

---

# Ground Water Monitoring Program

---

January 25, 2024



# Identified in RPBCWD 10-Year Plan Goals

## District Goals

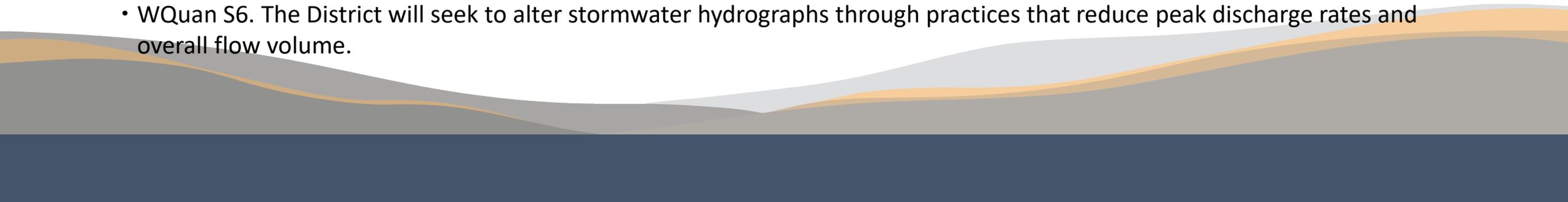
### Chapter 3 – Goals and Strategies

- 2. Collect data and use the best available science to recommend and support management decisions.
  - 5. Include sustainability and the impacts of climate change in District projects, programs, and planning.
  - 8. Protect, manage, and restore water quality of District lakes and creeks to maintain designated uses.
  - 9. Preserve and enhance the quantity, as well as the functions and values of District wetlands.
  - 11. Promote the sustainable management of groundwater resources.
  - 13. Limit the impact of stormwater runoff on receiving waterbodies.
- 

# Identified in RPBCWD 10-Year Plan Goals

## District Strategies

### Chapter 3 – Goals and Strategies

- Plan S8. The District will continue to perform resource assessments and feasibility studies (e.g., Use Attainability Analysis) to evaluate options to protect, manage, and restore District-managed resources.
  - WQual S18. The District will work with local government units to minimize pollution risk to groundwater.
  - WQuan S1. The District will preserve and enhance the natural function of the floodplain and maintain floodplain storage volume.
  - WQuan S2. The District will promote strategies that minimize baseflow impacts.
  - WQuan S3. The District will continue to promote infiltration, where feasible, as a best management practice to reduce runoff volume, improve water quality, and promote aquifer recharge.
  - WQuan S5. The District will use models and other available tools to design projects resilient to predicted climate change impacts.
  - WQuan S6. The District will seek to alter stormwater hydrographs through practices that reduce peak discharge rates and overall flow volume.
- 

