



4.A: Groundwater Management Study

4.B: Water System Master Plan

Rochester Public Utilities Board Meeting
July 22, 2025



Levels of Service | Water Division



Water Quality and Public Health: Provide drinking water that meets or exceeds all federal and state regulatory standards and guidelines as well as meeting customer expectations.



Pressure, Flow and Water Supply: Deliver water at pressures and flow rates sufficient for consumption and emergency (fire protection) needs, while ensuring sufficient water supply capacity to support a growing community.



Asset Management and Maintenance: Serve as a responsible steward of the municipal water system by implementing proactive maintenance practices and replacing aging infrastructure.



Service Reliability and Conservation: Provide dependable water service with minimal unplanned outages, while actively reducing water loss and encourage water conservation



Financial Stability and Affordability: Deliver high-quality water service at a competitive cost while maintaining a sustainable financial position.



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Key Performance Indicators | Water Division

Category	Measure	Strategic Measure	Benchmark	2024 RPU	Status
Water Quality & Public Health 	1.3 SDWA Primary Drinking Water Standards	Responsibility	100% < MCL ⁹⁰	100% < MCL ⁹⁰	
	1.4 SDWA Secondary Drinking Water Standards	Responsibility	0 > SMCL ⁹⁰	2 > SMCL ⁹⁰	
	1.6 Water Quality Customer Complaint Rate	Reputation	< 1.1 per 1000 accounts	3.25 per 1000 accounts	

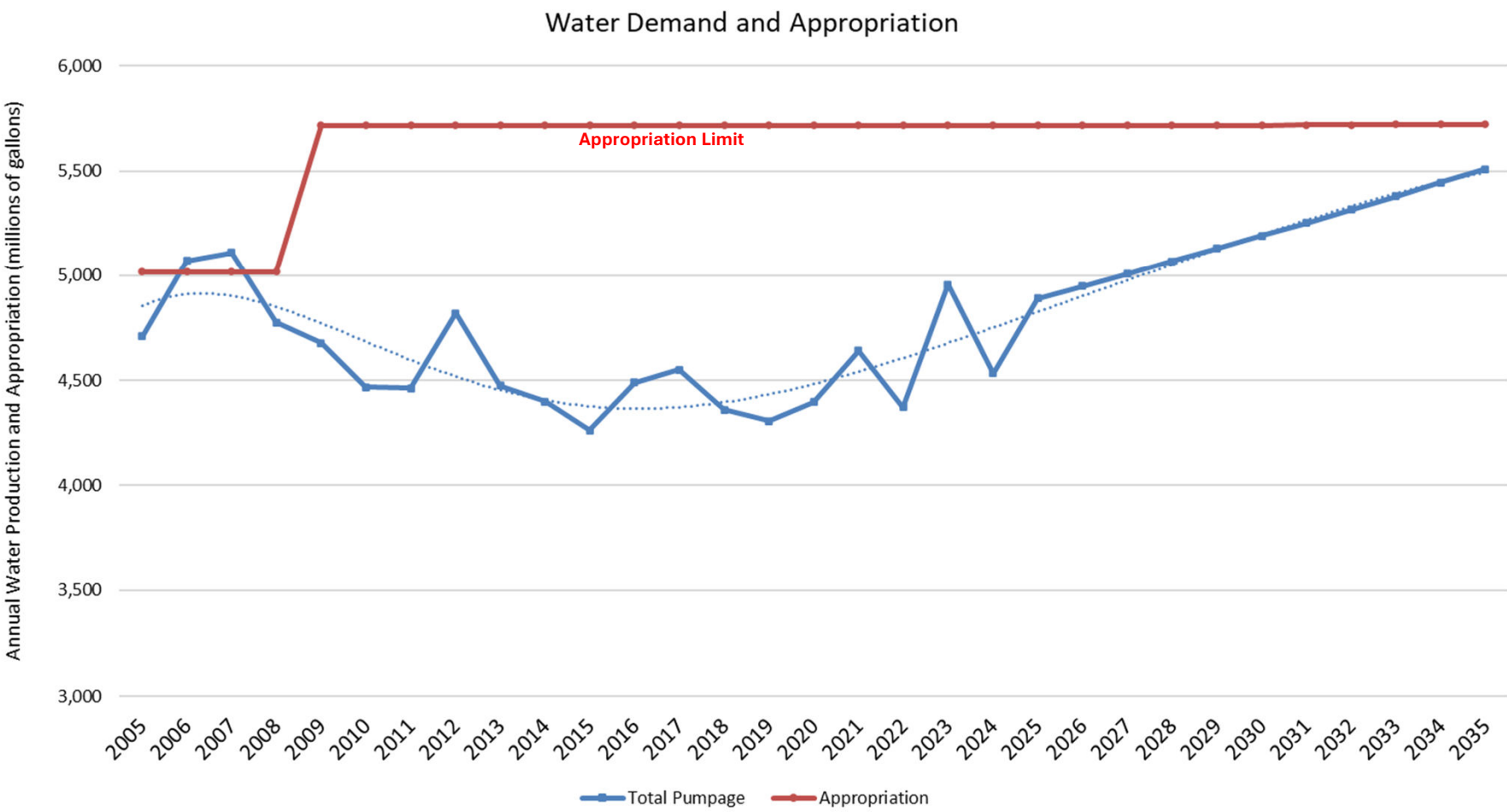
Category	Measure	Strategic Measure	Benchmark	2024 RPU	Status
Pressure, Flow Water Supply 	2.1 Minimum Regulatory System Pressure (1)	Responsibility	100% > 20 psi	100% > 20 psi	
	2.2 Average System Operating Pressure (1)	Responsibility	100% > 35 psi	93% > 35 psi	
	2.3 Pressure/Flow Customer Complaint Rate	Reputation	< 1.1 per 1000 accounts	2.05 per 1000 accounts	
	2.4 Capacity Margin for Water Appropriation (2)	Reliability	> 400 MG	588 MG	

