



Protecting, Maintaining and Improving the Health of All Minnesotans

February 6, 2024

Mr. Jacob Kolander, Administrator
City of Maple Plain
P.O. Box 97
Maple Plain, Minnesota 55359

Dear Mr. Kolander:

Subject: Scoping 2 Decision Notice and Meeting Summary – City of Maple Plain – 1270021

This letter provides notice of the results of a scoping meeting held with you (city of Maple Plain), Dylan Hoflock (People Service), and me on January 17, 2024, at Maple Plain City Hall regarding wellhead protection (WHP) planning. During the meeting, we discussed the data elements that must be compiled and assessed to prepare the part of the WHP plan related to the management of potential contaminants in the approved drinking water supply management area. The enclosed Scoping 2 Decision Notice lists the data elements discussed at the meeting. We also discussed a summary of planning issues and recommendations that were identified during the Part 1 WHP Plan development process which should be considered for inclusion in your Part 2 WHP Plan.

The city of Maple Plain has met the requirements to distribute copies of the first part of the WHP plan to local units of government and hold an informational meeting for the public. The city of Maple Plain will have until October 30, 2025, to complete its WHP plan.

It is our understanding that a consultant will be working with you to develop a draft of the remainder of the WHP plan. I will be contacting you to review the progress of the development of Part 2 of your plan. Upon request, the Technical Assistance Planner can provide a glossary of terminology, identification of information sources for the required Data Elements, and other technical assistance documents. If you have any questions regarding the enclosed notice, contact me by email at abby.shea@state.mn.us or by phone at 651-201-4386.

Sincerely,

Abby Shea, Planner
Source Water Protection Unit
Environmental Health Division
P.O. Box 64975
St. Paul, Minnesota 55164-0975

AS:jk

Enclosures: Scoping 2 Decision Notice, PCSI Requirements, WHP Planning Summary

cc: Brian Noma, MDH Engineer, St. Paul District Office

Wellhead Protection Plan

Minnesota Department of Health
Source Water Protection Unit Staff
PO Box 64975
St. Paul, MN 55164-0975
Fax: 651-201-4701
health.drinkingwater@state.mn.us
www.health.state.mn.us

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

SCOPING 2 DECISION NOTICE – LOW VULNERABILITY DWSMA

Date: February 6, 2024

Name of Public Water Supply: City of Maple Plain

PWSID: 1270021

Name of the Wellhead Protection Manager: Jacob Kolander

Address: P.O. Box 97

City: Maple Plain

Zip: 55359

Phone: 763-479-0516

Primary Unique Well Numbers: 112238 (Well #3) and 824078 (Well #4)

DWSMA Vulnerability: ☒ Low

The purpose for the second scoping meeting, as required by Minnesota Rules, part 4720.5340, is to discuss the information necessary for preparing Part 2 of a Wellhead Protection Plan. The Part 1 Plan identifies the area that provides the source of drinking water for the public water supply (PWS) and assesses how vulnerable that area is to contamination. The PWS can utilize that information to develop land use and management practices that protects their groundwater resource from contamination.

The wellhead rule (Minnesota Rules, part 4720.5340) refers to the information required for wellhead planning as data elements. This notice lists the data elements that are stated in Minnesota Rules, part 4750.5400 and are selected for the PWS because of the low vulnerability of the drinking water supply management area (DWSMA) as determined in Part 1.

Scoping 2 Data Elements Needed for the Part 2

Data Elements are pieces of information in the form of a map, a list, records, tables and inventories. Where appropriate, they should be reviewed and assessed in terms of their present and/or future implications on the 1) use of the well(s), 2) quality and quantity of water supplying the public water supply wells(s), and 3) land and groundwater uses in the DWSMA. It is important to discuss the relevance of the data elements to management of the DWSMA. Check the technical assistance comments for guidance on reviewing the data elements and conducting these assessments. Clearly identify in the plan which data elements are associated with which tables/figures. If a data element does not exist, state that in the narrative.

Submit –

The following information, highlighted with an **asterisk* with blue text**, MUST be submitted in the Part 2 by including it in the plan narrative and/or appendix.

- ☐ ***A map that indicates the vulnerability and includes the DWSMA, WHP Area, and Emergency Response Area must be included in the Part 2.** This map with vulnerability is a product of the Part 1 and provides a basis for planning activities in Part 2. SWP Planner can provide the DWSMA figure.

