

# **Wellhead Protection Rule Revision Advisory Committee Virtual Meeting Notes – May 24, 2022**

**DRINKING WATER PROTECTION**

**Wellhead Protection Rule Revision Advisory Committee  
Virtual Meeting Notes – May 24, 2022**

Minnesota Department of Health  
Drinking Water Protection Program  
651-201-4700  
[www.health.state.mn.us](http://www.health.state.mn.us)

*To obtain this information in a different format, call: 651-201-4700.*

## Contents

Committee Members Present .....	1
Others Present .....	1
Meeting Minute Attachments .....	1
Meeting Minutes Following the Agenda .....	1
May 24th Meeting Support Handouts sent to Advisory Committee.....	4
May 24th Presentation Slides.....	16
May 24th WHP Rule Advisory Meeting Chat Questions and Q & A .....	28

## Committee Members Present

Marilyn Bayerl, James Beckstrom, LeAnn Buck, Wayne Cymbulak, Ali Elhassan, Annie Felix-Gerth, John Greer, Robyn Hoerr, Todd Holman, Mark Janovec, Dominic Jones, Jen Kader, Lindsey Krumrie, Brian Martinson, Jason Moeckel, John Paulson, Wes Stagle, Luke Stuewe, Margaret Wagner. (Call in 651-263-3996)

## Others Present

Anita Anderson, Trent Farnum, Dave Hokanson, Alycia Overbo, Linda Prail, Steve Robertson, Miles Schacher, Amanda Strommer, James Walsh, Mark Wettlaufer, Trudi Witkowski

## Meeting Minute Attachments

### A. Meeting support handouts sent to Advisory Committee:

1. Rule Making Progress Chart
2. Minnesota Wellhead Protection Summary
3. SWP Options for Small Systems

### B. Presentation Slides:

1. WHP Rule vs. Program
2. PWS Applicability & the Rule
3. Rationale for MOH doing the WHPA Delineations

### C. WHP Rule Advisory Mtg 2 Chat Q & A:

## Meeting Minutes Following the Agenda

1. **WELCOME:** Linda Prail, Rules Coordinator, welcomed everyone to the WHP Rule Revision Advisory Committee Meeting.
2. **HOUSEKEEPING:** Linda Prail, Rules Coordinator, gave an update on WHP Rule Revision and a flowchart that showed the steps in the State rulemaking process. (See Rule Making Progress Chart attached) She mentioned that the Request for Comments was sent out and published in the State Register on May 16th . Linda noted that the Advisory Committee has a role to play in helping get the word out and bring back comments and suggestions on the WHP Rule to the committee representing their constituents.
3. **SUMMARY OF WHP PROGRAM DOCUMENT:** Mark Wettlaufer, Planner Supervisor MOH SWP Unit, gave an overview of the Summary of WHP Program and how the program has changed since 1997 when the rule was adopted. There has been a steady progression from plan development to more focus on implementation activities. Dedicated funding, more focus on groundwater and drinking water by State Programs, Federal Farm Bill, etc. has increased awareness and protection opportunities for local public water systems. (See attached "Minnesota Wellhead Protection Summary") Advisory Committee members asked what MOH has learned over that time and how the WHP rule can perhaps better align with lwlpl, what we can do about overlapping DWSMAs, or focus beyond the 10 year time of travel for DWSMA's, etc. Other questions about

working with SWCDs, who needs to develop a plan, focus only on land use related contaminants in plans, questions about GRAPs, municipal WHP Plans, etc. were raised. Mark addressed many of the questions. Since there were so many good questions and not all answered, Mark and SWP Unit Supervisors will attempt to answer and sort the questions related to the rule vs. the program for reference and future use. (You can find responses to all the chat comments in the attached "WHP Rule Advisory Mtg 2 Chat Q & A" document) Many good questions and suggestions were made by the committee.

4. **FOCUS ON PWS AND THE WHP RULE VS. PROGRAM NEEDS:** Building from the previous discussion, Mark presented and shared with the Advisory Committee how to begin to organize thoughts and ideas between what is related to the WHP Rule and SWP Program. Advisory Committee members are encouraged to think in terms of what we want to require a PWS to do for WHP in a DWSMA, versus things the State and various programs can do to support plan implementation or overall groundwater or drinking water protection. Many good questions were asked. Appreciation was expressed that we are looking at the big SWP Program picture along side the WHP Rule. Specific questions were raised about the rule being more flexible in terms of updating delineations and being able to address new contaminant impacts should they arise during the implementation of an existing plan, could extra territorial authority be used similar to land use planning, and recognition of different needs and requirements may be needed for different types of PWS. (Please refer to specific chat questions and answers again in the attached "WHP Rule Advisory Mtg 2 Chat Q & A" document)
5. **PWS APPLICABILITY & THE RULE:** Who should be required to develop a WHP Plan: Mark Wettlaufer, presented how the WHP rule requirements apply to different types of PWS. All Community Systems and Noncommunity Nontransient Systems have to develop and implement a WHP Plan. For WHP, Noncommunity Transient systems are required to implement measures identified in their Inner Well Management Zone (200' radius of their well) identified by MOH or local public health sanitarian survey. They do not have to develop plans. Mark went on to describe how different sizes and types of PWS have different capabilities in terms of developing a plan and implementing it. Mark and Unit Staff have suggested that it may be beneficial to have multiple tools and planning approaches given the variation in the types of nontransient and non-municipal systems, considering their lack of local government jurisdictional authority over land use and need for more one on one technical assistance and support. He suggested that enforcement of a plan or planning may not be the best approach but rely on multiple forms of technical assistance thru the sanitarian or SWP planning staff and using more flexible approaches. Small systems could also be prioritized based on their vulnerability to contaminants and contaminant threats identified. Also, the area to be managed is usually smaller for these systems since they typically do not pump as much water as a community system. Finally, their may be other aquifer or regional approaches better suited to address more drinking water nonpoint contaminant threats like nitrates.
6. **GROUP DISCUSSION AND QUESTIONS RELATED TO PLAN DEVELOPMENT AND PWS APPLICABILITY:** The Advisory Committee had many questions and ideas in terms of the types of systems and how various State and local planning processes could support

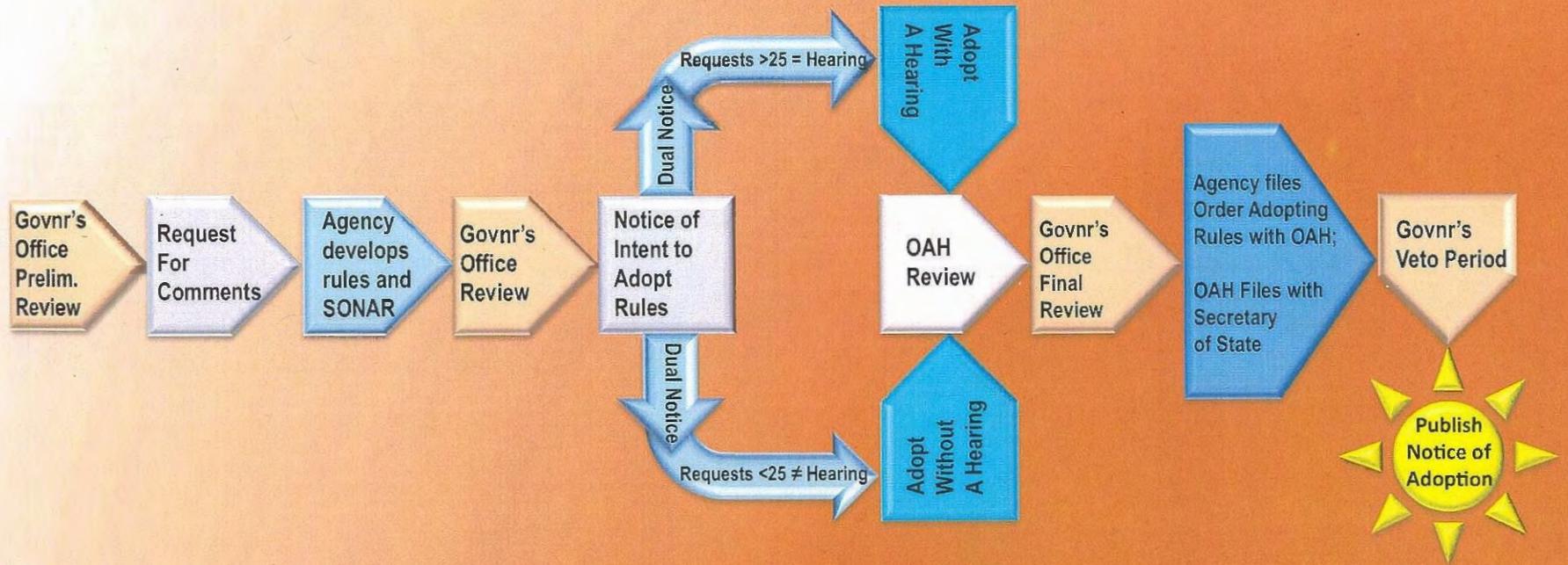
WELLHEAD PROTECTION RULE REVISION ADVISORY COMMITTEE  
VIRTUAL MEETING NOTES – MAY 24, 2022

