

Conceptual Drinking Water Supply Plan Update

Hannah Albertus-Benham, Brian Hamrick and Erin Daugherty, Wood

3M PFC Settlement Work Group Meetings

October 15-16, 2019

Process Flow Map Legend



= points where feedback is requested from the work groups and SG-1



= a screening process is taking place (e.g., priority 1 criteria is applied)



= a document or list is produced



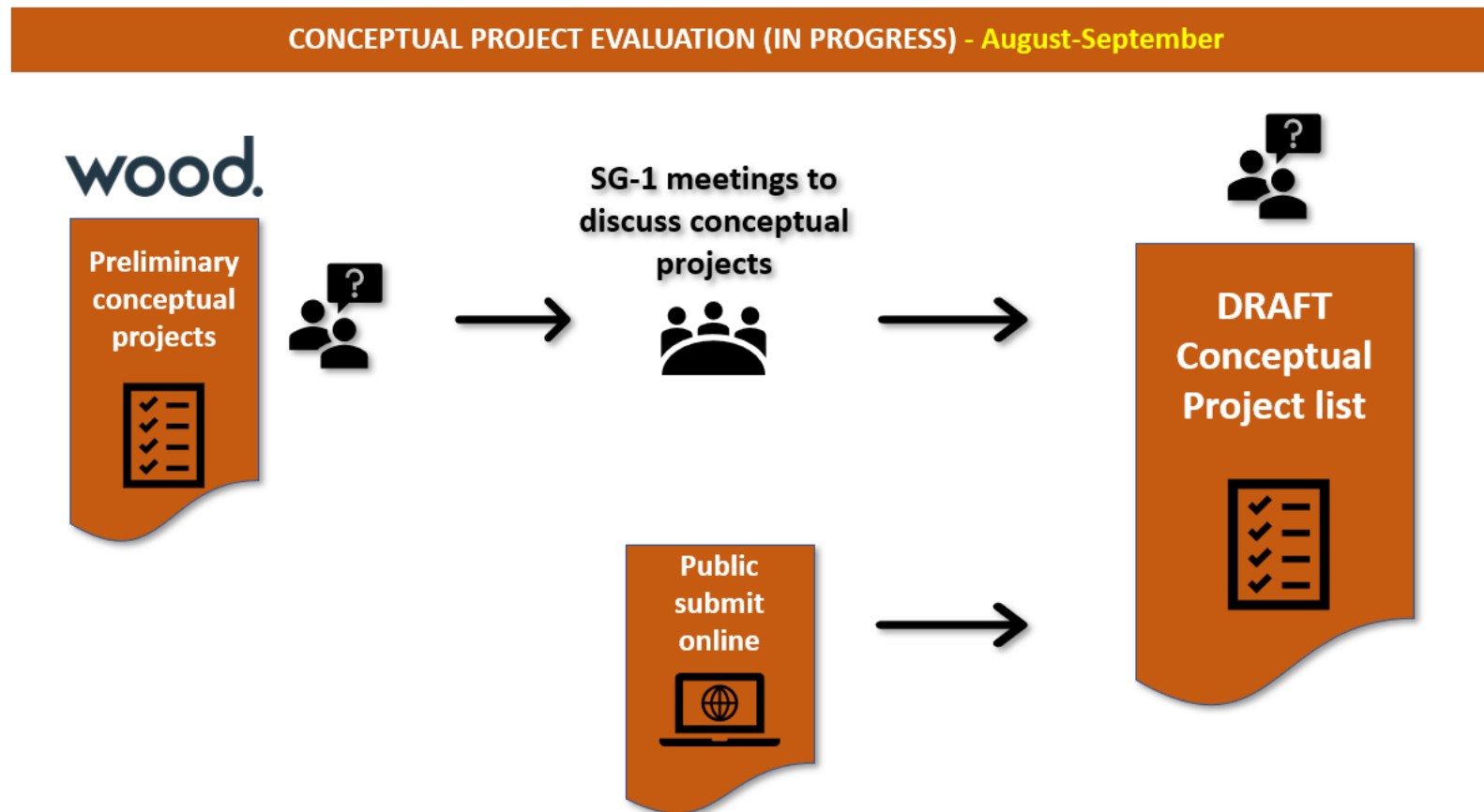
= one-on-one meetings with LGUs (includes WG and SG-1 members)