(1) Pressure Monitoring is currently limited to 29 monitoring points at well locations

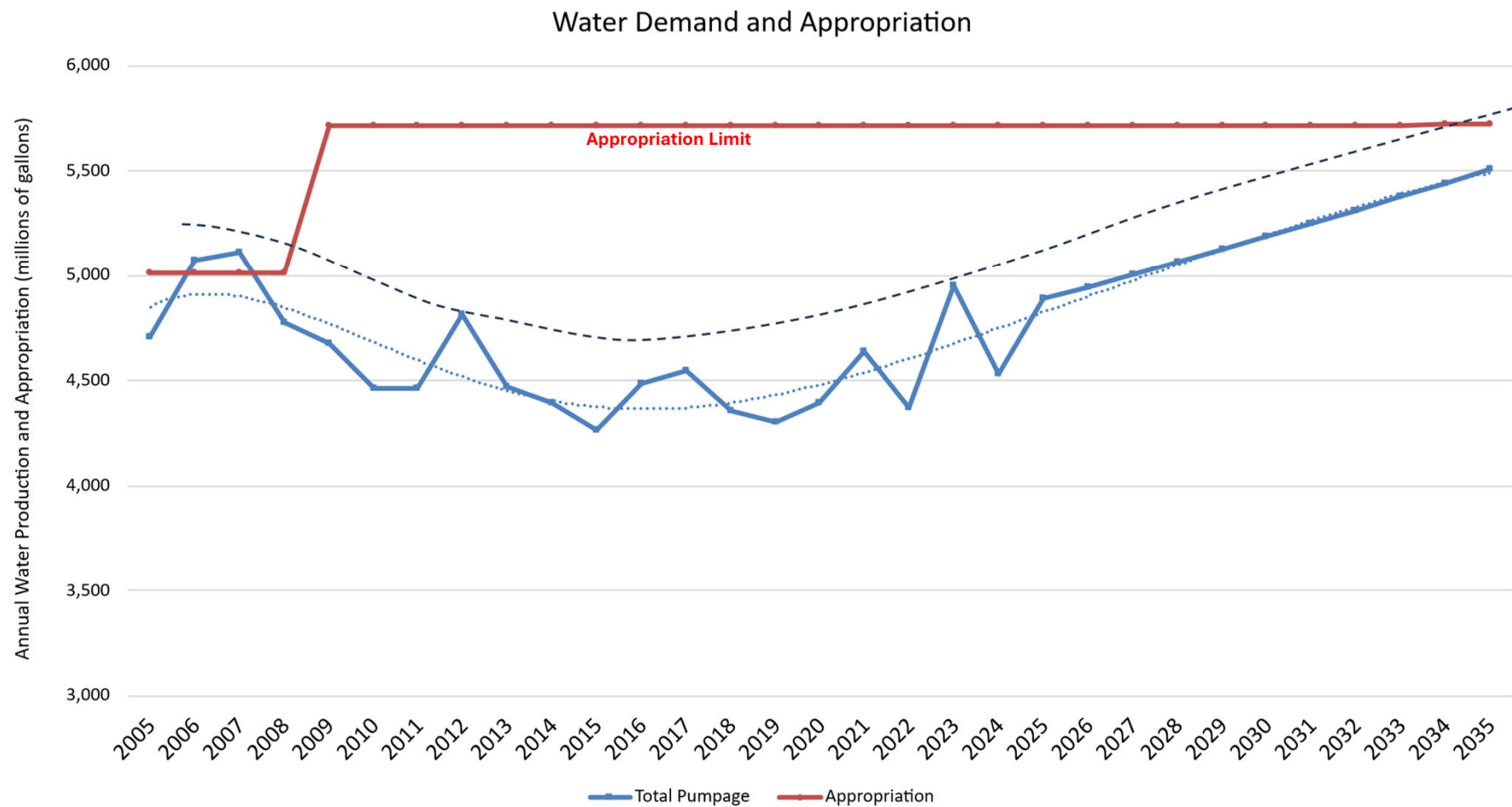
(2) RPU is currently under a moratorium for new pumping from the Jordan aquifer



