

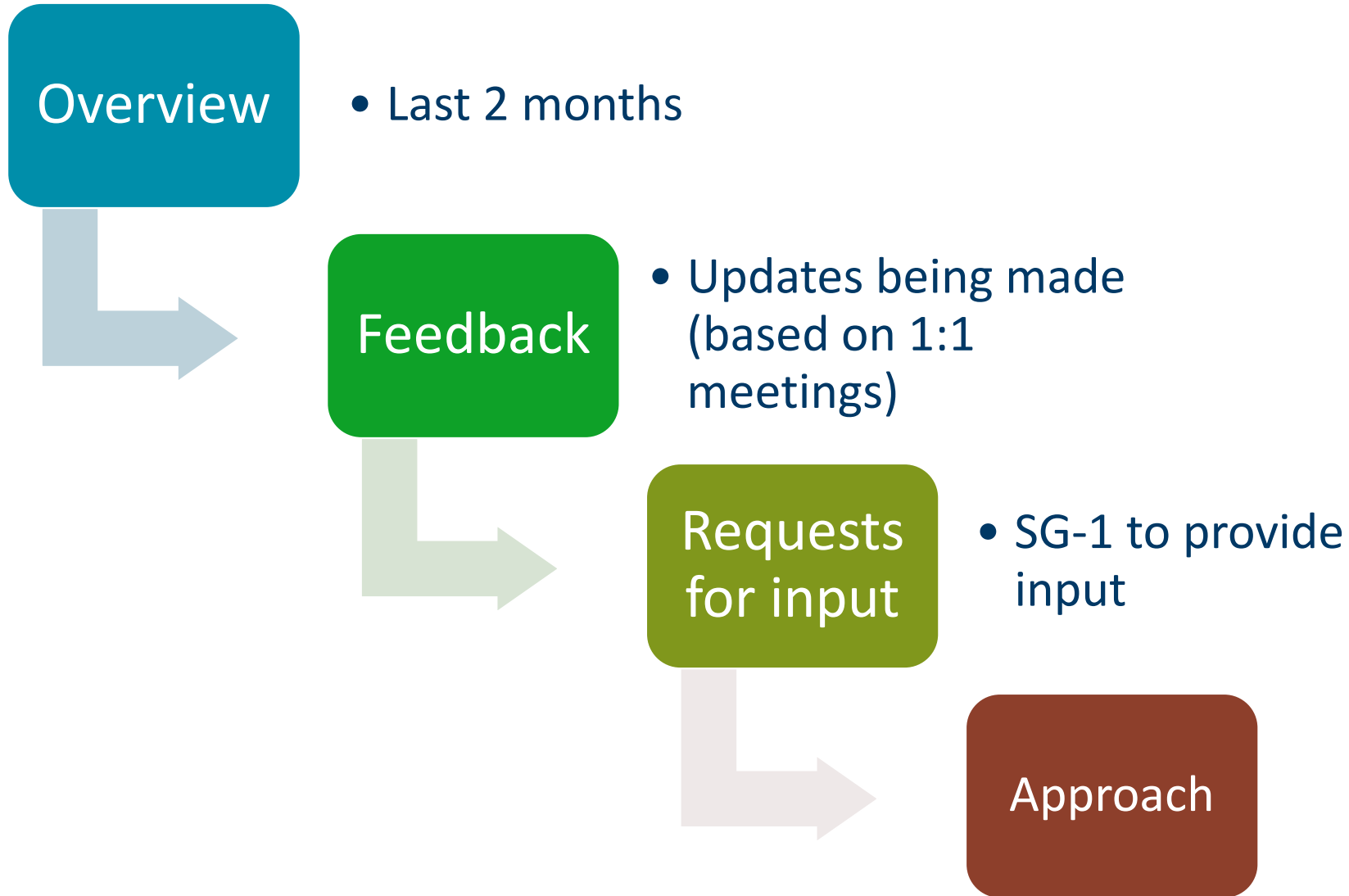


# Conceptual Drinking Water Supply Plan: Status Update and Proposed Path Forward

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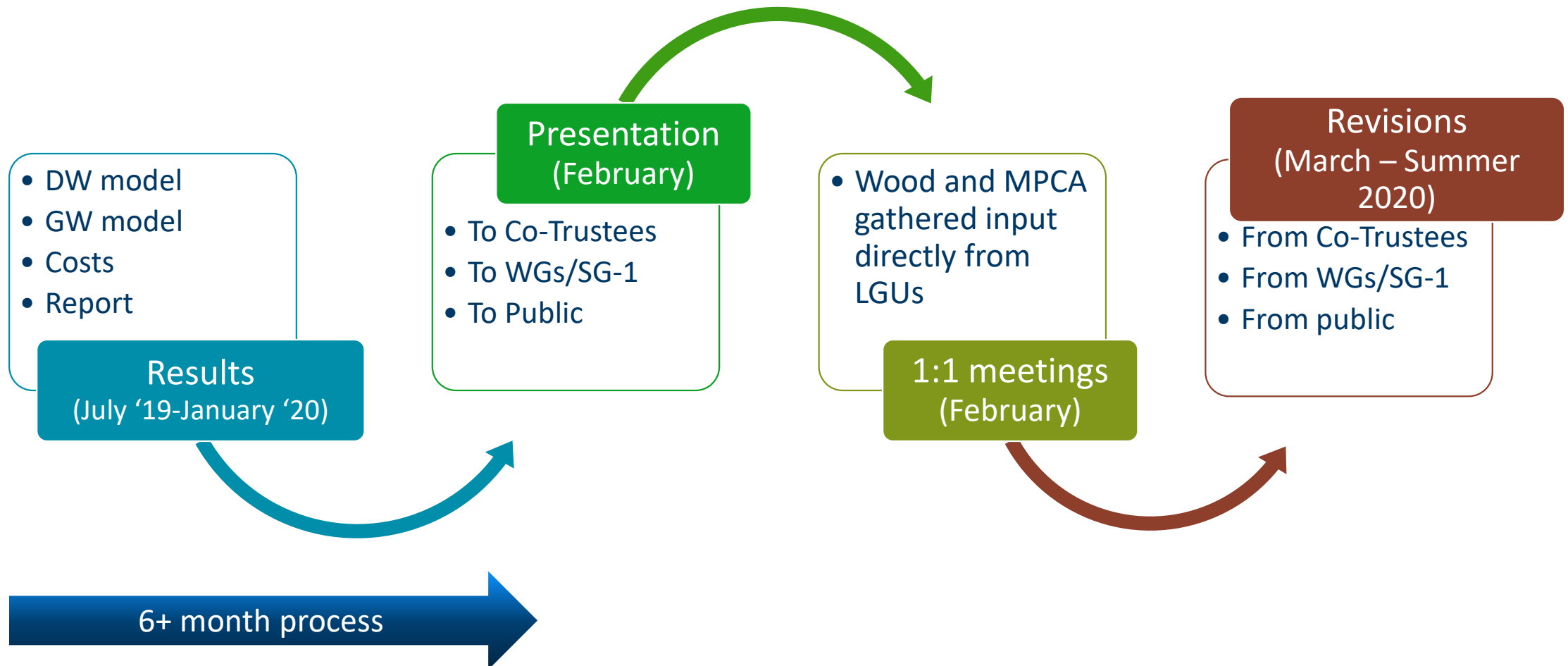
3M PFC Settlement Work Group/Subgroup Meetings

April 14-15, 2020



# Overview

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Feedback

# Scenario updates moving forward

- Sent out RFI for revised water demands
  - Received updates for **Lake Elmo, Oakdale, and Woodbury**
  - Confirmation of existing demands from Cottage Grove, Newport, Maplewood, and West Lakeland
  - No response is assumed to mean no change is requested
  - Overall increase of **15% ADD, 17% MDD, and 3% GPCPD**, while population served increased **2%**

Lake Elmo	2040		% Difference from WSP
	WSP	REVISED	
Per Capita Demand (GPCPD)	85	<b>96</b>	13%
ADD (MGD)	1.799	<b>2.032</b>	13%
MDD (MGD)	5.4	<b>6.1</b>	13%

Woodbury	2040		% Difference from Comp Plan
	Comp Plan	REVISED	
Total Population	87,800	<b>89,630</b>	2%
Population Served	83,139	<b>88,139</b>	6%
Per Capita Demand (GPCPD)	95	<b>123</b>	29%
ADD (MGD)	7.8	<b>10.84</b>	39%
MDD (MGD)	19.5	<b>28.19</b>	45%

Oakdale	2040		% Difference from WSP
	WSP	REVISED	
Peaking factor	2.23	<b>2.29</b>	3%
ADD (MGD)	3.12	<b>3.06</b>	-2%
MDD (MGD)	6.96	<b>7.00</b>	<1%