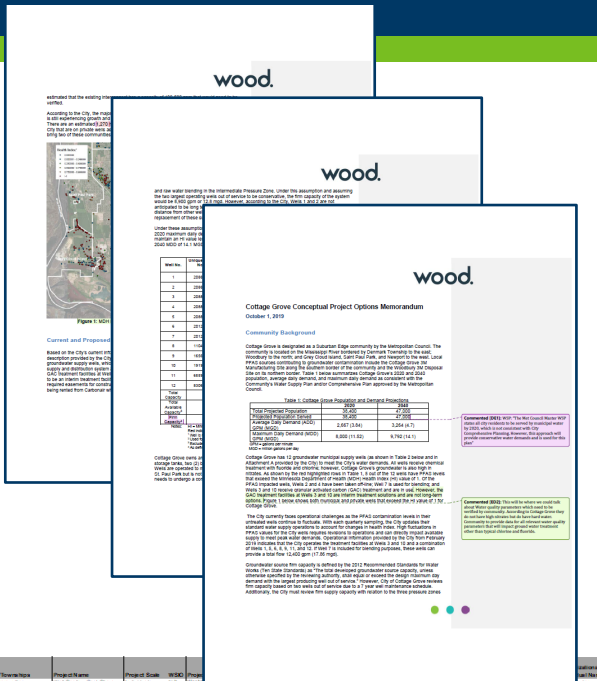
= request for public input

Where did we come from?

Identification of **All Potential** Conceptual Projects



Finalized List of Conceptual Projects



- Updated Conceptual Project Memorandums

- Working documents

- Final Conceptual Projects List was distributed

= Online submittals + Wood compiled projects



Project ID #	City/Commission	Project Name	Project Date	MSD	Phase	Comments	Status
10009	All Commissions	Final Drinking Cost Study	10/18/16	NA	Final	Final Drinking Cost Study Report	Final Closed
10024	Neaport	Neaport Wastewater	10/18/16	NA	Final	Final Drinking Cost Study Report	Final Closed
10025	Neaport	Wastewater Treatment Plant	10/18/16	NA	Final	Final Drinking Cost Study Report	Final Closed
10026	All Commissions	Final Drinking Cost Study	10/18/16	NA	Final	Final Drinking Cost Study Report	Final Closed
10027	All Commissions	Final Drinking Cost Study	10/18/16	NA	Final	Final Drinking Cost Study Report	Final Closed
10041	Washington County	Washington County Health Department	10/18/16	NA	Final	Final Drinking Cost Study Report	Final Closed

http://amext.amec.com/sites/p_18190022/Work%20Group%20Share

Final Conceptual Project List – Master Spreadsheet

READ ME

Conceptual Project List

Expedited Projects

Removed Duplicates

Comment Tracking

- Intro
- Updates
- Tabs explanation
 - List column descriptions
- Link to CP Memos on Wood SharePoint

FINAL
Conceptual
Project List



Final Conceptual Project List – Master Spreadsheet

Conceptual Project Ideas

Expedited Projects

Removed Duplicates

Comment Tracking

- (17) Duplicate projects separated out/removed from the list
- (2) New conceptual projects submitted and added to the list:
 - Project to address all non-community public water systems (PWSs). These are small systems that serve 25 or more people but are not connected to the City's public water system.
 - Project to address all wells inside County Parks.