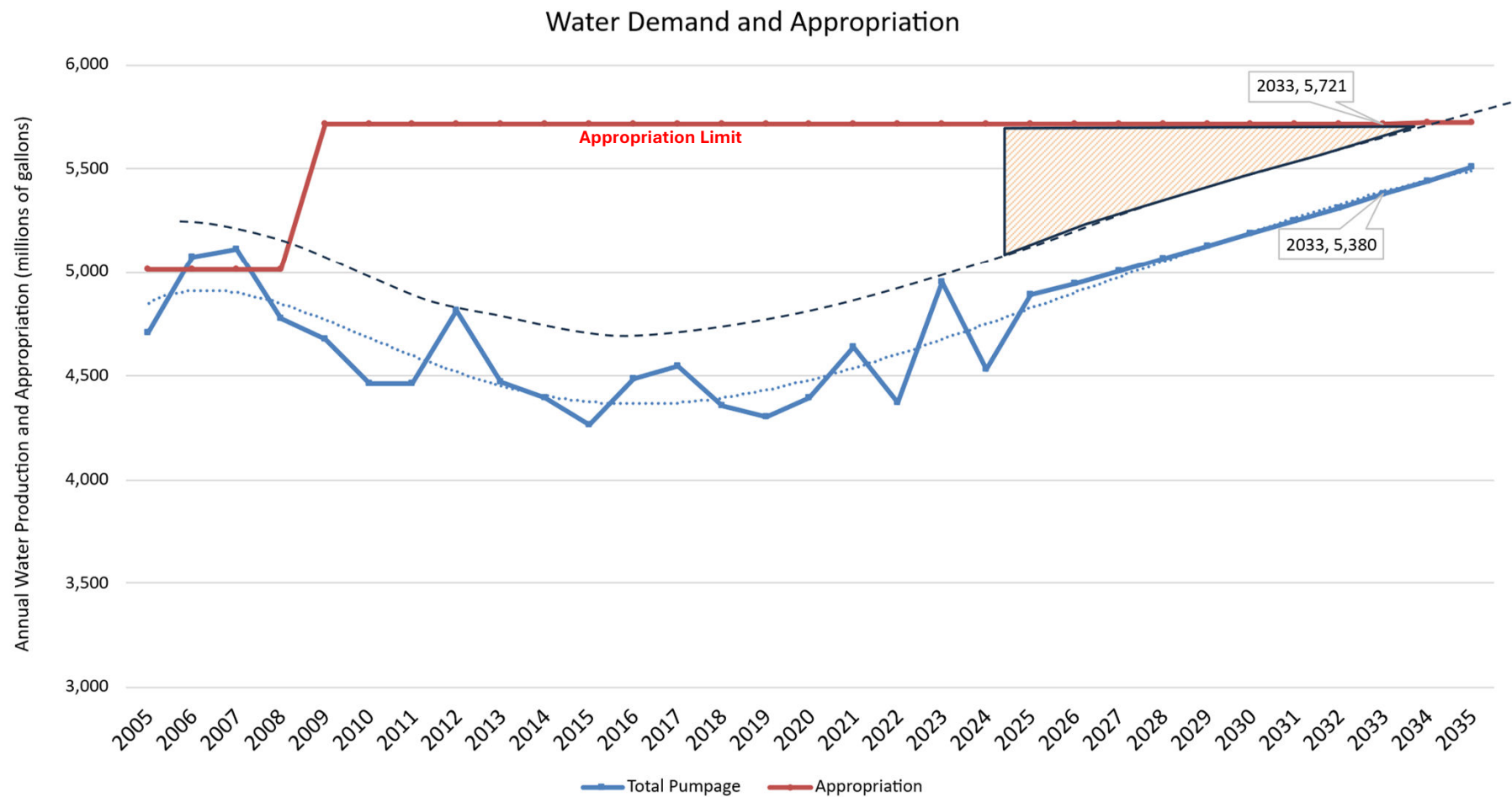
Water Supply | Capacity Margin



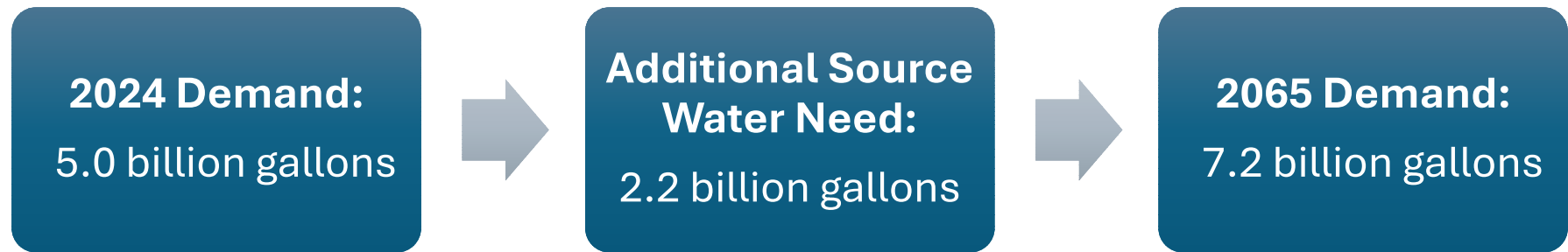
Water Supply | Capacity Margin



Water Supply | Capacity Margin



Water Supply | Future Demand



Source Water Supply | State Requirements

Rochester’s [regional] water use expansion is predicted to impact water levels in calcareous fens and streams in the Rochester area if the current water supply approach continues.

RPU is prohibited to construct new water supply wells using the Jordan aquifer unless RPU demonstrates that alternative sources of water, such as from different aquifers or from surface water sources, are not available for Rochester’s municipal water supply.

Well Installation No. 42 - Unique Well Number 839922; 30.0 inches diameter, 460.0 feet depth, 1400 gpm, unique number 839922

Bore(s) of Taping

UTM zone 15N, 839942m east, 4876468m north

NESE of Section 28, T107N, R14W

DNR Water Appropriation Permit 1979-9076 is amended to add Installation #42 to the Rochester Public Utility Water Supply System.

Issued Date:	04/26/2024	Effective Date:	04/26/2024	Expiration Date:	Long-Term Appropriation
Authorized Issuer:	John Gleason	Title:	Hydrologist Supervisor	Email Address:	john.gleason@state.mn.us
				Phone Number:	651-259-6753

This permit is granted subject to the following CONDITIONS:

LIMITATIONS: (a) Any violation of the terms and provisions of this permit and any appropriation of the waters of the state in excess of that authorized hereon shall constitute a violation of Minnesota Statutes, Chapter 103G. (b) This permit shall not be construed as establishing any priority of appropriation of waters of the state. (c) This permit is permissive only. No liability shall be imposed upon or incurred by the State of Minnesota or any of its employees, on account of the granting hereof or on account of any damage to any person or property resulting from any act or omission of the Permittee relating to any matter hereunder. This permit shall not be construed as estopping or limiting any legal claims or right of action of any person other than the state against the Permittee, for any damage or injury resulting from any such act or omission, or as estopping or limiting any legal claim or right of action of the state against the Permittee, for violation of or failure to comply with the provisions of the permit or applicable provisions of law. (d) In all cases where the doing by the Permittee of anything authorized by this permit shall involve the