

## FOR BOARD ACTION

Agenda Item #

6

Meeting Date:

5/29/07

**SUBJECT:**

Wellhead Protection Plan part II – Public Hearing

**PREPARED BY:**

Todd Osweiler, Environmental Analyst

ITEM DESCRIPTION:

The Wellhead Protection (WHP) Plan part II public hearing will be open for public input and discussion. The public hearing is being held in accordance with Minnesota Rules, Chapter 4720.

The WHP program is a community-based approach designed to protect public drinking water supplies by managing the land surface to prevent contaminants from entering the area that contributed water to the well. Part I of the WHP program was completed and approved by the Minnesota Department of Health in June 2004. The executive summary of Part II of the WHP program is attached for your review. Complete versions of both Part I and Part II are posted on RPU's web site at [www.rpu.org](http://www.rpu.org).

UTILITY BOARD ACTION REQUESTED:

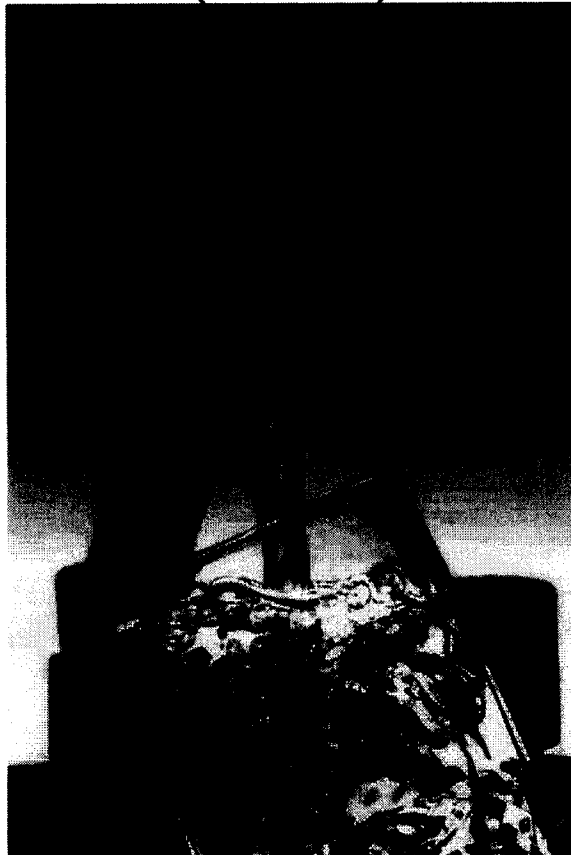
No board action required.

  
General Manager

  
Date

**ROCHESTER PUBLIC UTILITIES**

**Wellhead and Source Water Protection  
Part II: Wellhead Protection Plan  
City of Rochester, Minnesota  
(DRAFT)**



**January 2007**

by

**Todd Osweller, RPU  
&  
Tony Hill, Olmsted County**



## Wellhead Protection Team Members

Joe Hensel	Rochester Public Utilities
Todd Osweiler	Rochester Public Utilities
Greg Rowley	Rochester Public Utilities
Bill Cook	Rochester Public Utilities
Tony Hill	Olmsted County Public Works
Art Persons	Minnesota Department of Health
Justin Blum	Minnesota Department of Health
Jeff Green	Minnesota Department of Natural Resources
Terry Lee	Olmsted County Environmental Resource Services
Barb Huberty	Rochester Public Works
Denny Manning	Rochester-Olmsted Planning Department
John Harford	Rochester-Olmsted Planning Department
Justin Watkins	Minnesota Pollution Control Agency
Jim Stannard	Olmsted Soil & Water Conservation District
Jim Baier	Chairman of the Marion Township
Sandi Goslee	Rochester-Olmsted Planning Department
Robyn Hoerr	Minnesota Rural Water Association
Adam Birr	Minnesota Dept. of Agriculture

## **Executive Summary**

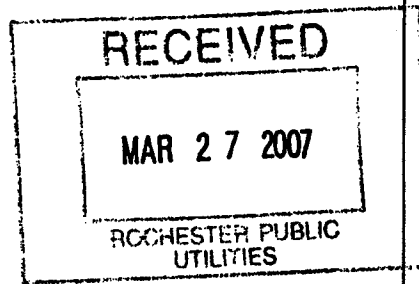
Wellhead protection is a community-based approach designed to protect public drinking water supplies by managing the land surface to prevent contaminants from entering the area that contributes water to a well. The federal Safe Drinking Water Act (SDWA), as amended in 1986, established a program for States to delineate and manage wellhead protection areas (WHPAs) for the purpose of protecting groundwater from contamination. The U.S. Environmental Protection Agency (EPA) approved Minnesota's Wellhead Protection Program (WHPP) in March 1996. Minnesota's WHPP is coordinated by the Minnesota Department of Health (MDH) and regulated through Minnesota Rules Chapter 4720.5100. These regulations require the public water suppliers to: 1) determine the capture zone (wellhead protection area) of each well based on ground water flow data and other hydrogeologic information; 2) assess the vulnerability of each well to contamination; 3) inventory potential sources of contamination within each drinking water supply management area (DWSMA); and 4) develop a plan to manage and control potential sources of contamination on the landscape that are identified within the DWSMAs. The MDH separated the wellhead protection planning process into two separate phases. Part I of the planning process involves the delineation of WHPAs and DWSMAs for each well in the public water supply system as well as an assessment of their vulnerability to potential contamination. Part II requires the creation of the wellhead protection plan itself, including goals, objectives and action items needed to protect the DWSMAs from sources of pollution spread across the landscape. Part II must also include an evaluation of the program and a contingency plan for establishing an alternative water supply in case of a major emergency to the system.