DATA ELEMENTS ABOUT THE LAND USE –

Land Use

- ☐ ***An existing map of political boundaries.**
- ☐ ***An existing map of public land surveys including township, range, and section.**

Technical Assistance Comments: A map or maps showing updated political boundaries and township, range, section with labels is required for determining land use authorities for the land within the DWSMA. DWSMA figure map provided by SWP Planner will also contain political boundaries with township, range, and section. Determine and discuss how the various land use authorities may affect the management of the DWSMA.

- A map and an inventory of the current and historical agricultural, residential, commercial, industrial, recreational, and institutional land uses and potential contaminant sources.
 - ☐ ***The Potential Contaminant Source Inventory (PCSI) data in both a table and map format must be created and included in the Part 2. Include potential contaminant sources as listed on the PCSI attachment provided for each existing vulnerability within the DWSMA.**
 - Inventory wells greater than 270 feet in depth. Also inventory wells of undocumented or unknown depths.
 - The inventory should include your community wells but not include any wells that are known to have been sealed according to the Minnesota Well Code (MN Rules 4725).
 - ☐ ***A land use/land cover map and table.** SWP Planner can provide a land cover map and data/table from federal sources. This data set should be used unless an alternative electronic data set that is more current and detailed is available. Assess and discuss changes in land use that could impact management of the DWSMA.

SCOPING 2 DECISION NOTICE – LOW VULNERABILITY DWSMA

- ☐ *An inventory of the Inner Wellhead Management Zone (IWMZ). A recent IWMZ inventory (within six years) for each primary well with management recommendations on the MDH form, or a table that summarizes the number and type of contaminant sources with the management recommendations must be included. Incorporate or reference the recommendation(s) from the IWMZ into the Part 2. IWMZ will be completed by the SWP Planner with assistance from the PWS staff. A copy will be provided to the PWS.

Technical Assistance Comments: This section encompasses the Potential Contaminant Source Inventory known as the PCSI. See the Scoping 2 Decision Notice Potential Contaminant Source Inventory Requirement Attachment(s) and endorsement procedures/fact sheets for further information. Utilize the PCSI geo-database attribute template provided by SWP Planner. Management strategies must be developed for potential sources of contamination that pose a risk to the drinking water supply.

- ☐ *An existing comprehensive land-use map.
- ☐ *An existing zoning map.

Technical Assistance Comments: This information can indicate areas in the DWSMA where growth or the addition of potential contaminant sources is likely to occur. Furthermore, the review of local zoning and comprehensive land-use maps facilitates the evaluation of the degree of compatibility current and future land uses have with the PWS goals of protecting the drinking water wells and aquifer.

Required to be discussed in plan -

The following information (if existing) **MUST** be reviewed and discussed in the development of the Part 2. The Part 2 narrative must contain a description identifying whether/how the information may influence the management of the DWSMA. The data element may be located in the public domain. While the map or document reviewed is not required to be included in the Part 2, the source of the data element must be provided in the plan narrative by indicating a web address or reference to its location. Provide a statement in the plan narrative if the data element does not apply or does not exist.

DATA ELEMENTS ABOUT THE PHYSICAL ENVIRONMENT –

Water Resources

- An existing map showing those areas delineated as floodplain by existing local ordinances.

Technical Assistance Comments: Assess and describe any issues and management needed in the DWSMA based on the Federal Emergency Management Agency (FEMA) Floodplain 100-year FIRM (Flood Insurance Rate Map) and (or) other State and local floodplain or flooding information. Consult with the WHP Manager to evaluate any potential or historical flooding impacts on the public water supply wells or aquifer. The Inner Well Management Zone report and Sanitary Survey may be used to identify flooding issues and impacts.

DATA ELEMENTS ABOUT THE LAND USE –

Land Use

- An existing map of parcel boundaries.

Technical Assistance Comments: Parcel boundaries may have been used for delineation of the DWSMA in Part 1. In Part 2, parcel identification information must be included or linked and must be used for education or targeting activities or practices in addressing potential contaminants. In the narrative indicate if parcel data is available from the public domain (i.e. county GIS or associated website such as Beacon).

Part 1 -

The following information was reviewed and assessed in developing the Part 1. Some data elements may be in the public domain or non-existent, and others may have been determined by the MDH hydrogeologist to be not applicable to the physical setting, so discussion was not included in the Part 1. The Part 1 should be used as a data source for the Part 2. The technical assistance comments provide the requirements for how this information must be discussed and/or included in the Part 2. Include relevant excerpts or summaries from the Part 1 where indicated.

