



**SPECIAL MEETING NOTICE OF THE
ELK RIVER MUNICIPAL UTILITIES COMMISSION**

**Tuesday, April 11, 2023
5:00 p.m.
ERMU Conference Room
13069 Orono Parkway
Elk River, Minnesota**

I, **John Dietz, Chair**, hereby request a special meeting of the Elk River Municipal Utilities Commission on Tuesday, April 11, 2023, at 5:00 p.m., in the ERMU Conference Room, 13069 Orono Parkway, Elk River, Minnesota.

- The purpose of the meeting is to conduct a public hearing for the 2023 Wellhead Protection Plan amendment.

In accordance with State Statute, I hereby request the city clerk to post this notice at least three days prior to the meeting date. I further request the city clerk to notify each member of the Elk River Municipal Utilities Commission of this special meeting, in writing, at least one day before the meeting.



John J. Dietz, Chair

4-5-2023

Date

I HEREBY CERTIFY, that this notice has been posted and that I have served this notice upon the members of the Elk River Municipal Utilities Commission by mail at least one day prior to the above-called Elk River Municipal Utilities Commission meeting.



Mark Hanson, General Manager

4/5/2023

Date

AGENDA

1.0 CALL MEETING TO ORDER

2.0 PUBLIC HEARING FOR 2023 WELLHEAD PROTECTION PLAN AMENDMENT

3.0 ADJOURNMENT

Elk River Municipal Utilities Wellhead Protection Plan

April 11, 2023

Background

As a public water provider, the Elk River Municipal Utilities (ERMU) is required by the Minnesota Rules, parts 4720.5100 to 4720.5590 as administered by the Minnesota Department of Health (MDH) to develop a plan to 1) understand where their source water comes from and how vulnerable it may be to contamination (Part 1), and 2) identify potential sources of contamination based on geologic vulnerability and management strategies addressing potential contaminants (Part 2). The plan is referred to as Wellhead Protection (WHP). The wellhead rules also require a public water supplier to amend current WHP plans every ten years. This is the second amendment to the ERMU WHP plan.

A WHP team formed in January of 2022 to assist in the amendment of Part 2 of the ERMU WHP plan has completed its task. Local governmental units (LGU) and the public have been given the opportunity to review the draft Elk River Municipal Utilities WHP plan.

A brief scope of the WHP plan

The ERMU Drinking Water Supply Management Area (DWSMA) covers approximately 17,268 acres (~27 square miles) with about 15,360 acres classified as low vulnerability and 1,908 acres classified as moderately vulnerable (see DWSMA Map attachment).

1. Groundwater vulnerability

- Nearly 90 percent of the DWSMA is classified as low vulnerability. In the low vulnerable area geologic materials composed of clay-rich glacial sediments and the Eau Claire formation provide protection to the Mount Simon-Hinckley aquifer. Within the low vulnerability areas, the primary threats to the city's aquifer are other wells that reach or penetrate it.
- Where the DWSMA vulnerability is classified as moderate, pathways exist where water and contaminants may travel from the land surface to the aquifer within a time span of years to decades. Aquifers underlying moderate vulnerability areas are susceptible to several types of contaminant threats, including chemical/petroleum storage tanks and unused or unsealed wells which can provide conduits for contaminants to quickly reach the city's aquifer.

2. Components of the Plan

- See Forward (attached)
- Primary Issues, Opportunities and Problems in the DWSMA:
 - The City of Elk River population will increase over the next ten years resulting in increased demand for potable water.
 - ERMU will likely need additional wells or replace primary wells to address increased water demand.
 - There are over 1,000 wells located within the DWSMA with about 365 of them using the same aquifer as ERMU public water supply wells.
 - There may be unused or abandoned wells located in the DWSMA that may pose a threat to the aquifer.
 - The Mt. Simon-Hinckley aquifer is the sole-source of drinking water for Elk River and other entities in the region.
 - Increased usage of the Mt. Simon-Hinckley aquifer to meet regional water demand is a concern.
 - ERMU could partner with state agencies and other public/private users of the Mt. Simon-Hinckley aquifer to develop a regional, sustainable use aquifer plan.