taking, using, or damaging of any property, rights or interests of any other person or persons, or of any publicly owned lands or improvements thereon or interests therein, the Permittee, before proceeding therewith, shall obtain the written consent of all persons, agencies, or authorities concerned, and shall acquire all property, rights, and interests necessary therefore. (e) This permit shall not release the Permittee from any other permit requirements or liability or obligation imposed by Minnesota Statutes, Federal Law, or local ordinances relating thereto and shall remain in force subject to all conditions and limitations now or hereafter imposed by law. (f) Unless explicitly specified, this permit does not authorize any alterations of the beds or banks of any public (protected) waters or wetlands. A separate permit must be obtained from the Department of Natural Resources prior to any such alteration.

FLOW METER: The Permittee shall equip each installation for appropriating or using water with a flow meter, unless another method of measuring the quantity of water appropriated to within ten (10) percent of actual amount withdrawn is approved by the Department.

WATER USE REPORTING: Monthly records of the amount of water appropriated or used shall be recorded for each installation. Such readings and the total amount of water appropriated or used shall be reported annually to the Director of DNR Ecological and Water Resources, on or before February 15 of the following year, via the MNDNR Permitting and Reporting System (ePARKS) at www.mndnr.gov/parks/parks.aspx. Any processing fee required by law or rule shall be submitted with the records whether or not any water was appropriated during the year. Failure to report shall be sufficient cause for terminating the permit 30 days following written notice.

MODIFICATION: The Permittee must notify the Commissioner in writing of any proposed changes to the existing permit. This permit shall not be modified without first obtaining the written permission from the Commissioner.

TRANSFER OR ASSIGNMENT: Any transfer or assignment of rights, or sale of property involved hereunder shall be reported within 90 days thereafter to the Director of DNR Ecological and Water Resources. Such notice shall be made by the transferee (i.e., new owner) and shall state the intention to continue the appropriation as stated in the permit. This permit shall not be transferred or assigned except with the written consent of the Commissioner.

