Metropolitan Council

# Water Availability Technical Focus Group :

## Water Supply Planning in the Northwest Metro

**June 9, 2008**

**Lanya Ross**
**Senior Environmental Scientist, Water Supply Planning, Metropolitan Council**

# Overview

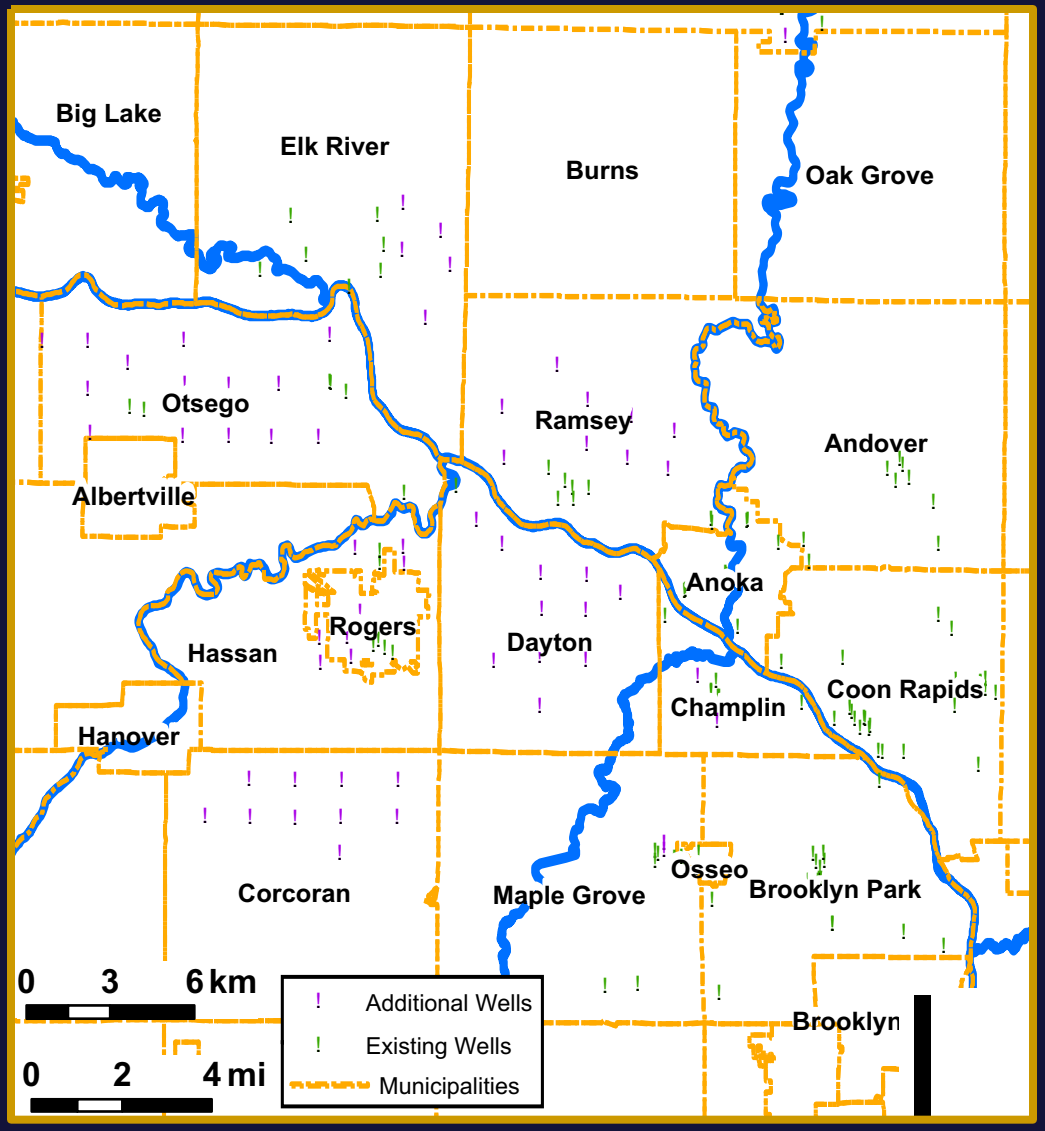
# Water Supply Issues: Ramsey

# Availability Assessment Process

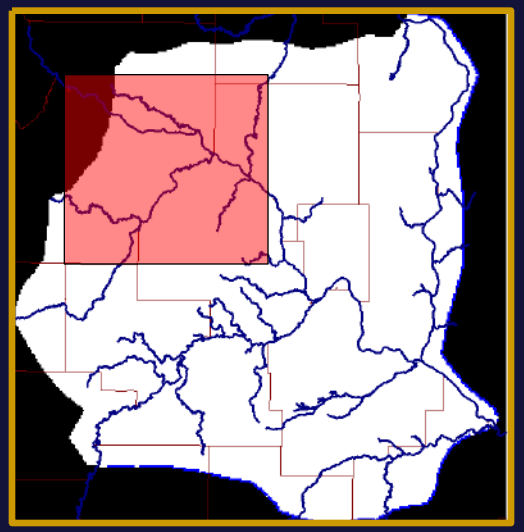
