

Update on the Conceptual Drinking Water Supply Plan

Terill Hollweg, Abt Associates

4/17/2019

Purpose and Outcomes

- Purpose:
 - Present a conceptual plan for providing clean, sustainable drinking water that addresses each community's needs now and in the future
 - Takes into account both drinking water systems and private wells, using a region-wide approach
- Outcomes:
 - A recommended set of projects (at a concept-level), that when combined, address drinking water supplies for all communities in the East Metropolitan Area
 - Following plan completion, these concept-level projects will be further refined with project-specific implementation plans (developed by LGUs or others)

Approach

Water Supply Improvement Options: A reasonable range of options, at a high-level, that could improve drinking water supply, including both centralized and decentralized systems. Treatment technology not specified.

Concept-Level Projects: Consistent with water supply improvement options, but provides more detail (e.g., locations, components, treatment technologies)

Scenarios: Sets of concept-level projects that consider supply, distribution, and demand. Each scenario addresses drinking water supplies for all communities.

Regional Background Information & Community Profiles

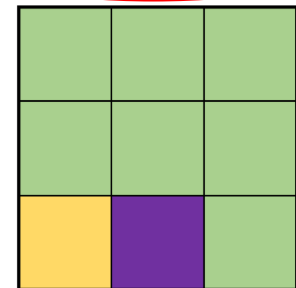
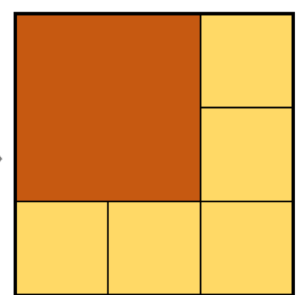
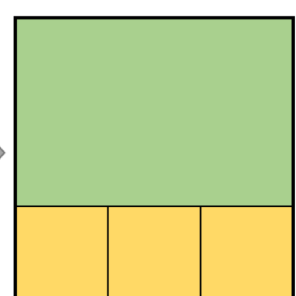
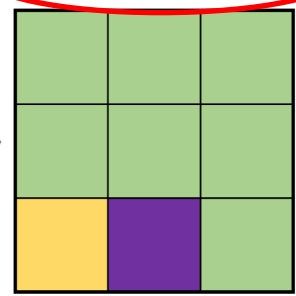
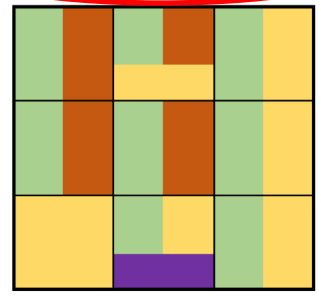
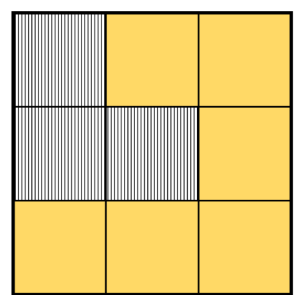
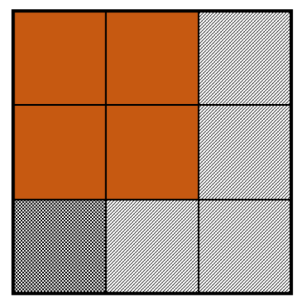
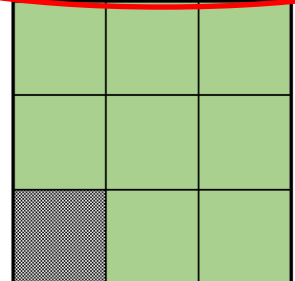
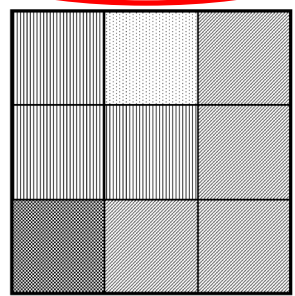
Regional Background & Community Profiles: Includes information on major aquifers, current drinking water supply infrastructure, potential constraints on water use (including PFAS), etc.

Water Supply Improvement Options

Scenarios

Concept-Level Projects

Recommended Scenario



Supported by water system and groundwater modeling


Water Supply Improvement Options

List of initial options for consideration (listed in no particular order):

- Drill new wells in optimized locations*.
- Connect subsets of communities to St. Paul Regional Water Services*.
- Create new surface water treatment plant for use of Mississippi or St. Croix River waters*.
- Create new regional water supply system(s) (with treatment).
- Create new rural drinking water supply system(s) (with treatment).
- Move private well hookups to existing drinking water supply system(s) (where available).
- Provide drinking water treatment of existing water supply system(s).
- Provide point of use or point of entry treatment of drinking water.
- Non-potable and potable reuse of treated 3M containment water*.
- Minimize water well usage by reducing current potable demand, through:
 - Beneficial use of other non-treated or less treated waters (e.g., grey water, storm water).
 - Water conservation.

*Included in the Washington County Municipal Water Coalition Water Supply Feasibility Assessment (<https://metro council.org/Wastewater-Water/Publications-And-Resources/WATER-SUPPLY-PLANNING/Washington-County-Municipal-Water-Coalition.aspx>).

Chapter/Content

1. Introduction
 2. Background
 3. Approach
 4. Model Development and Results
 5. Evaluation of Water Supply Improvement Options
 6. Concept-level Project Development, Screening, and Evaluation
 7. Scenario Development and Evaluation
 8. Summary and Conclusions
- 
- Soon to be ready for review*

Timeline

Tasks	2018		2019											
	Jul-Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Develop Goals & Criteria	█													
Compile regional background information and community profile information	█	█	█	█	█									
<i>Write, review, revise: Introduction, Background, and Approach (Chapters 1-3)</i>			█	█	█	█								
Develop and revise drinking water system model and ground water system model			█	█	█	█	█	█	█	█				
<i>Write, review, revise: Model Development and Results (Chapter 4)</i>						█	█	█	█	█				
Evaluate water supply improvement options						█	█	█	█	█	█			
<i>Write, review, revise: Evaluation of Water Supply Improvement Options (Chapter 5)</i>							█	█	█	█	█			
Identify projects						█	█	█						
Screen & evaluate projects						█	█	█	█	█				
<i>Write, review, revise: Concept-Level Project Development, Screening, and Evaluation (Chapter 6)</i>							█	█	█	█	█			
Develop & evaluate scenarios; select recommended scenario							█	█	█	█	█			
<i>Write, review, revise: Scenarios Development and Evaluation (Chapter 7)</i>								█	█	█	█			
<i>Compile, review, revise: Final Report</i>												█	█	

● Public meeting

Requested Review by Work Groups

- Your review of Chapters 1-3 (Introduction, Background, Approach) would be greatly appreciated
 - Chapter 1: Overview of the Agreement, overview of the Conceptual Plan, next steps
 - Chapter 2: Regional overview (groundwater, surface water, PFAS contamination), and community water supply profiles
 - Chapter 3: Key terms, overview of approach, overview of modeling effort

Requested Review by Work Groups

- Please focus your review on the overall content and structure (editing to come later)
 - Are key pieces of information missing?
 - Is there any information that is incorrect?
 - Is there anything that is confusing and/or needs more clarification?
- Please submit comments via SharePoint RFI by **COB Friday, May 10th**
 - Comments are requested to be provided in a spreadsheet
- You will get a chance to review these chapters again during review of the entire Plan, which is scheduled for Oct/Nov

Questions or Comments?