3. Goals

- **Improve system resilience and the ability to provide a safe and adequate water supply;**
- **Protect the aquifer ERMU uses for drinking water;**
- **Educate public officials, land owners and the general public about the importance of protecting public drinking water supplies.**
- **Collaborate on a regional basis with other Mt. Simon-Hinckley aquifer users.**

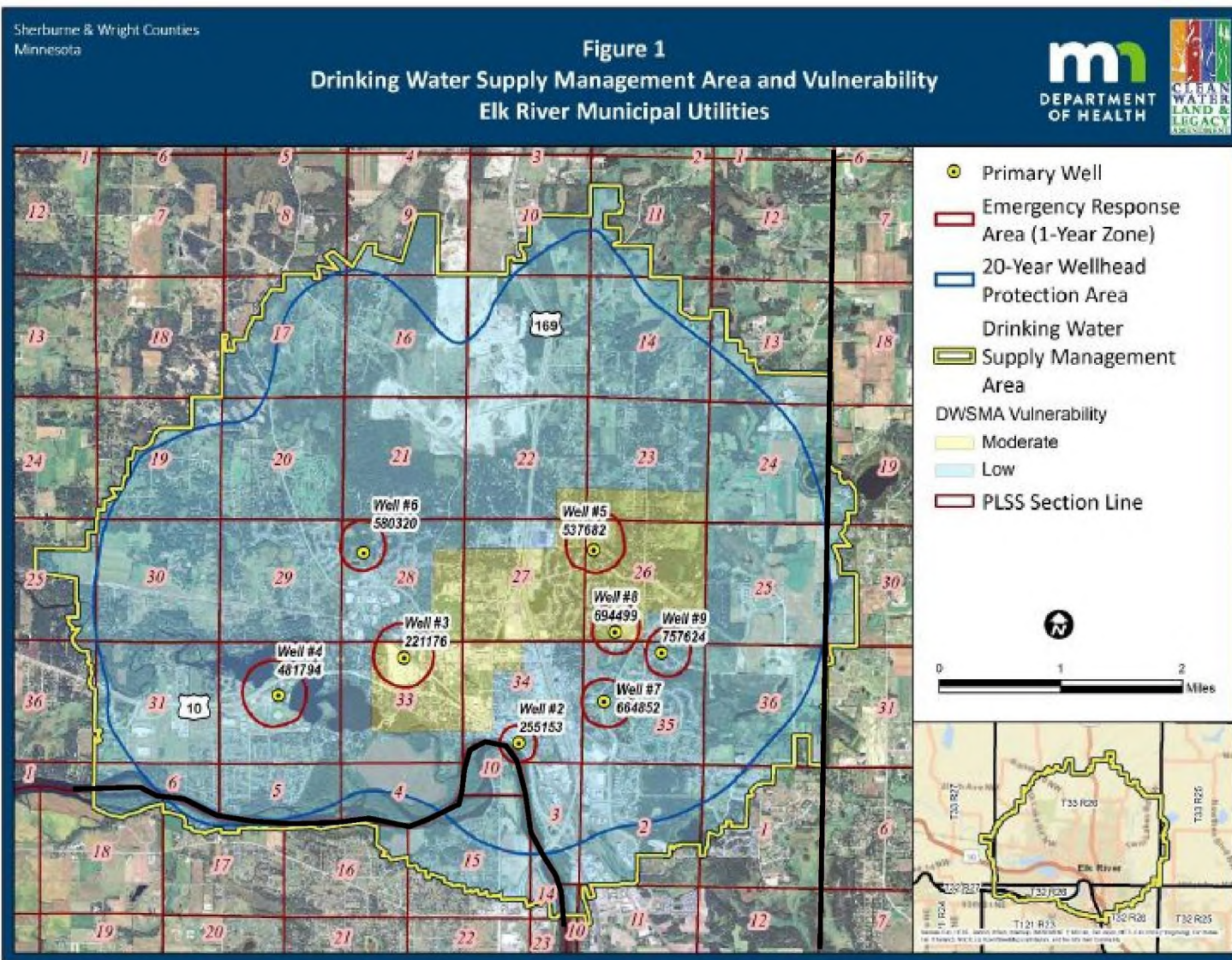
Implementation: Emphasis will be on educating the public about WHP and developing partnerships with LGUs and state agencies to assist ERMU in implementing the WHP Plan. MDH has WHP grant opportunities to help as does the Sherburne Soil and Water Conservation District.

Next Steps:

1. ERMU has submitted the draft WHP plan to surrounding LGUs for a 60 day review period that ended April 3, 2023. ERMU has posted a public notice of this public hearing to hear any comments on the WHP plan. After the public hearing, ERMU takes action to request the draft WHP plan be submitted to MDH for approval.
2. MDH WHP plan review process takes 90 days, therefore, expect approval in July 2023. Various state agencies will review and submit any comments to MDH prior to MDH approval.
3. Upon MDH approval, ERMU must notify LGUs that your WHP plan has been approved by MDH and that implementation of the WHP plan will begin within 60 days of MDH approval.

Attachments

- ERMU DWSMA Map
- Forward of the amended ERMU Wellhead Protection Plan



Emergency Response Area (Red Boundary) - One (1) year 'Time of Travel'.*

Wellhead Protection Area (Blue Boundary) - Twenty (20) year 'Time of Travel'.*

DWSMA (Yellow Boundary) - The Drinking Water Supply Management Area (DWSMA) – the area the WHP Plan applies to.