RPU completed Part I of the Wellhead and Source Water Protection Plan (the Plan) in June 2004 and received approval by the MDH in September 2004. Part I of the Plan: delineated the WHPA and DWSMA (Figure 1) for each well in the RPU system, evaluated the vulnerability status of each source water aquifer in the area, and determined the vulnerability of each well in the municipal system. As noted in the Part I, much of the RPU public water supply system utilizes the St. Peter-Prairie du Chien-Jordan aquifer, which is considered vulnerable to contamination. The deeper aquifers in the local geologic setting, the Franconia - Ironton Galesville and Mt. Simon, are considered to have lower vulnerability ratings due to the presence of confining layers associated with these formations. For wells constructed in these low vulnerability aquifer settings and in areas with a large cumulative thickness of clay-rich deposits present in the ground surface, the MDH determined that wells located around these subsurface features have a lower chance of being contaminated than the wells drawing directly from St. Peter-Prairie du Chien-Jordan aquifer. However, because of the unique groundwater flow system in the Rochester Basin, the depth of the aquifer is not a very reliable indicator of vulnerability as is the case in other hydrogeological settings across the state. Therefore, in accordance with Minnesota Rules Chapter 4720.5550, the MDH required additional water chemistry and groundwater age dating analysis in order to further assess the vulnerability of each well in the municipal water supply system. Part I of this Plan identified several wells in the system that are vulnerable to land surface contamination based on water chemistry and groundwater age dating information that was previously collected by the MDH. The MDH determined that the opposite was also true, that some wells in the RPU system presumed to be vulnerable due to their geological setting proved to contain older water and thus regarded these wells as being protected from most sources of contamination.

In accordance with Minnesota Rules Chapter 4720.5200, Part II of this Plan includes the following information:

- A review and assessment of the physical data elements of the Rochester area.
- Results of the potential contaminant source inventory (PCSI) for each DWSMA.
- Identification of changes, issues, problems and opportunities related to the DWSMAs and potential contaminant sources.
- A discussion of management strategies for potential sources of pollution – including goals, objectives and action plans associated with each strategy.
- An evaluation of the wellhead and source water protection program.
- A discussion of alternative water supply contingency strategies.

The information and data contained in Chapters 1 through 3 of this Plan provide support, and a basis, for the approaches taken to address the potential contaminate sources identified during the planning process. These chapters provide the framework for the selection of the overall goals of WHPP as well as the development of the management strategies that will be incorporated to protect the DWSMAs from potential sources of contamination. RPU will be concentrating its efforts on increasing public awareness about the program; adoption of best management practices by local residents and businesses; improve coordination between local; state and federal agencies; utilize existing programs and regulatory controls; enhance water conservation efforts; and identify future program needs.



March 23, 2007

Mr. Larry Koshire  
RPU General Manager  
4000 East River Road NE  
Rochester, MN 55906

Dear Mr. Larry Koshire,  
The City of Rochester is in the process of developing a wellhead protection plan for its drinking water supply wells. For your review and comment, the enclosed CD provides a "draft" of the Wellhead Protection Plan Part II for our system as required in the *Minnesota Wellhead Protection Rule (part 4720.5350, subparts 1-3)*.

This portion of the plan includes information pertaining to:

1. The inventory of potential contaminants of concern within the drinking water supply management area;
2. The data that was considered in this portion of the plan;
3. Issues, problems, and concerns within the drinking water supply management area;
4. Goals, objectives, and action strategies to address the issues and concerns within the drinking water supply management area;
5. A plan evaluation strategy; and
6. A contingency strategy in the event of water system disruption

Your comments on this portion of the plan will be accepted through the 60-day comment period. Please send your written comments to Todd Osweiler at RPU, 4000 E River Rd NE, Rochester MN, 55906 by Friday May 25, 2007.

Consistent with the *Wellhead Protection Rule (part 4720.5350, subpart 4)*, a public hearing has been scheduled for Tuesday May 29, 2007, at the regularly scheduled RPU Board Meeting to discuss issues and address all comments related to the enclosed "draft" document. Additional public information meetings will be held with the Rochester Planning Commission and the Olmsted County Environmental Commission.

If you have any questions concerning this matter, please contact Todd Osweiler, RPU's Environmental Analyst, at 507-280-1589 or [tosweiler@rpu.org](mailto:tosweiler@rpu.org).

Sincerely,

Bill Cook  
Field Service Division

cc: Township Board Chairs  
Minnesota Department of Health  
City of Rochester  
Olmsted County Environmental Services  
Olmsted Soil and Water Conservation District  
Rochester-Olmsted Planning Department