# Scenario updates moving forward

- Revised water supply projections
  - Updates to scenarios – iterative process
    - Place additional wells per community
    - Upsize hydraulic infrastructure (pipes, pumps, tanks, treatment vessels)
  - New GW modeling
    - Drawdown analyses
    - Flowpath analyses

# Scenario updates moving forward

- East Metro model

- Completed:

- Refinements to East Metro model
    - Finalize Appendices B and C
    - Prepared scope language and model input files for peer review

- In progress:

- Additional flow path analyses in specific areas
    - Capture POETs past flow path predicted areas?
    - Considering flow paths of Baytown TCE plume
    - Add a table of drawdowns for each scenario



# Scenario updates moving forward

- Costs
  - GAC and IX assumptions
    - Tying costs (media consumption rates) to PFOA concentrations
  - City codes related to land acquisition costs
    - Reviewed codes regarding set backs and green space for Cottage Grove and Woodbury; and
    - Are adjusting unit cost assumptions accordingly for all communities/scenarios.

# Scenario updates moving forward

- General
  - Revised municipal well HI values
  - Received Baytown TCE data – GACs installed and sampling data
  - Re-assessing private well counts in Afton and West Lakeland – still evaluating
  - Add a table of neighborhood hookups for each community in Appendix E

# Separate scope items

- Groundwater model peer review
  - Currently finalizing scope
  - AECOM completing peer review over a 2 month period beginning in April
- White Bear Lake model (NMLG)
  - DNR completing modeling of scenarios simultaneous to Wood East Metro modeling
- Water Rate Impacts – still evaluating

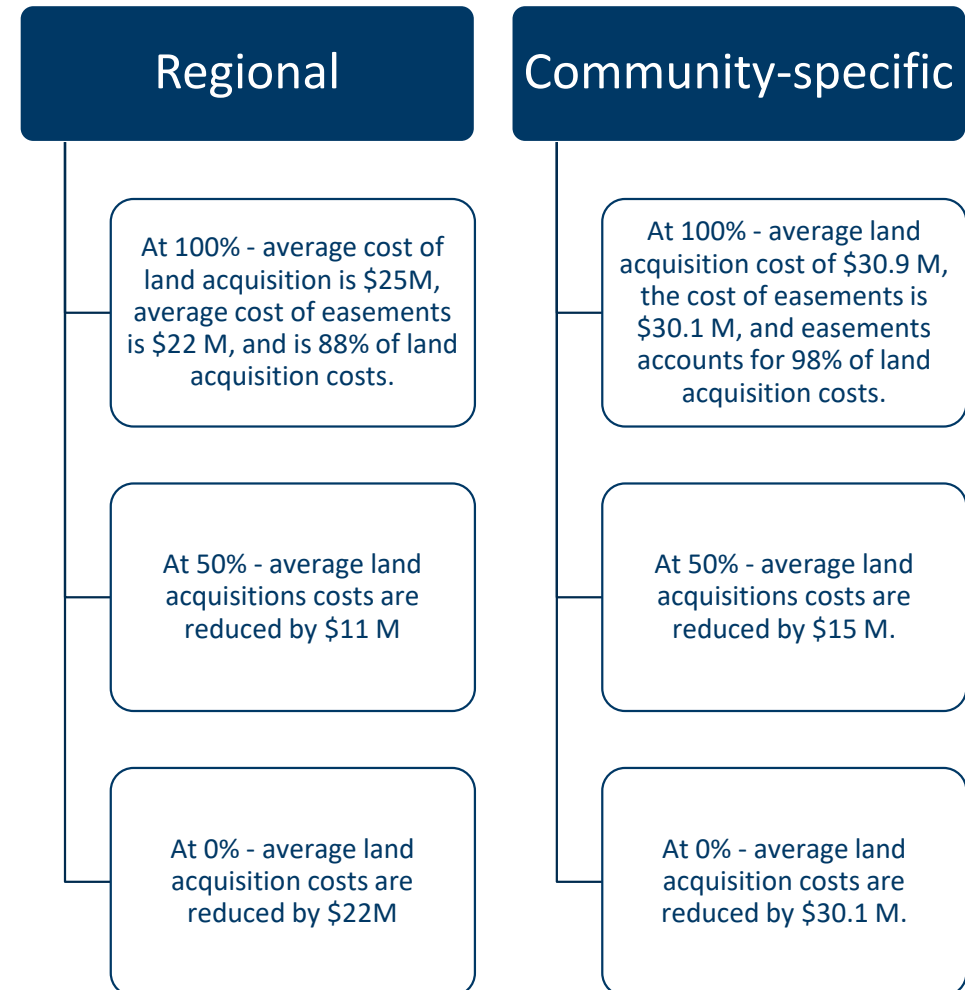
Input Requested (SG-1)

