel of the River, specified tributaries, lakes, ponds and wetlands in the Watershed. Distribute non-point source pollution brochures to landowners living on waterbodies in the Watershed.
Standards	<i>“something established for use as a rule or basis of comparison in measuring or judging capacity, quantity, content, extent, value, quality, etc.”</i> A standard is used to set a level of excellence, protection or attainment; it is used as a measure of adequacy.	Vegetative buffers will be maintained adjacent to high quality wetlands.
Rules	<i>“an authoritative regulation for action, method, procedure, arrangement, etc. a complete set of code or regulations.”</i> The legal language or framework used to apply and enforce standards.	A stormwater management plan and a permit are required for land disturbing activities that include more than one acre of impervious surface.

Watershed Issues

As noted in Table ES.2, Watershed issues are problems or concerns that have been identified that need attention and the implementation of corrective measures. Eight Watershed issues are addressed in this Plan, accompanied by background data and information (see Section 3):

- River flow volumes have increased
- Surface water quality is threatened or impaired
- Vermillion River channel/corridor is impacted and sensitive to change
- Sensitive resources are present and/or threatened or impaired

- Groundwater quality is threatened or impaired
- Additional development is expected
- Data for making informed decisions is limited
- Public awareness about water resources in the Watershed and appropriate stewardship is limited.

Watershed Goals

There are eight goal areas identified in Section 4 of this Plan. The goal areas are not designed to specifically match the eight issues identified above; however, the issues are addressed by achieving a combination of the goals and objectives in the Plan. Table ES.3 is the list of Plan goals:

Table ES.3: Vermillion River Watershed Joint Powers Organization Goals
Surface Water Quantity: Manage the rate and volume of runoff entering rivers, streams, lakes and wetlands within the Watershed.
Surface Water Quality: Protect and enhance surface water quality in the Vermillion River Watershed.
Open Space and Recreational Uses: Develop or improve recreational, fish and wildlife, and open space areas in conjunction with water quality improvement projects.
Wetlands and Habitat: <ul style="list-style-type: none"> • Maintain and enhance, where possible, the functions and values of existing wetlands and habitats within the Watershed. • Promote the restoration and/or creation of wetlands.
Groundwater: Protect groundwater quality and quantity to preserve it for sustainable and beneficial purposes.
Land Use Management: Protect and conserve water resources by promoting sustainable growth, integrated land use and land use planning, rural land conservation methods that reduce non-point sources of pollution from agricultural lands, and water resource management.
Floodplains: Manage and protect the floodplains of the Watershed from encroachment.
Education: Offer programs, educational opportunities, and information that facilitate an understanding of watershed principles.

Plan Content

This Plan includes technical information from the VRWJPO Plan and water management issues. Background information regarding scientific terms and processes is provided where practical. VRWJPO staff should be consulted for more information as necessary.

The Dakota County Rural Collaborative Plan is divided into the following sections:

Executive Summary. Provides a general overview of the Rural Collaborative and the Watershed, purpose, issues, goals and the components of this plan.

Section 1: Existing and Future Environment, provides Collaborative member background and organization, existing and historical background, and inventory information regarding the physical, biological and human environment of the Watershed.

Section 2: Water Resources (or Hydrologic Systems), presents current and historic information regarding climate, aquifers, wetlands, lakes, rivers, streams, and flood plains; water quantity; and water quality.

Section 3: Issues Identification, provides an overview of the priority issues (the problems, concerns and needs) identified during the planning process that the VRWJPO intends to address during the next ten years. The issues are broken out into two groups, those that should be addressed during the next five years, and those to be addressed beyond the first five years.

Section 4: Goals, Policies, Objectives and Actions, presents and describes the Plan framework (goals, policies, objectives and actions) adopted by the Joint Powers Board to address the priority issues identified in Section 4. The goals are general and represent what the VRWJPO wants to accomplish long-term. The objectives are more specific, measurable statements of what the VRWJPO wants to achieve. The policies define the VRWJPO's approach to Watershed management. And, the actions describe the specific activities the VRWJPO will undertake to achieve its goals and objectives. A Reason Statement is included for each goal, and each objective is accompanied by a Rationale. The Rural Collaborative is incorporating all of the VRWJPO goals, policies, objectives, and actions, as amended by the VRWJPO in February 2008, in this Collaborative Plan. In an effort to highlight specific actions that may apply to or are relevant to individual Collaborative communities, a matrix has been prepared for each objective and action within the eight areas of concern above. The matrix identifies actions that 1) impact the LGU but do not require direct input from the LGU, 2) require direct action by or cooperation of the LGU, 3) may require direct actions of the LGU, but are not mandatory, and 4) are not applicable. The Rural Collaborative matrices follow each section of VRWJPO goals, policies, objectives, and actions.

Section 5: Implementation Program, describes the implementation of this Collaborative Plan and incorporates by reference the Capital Improvement Program (CIP) of the Watershed.