**FINAL
Conceptual
Project List**



Final Conceptual Project List – Master Spreadsheet

Expedited Projects

Removed Duplicates

Comment Tracking

- Original list of projects submitted for expedited approval

Removed Duplicates

Comment Tracking

- Redundant projects removed from the CP List

Comment Tracking

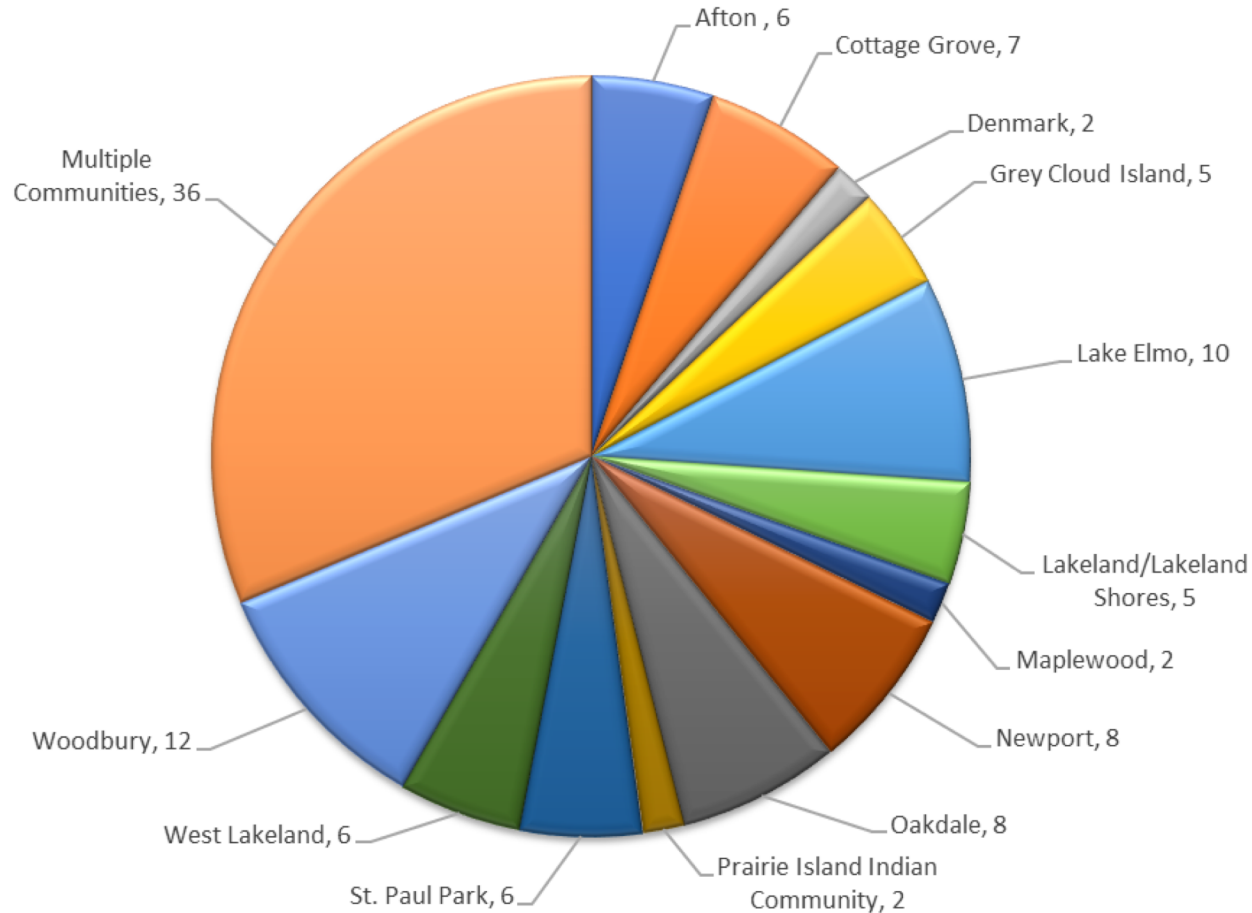
- Comments received for draft CP list and CP memos