# Projected Demand: Ramsey

| Year | Projected Municipal Average Day (gal/day) | Projected Municipal Maximum Day (gal/day) |
|---|---|---|
| 2010 | 3,300,454 | 15,600,514 |
| 2030 | 4,932,351 | 17,221,000 |
| 2050 | 7,319,032 | 20,443,162 |

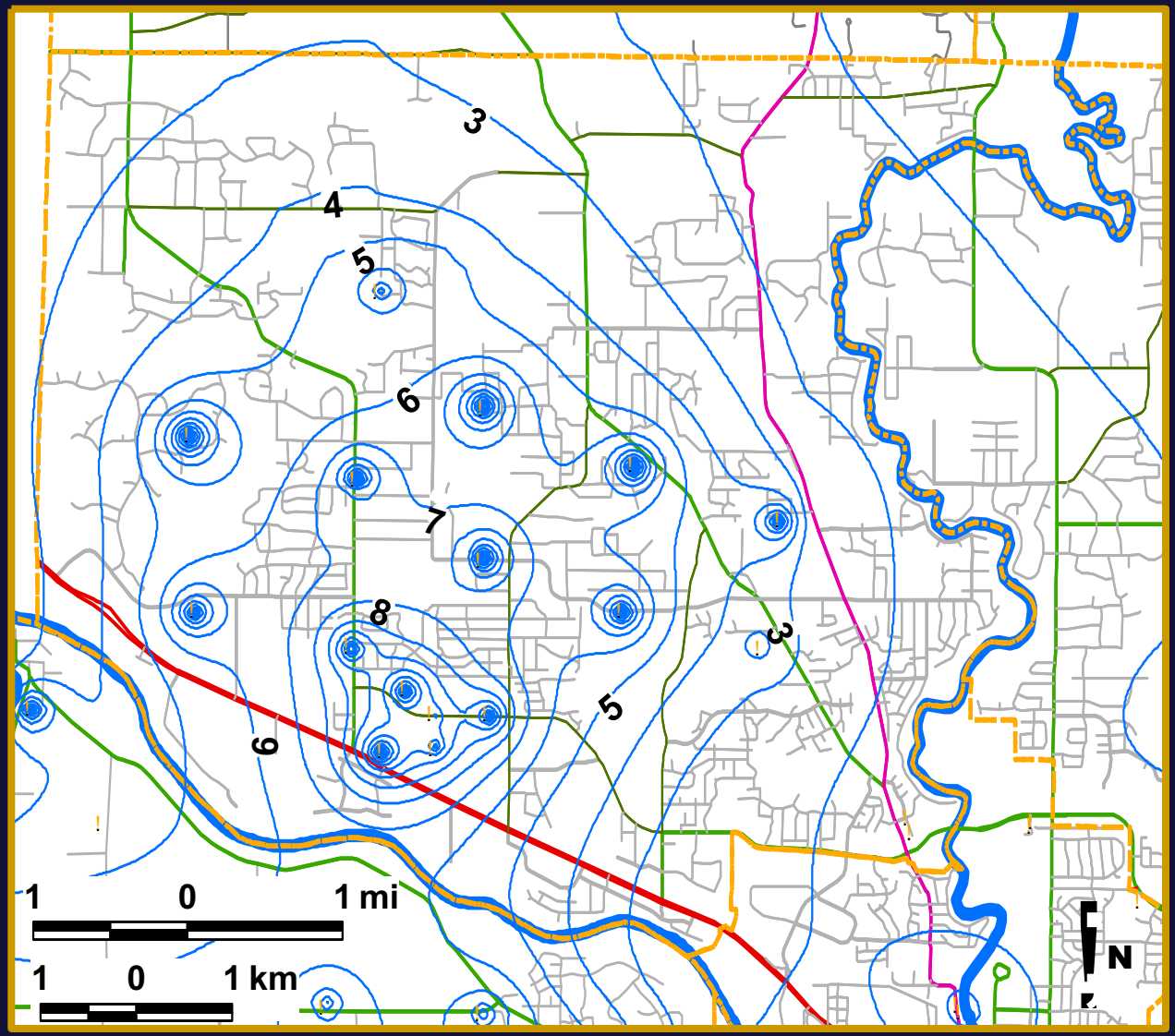
# Refining the Regional Groundwater Flow Model