COMMISSIONER'S AUTHORITY: (a) The Commissioner may inspect any installation utilized for the appropriation or use of water. The Permittee shall grant access to the site at all reasonable times and shall supply such information concerning such installation as the Commissioner may require. (b) The Commissioner may, as he/she deems necessary, require the Permittee to install gages and/or observation wells to monitor the impact of the Permittee's appropriation on the water resource and require the Permittee to pay necessary costs of installation and maintenance. (c) The Commissioner may restrict, suspend, amend, or cancel this permit in accordance with applicable laws and rules for any cause for the protection of public interests, or for violation of the provisions of this permit.

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CONDITIONS continued on next page...



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Title: Hydrologist Supervisor

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Phone Number: 651-259-6753

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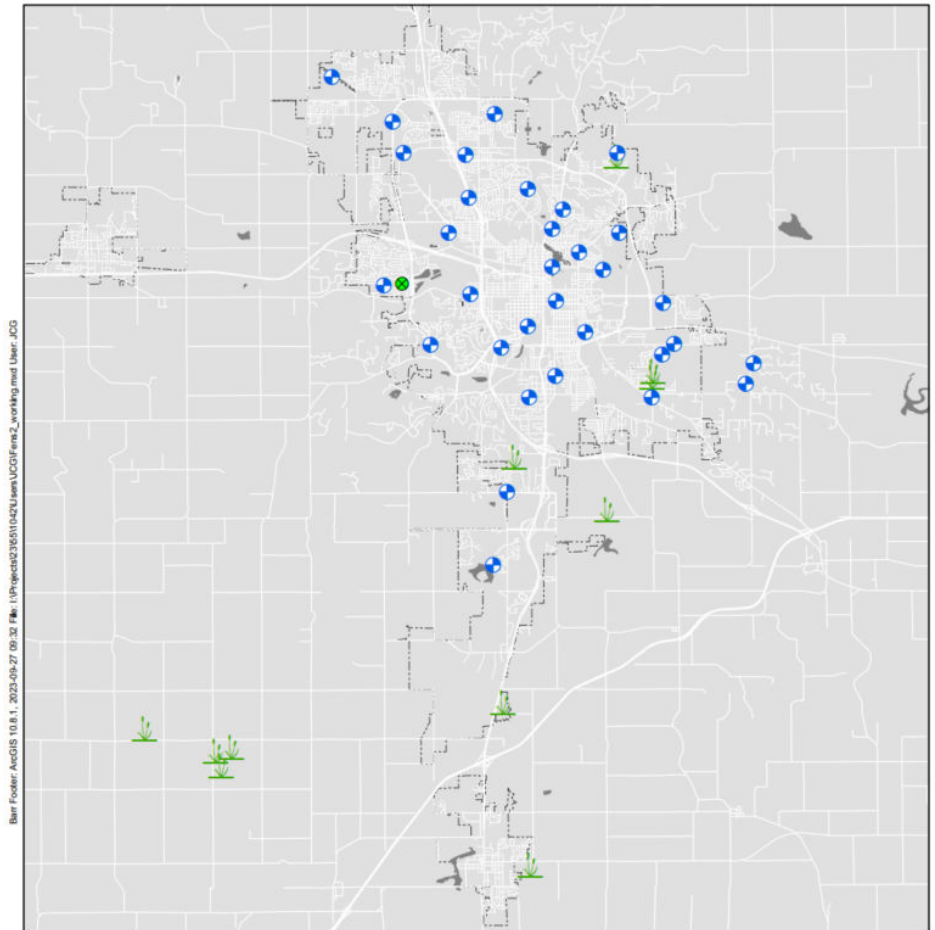
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Source Water Supply | Calcareous Fens and Surface Waters

A **calcareous fen** is a type of wetland fed by groundwater, characterized by cold, alkaline, low-nutrient conditions that support a unique collection of plant and animal species, highly dependent on stable groundwater flows.

Fen Wetland Locations	Surface Waters
Rock Dell 23	Silver Creek
Nelson	Bear Creek
Haverrill 19	Cascade Creek
Joyce Park	Badger Creek
Marion 8	Salem Creek
Marion 30	Other Surface Waters
Rochester 23	
High Forrest 15	
High Forrest 35	
Dover 7	
Dover 13	