**FINAL
Conceptual
Project List**

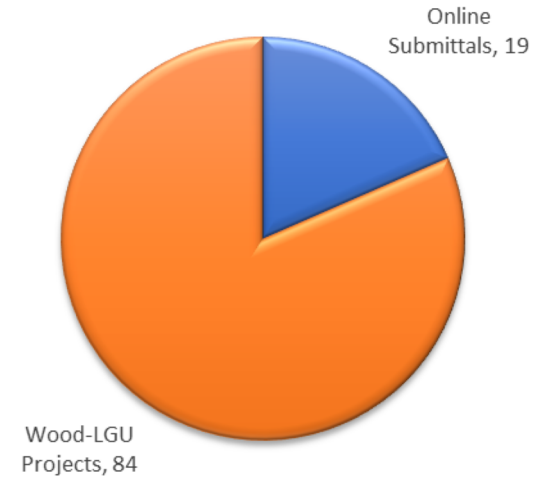


FINAL CP List Metrics

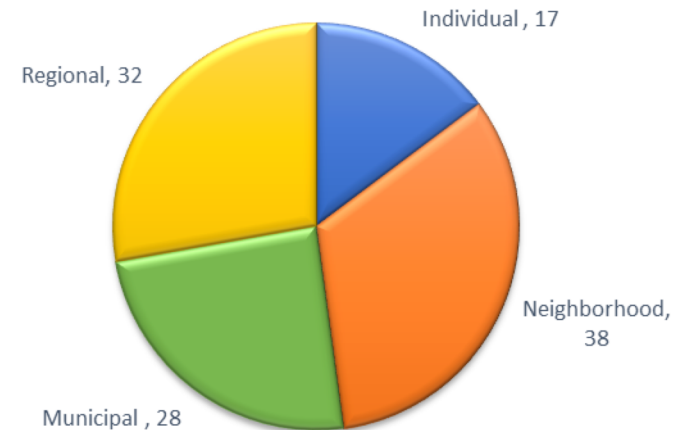
Conceptual Projects by Community



Conceptual Project Sources

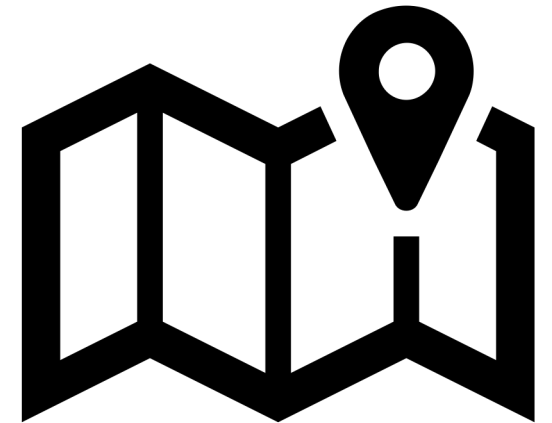
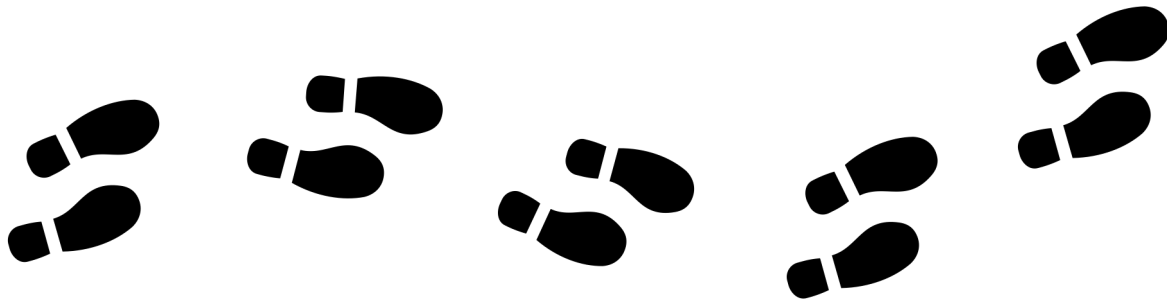