drinking water protection for small systems. Several committee members suggested that we need to be mindful in terms of what types of activities or work could be supported through lwl, and what other options and support may be needed by small systems. It was mentioned that perhaps we could do plans but make them less burdensome. Others thought perhaps there could be other ways to target specific pollutants (nonpoint) thru other State programs. (GW Rule, lwl, local public health, etc.) (See additional comments and responses in the attached "WHP Rule Advisory Mtg 2 Chat Q & A" document.)

7. **WHY IT MAKES SENSE FOR MDH TO DO THE WHP DELINEATIONS:** Jim Walsh, Hydro Supervisor, MOH SWP Unit, presented a number of reasons why it makes sense to have MOH doing the WHP delineations. Generally, MOH doing the delineations alleviates some of the equity issues between having larger systems pay for doing the delineations and MOH completing them for small systems. Also, consistency in delineation work may be a benefit of having one entity (MOH) do the delineations. The Advisory Committee noted that this would alleviate a financial burden of some medium sized communities that currently are paying for delineation work and Part I plans. Several commented about the benefit or merits of better consistency. Other questions were raised about the modeling approach MOH would use and if a PWS could still do Part I. (Please refer to the "WHP Rule Advisory Mtg 2 Chat Q & A" document attached.)
8. **PLAN REVIEW PROCESS AND TIMING:** Amanda Strommer, Planner, MOH SWP Unit This was not discussed. Topic to be presented at June meeting.

## **May 24th Meeting Support Handouts sent to Advisory Committee**

# Rulemaking Progress Chart



# Minnesota Wellhead Protection Program

## Summary

### Forward

This document is a general summary of the progression and influences on the State Wellhead Protection Program in Minnesota over the past 25 years. Some key statistics and changes that have influenced the program are described below.

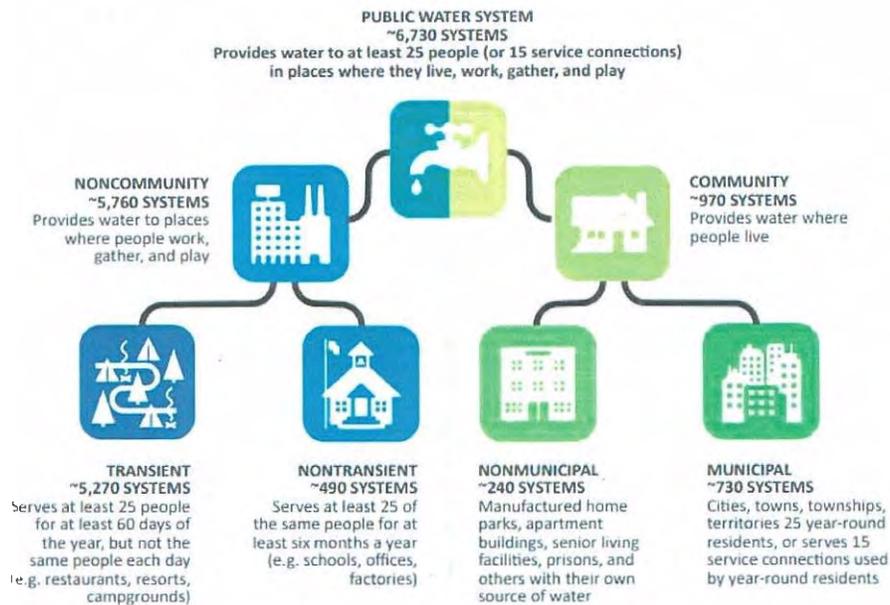
### Importance of groundwater drinking water supplies

Groundwater protection is a major public health and environmental issue in Minnesota. Seventy-five percent of Minnesotans rely on groundwater as their source of drinking water, with approximately fifty percent obtaining their drinking water from public water supplies.

#### I. Wellhead Protection Rule background

- The Minnesota Wellhead Protection (WHP) Program was developed in response to 1986 amendments to the Federal Safe Drinking Act that required states to develop a program to prevent contaminants that may have an adverse impact on human health from entering public water system wells.
- The 1989 Minnesota Groundwater Protection Act was enacted by the Minnesota State Legislature in response to impacts and concerns to protect groundwater resources. The Act focuses on **prevention** of contamination and degradation of groundwater supplies. The Act also grants Minnesota Department of Health (MDH) authority to develop a WHP Program and measures to protect public drinking water supplies.
- The WHP Rule was promulgated (approved) November 3, 1997. MDH Source Water Protection (SWP) Unit begins to phase in public water suppliers to develop WHP plans based on their vulnerability to groundwater contamination.
- The WHP Rule requires WHP Plans be developed for all community public water systems and noncommunity nontransient systems. (See Fig. 1 below for water system categories and definitions)

**Figure 1: Water System Categories and Definitions**



## II. Groundwater public water system statistics

Type of Public Water System			
Category	Sub-Category	Number	Plan Required
Community	Municipal	687*	Yes
	Nonmunicipal	234	Yes
Noncommunity	Nontransient	470	Yes
	Transient	5,215	No

\*Reflects number of systems that also purchase water from another system.

## III. WHP Plan development & implementation 1997 – 2008

During this period:

- MDH prioritized and phased in community municipal systems based on vulnerability and population.
- Complexity of delineation work, rule requirements and public water system support requires a high level of technical assistance by MDH and MN Rural Water (MRWA) staff to complete plan development work with local WHP Teams.
- Rule-based plans took a minimum of two years to complete. WHP Plan development can take longer for systems in highly vulnerable settings with significant potential or existing contamination threats.

- Consultants develop Part I WHP Plan delineations for community systems serving over 3,300 in population. MDH completes delineations for community and noncommunity systems under 3,300 in population. Part II plans for community systems under 500 in population are completed by MDH and / or MRWA, with the remainder completed by consultants.
- WHP Plan implementation funding and staff support are limited to voluntary support through county water plans and Soil and Water Conservation Districts (SWCDs). Some State support is available through special grants or practices funded through federal Farm Bill programs.
- Minnesota Department of Agriculture (MDA) provides support to several public water suppliers in southwest MN through a Legislative-Citizen Commission on Minnesota Resources (LCCMR) grant to help growers evaluate nitrogen use and loss impacting drinking water supplies. Nitrogen best practices and technical assistance support provided to area farmers by University of Minnesota Extension and local SWCD partners.
- MDH and MRWA staff pilot and assist several nonmunicipal and noncommunity nontransient public water systems develop rule-based WHP Plans. WHP Rule requirements do not align well with their needs and capabilities. Work with these systems were generally put on hold until 2015.
- Approximately 250 municipal WHP plans were developed and approved through 2008.
- Most of the WHP Program focus through 2008 was on local WHP plan development. Many of these past plan development changes continue today.