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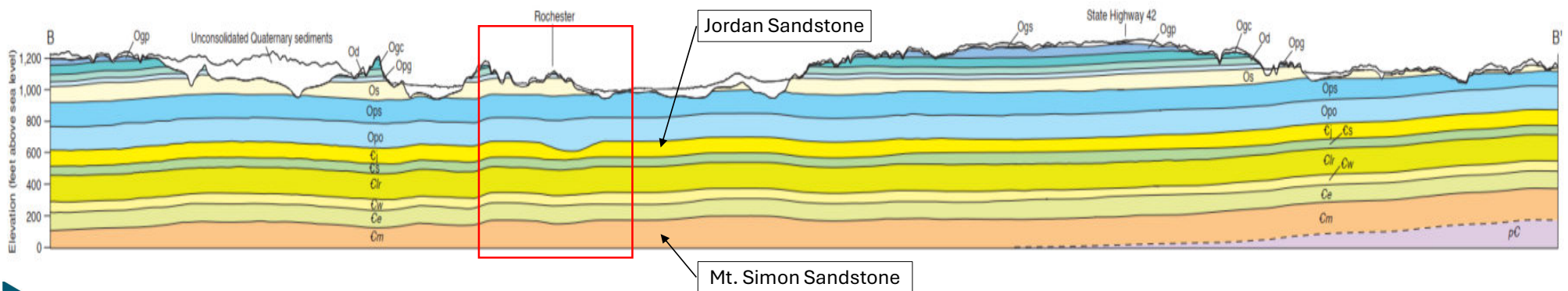
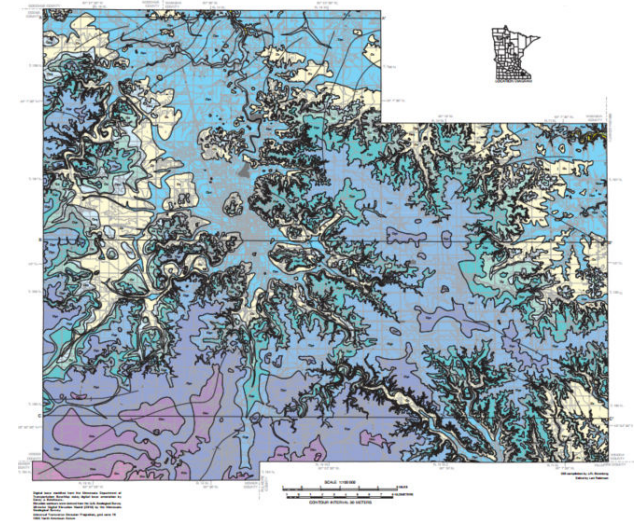
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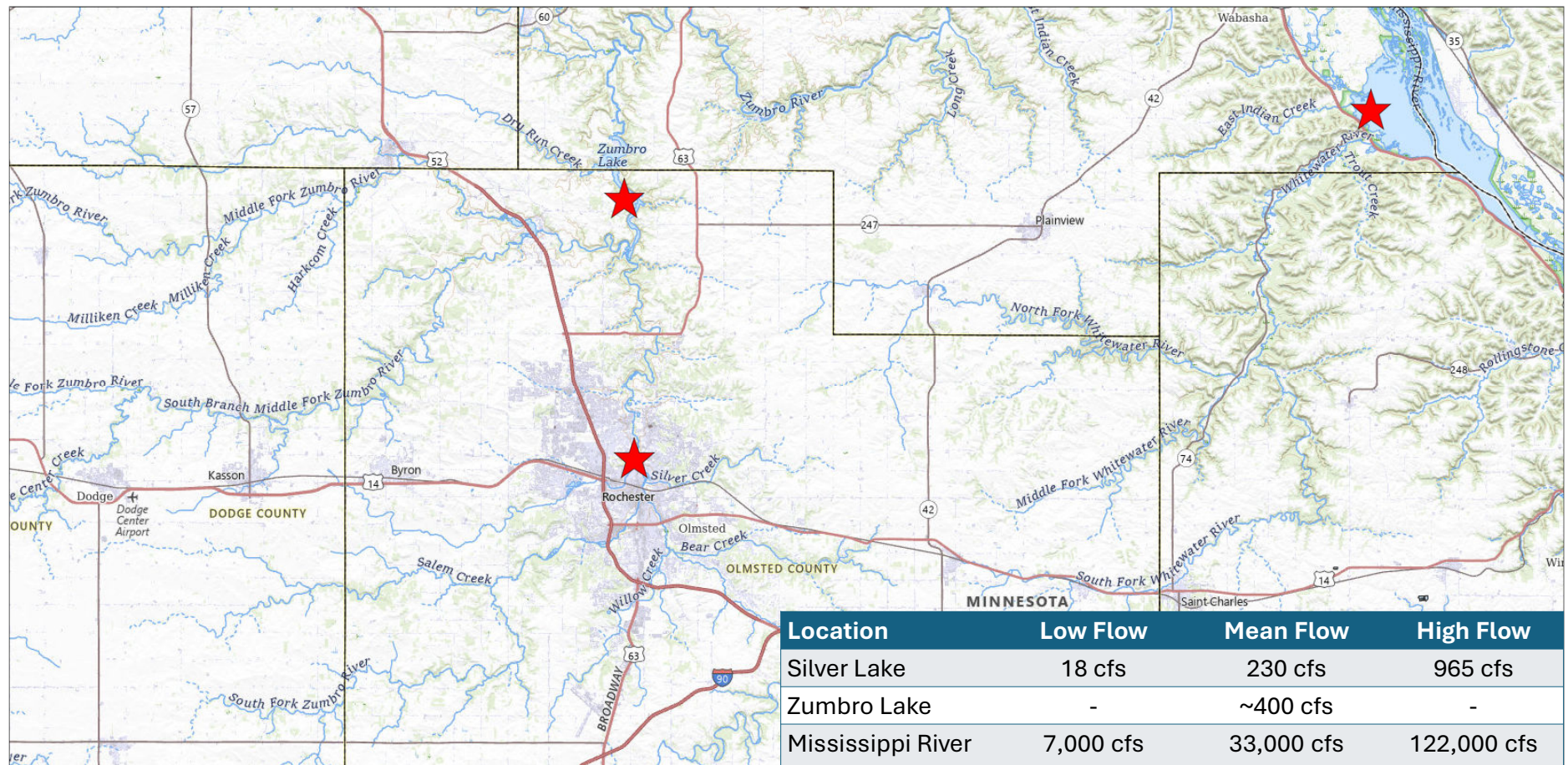