Actual Project Scales

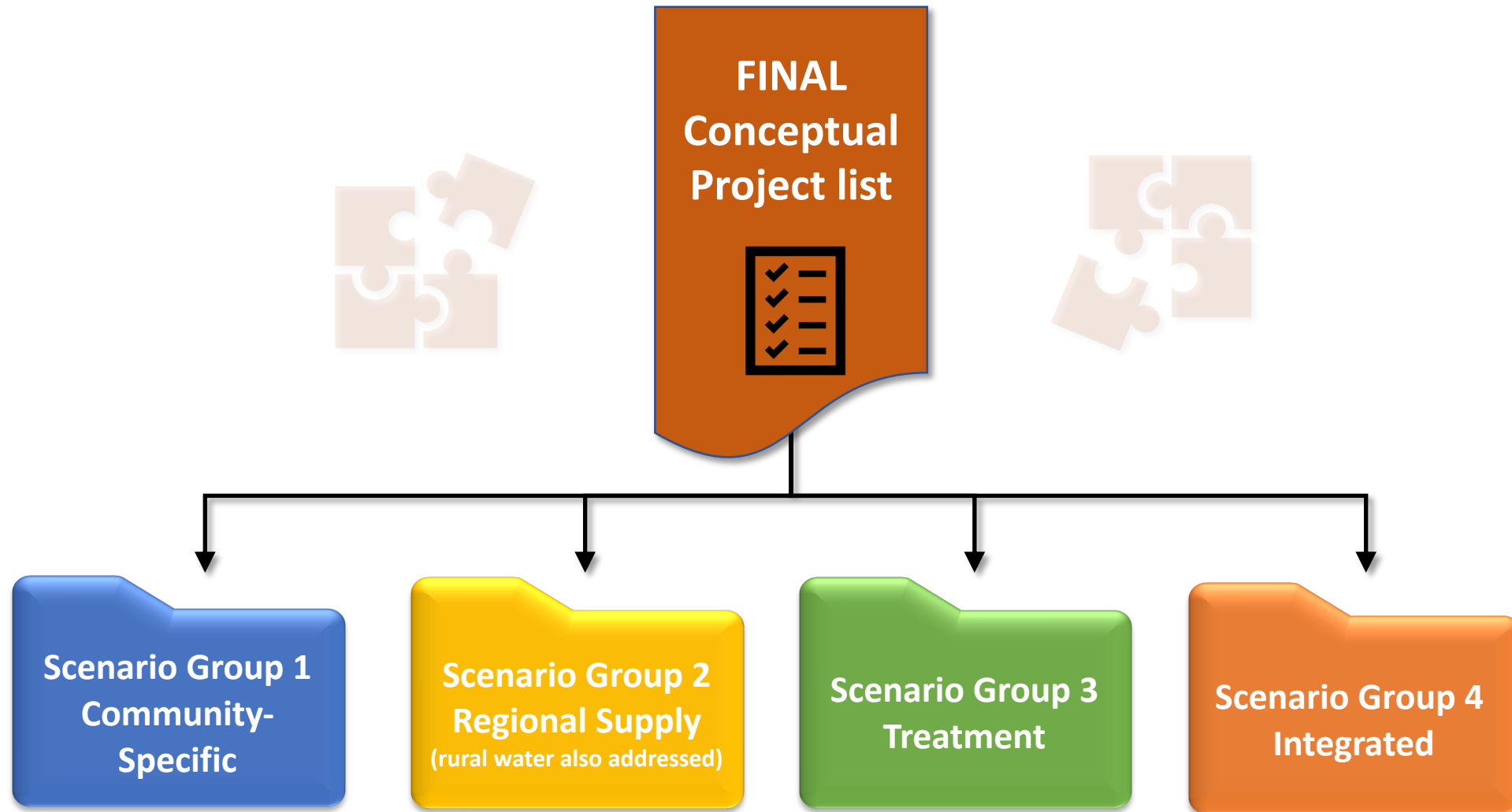


Note: A submitted project can pertain to one or more communities or relate to one or more WISOs.

The Process Flow Continues....



SCENARIO DEVELOPMENT – September-October



SCENARIO DEVELOPMENT (revised explanation)

Scenario Group 1 Community- Specific

- A. This scenario will consist of the projects submitted by the LGUs.
- B. To be determined based on the initial Community Scenario A projects and identifying the overlapping projects that were left out of Group A. Overlapping projects to be included here. This grouping may consider centralized treatment of municipal wells versus individual treatment of municipal wells.
- C. As needed to work through overlapping projects that cannot be dismissed.

Scenario Group 2 Regional Supply (rural water also addressed)

Surface Water

- A. One surface water plant that feeds all impacted communities
- B. One surface water plant on the Mississippi River and one on the St. Croix (two water delivery options for Woodbury)
- C. Extend St. Paul Regional Water System to western communities, with a surface water plant on the St. Croix for the eastern communities

Groundwater

- A. One well field, likely with treatment, and distribute throughout the East Metro region using a combination of existing and new infrastructure
- B. Multiple well fields...