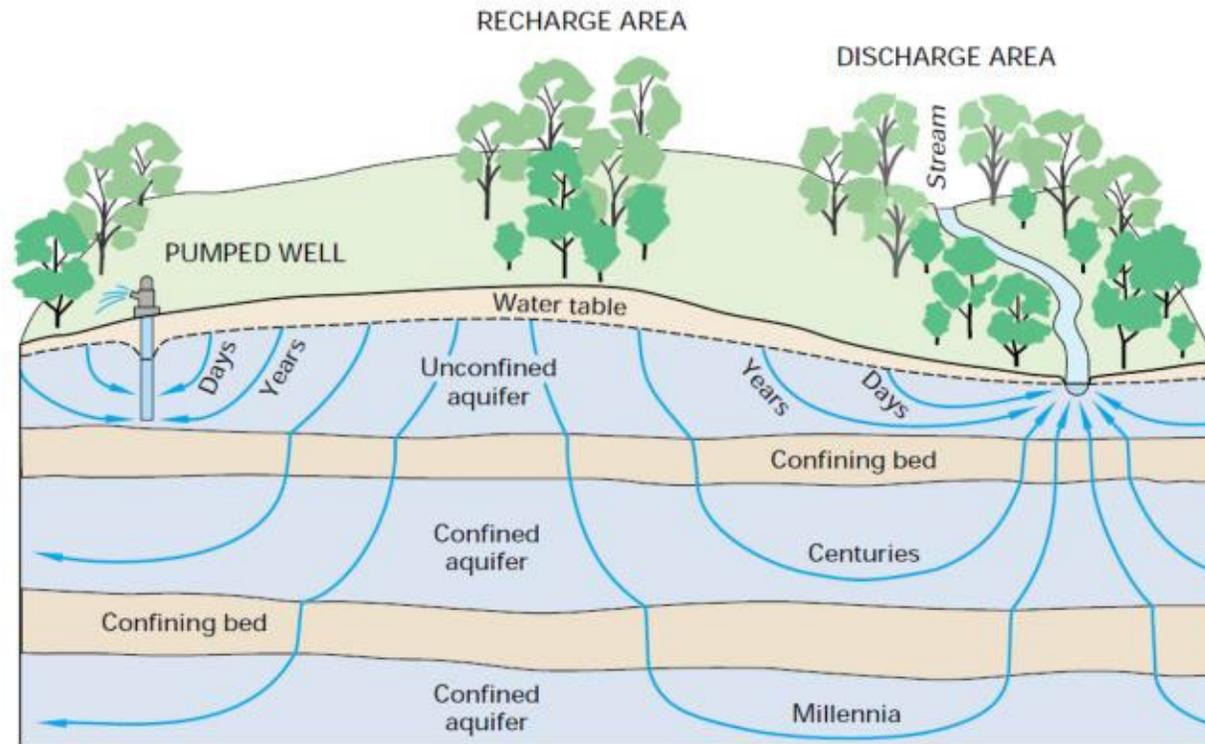
# Confined v. Unconfined Aquifers



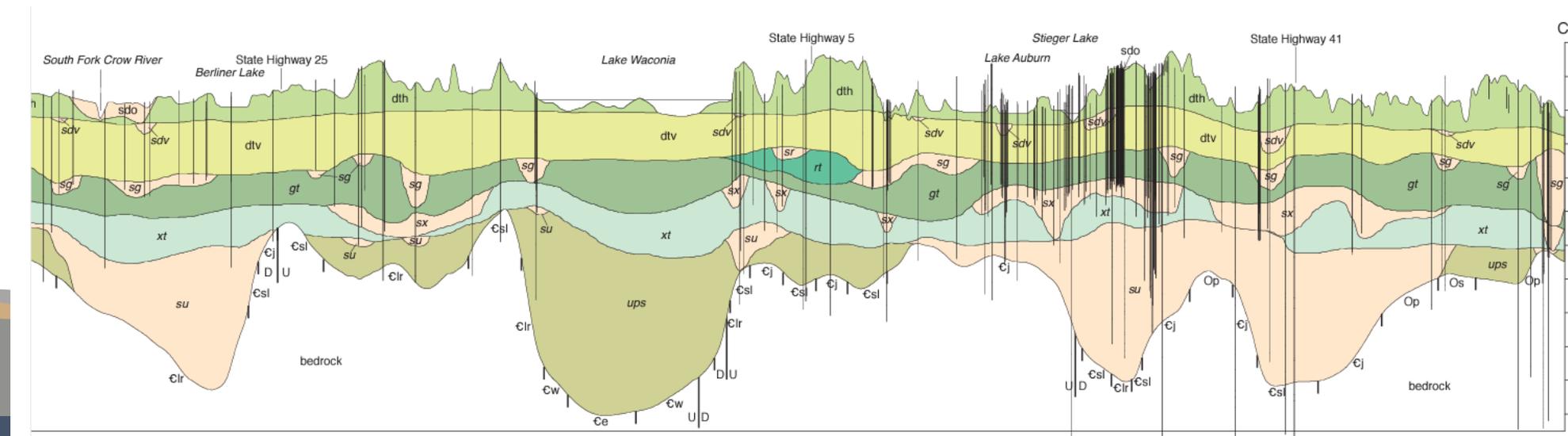
