

# Mt. Simon Aquifer Analysis

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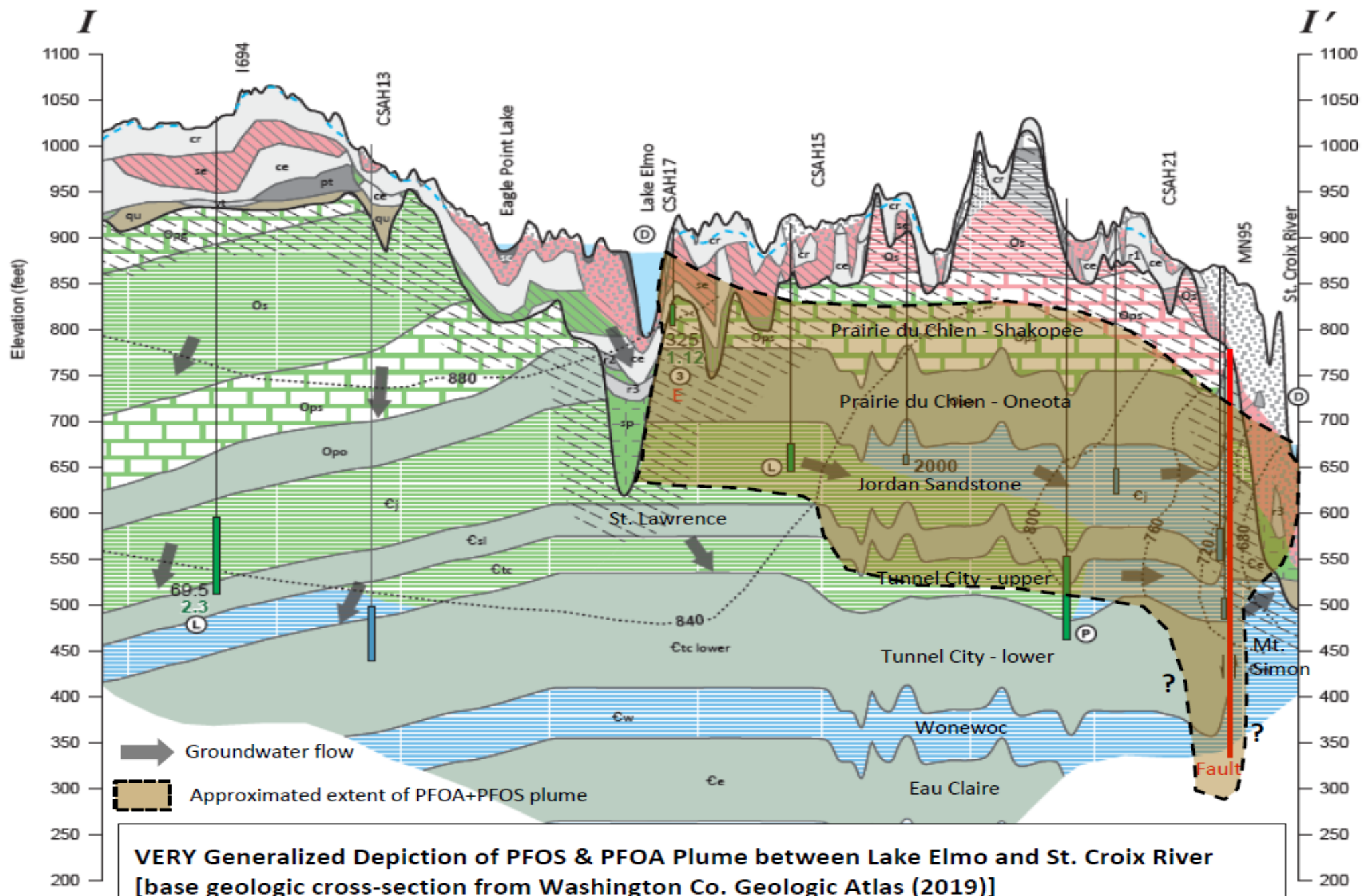
# Mt. Simon Aquifer – Agenda