- Existing Well
- Proposed (Modeled) Well

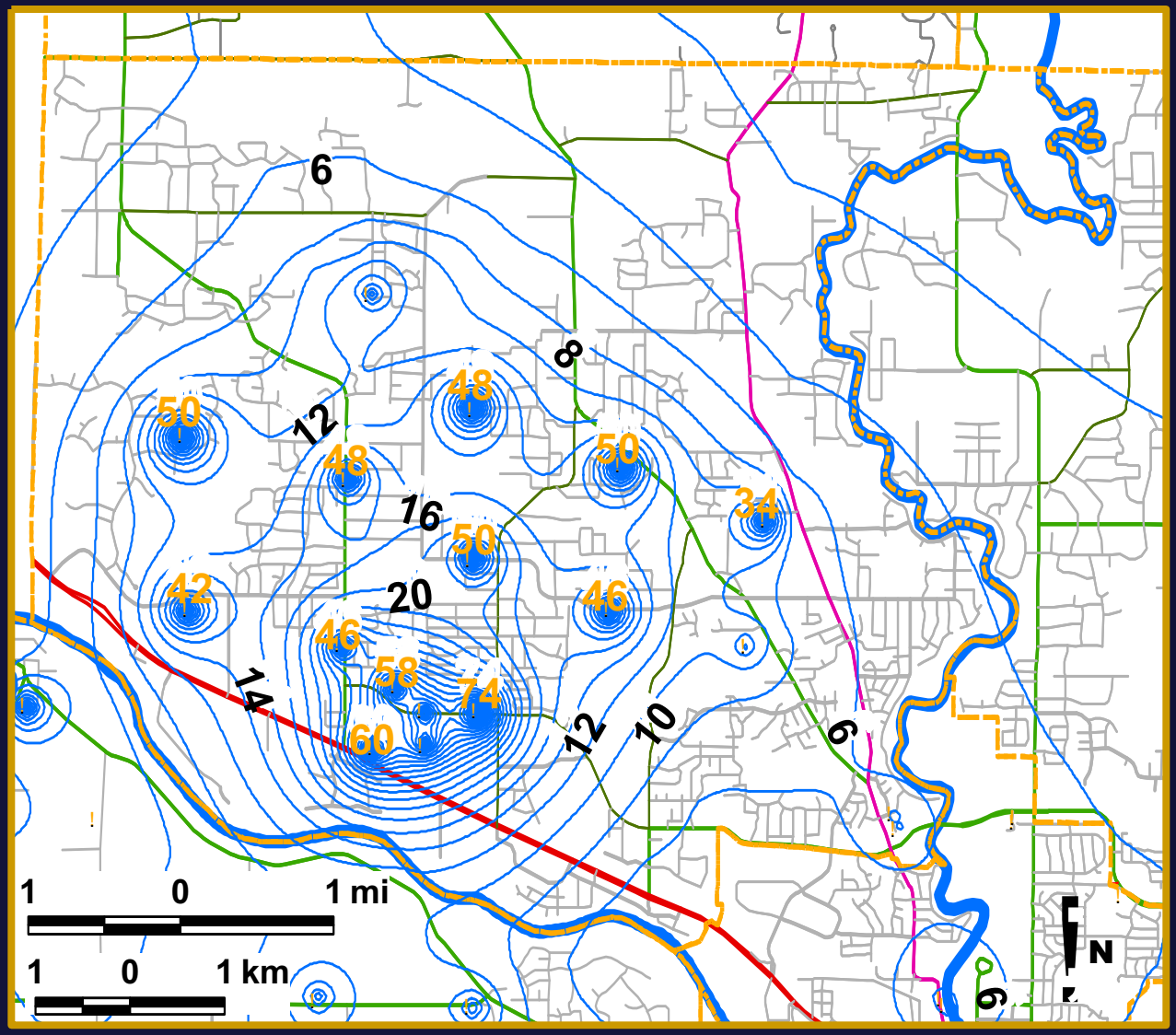


# 2030 Drawdown, Franconia-Ironton-Galesville (FIG), based on average daily demand

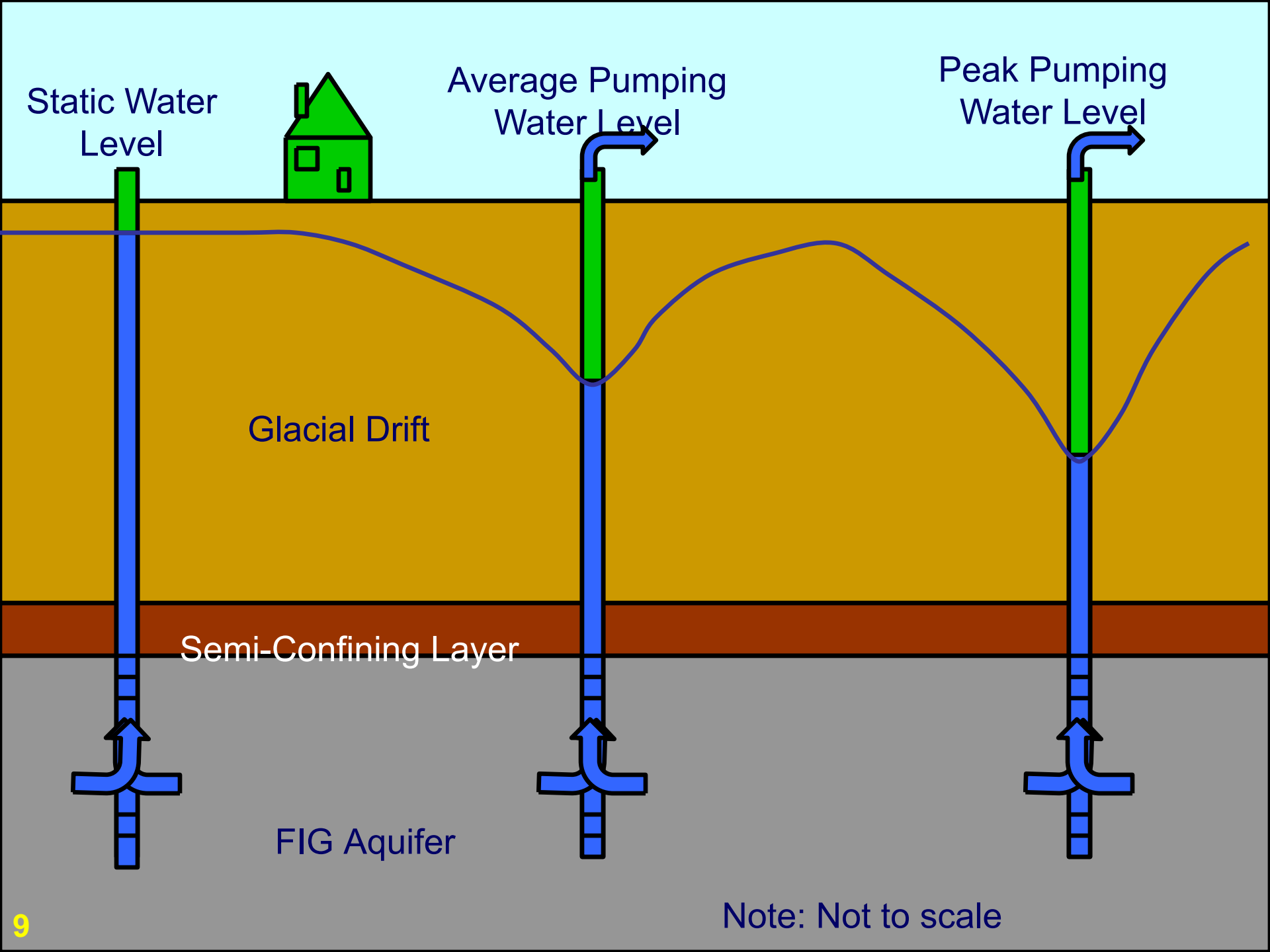



Contour Interval: 1 ft