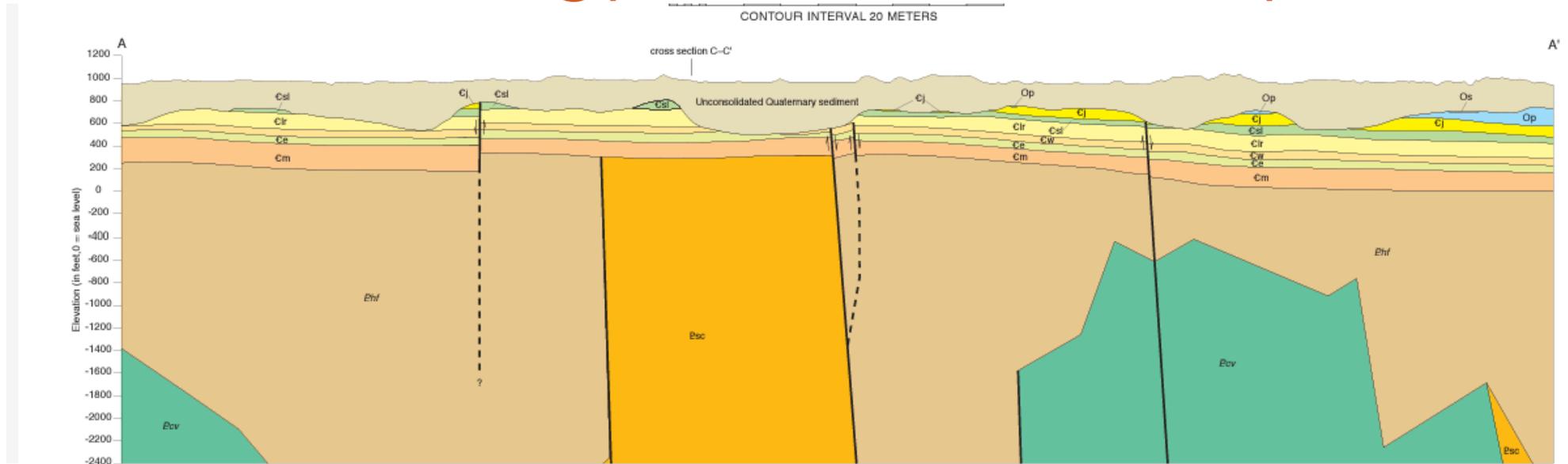
The Model Incorporates Multiple Aquifer Layers