All supplemented by POET or cluster systems for rural areas if extending water mains is not cost effective

SCENARIO DEVELOPMENT (revised explanation, cont'd)

Scenario Group 3 Treatment

Includes treatment for wells with Health Index (HI) of:

- A. HI(PFAS) > 0
- B. Detection of [PFOS] OR [PFOA] OR [PFHxS]
- C. HI(PFAS) > 0.5
- D. HI(PFAS) > 1.0

Each: Year 2020 with GAC
 Year 2020 with IX
 Year 2040 with GAC
 Year 2040 with IX

Scenario Group 4 Integrated

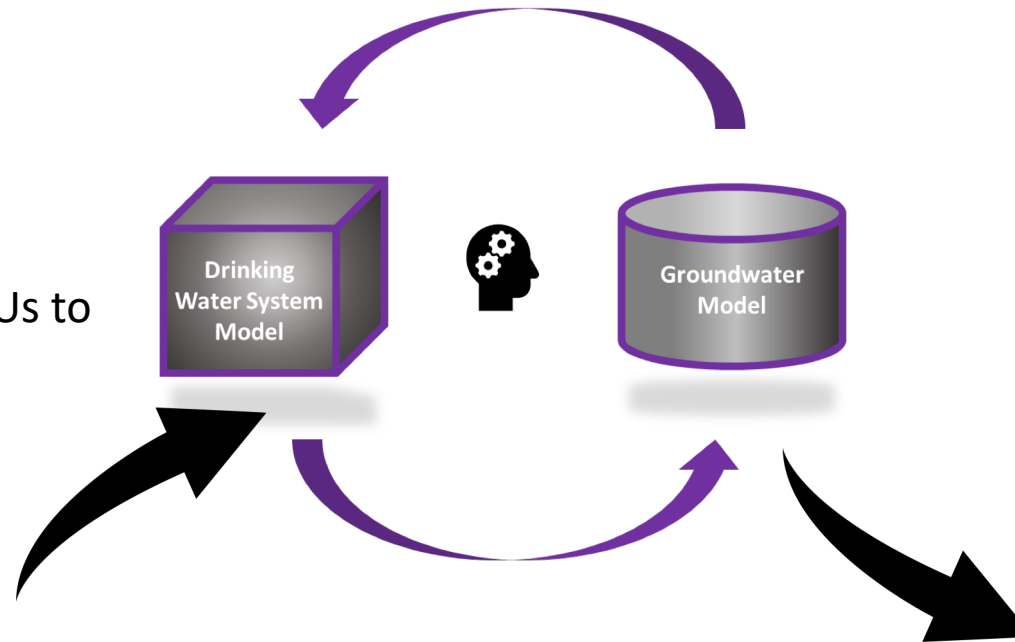
Wood will create scenarios to maximize the projects when bundled and incorporate shared/regional systems wherever possible (above and beyond LGU priorities) for a final integrated scenario grouping.

LGU Q&A:

- Wood to reach out as necessary during refinement of scenarios

LGU Meetings:

- Wood will meet with LGUs to ensure appropriate infrastructure
- Concurrent with other scenario modeling



Wood Progress Update – November meetings:

- Opportunity for discussion

Groundwater Model Update

- Conceptual Site Model (CSM) was drafted and reviewed by MPCA and DNR
 - Wood is addressing comments received
- Model construction finished by end of October
- Model calibration finished by mid-November and ready for scenario runs

Questions or Comments?

Thank you!

Erin Daugherty, PE

Wood Environmental & Infrastructure Solutions

Erin.daugherty@woodplc.com

602.733.6077

Hannah Albertus-Benham, PE

Wood Environmental & Infrastructure Solutions

Hannah.albertus@woodplc.com

612.252.3657

Brian Hamrick, PE

Wood Environmental & Infrastructure Solutions

Brian.hamrick@woodplc.com

602.733.6053

Carson Smith

Wood SharePoint Point of Contact

Wood Environmental & Infrastructure Solutions

carson.smith@woodplc.com

612.252.3745