#### **IV. WHP Plan development & implementation 2008 – 2021**

- In 2008, Minnesota's voters passed the Clean Water, Land and Legacy Amendment to the Minnesota Constitution, increasing the sales tax by 3/8<sup>th</sup> of one percent to protect drinking water, protect and enhance habitat, restore lakes, rivers, groundwater, etc. through 2034.
  - Public water suppliers have benefitted directly through the Clean Water Fund portion of the legacy amendment through MDH SWP Grants Program, increased planning and implementation support through the SWP Unit, and other State agencies that support groundwater and drinking water protection. The funds have greatly accelerated surface water and groundwater protection activities in MN. See MDH SWP Grants page at: [Source Water Protection Grant Categories: Information for Applicants \(https://www.health.state.mn.us/communities/environment/water/swp/grants.html\)](https://www.health.state.mn.us/communities/environment/water/swp/grants.html).
- With the approval of dedicated funding, MDH Drinking Water Protection Managers focus on establishing surface water SWP and WHP as a priority in the MN Water Resource Framework. The Clean Water Council Interagency Groundwater / Drinking Water agency managers subgroup is established. State water resource programs begin to routinely identify SWP as a priority in their programs.
- In 2010, MDH increases staffing to accommodate WHP plan development workload and increased expectations with State Clean Water Fund dollars, such as grants directly to public water systems, etc.
- In 2010, MDH launches the SWP Grants program. The Grants program provides funding for drinking water protection projects to community and noncommunity public water systems. Since 2010, the grants program has awarded \$800,000 to a million dollars annually to public water systems to implement drinking water protection activities identified in WHP plans.
- SWP Unit and legislature establish a goal to have all vulnerable community public water systems have a completed WHP Plan or be in the process to of developing a Plan by 2020.

- To meet the legislature’s 2020 goal for plan development, the SWP Unit develops a streamlined WHP “action plan” template and process for community nonmunicipal and noncommunity nontransient systems to develop a WHP Plan *outside the rule requirements*. (Refer to Figure 1 for Water Systems Categories and Definitions.)
- The SWP Unit adopts a number of policy and procedural changes for WHP planning outside the WHP Rule. The changes provide relief for non-municipal plan development, target staff resources to supporting vulnerable WHP Plan amendments as well as continuing to develop new first-generation plans. These changes will allow the SWP Unit to meet the 2020 goal set by the legislature.
- The SWP Unit meets the 2020 goal and has all vulnerable community public water systems with a completed WHP Plan or in the WHP Planning Process.
- The SWP Unit continues to focus on creating new opportunities to assist public water systems implement WHP Plans. This is being accomplished through partnerships with government, nonprofits and private partners to develop new opportunities to protect drinking water resources. The 2018 Farm Bill identifies SWP as a Federal and State priority. MN continues to work with the State U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS), and Farm Service Agency Offices and outlines State SWP priorities for Farm Bill funding.
- Drinking water protection continues to be elevated through identification in Board of Water and Soil Resources (BWSR) 1w1p, BWSR Drinking Water Sub grant and the Interagency Groundwater Restoration and Protection Strategies Program (GRAPS). More emphasis and priority is given to vulnerable WHP areas through the Clean Water Fund, State Water Resource Programs and the Federal Farm Bill.
- MDH assists and supports MDA Groundwater Rule and mitigation work in Drinking Water Supply Management Areas (DWSMAs) with high nitrates.
- Starting in 2018, MDH SWP Unit internally gathers staff feedback on changes needed to improve the WHP Rule and begins planning for revising the WHP Rule.

## **V. 2018 – 2022: Steps taken by the MDH SWP Unit to inform and develop ideas to improve the rule**

### **Background**

MDH SWP Unit staff have been meeting informally over the past 3 years to evaluate and develop ideas to improve the WHP Rule. In 2019, SWP Managers requested the MN Office of Management Analysis and Development (MAD) facilitate and moderate staff discussions centered around 5 parts of the WHP Rule. Notes from the facilitated discussions and staff surveys were used to outline and draft ideas for revising parts of the WHP Rule. In 2020, staff used the facilitated discussions and suggestions received to form sub workgroups around parts of the rule, and in 2021 compiled a draft revised rule to serve as the basis for agency discussion and present opportunities to improve the rule. The reason MDH management decided to take this approach as opposed to just opening up the rule for revision was that:

- 1) staff and supervisors realized the large amount of time that has passed since the rule was written;
- 2) recognition of the significant number of changes needed;
- 3) changes in the MN Water Resource Protection Framework since dedicated funding; and
- 4) it made sense to informally draft a revised rule and develop themes and concepts that could be presented to a rule Advisory Committee and State Agency managers ideas for proposed changes.

## **Opportunities identified by the SWP Unit staff revising the WHP Rule**

Listed below is a summary of some of the opportunities identified by staff to improve the rule.

- 5) The length of time it takes a public water supplier to develop or amend a plan is too long. The time for plan development, review and approval should be streamlined so momentum can be directed towards plan implementation.
- 6) MDH now has the technical modeling expertise in house that can improve plan development efficiency and result in more consistent delineation and modeling work across multiple jurisdictions and boundaries. Among other benefits, this approach will allow for addressing overlapping Wellhead Protection Areas and for assessing aquifer conditions and threats outside of DWSMAs.
- 7) The WHP Rule needs to consider water supply system capacity to develop and implement a WHP Plan. Some small public water systems may be best served by completing the Inner Well Management Zone and receiving technical assistance from MDH to advise them on how to best address a contaminant threat, without the requirement to develop a WHP Plan.
- 8) Nonmunicipal and noncommunity systems lack the authority to regulate or influence contaminant source management on adjacent properties.
- 9) New opportunities to manage vulnerable aquifers, contaminant threats are available through state and local 1w1p efforts to better address point and nonpoint pollution threats. 1w1p can provide opportunities to fund and support all public water systems WHP implementation efforts; regardless of if a plan is required or not.
- 10) The revised WHP rule needs to use plain language so plan content requirements and information needed in WHP plans is clear.
- 11) If MDH completes new WHP delineations for all public water system wells, more proactive modeling and analysis can be done in evaluating new well sites and the aquifer to be used. Presently, MDHs involvement may be too late or after a system chooses a new well site and aquifer to be used.

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5/2022

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**Proposal to Complete SWP Work for NCNT and Community Non-Municipal Systems**  
**SWP Unit Supervisors**  
Revised Draft: 2/24/2022

**Background & History: The WHP Rule and NCNT Systems**

The 1996 WHP Rule requires Noncommunity Non-transient Public Water Supply Systems and Community Non-Municipal systems to develop a plan. Due to the extensive process-oriented approach of the rule, number of meetings, notification requirements, etc. and the limited planning capacity of most small systems to development and implement a plan, the SWP Unit decided not to pursue NTNC systems and Community Non Municipal Systems to develop a WHP Plan following the existing rule.

At the same time, increased commitment was made by the SWP Unit to the legislature to complete WHP plans for all vulnerable **Community PWS** by 2020. *To meet the 2020 goal, the SWP Unit developed a streamlined action plan approach outside of the WHP rule requirements to complete WHP plans for the Community Non-Municipal systems.* This approach streamlined the delineation and plan development process for both the PWS and MDH. Presently, the SWP Program has been developing action plans for Community Non-Municipal systems and piloting the develop of action plans for NCNT systems.