- **Easements**

- Currently assuming 100% transmission mains need easements
- Sensitivity analysis performed
- Received feedback from Maplewood and West Lakeland on assumptions

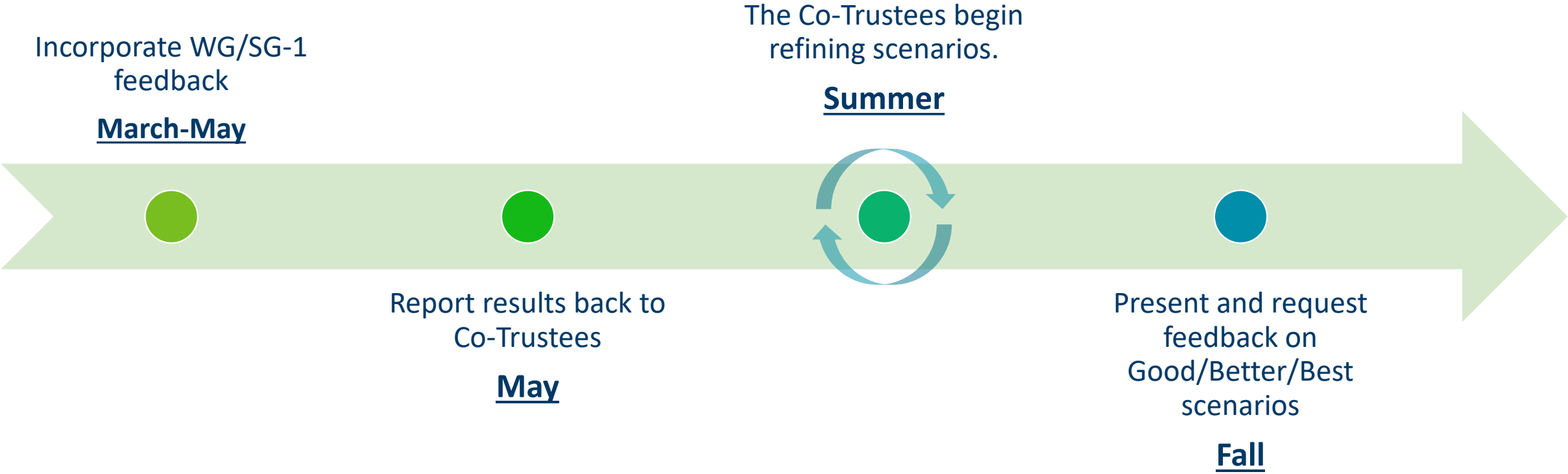


- LGUs provide feedback on any specific changes to assumptions for new infrastructure



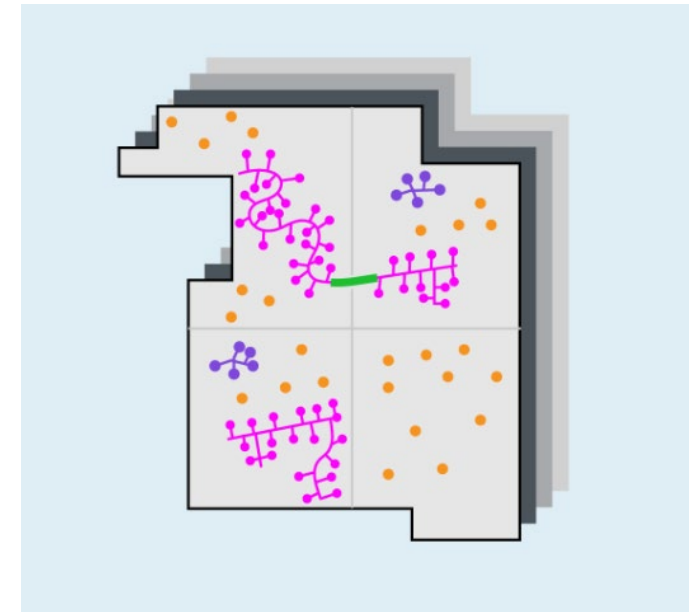
# Approach and Timeline

# Approach moving forward



## Scenarios

- Community-specific
- Integrated
- Treatment
- Regional:
  - Sub-regional (three groundwater well fields)
  - One Regional Surface Water Plant
  - Two Regional Surface Water Plants
  - St Paul Regional Water Services







## Questions