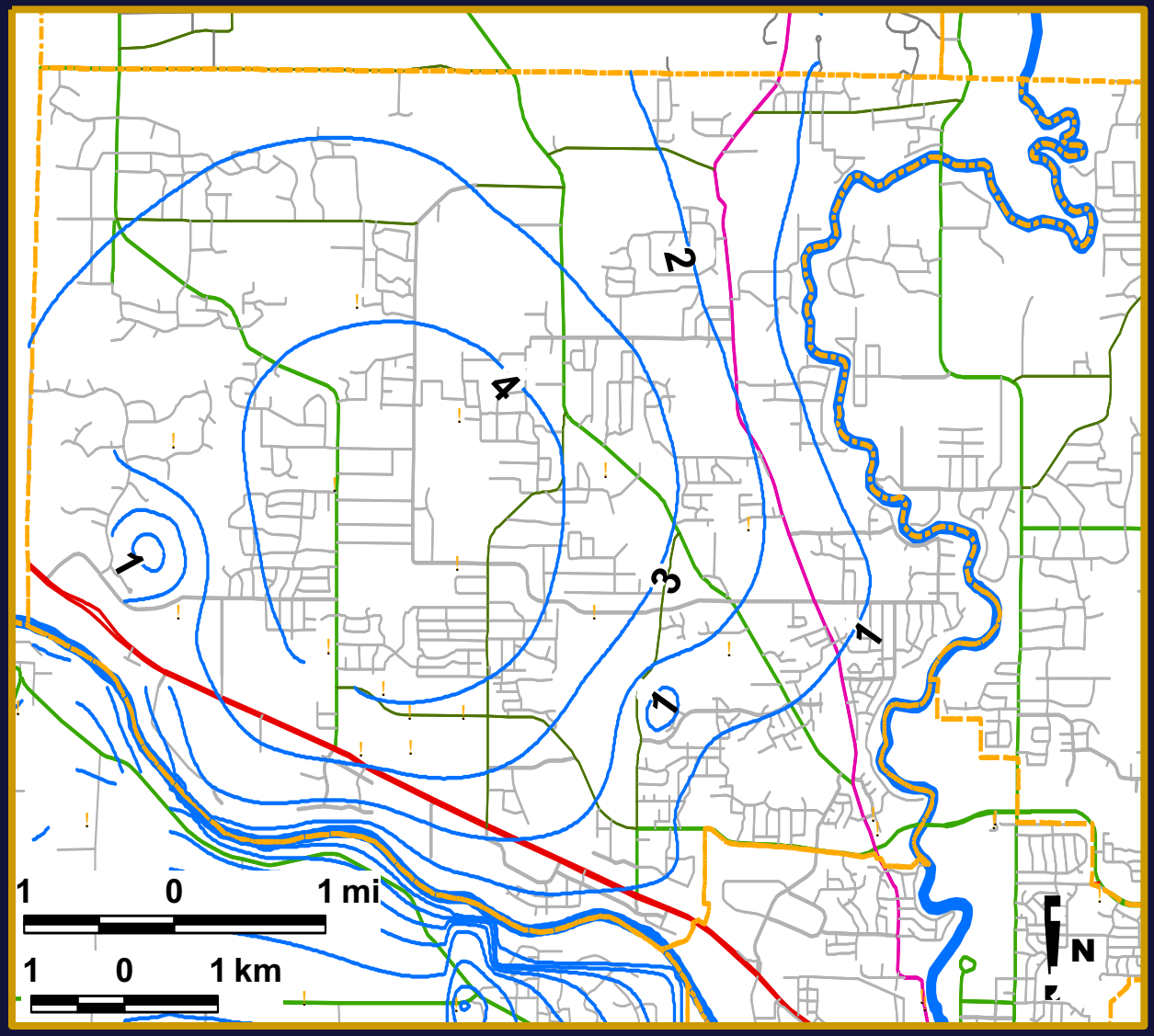
# 2030 Drawdown, FIG, based on summer peak demand occurring for 2 weeks