Source Water Supply | Groundwater Aquifer Formations

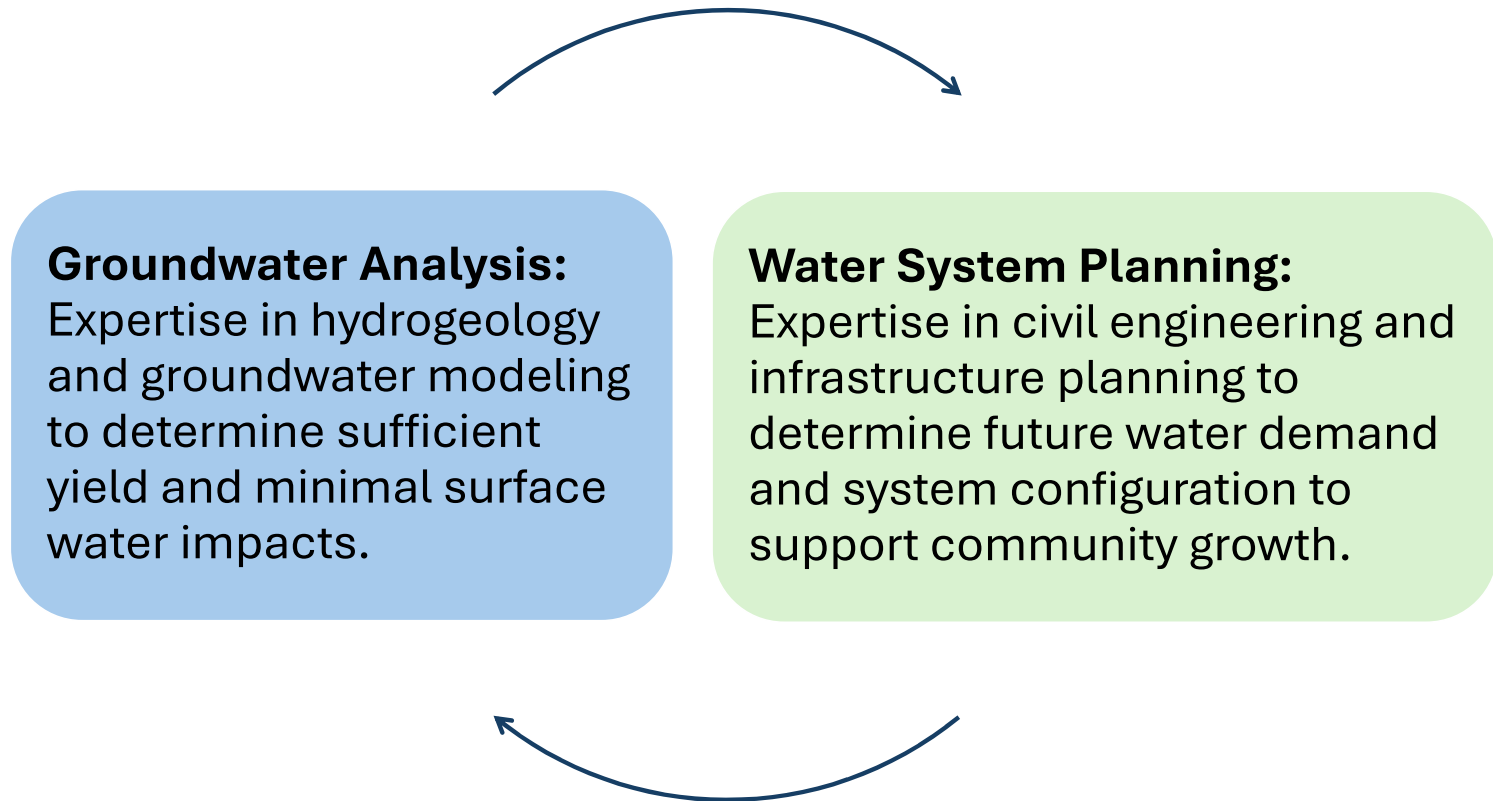
Formation	Approx. Depth
Jordan	430 ft
Tunnel City	600 ft
Wonewoc	750 ft
Eau Claire	850 ft
Mt. Simon	1,000 ft