**Current WHP Rule and Proposed Revisions:**

The SWP Unit is currently developing a revised WHP Rule to address many of the “lessons learned” administering the rule and assisting a variety PWS develop and implement WHP Plans over the past 25 years. One of the biggest challenges in revising the existing rule is developing a more efficient rule-based process for all the types of PWS that are included under the existing rule. While the streamlined “action plans” provide increased efficiencies in developing plans by the SWP Unit and PWS, it is difficult to develop multiple planning approaches within a rule that accounts for the variation in the type, size, capabilities, and resources of all PWS.

It is proposed that MDH continue to require implementation of measures identified as part of the IWMZ for WHP for all PWS systems as currently required in the existing and proposed rule, however, not mandate WHP Action plans in the proposed WHP rule revision for NCNT Systems and Community Non-Municipal Systems at this time. The SWP Unit has created and identified opportunities to support, target and improve drinking water protection for small systems outside of Rule as follows:

- 1) **Increased collaboration between the NCNT, CPWS and SWP Unit thru the hiring of a small systems planner.** *Most of the small systems planner’s time is allocated towards developing approaches and a program to guide and support SWP work for small systems outside a rule-based approach working with NCNT, CPWS Unit staff. (This position is posted and is currently being filled.)*
  
- 2) **Establish a NCNT, CPWS and SWP Unit Workgroup to guide work of the Small Systems planner and develop both planning and technical assistance approaches to better provide SWP support to small systems.** (NCNT SWP Program development work, targeting vulnerable systems, etc. is in the small system PD and this work started in 2022.)

- 3) **Change and improve grant access for NCNT, Community Non Municipal systems whereby a plan is not required to qualify for implementation grant funding that pays for up to a 100 % of the cost for a SWP activity.** (The SWP Unit is committed to making this change working with the NCNT Unit. Criteria and process can be developed working through the SWP – NCNT, CPWS staff workgroup as described above and the Grants Committee.)
- 4) **Target and advocate for action plan development when and where the drinking water source is vulnerable to land use impacts, the system serves a vulnerable population and system capacity to implement a plan (Mobile Home Parks, Housing Developments, Schools, daycares, larger NCNT facilities, etc.)** Priorities and process can be established for this work thru the SWP-NCNT– CPWS workgroup and review by Unit Supervisors.
- 5) **Continue to have MDH SWP Planners identify noncommunity PWS systems and Community Non Municipal Systems in the BWSR 1w1p and consider them in aquifer, drinking water protection strategies of 1w1p.** (Planners are actively doing this through the 1w1p priority concerns letters that are submitted to local resource partners. This is especially effective in making SWCD / resource partners aware of small systems drinking water protection needs; particularly nonpoint sources like nitrates and other contaminant issues such as arsenic.)
- 6) **Incorporate NCNT and Community Non-Municipal systems into the interagency Groundwater Restoration and Protection Strategies (GRAPs) reports used by local government to target groundwater and drinking water protection, like private wells.** (We can include a map of noncommunity systems in the interagency GRAPs reports. This provides a similar platform to identify non community systems and contaminant issues that support 1w1p implementation.)
- 7) **SWP Unit, CWPS and NCNT Units develop “SWP Advocates” or types of expertise within the ranks of their Units that could support small PWS on various SWP work** (Expertise on various source contaminant issues, assist with grants, etc.). There would need to be a commitment made by DWP units to identify and / or develop this within the existing staffing ranks.

Or,

**Explore developing position(s) that can focus on direct technical assistance to NTNC and Community Non Municipal systems. Establish positions in the North and South half of the State that could do help support SWP work.** (This could be accomplished thru attrition, adding new staff, etc. Involve MRWA in the development of these positions.) Activities could include:

- positions focus on providing technical, one on one assistance to systems.
  - Position could help in applying for SWP Grants, serve as a liaison of sorts between NCPWS and SWP Units.
  - Position / person would be familiar with capabilities and needs of small PWS systems.
  - Position would develop specific skill set needed to support and help small PWS systems.
  - Position description could be developed with input from staff from the NCNT, CPWS and SWP Units and MRWA.
- 8) **Other Opportunities or Ideas...**

## **May 24th Presentation Slides**



## Difference Between the WHP Rule & Program

WHP Advisory Team Meeting  
Tuesday, May 24<sup>th</sup>, 2022

Mark Wettlaufer, MDH SWP Unit

1

### **RULE vs. PROGRAM**

*Title Fight of the Century!!*

#### Rule

- **Regulates the Public Water Supplier (PWS)**
  - **Describes “who” has to do “what”** by the **type** of public water system under the rule.
- And,
- **WHP Plan development requirements** (*procedures, delineation criteria, data elements, resource issues to consider, plan review & approval process, etc.*)

#### Program

- MDH program administration (*staffing, program support, grants, etc.*)
- Local / State / Federal support for WHP implementation.
- Opportunities to integrate WHP into other resource protection programs

**The fun stuff!!**

2

# RULE vs. PROGRAM

All Ideas are  
Winners!!

## Rule Ideas:

- What the PWS has to do
- Improve process & requirements
- Considering the ability of a PWS system to meet rule requirements.

- PWS control & authority over potential contaminants & land use

## Program Ideas:

- Program support activities outside the rule.
- Improving WHP implementation for vulnerable PWS systems
- Implementation coordination with local, State & Federal Programs

- Voluntary technical assistance, resource protection expertise & support

Integration with other resource  
protection programs



# Wellhead Protection (WHP) Rule: Themes & Concepts for Improving the Rule

WHP Advisory Team Meeting  
Tuesday, May 24<sup>th</sup>, 2022

Mark Wettlaufer, MDH SWP Unit

PROTECTING, MAINTAINING AND IMPROVING THE HEALTH OF ALL MINNESOTANS

4

WHP RULE REVISION 4720: APPLICABILITY

## Existing WHP Rule: Applicability 4720.5110

### **“Who” DOES “what” under the Existing rule?**

#### Two Parts under Applicability in the Rule:

- I. Maintain isolation distances and monitor for existing or potential contaminants within 200’ radius of the PWS well. (Answer: All PWS)
- II. Delineate the WHP area and develop a WHP Plan.

????



5

WHP RULE REVISION 4720: APPLICABILITY

## Who is required to develop a WHP Plan???

Multiple Choice:

- a. *Municipal System & Rural Water Systems*
- b. *Mobile Home Parks, Prisons & Housing Developments,*
- c. *Schools, Factories and Daycares*
- d. *Restaurants, Hotels and Churches*
- e. *A, B & C*
- f. *All of the above*

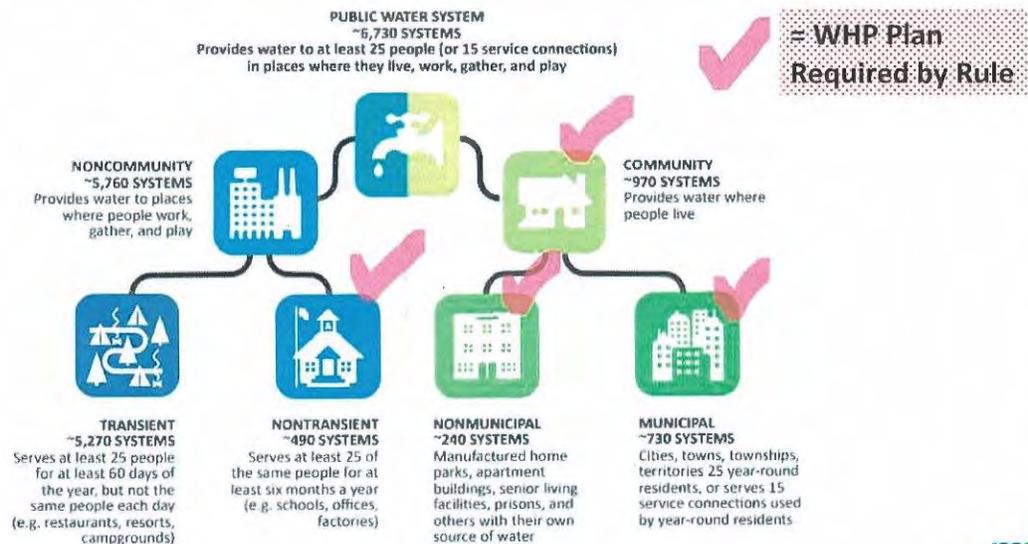
**Put your answer in chat....**



6

WHP RULE REVISION 4720: APPLICABILITY

## Types of Public Water Systems



7

W H P R U L E R E V I S I O N 4 7 2 0 : A P P L I C A B I L I T Y

### Who does a WHP Plan? Considerations & Lessons Learned:

**Capacity** – Who has the ability to develop AND implement a WHP plan?

- ❖ Commitment to citizens and the public. (City charters, police powers, commitment to planning)