"Time of Travel" is determined by groundwater models using various parameters such as aquifer properties, well and pump capabilities and assuming a maximum pumping rate of 24 hours/day for either one or twenty years.

Forward

This document presents an amended, comprehensive wellhead protection plan for Elk River Municipal Utilities (ERMU) that will help provide for an adequate and safe drinking water supply for community residents.

ERMU has made good progress in implementing the current wellhead protection (WHP) plan and continues in efforts to protect the City of Elk River's source water. This amendment reflects relatively minor amendments to the boundaries of the emergency response areas, wellhead protection areas and the drinking water supply management area (DWSMA) since the previous WHP plan. The moderately vulnerable area within the DWSMA has been refined. The vulnerability status of Well #3 changed from nonvulnerable to vulnerable due to results of recent water sampling. This amended WHP plan includes addressing important issues of expected growth in population and associated increase demands on the sole-source aquifer used to supply potable water for the City of Elk River and many other public and private well owners in the region. The City and ERMU will continue to work with citizens and local and state partners in implementation of the WHP plan.

MDH wellhead protection rules require a review and assessment of various data elements as determined by DWSMA vulnerability that must be completed for the DWSMA. This process must address existing and historical aspects of the 1) physical environment, 2) land uses, 3) water quantity and 4) water quality. The data assessment process conducted by the ERMU wellhead protection team supports both the delineation and vulnerability reports (Part 1) and assists in the identification of potential impacts the data elements may have on the source water and how the water supplier can address potential impacts (Part 2). Appendix A contains detailed assessments of all applicable data elements for the DWSMA.

Eight wells contribute source water to the ERMU system. Each well has undergone an extensive groundwater modeling process as part of wellhead protection planning. The modeling results are presented in the Part 1 report. The Part 1 report is located in Appendix B which contains the 1) delineation of the wellhead protection area, 2) delineation of the DWSMA, and 3) the assessments of well and drinking water supply management area vulnerability. The Part 1 report was approved by the Minnesota Department of Health (MDH) before the second part of the plan was prepared.

The remainder of the wellhead protection plan is referred to as 'Part 2' and contains procedures followed for conducting a potential contaminant source inventory (PCSI) and the development of goals, objectives and measures that ERMU will take to offset the risk that potential contamination sources present to the public water supply system.

The identification of potential contaminant sources within the DWSMA is a fundamental element of wellhead protection. A PCSI is needed to assign meaningful priorities to management measures and to effectively monitor the effectiveness of implementation of the WHP plan. This is an ongoing process that entails inventorying present and past land uses and periodically updating the PCSI as land uses change within the DWSMA. The extent of potential contaminant inventory conducted within a DWSMA is determined by the vulnerability of the public water supply wells and the DWSMA. The ERMU wellhead protection team has conducted an inventory of potential contaminant sources within the DWSMA which are discussed in Chapter 4 and shown on maps and tables in Appendix C.

The wellhead protection team discussed and listed any expected changes to the physical environment, land use, surface and groundwater that may impact the aquifer serving the public water supply wells in the DWSMA. Chapter 5 discusses this subject in greater detail to clarify expected changes and how those changes may impact the source water used by ERMU.

A WHP plan must identify water use, land use issues, problems and opportunities related to the aquifer serving the public water supply wells, the well water and each DWSMA. The wellhead protection team utilizes this process to define the nature and magnitude of contaminant source management issues within each DWSMA. The identification of issues, problems and opportunities that may exist in the DWSMA enables ERMU to 1) take advantage of opportunities that may be available to make effective use of existing resources, 2) set priorities for management of contaminants listed, and 3) request support for implementing specific management strategies.

Chapter 6 provides further discussion and tables of issues, problems and opportunities identified by the ERMU wellhead protection team.

Finally, the core of a WHP plan is the identification and implementation of effective management strategies that will protect the public water supply wells from contamination. These management strategies or measures, may range from nonregulatory activities such as public education, to regulatory activities such as adoption by federal, state or local units of government to control specific types of contaminant sources. The ERMU wellhead protection team has selected measures and prioritized each measure that should effectively address local land and water uses as well as resource needs.

Factors the team considered in this process include:

- contamination of a public water supply well;
- quantities of potential contaminant sources and their proximity to a public water supply well;
- capability of the geologic material to absorb a contaminant;
- existence and effectiveness of existing official controls;
- time required to obtain cooperation; and
- administrative, legal, technical and financial resources needed.

The long range goals, objectives and measures assigned to the DWSMA by the ERMU wellhead team is discussed and itemized in Chapters 8 and Appendix D.

When both parts of the plan are approved by the MDH, the Public Water Supplier has met all requirements that are contained in Minnesota Rules Chapter 4720, parts 4720.5100 to 4720.5590 for preparing an amended wellhead protection plan.