Monitoring the unconsolidated drift wells

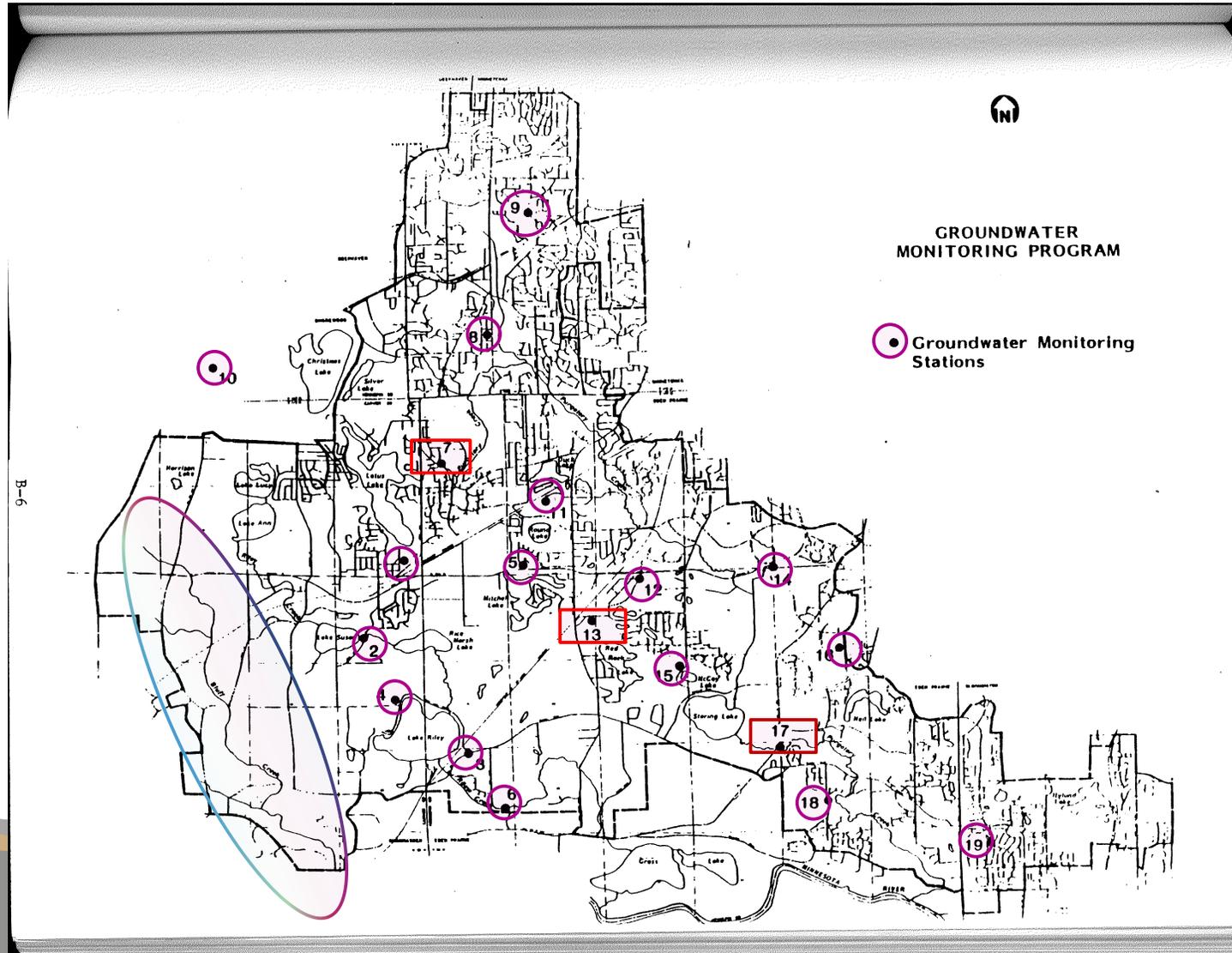
Sand/Gravel deposits



# Surficial Geology of Carver County



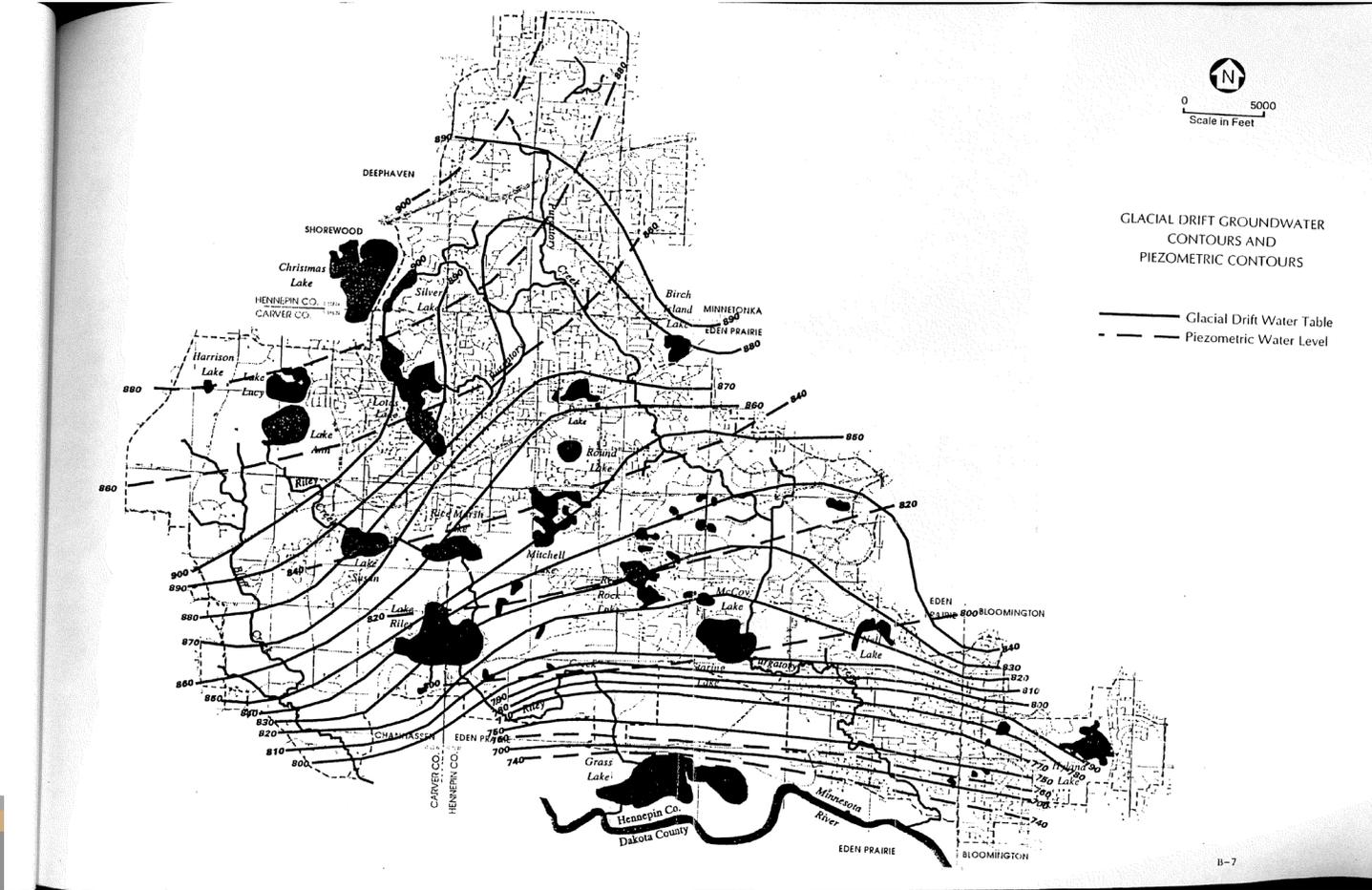
# RPBCWD Monitoring Well Program 1970's through 1990's



- RPBCWD installed 19 groundwater monitoring wells in the 1970's
- By 1980 only 10 remained
- By 1991 only 3 remained
- Program abandoned

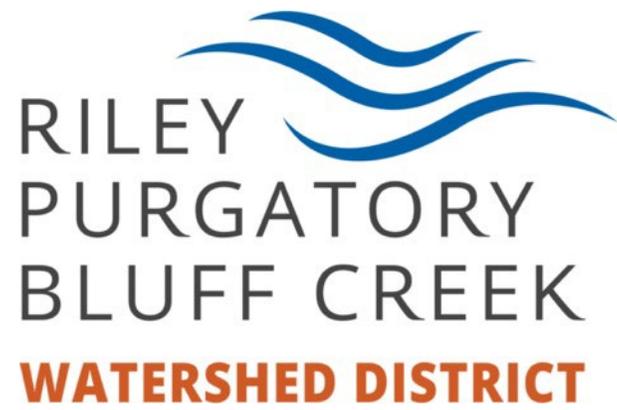
# Identified in RPBCWD 10-Year Plan

Groundwater and piezometric contours – 1997 Engineer's Report



# Why monitor?

- Maintenance of stream baseflows
  - Mitigation of “flashy” flows in stream channels
  - Maintenance of lake levels
  - Protection of wetlands, especially Type 2 wetlands (PEMB, PSSB, PFOB)
  - Identification of emerging pollutants in private wells
  - Identification of high priority areas for enhanced protection
  - Identification of areas suitable to infiltration
  - Provide finer resolution to H&H models, UAA, Lake Management Plans, etc
  - Gain better understanding of ET and the impacts of urbanization on unconfined aquifers
  - Assist with the Minnesota Seep Inventory – *Managing for Water Sustainability: Report of the EQB Water Availability Project* (December 2008)
  - As yet unidentified purposes
- 



---

Thank You

---

Questions?

A decorative graphic at the bottom of the slide consists of several overlapping, wavy shapes in shades of grey and orange, creating a landscape-like effect.