**Costs? Staff Time? Who can do what?**

**Size, Scope & Jurisdictional Challenges in managing a WHP Area...**

**Enforcement of Planning**



W H P R U L E R E V I S I O N 4 7 2 0 : A P P L I C A B I L I T Y

### New Opportunities for WHP & Small PWS Systems

**Targeted Technical Assistance -**

- ❖ Direct one on one technical assistance to solve a particular threat or contaminant issue. Focus on vulnerable PWS, populations.

**Create Flexible Planning Approach & Incentives for Non-Municipal / Non-Transient Systems**

**Address drinking water resource protection through existing State / local resource programs.**

**Improve integration of WHP within existing MDH Drinking Water Protection Programs.**



WHP RULE REVISION 4720: APPLICABILITY

Your Thoughts? Homework / Next Steps:

- 1) *Should MDH enforce WHP plan development and implementation for all systems as described under the existing rule?*
- 2) *How can we help small PWS protect their source of drinking water? Particularly those that lack jurisdictional authority or connection to resource planning & implementation programs?*
- 3) *What are your suggestions to help small PWS protect their source of drinking water outside the rule?*

WHP RULE REVISION 4720: APPLICABILITY

Questions?  
Thanks!



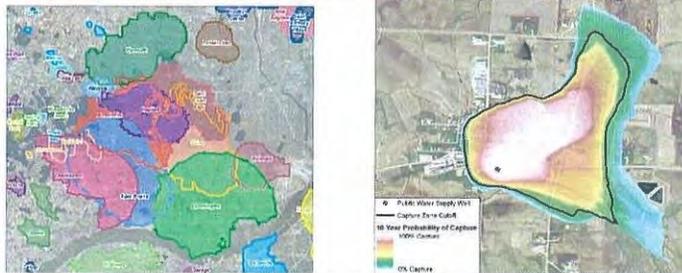
## Why it makes sense for MDH to do the WHPA delineations

### 1. Efficiency:

- MDH has access to all of the groundwater models used for delineations to date
- In-house workflow streamlines plan completion process

### 2. Consistency:

- Standardized internal approach results in consistent output
- Will help with areas with overlapping DWSMAs and uncertainty analysis



1

## Why it makes sense for MDH to do the WHPA delineations

### 3. Cost savings and equity:

- Removes 3,300 population barrier for technical assistance
- Will realize cost savings for all public water suppliers

### 4. New wells:

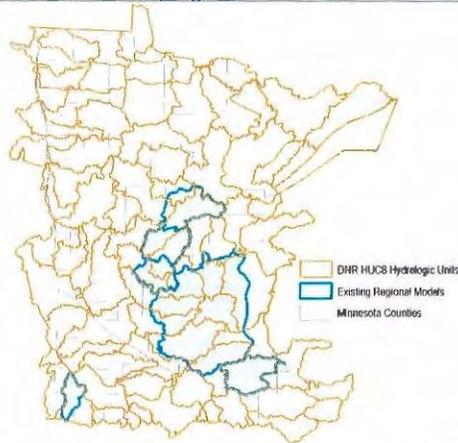
- MDH requires preliminary WHPAs for all municipal wells, to be delineated using existing models. MDH has them, many well engineering consultants do not.
- As a result, MDH ends up doing many/most of these in-house. Creates precedent for continuing onto the final WHPA delineation.

2

## Why it makes sense for MDH to do the WHPA delineations

### 5. New regional modeling focus:

- MDH now has in-house modelers developing watershed-scale flow models
- These can be used to determine aquifer conditions and protection areas beyond DWSMAs.
- Allows for consistent updating of WHPAs.
- Aligns well with statewide watershed-scale planning efforts.



3

## Still a place for consultants

- **New well projects**
- **Part 1 work at PWS discretion**
- **Part 2 work**
- **Subcontracting from MDH**

4

## **May 24th WHP Rule Advisory Meeting Chat Questions and Q & A**

May 24 <sup>th</sup> WHP Rule Advisory Committee: MS Teams Chat Comments			
MS Teams Chat Questions	Response	Rule Consideration	Program Consideration
What has MDH learned from some of our biggest contamination problems, e.g. PFAS in the East Metro that you think revised rules would help with? - follow up, "is there an opportunity to better integrate with other programs like 1w1p, etc.?"	We cannot address all drinking water contaminant issues comprehensively through the WHP Rule since it is designed to regulate the PWS and their development and implementation of a WHP Plan.  Yes!! Absolutely there is opportunity to integrate with other programs to align SWP priorities with other management objectives	PFAS should be identified and considered as part of the WHP contaminant source inventory as more information is available and consider how it may be addressed by a community when applicable. It would also benefit MDH's well vulnerability determinations to incorporate PFAS and other CEC detections as indicators of relatively young, human-impacted groundwater & therefore use them as tracers.	This raises the question: what can the MDH SWP "Program" do better outside the WHP rule to better address a variety of aquifer contaminant threats and issues PWS face. Integration of drinking water issues into other programs is an on-going priority for the SWP Unit. MDH provides 1w1p specific PWS ( <b>PWS = public water system or public water supplier</b> ) WHP information. We continually look for ways to incorporate WHP & drinking water issues into other programs.
Can you explain what the SWCDs did to help with implementation? Maybe some examples?	County SWCDs are the cornerstone of local WHP implementation support for a PWS (public water supplier). MDH advocates and PWS staff ask for their involvement in both Wellhead Protection Plan development and implementation work.	A rule issue. Per the current and future rule, we will continue to notify and involve SWCDs in the development, official review, approval and implementation of WHP Plans.	MDH continues to look for ways at the program level to support SWCD work on WHP. BWSR currently has grants SWCDs can apply for that target drinking water protection working with PWS. There are many, many examples of how SWCDs directly work with PWS on implementation. (well sealing, Ag BMP Practices, soil health / cover crop promotion in a DWSMA, etc.)
What systems are not required to develop a WHP plan?	Under the existing rule, only Noncommunity Transient PWS Systems are not required to develop a WHP Plan.	Yes	
Are they [public water systems] limited to working only within their border, if the source is far away?	Public water systems are responsible for implementing activities that are identified in their WHP Plan within their DWSMA. They are not limited to being involved in other aquifer or regional groundwater projects beyond their required WHP work per the Rule.	Yes. MDH recognizes the limitation of managing nitrates in a DWSMA if the source and nitrogen loss is prevalent outside the DWSMA (a regional aquifer issue.) However, it may not be feasible to <u>require</u> a PWS to implement a WHP plan on a	A program consideration. MDH recognizes most nonpoint pollutants need to be addressed on a larger scale than a DWSMA through other State (DNR, MPCA, BWSR, MDA), Federal Farm Bill and efforts of non-profit partners.