Contour Interval: 2 ft

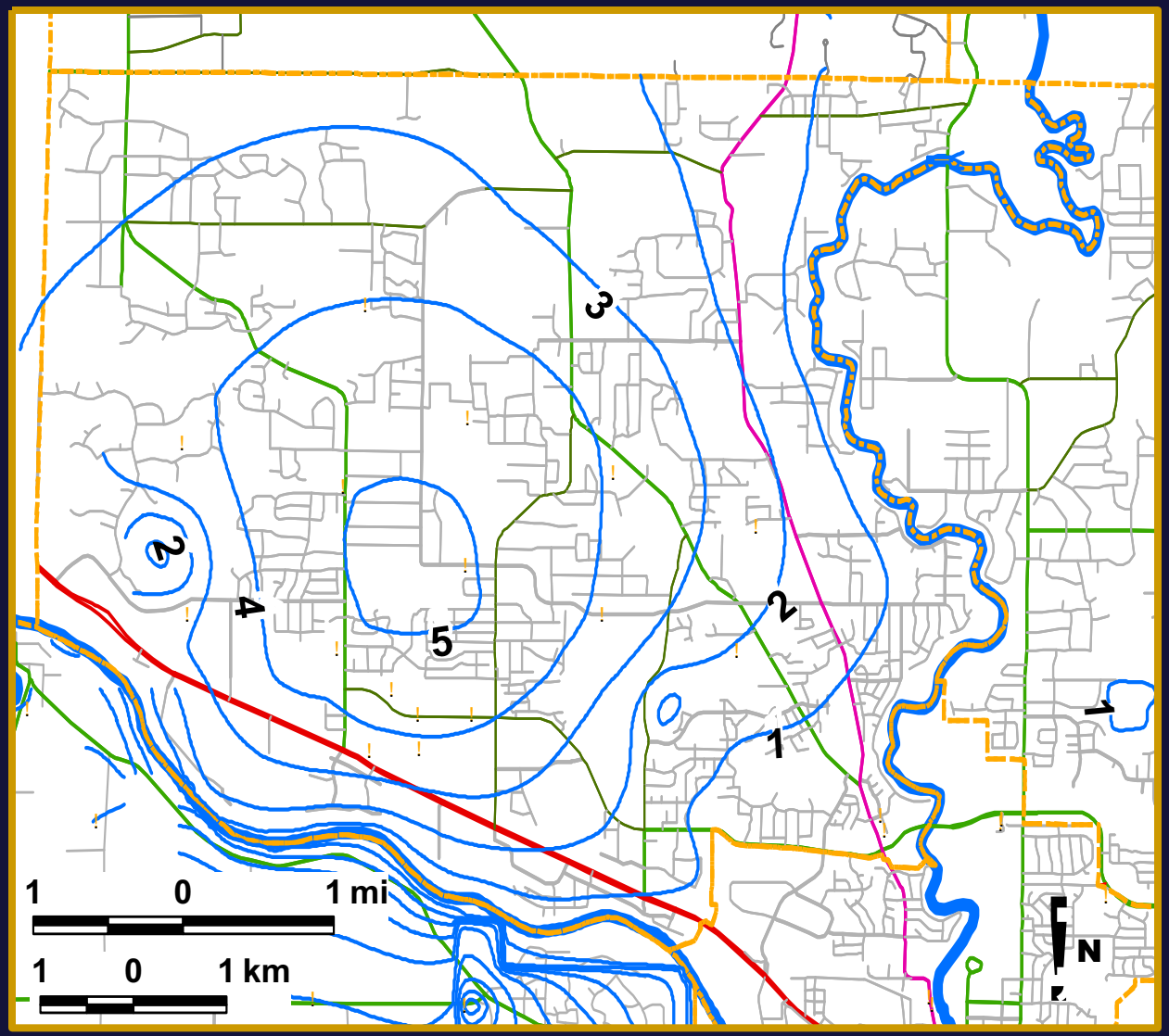

Static Water Level
Average Pumping Water Level
Peak Pumping Water Level
Glacial Drift
Semi-Confining Layer
FIG Aquifer
Note: Not to scale