- Introduction
- Analysis
- Conclusion

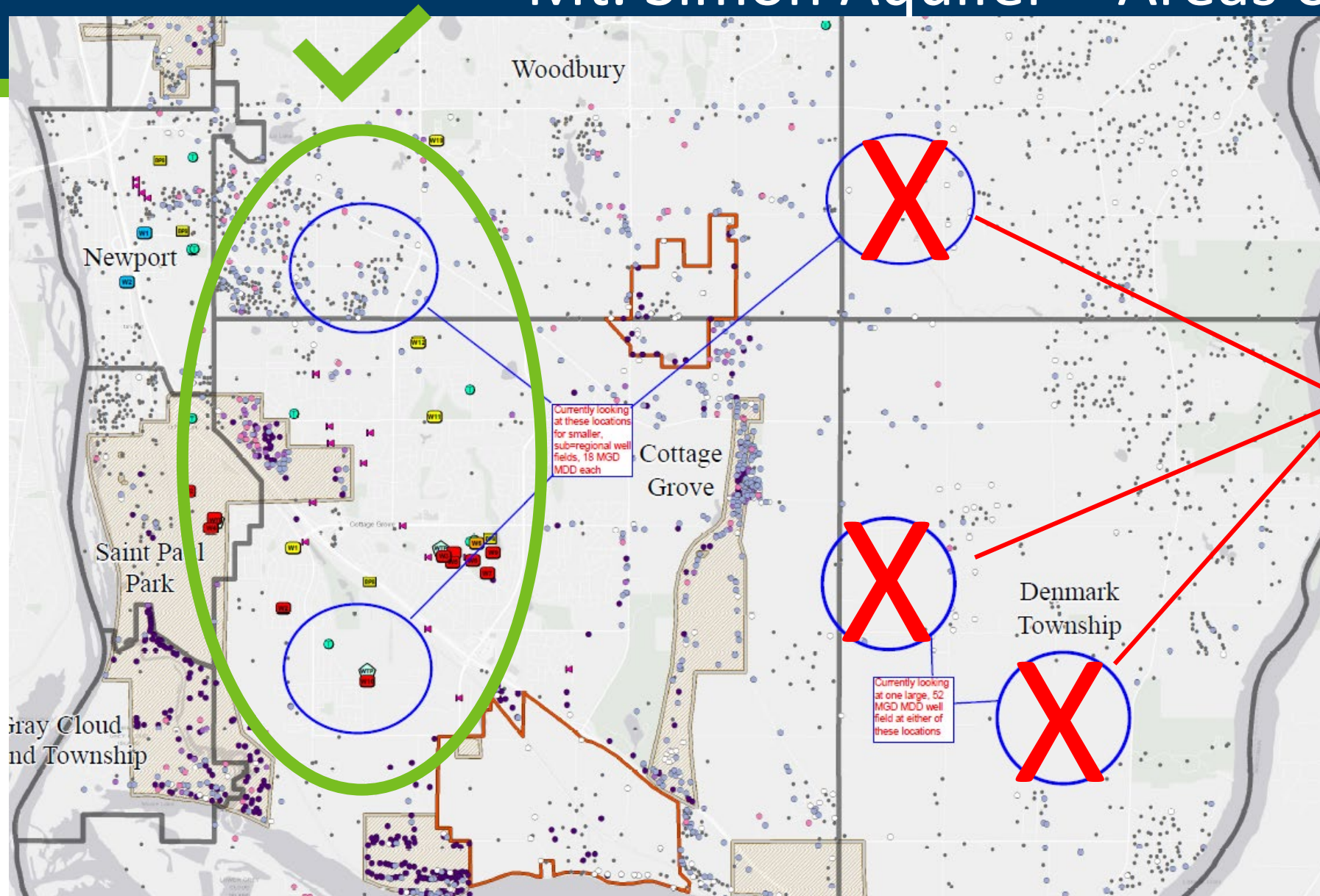
# Mt. Simon Aquifer – Introduction

## Potential and Constraints

- *Statutory restrictions* - for potable use only and there are no feasible or practical alternatives
- The Mt. Simon is confined with limited recharge in the East Metro, but *potential yield is uncertain* in East Metro due to lack of data.
- Concerns about *drawing contamination into the aquifer*, particularly near and east of the fault zones and buried bedrock valleys.
- Likely would require *treatment* due naturally occurring iron, manganese, and radium.
- West of the faults, has potential for use as a *supplemental or local* supply



# Mt. Simon Aquifer – Areas of Analysis



Eliminated due to fractured areas and buried bedrock valleys where vertical contamination movement is more likely.



# Mt. Simon Aquifer – Analysis

## Evaluated potential drawdown in pumping wells

- Added wells to Metro Model 3 within the target areas.
- Used analytical solutions to estimate total drawdowns within the wells for a range of possible aquifer property values.

## Targets for each well field:

- Maximum day demand (MDD): 18 MGD
- Average day demand: 6.9 MGD
- Number of wells: 12 simultaneously pumping

# Mt. Simon Aquifer – Analysis Results

- Meeting the target average-day demand (ADD) for one well field may be possible but uncertain.
- Two well fields would very likely have to be pumped at less than the target ADD for each.
- One well field likely could not supply the target maximum-day demand (MDD).

# Mt. Simon Aquifer - Conclusion

- The potential for the Mt. Simon is limited.
- Wood will not include well fields drilled to the Mt. Simon aquifer as part of a regional scenario analysis.
- Mt. Simon supply wells may be considered in specific circumstances where fewer wells are necessary than for the sub-regional well-field scenarios.
  - Example - Lakeland/West Lakeland combined system, where costs and contamination risk are factors



Questions or Comments?

# Thank you!

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