		larger scale than the minimum 10 year time of travel requirement.	
How would you differentiate between a municipal plan and a GRAPS?	MDH regulates a PWS to develop and implement a WHP Plan per the State Rule and Federal requirements. <i>Groundwater Restoration and Protection Strategies</i> (GRAPs) is a State generated, interagency watershed based document of existing groundwater information developed for SWCDs to help identify & prioritize GW activities in a given watershed to support the 1w1p. GRAPs reflects geologic conditions in the watershed and State agency groundwater related programs / issues / priorities .	No.	Yes. GRAPs describes aquifer vulnerability and includes PWS DWSMA information. GRAPs is a tool that provides a larger context for PWS WHP issues and drinking water protection issues overall in a given watershed.
As the 1w1p are being developed, I believe it's the intention to incorporate actions into PWS's WHP plans to engage with the watershed groups for regional planning efforts, and use this avenue as a potential way to have their own local issues addressed, as well.	Agree. Information and strategies can flow both from and to a WHP and 1w1p.	Yes. Some consideration should be given to what a PWS can realistically do versus local conservation partners and how we identify these issues and who can do what in a WHP Plan and in a 1w1p.	We need to keep in mind the MN Framework of resource protection and how information from WHP Plans can and should be included in 1w1p. This program provides significant funds to LGU's to address priority issues in a watershed.
PFAS is regulated by the MPCA - it is a hardship for the cities and something they have little control over.	True	PFAS should be recognized as a contaminant issue and source identified if known in WHP Plans. There may be limited ways to address PFAS in WHP planning beyond creating awareness and identifying treatment options at this time. Much depends in part on EPA establishing standards for selected PFAS too.	Identifying PFAS and what can be done may fit more into specific regional aquifer planning, treatment as found in the metro. PFAS is being addressed in a coordinated fashion within the MDH EH Division. The SWP Program is responsible for monitoring and research. Other DWP Units help systems manage detections. ESA provides risk assessment advice.

<p>Are they limited to working only within their border, if the source is far away? Jason - an example getting at your questions is city of Hastings. The Hastings DWSMA includes a large area outside the city limits because of their large surface water contribution area. Nitrate is a big issue for the Hastings drinking water system. The city has worked with MDA to encourage ag producers to use BMPs to reduce nitrate in groundwater.</p>	<p>WHP DWSMAs usually include multiple jurisdictions and the PWS is responsible for implementing their WHP plan in the areas where they do not have jurisdiction. MDH encourages PWS to form a local "team" to help develop and implement a WHP Plan for this reason. Hastings is a good example in terms of MDA, Dakota SWCD, farmers working together to try and address the nitrate issue.</p>	<p>Yes. Consideration in terms of what a PWS can realistically do to address a contamination source and what they have to rely on partners to do is a distinction we try to make in WHP Plans. We expect the PWS to work with partners to address the contaminant of concern to the extent they can.</p>	<p>Yes. MDH SWP Unit continues to build bridges and opportunities for PWS to work with local SWCD partners, 1w1p, MDH SWP Grants, BWSR Grants and find creative solutions to land use contaminant threats and problems.</p>
<p>There seems to be interest in having a larger conversation about anthropogenic contaminants and how the Safe Drinking Water Act and Clean Water Act/MN Legacy Amendment intersect and vision going forward LeAnn Buck (Guest): GRAPS report contains existing groundwater data compiled for a 1W1P boundary - interagency effort to create the report. A municipal wellhead plan is developed by city/contractor.</p>	<p>I agree! This is a really important question and point folks should understand. WHP Plans need to focus on anthropogenic contaminants. This is the main thrust under the SDWA, MN GW Act for WHP. There are limited things under the guise of WHP we can do to address naturally occurring contaminants.</p>	<p>No. Need to steer these questions and needs out to the program side of SWP work.</p>	<p>Yes!! SWP Program is concerned about all source water related issues in terms of assisting PWS find the most cost effective, contaminant free water source. The SWP Unit hydro's can consult on construction of new wells and potential for naturally occurring contaminants. GRAPs helps paint overall aquifer water quality picture for local resource staff on a watershed basis based on a number of State databases.</p>
<p>GRAPS report contains existing groundwater data compiled for a 1W1P boundary - interagency effort to create the report. A municipal wellhead plan is developed by city/contractor. Also, municipal WHP plans focus on drinking water issues. GRAPs reports cover a range of GW related issues.</p>	<p>Yes!</p>	<p>While developing a WHP Plan is lead by the city or contractor, we want to see active participation by SWCDs, local folks when and where they have a role to play. Well Sealing, Ag BMPs, etc. since they are key to assisting with implementation.</p>	<p>GRAPs is a coordinated and lead by the SWP Unit staff.</p>
<p>I appreciate that that we're looking at the whole picture – the rule on its own and the program as a whole.</p>	<p>Thanks! It is hard not to consider the whole SWP program as well as core WHP program work administering the rule with PWS.</p>	<p>n/a</p>	<p>n/a</p>

<p>In rule is there a way to increase the area depending on the vulnerability, size of system, gave example of vinyl chloride issue?</p> <p>Is there an ability to change / amend the DWSMA if a contaminant reaches the wells during the 10 years?</p>	<p>Yes. Under our current rule, the time of travel must be "at least" 10 years. All other criteria related to determining the vulnerability based on water chemistry, groundwater flow field, etc. must be accounted for as well in helping to determine size of the DWSMA. Based on the current rule and some systems have gone to a 20 year time of travel to increase the size of the DWSMA.</p> <p>2<sup>nd</sup> part of your question is we could under the current rule, but have not provided resources to amend a plan before the 8 year time frame specified to amend a plan. We will look at what you suggest in revising the rule.</p>	<p>The draft rule continues with this same language, so you could request a larger TOT for reasons described. We may want to add something in the draft rule about contaminant plumes and consideration for this issue. Will consult with Hydro Supervisors on this and follow up. There may be a "con" to getting too large and may want to look at other aquifer based solutions too.</p>	<p>SWP Program: Potential consideration for aquifer related contaminant plumes and other ways to manage outside of WHP Program. Something the Unit should discuss.</p>
<p>When you write the implementation strategies in program, would be useful be able to adapt grant program and others when they make sense to do so.</p>	<p>We try to be somewhat flexible in the interpretation of strategies for the implementation grants program. We continually want to provide some flexibility but maintain consistency in evaluating strategies in plans and providing grant funds that support implementation. If something is not in a plan, the competitive grants program is an option.</p>	<p>No</p>	<p>Focus on grants program improvement and how an activity should or could be funded if it addresses a contaminant threat or issue faced by a PWS. Two MDH SWP grant options; implementation and competitive type grants. See MDH Grants website for more information.</p>
<p>I know agency staff have been weighing in on the rule changes for a few years - how have PWS been involved so far in providing their feedback?</p>	<p>We have gotten PWS feedback indirectly thru SWP planning &amp; hydro staff. The SWP Unit has not solicited input beyond the Advisory Committee and official rule making process for comments from PWS. We recognize and know there are a</p>	<p>Yes. Important to consider various avenues of getting input from PWS while revising the WHP rule. We will continue to get the word out on changes and take comment from PWS thru presentations at conferences, possible PWS listening sessions</p>	<p>n/a</p>

	lot of issues that need to be addressed in revising the rule.	once we have a draft rule we can share with the public.	
Questions on the rule for the record; 1) can the rule be amended to give extra territorial authority to the PWS authority beyond the municipal boundary? This exists for building code authority.	I'm not sure on meshing extra territorial authority related to land use with WHP controls. It might be a question for LMC. Is that something the State or a PWS would want to do? I'm not entirely certain if that would be something thru the State WHP Rule, but rather something LMC, cities could consider pursuing. That said, we have thought about suggesting drinking water source & protection issues be required to be identified and addressed during local comp. planning. That again could be something we work with LMC and others on to make this change to State enabling legislation.	Yes. The notion of how land use planning overall can provide a stronger role in drinking water protection is a good idea, but seems to be something that should be locally lead and driven as opposed to a State agency.	n/a
... make sure that all drinking water and groundwater protection implementation grants available through the state include a WHP plan as an acceptable plan – a possible gap was noted with the CWF funded grant program and it would be good to double check	Good suggestion. We can check.	n/a	Yes. A program level item we can make sure that WHP Plans are noted as a planning document that can be used as the basis for State grant funding.
Applicability presentation comment “ Agree that there is not a one size fits all approach.	Yes. MDH is suggesting flexibility outside the rule in terms of plan development requirements given the capacity and jurisdictional control non-municipals and nontransient systems have outside their property boundaries . It may be more effective by rule to just require these PWS to closely monitor and manage the 200'	Yes. See response column. Other considerations need to be given to being more efficient in terms of WHP Planning and resources all PWS have to develop and implement a plan.	Yes. More can be done thru the SWP program outside a required WHP rule to address different needs and capabilities of PWS to do a required plan.