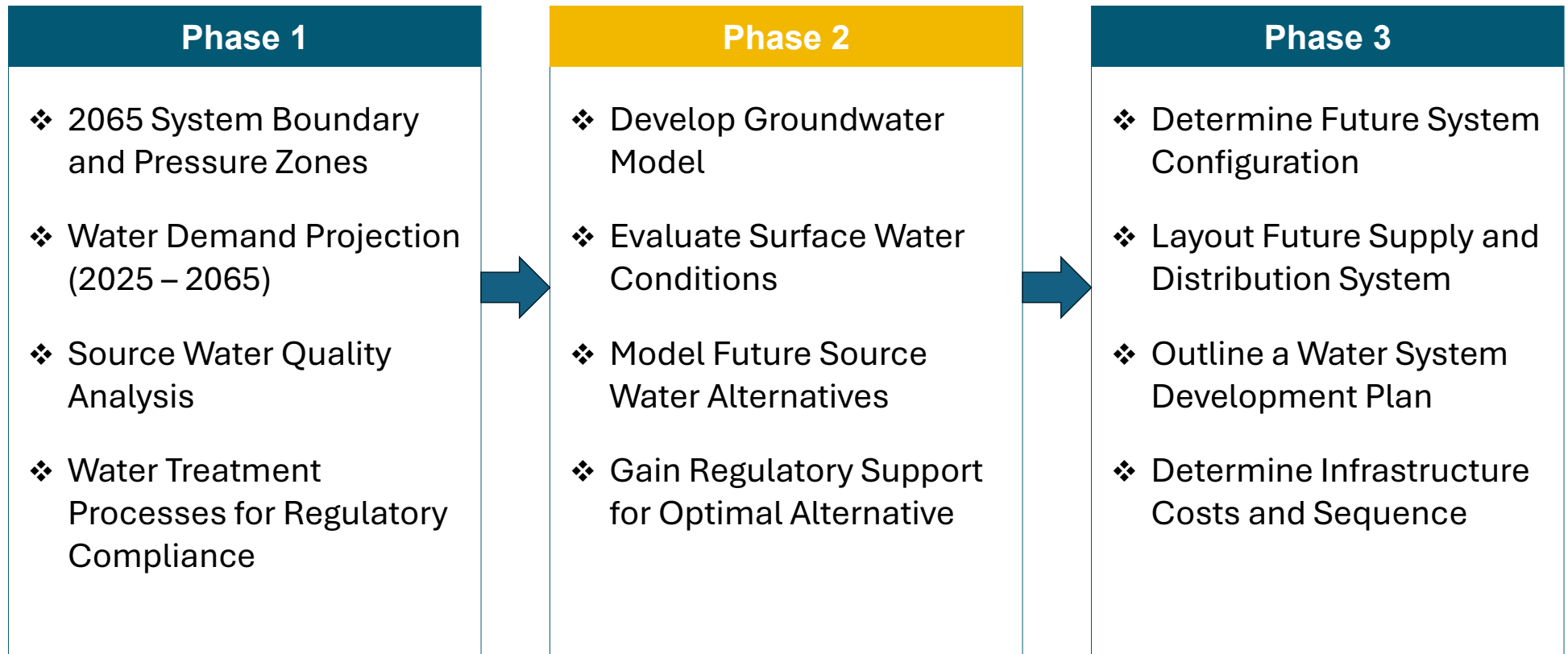
Source Water Supply | Surface Water Sources



Project Approach



Project Phasing



Consultant Selection Process

1. Water System Master Plan

- Published Request for Proposals in March 2025
- Evaluated proposals and conducted consultant interviews in May and June 2025
- Multi-departmental panel selected the team of **AE2S and Jacobs Engineering**

2. Groundwater Management Study

- Developed detailed scope of services based on current regulatory limits
- Finalized project scope in coordination with the Department of Natural Resources
- Negotiated professional services with **Barr Engineering**



Recommended Action

Two items on the Regular Agenda:

Item 4.A Groundwater Management Plan: Authorize professional services as outlined in the statement of work with Barr Engineering under Master Professional Services Agreement 14-06-E

Item 4.B. Water System Master Plan: Authorize professional services as outlined in the statement of work with Advanced Engineering and Environmental Services, LLC (AE2S) under Master Professional Services Agreement 19-02.

	Water System Master Plan	Groundwater Management Study
Professional Services	\$513,300	\$496,000
Source Water Testing	\$4,500	-
Regional Coordination	-	\$3,500
RPU Staff Time	\$17,000	\$11,000
Project Contingency	\$12,000	\$8,000
Total	\$546,800	\$518,500





Questions