# 2030 Drawdown, Water Table, based on average daily demand

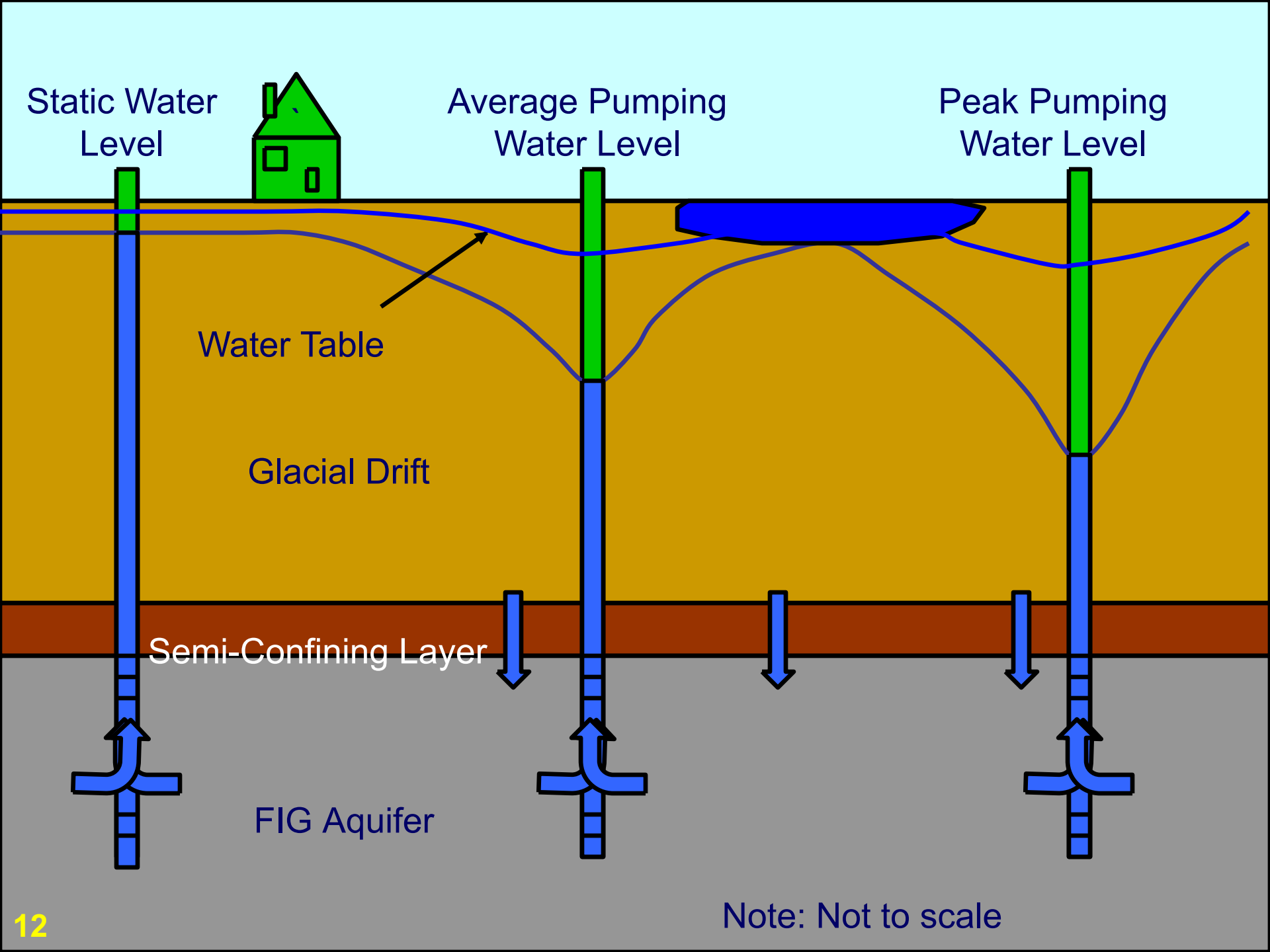



Contour Interval: 1 ft

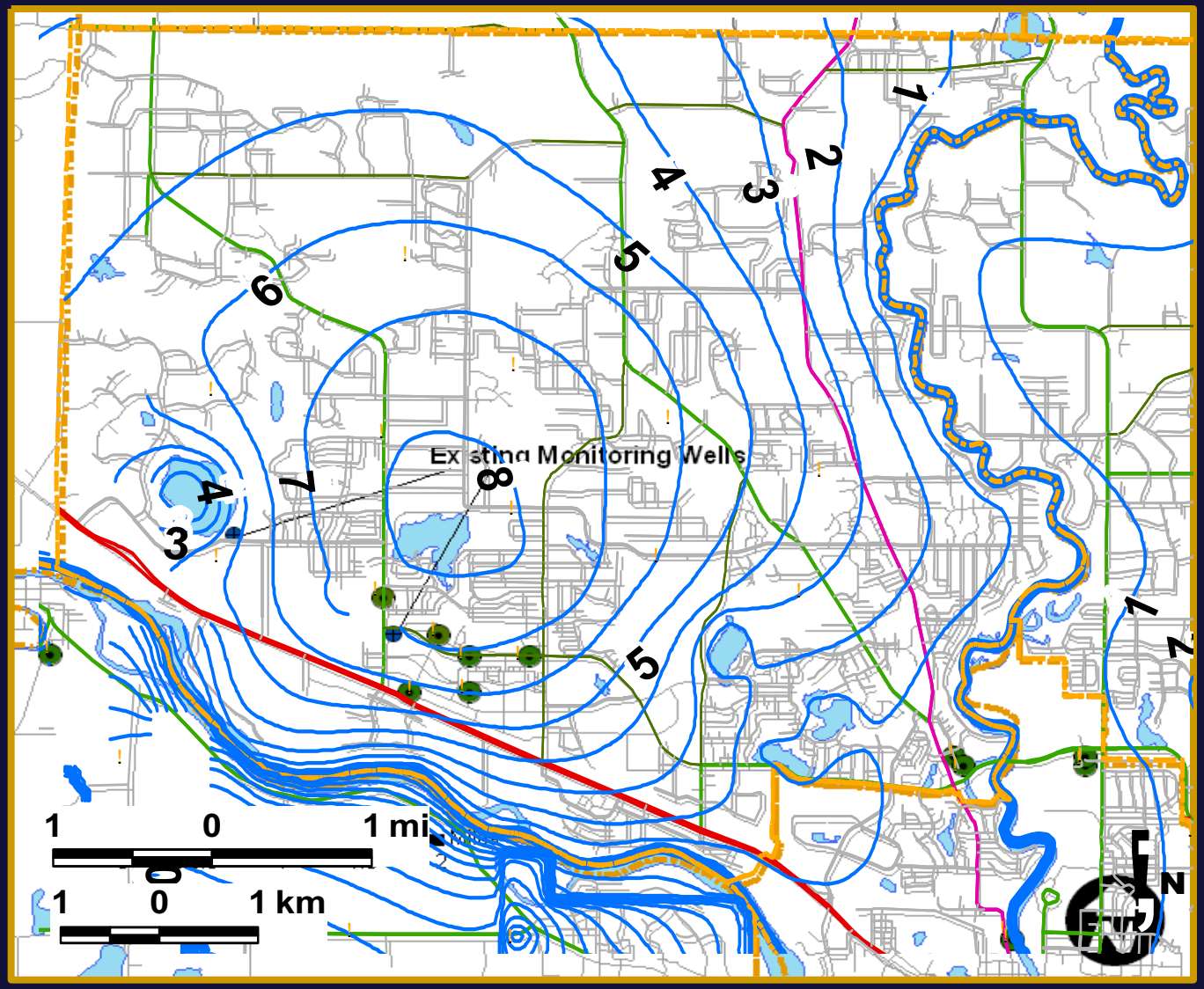
# 2030 Drawdown, Water Table, based on summer peak demand occurring for 2 weeks




Contour Interval: 1 ft


Static Water Level
Average Pumping Water Level
Peak Pumping Water Level
Water Table
Glacial Drift
Semi-Confining Layer
FIG Aquifer
Note: Not to scale

# Monitoring Well Locations vs. 2050 Drawdown in the Water Table




Contour Interval: 1 ft

# Interpreting Model Results

# Planning for Future Supplies

## No impact identified

## Impact identified –

- Intensify conservation to delay need for supply
- Options re-evaluated, including use of Mississippi River

# Summary

# Benefits of Regional Planning Assistance

- 
- 
- 
- 