	radius or IWMZ area around their well and use other opportunities to protect the aquifer outside that area working with local resource partners.		
MN Rule 7080 has defined imminent health threat as it pertains to on site SSTs. Could we develop a definition for unsealed wells in DWSMAs or some graduated application related to risk to the PWS.	Great question. Yes. We have identified medium and high risk contaminant sources as items a PWS has to prioritize for implementation; rather than all potential contaminant sources relative to the vulnerability designation of the DWSMA.	Yes. See response comment. Guidance will be developed to help support risk ranking by PWS for WHP plan development outside of the rule to support this change.	n/a
Are a lot of small systems, lake cabin groups? They are expanding into those areas, finding high nitrates / arsenic in those private wells. <i>Has a concern that some of those should be covered under a WHP in the full time lake home areas.</i>	Typically no. The definition of a community non municipal system is 25 year around residents or serves 15 year around connections. Most of these are MH Parks, nursing homes and housing developments. They could be lake cabin groups if they meet the definition above.	Yes. How we decide to help small systems protect their source of drinking water is very important (like lake cabin groups, or other non municipal or noncommunity systems.) as part of the WHP Rule revision. The \$100 question is "how" to best do that... a rule mandating development of a plan for all types or multiple approaches outside the rule targeting the specific needs and capabilities of the system?	Yes. The SWP Unit is suggesting that multiple approaches to help small systems may be better than an across the board mandate for WHP Plans. First, continue requiring for WHP implementation of measures in the Inner Well Management Zone (IWMZ) around there well in the WHP Rule. Second, better one on one technical assistance thru MDH / local sanitarians, planners, district engineers and continue the use of grants to address issues may be part of the solution. The SWP Unit has also hired a small systems planner to help coordinate and develop a plan to help the various types of small systems protect their source of drinking water. Other things can be done thru identifying and targeting vulnerable aquifers and helping protect both private wells and small public water system may work best for nonpoint pollution impacting wells outside their property boundary.
Make rules less strict, but still cover small systems in rule. Concern with 1w1p and GRAPs not done yet when	First part of suggestion is good; however we initially tried to initially write a rule doing that with multiple	Yes! Great comment and thought. See the response. Multiple approaches outside a	Again, good comments about 1w1p and GRAPs and concern for vulnerable populations and public health issues not

<p>1w1p done. Local people decided where to spend money, maybe not the best locations to get at vulnerable populations.</p>	<p>tracks and requirements for various PWS systems. In doing that, we found we had a rule that was overly complicated to follow, explain and enforce plan implementation equitably for all types of PWS. We think continuing to enforce completion of the IWMZ and measures identified for WHP may be the best approach in terms of rule clarity, be flexible in terms of addressing specific needs and abilities of systems, ability for us to target special circumstances and needs. Too many "if this then that" in a rule sets us for not being able to effectively carry out the rule, similar to our current rule that requires a plan for all non municipal and non transient systems.</p>	<p>rule requirement may better serve the varied needs and capabilities of small systems in our view. We still plan to continue to require completion and management of the IWMZ for small systems under the rule. Also, most small systems do not use much water and so the DWSMAs in many cases are not much bigger than the IWMZ in many cases.</p>	<p>always identified as the first priority. Our SWP Program is growing and shifting into multiple ways to address</p>
<p>How are noncommunity transient wells supported through the WHP program? Are they? I understand that they are not required to develop a plan, but are there supports if they wanted to/information available to help them protect their water supply?</p>	<p>Required to update the Inner Well Management Zone Form for contaminants and implement any measures identified. Yes! Managing the IWMZ is a baseline requirement of ALL PWS for WHP under the WHP Rule. Correct, transient systems are not required to develop a plan. There are over 5,000 transient systems. The noncommunity public water supply sanitarians can and do offer technical assistance during routine sampling and updating the IWMZ to address various issues and assist them with SWP Grants.</p>	<p>Yes. The level of support we can provide for WHP should be considered for all PWS systems. Various levels of capabilities, capacity and jurisdictional challenges need to be considered in terms of what is required of a PWS in a rule. Also, many nonpoint issues are not easily addressed simply thru a WHP Plan and current time of travel requirements.</p>	<p>Yes. As stated previously, we need to consider the MN Water Resource framework and best ways to support PWS drinking water protection. Multiple tools, approaches are needed beyond what we require a PWS to do in a WHP Plan.</p>
<p>observation, 1w1p, information given on comments from public at public</p>	<p>Yes, there may be a number of 1w1p GW / drinking water may not</p>	<p>Yes. Knowing the shortcomings of other plans helps us assess</p>	<p>Yes. More work needs to be done to help locals prioritize and protect groundwater</p>

<p>gatherings, no comments regarding groundwater quality or recharge from public. Public likely not educated well enough from PWS on groundwater. Every agency had information on gw-sw interaction in response letters.</p>	<p>be adequately addressed to the level we would like to see. Some 1w1p it may not be as much of an issue (heavy till, low vulnerable areas). The State agencies are working to increase local understanding and what can be done in areas with issues, but it is up to the locals to prioritize and address GW / drinking water in the 1w1p. Agencies are trying to educate resource partners through GRAPs, MN GW Booklet on Ag Practices and a number of tools to try and describe what can be done. BWSR recently added a GW Page to their website highlighting practices and things that can be done to protect.</p>	<p>and prioritize what the greatest needs and gaps are that we face in equitably assisting all PWS protect drinking water in the most effective and practical ways possible.</p>	<p>and drinking water resources, particularly where they are impacted by land use and human related contaminants.</p>
<p>challenge for implementation for small plans, assumption that someone else is responsible. Don't want 1w1p synonymous with a WHP. Are there trends that we see activity in wellhead plans that rule making process would really trigger?</p>	<p>Yes. Need to balance what small systems can effectively do / be required to implement in the recharge area for their well and what may be dealt with best thru other resource planning / protection approaches. Some contaminants may be dealt with thru the IWMZ (nearby septic, sealing a well, moving a tank); other regional nonpoint issues may be better dealt with thru local land use planning, aquifer protection in vulnerable areas, etc. Yes - do not want 1w1p to be synonymous with WHP; but there are opportunities to achieve multiple benefits and address multiple resource goals through the 1w1p process and</p>	<p>Yes. PWS need to be responsible for WHP / contaminants that they can best control and manage; particularly on their property and in the IWMZ (200') around the well. This is a current requirement under the rule. MDH provides support for implementation of measures and activities within the IWMZ.</p>	<p>As described previously, MDH SWP Unit has hired a small systems planner to work with MDH Sanitarians and District Engineers to foster and provide further SWP support / technical assistance for small PWS.</p> <p>More support for small systems can be combined with some of the new MDH efforts focusing on private wells and vulnerable aquifers in a given area or watershed that may be impacted by nonpoint pollution.</p>