DATA ELEMENTS ABOUT THE PHYSICAL ENVIRONMENT –

- An existing geologic map and a description of the geology, including aquifers, confining layers, recharge areas, discharge areas, sensitive areas as defined in Minnesota Statutes, section 103H.005, subdivision 13, and groundwater flow characteristics.
- Existing records of the geologic materials penetrated by wells, borings, exploration test holes, or excavations, including those submitted to the department.
- Existing borehole geophysical records from wells, borings, and exploration test holes.
- Existing surface geophysical studies.

Technical Assistance Comments: Provide a summary in the plan narrative (few sentences/paragraph) of the Description of the Hydrologic Setting from Part 1. Provide the conclusions regarding the Well and DWSMA Vulnerabilities related to the geologic conditions and how these conditions influence the management of the DWSMA.

DATA ELEMENTS ABOUT THE LAND USE –

Public Utility Services

- An existing record of construction, maintenance, and use of the public water supply well and other wells within the DWSMA.

Technical Assistance Comments: Well construction records indicate what is known about the well(s) and can indicate if the well(s) have structural integrity or groundwater protection issues. Briefly summarize in the plan narrative what is discussed about each well from the Assessment of Well Vulnerability in Part 1.

DATA ELEMENTS ABOUT WATER QUANTITY –

Groundwater Quantity

- An existing list of wells covered by state appropriation permits, including amounts of water appropriated, type of use, and aquifer source.
- An existing description of known well interference problems and water use conflicts.
- An existing list of state environmental bore holes, including unique well number, aquifer measured, years of record, and average monthly levels.

Technical Assistance Comments: This information, if known, was incorporated into the Part 1 and was used to assist in determining hydrologic boundary conditions and area static water levels. In Part 2, information about Department of Natural Resources appropriation permit holders and any known well interference problems or water use conflicts must be discussed, including how this information could affect the management of the DWSMA.

DATA ELEMENTS ABOUT WATER QUALITY –

Groundwater Quality

- An existing summary of water quality data, including: 1. bacteriological contamination indicators; 2. inorganic chemicals; and 3. organic chemicals.
- An existing list of water chemistry and isotopic data from wells, springs, or other groundwater sampling points.
- An existing report of groundwater tracer studies.

Technical Assistance Comments: This information, if known, was incorporated into the Part 1. Provide a summary of the assessment of well vulnerability and/or any relevant chemistry and isotopic composition data available from PWS wells and other wells/sources.

Revision Date: 01/2022

To obtain this information in a different format, call: 651-201-4570. Printed-on recycled paper.



Maple Plain Scoping 2 Meeting Wellhead Protection (WHP) Planning Issues Summary

NOTE: This document is intended to be a summary of issues identified to date and is **not intended to replace the required data elements identified in the Scoping 2 Decision Notice** nor is it intended to be an exhaustive list of all potential drinking water issues.

Drinking Water Protection Issues Identified to Date:

- The city of Maple Plain has two primary wells screened in sandstone bedrock aquifers that are buried beneath a layer of clay-rich sediment. Wells #3 and #4 are 534 feet and 392 feet deep, respectively. Regionally, groundwater flow is to the south/southeast.
- MDH has assigned a low vulnerability to the DWSMA. This suggests that the clay-rich sediments that overlie the city's aquifers prevent water and contaminants from moving quickly from the land surface into the city's aquifers and implies a time a travel of decades or longer. The principal threats to these aquifers are unsealed abandoned wells that penetrate through this clay layer. Such wells are 270 feet or greater in depth in the Maple Plain Area.

Water Quality Detections and Implications:

- Water samples were collected from city wells and were analyzed for tritium, nitrate, chloride, and bromide. Detectable tritium indicates the presence of some young (post-1953) water within the aquifer. At present, none of the contaminations for which the Safe Drinking Water Act has established health-based standards have been found above maximum allowable levels in the city's water supply, nor are any present at one-half of those levels. Maple Plain currently treats for radium which is above the safe drinking water standard in the source aquifer.

Old Municipal Well Information:

The Minnesota Department of Health has compiled historical information for use in the planning process.

Sanborn Maps:

- ☐ Sanborn Maps are available for this area.
- ☒ Sanborn Maps are not available for this area.

Recommended WHP Measures:

1. Well Locating: This delineation is based on very little well data. If wells are constructed within two miles of the city or one mile of the DWSMA, their locations should be verified. This information may allow a better understanding of the extent and thickness of the city's aquifers and the overlying clay confining units and result in a more refined WHPA in the future.
2. Water Quality Monitoring: The standard assessment monitoring package should be analyzed during year six, including the primary wells and river, contingent on funding assistance from MDH for sampling and analysis. The city may need to collect the samples and ship them to MDH. Information generated by this sampling will be used to refine vulnerability assessments for the next amendment.

Other: None.