	<p>funding. Final part of the question; yes, the WHP planning process takes way too long under current rule, inefficient and I think PWS get bogged down in the process; plan development, review, approval needs to be done more efficiently. We also think that there can be better transfer of information and support between PWS, WHP and programs like the 1w1p where local resource staff have the technical capacity to assist or address a contaminant issue. We need to better harness that.</p>		
<p>how WHPP are connected to local water supply plans, comprehensive plans (metro area) and specially to land use decisions. any way for better connections in the future</p>	<p>Local water supply plans can be substituted for doing a water contingency plan per MDH Policy. We added this change in the draft rule being worked on. WHP <u>is not</u> required to be connected to comprehensive land use plans or land use decisions. MDH SWP Planners may recommend this, but this in our opinion is “a gap” that could be addressed. (Marks opinion) is that drinking water protection should be required to be considered and addressed in all comprehensive plans. This requirement should be a legislative initiative and change to State enabling legislation.</p>	<p>I don't think that local land use planning can be required to be addressed thru WHP Rules, but should be a future consideration in any changing to State enabling legislation.</p> <p>That said, we do recommend in WHP Plans that certain contaminants and land use decisions consider the WHP Plan and issues identified in review of local land use decisions and be included in Comprehensive plans.</p>	<p>Yes. More and better consideration of WHP in land use planning has been something the SWP Program has made a priority and have tried to involve community planners in with varying success in the metro and outstate. We recommend land use planners be involved in WHP Plan development and on the local WHP Team.</p>
<p>how do we make sure that there is support for IMPLEMENTATION of WHP Plans--through 1W1P or otherwise.</p>	<p>During plan development, we recommend a local WHP Team be formed so local resource staff who are involved in resource conservation can become informed</p>	<p>WHP implementation is required by the PWS under the WHP rule.</p>	<p>Drinking water protection is required to be addressed in a 1w1p, so that connection is being made. However, that does not mean the advisory or policy committee needs to make it a priority for 1w1p implementation.</p>

	<p>of the issues and subsequently help with local implementation. PWS managers are not “conservationists” or familiar with many of the water resource programs so MDH SWP Planners try and foster that relationship to foster local support and implementation of activities in a WHP Plan. The WHP Program also works with MDA, BWSR, DNR, Met Council, etc. to foster support for implementation of SWP at the State level.</p>		<p>Generally, most 1w1p (say the Missouri 1w1p for example) recognize the regional significance, issues and importance of drinking water protection in their respective watersheds where there are issues. Some 1w1p (say Red River valley) have very confined aquifers and perhaps less issues than areas with unconfined aquifers susceptible to land surface contaminant issues.</p>
<p>What makes it into the state agency response letters doesn't always make it into the final 1W1P</p>	<p>Yes, this is true. Just because MDH says it is a priority, it is up to the locals to recognize drinking water issues and make it a priority in 1w1p.</p>	<p>This comment hints at what is the baseline of protection the State should provide thru the WHP rule???</p>	<p>SWP Program needs to recognize this fact and the importance of WHP Plans addressing the critical drinking water issues and that they may not always end up as a priority in 1w1p.</p>
<p>found it effective to bring issues of high nitrate/etc. through the 1w1p. Knowing some don't make it all the way through to the plan. Think about implementation funding and align it to that through those partnerships.</p>	<p>Yes, multiple approaches thru a number of plans and processes may be necessary to implement corrective action or protection of a drinking water source. (ie thru the GW Rule, WHP Rule and 1w1p). We are still relying upon the same local partners to help address a local water quality issue however.</p>	<p>Yes. Need to consider the value and necessity of multiple plans addressing different issues and resource concerns.</p>	<p>Yes. See comments.</p>
<p>I'm glad we are referencing 1w1p. I would think more about the practicality of local 1W1P Policy committees making this type of decision. The make up of the PC is usually county elected folk, very light on PWS voices.</p>	<p>Good point. MDH has encouraged planners to try and mobilize PWS in areas where we have drinking water issues. PWS in the Missouri 1w1p were well represented and help carry that message and need into the plan. However, as noted it is up to the PC to act on it.</p>	<p>See previous comments.</p>	<p>See previous comments.</p>

GRAPS will continue to influence the issues just like WRAPS.	Yes. We hope that GRAPS can serve as a interagency tool represented GW and DW issues of the State agencies in one plan.		
And what WBIF provides to implement 1W1P gives drops in the bucket for what is needed. If groundwater and drinking water aren't prioritized, it may show up in the plan but with no guarantee for funding.	Agreed. It would be nice to see State agencies more directly involved in 1w1p to assist in addressing State priority issues.		
If a GRAPS is ready, it often doesn't provide specific enough information for LGUs, and WBIF can't be used for monitoring. Many are looking for a better understanding of their local groundwater picture before setting goals or strategies.	Agreed. More work is needed in terms of training and awareness relative to groundwater and drinking water issues. This is a long term need and objective.	No	MDH is committed on a number of fronts to increasing local drinking water and groundwater awareness.
A comment, does MDH have coordination with DNR through process? Example, increasing their annual withdrawal from aquifer. Should increasing that withdrawal be written in rule?	Yes and No. MDH coordinates with the DNR when there are new appropriation permits being pursued near or in a DWSMA. We also review appropriation permits and potential conflicts that may be on the horizon as part of the development of the WHP Plan. Finally, MDH requires that the highest water use from the preceding 5-year period or estimated for the coming 5-year period be used for the WHPA delineation at the time of plan development. This provision is in the current WHP Rule, and it's likely there will be similar direction towards using conservative withdrawal rates in the coming rule or at least in guidance. Short-term	Water use is an important factor in determining WHPAs and will continue to be considered in the rule revision.	MDH will need to weigh the benefits of incorporating changes to WHP plans between amendment periods with the costs of doing so.

	water-use increases beyond the amount estimated at the time of plan development would likely have little effect on protection area boundaries, but we may want to include a process for evaluating longer-term increases outside of standard plan amendment timelines, at least in settings where there are contamination concerns.		
This removes a financial burden from especially medium sized communities.	Yes. We feel doing the delineations in house will reduce the financial burden for medium sized PWS for developing part of the WHP Plan.	Yes. Reducing the financial burden and improving the efficiency of developing plans is in part the goal of MDH doing the delineations.	Yes. This is a big program decision and commitment MDH is making. However, given the on-going efforts to update delineations it seems that MDH is in the best position to do the work and improve continuity in delineation work and modeling.
I think it makes total sense, as it will result in better consistency... especially in the metro area.	Yes.	Yes.	See comment above.
What model does/will MDH use?	MDH has used a variety of models in the past. While some analytic element (MLAEM) and stochastic (Oneka) models are still used occasionally, they are generally being replaced with Modflow models, which is the current industry-standard and the tool being used for all new models at MDH.	It's unlikely the rule will specify the modeling code to be used, if a new industry-standard is developed and adopted later.	See comment in previous column.
1. still opportunity for PWS to do own part 1's, sounds like department would persuade them to not. 2. big picture, large models will need to be updated, assuming you're thinking about that too.	1. MDH would make clear our stance of offering to produce Part 1 reports for all PWSs but would accept a PWSs decision to use a consultant if that is their preference.	Yes, the rule would clarify MDH roles in this regard.	

	2. Agreed that our regional-scale models will need to be updated over time. That's factored into the workloads for our lead modelers.		
being more nimble, suggesting we might be able to update things outside of the amendment process?	Yes. We envision model updates being driven by a combination of availability of new data and programmatic needs, which may include WHP plan amendments or other triggers that may fall outside of plan amendment schedules.	While we don't envision the rule specifying model update requirements, it may provide direction on factors that could warrant triggering plan amendment outside of the standard expiration period.	Impacts of more frequent plan revisions outside of standard timeframes would need to be looked at in terms of overall programmatic workload considerations.