

STAKEHOLDER WORKSHOP

WATER RESOURCES PLANNING STUDY

Prepared for
Lone Star Groundwater Conservation District



by
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Project Objectives

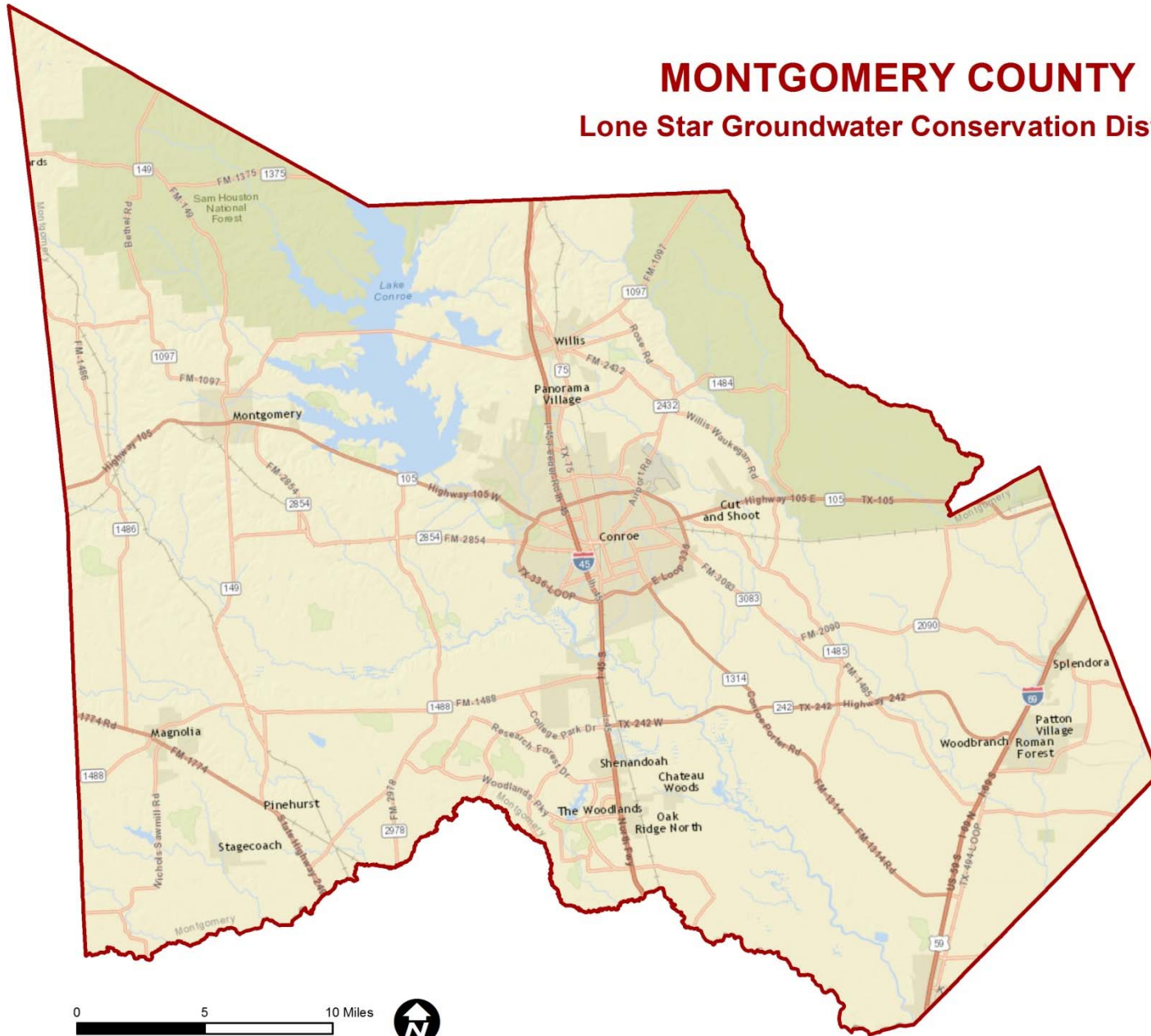
- Review adequacy of groundwater monitoring program to assess current aquifer conditions and the effects of the initial conversion to Alternative Water Supplies in 2016. Provide recommendations for changes/additions to monitoring program.
- Review Total Estimated Recoverable Storage (TERS) data from the TWDB and possible implications for groundwater management.

Project Objectives (continued)

- Conduct evaluation of potential opportunities for additional groundwater development while ensuring long-term viability of the aquifers.

MONTGOMERY COUNTY

Lone Star Groundwater Conservation District



Project Scope of Work

- Task 0 - Project Communications
 - Occur throughout project.
 - Maintain stakeholder input opportunities.
 - Hold quarterly stakeholder meetings and provide status reports.
 - Provide comment period regarding draft results and reports.
 - Provide project status on the LSGCD website.

Project Scope of Work (cont'd)

- Task 1 - Groundwater Production and Monitoring Assessment
 - Evaluate production and water-level data to establish aquifer water-level trends and production trends.
 - Evaluate adequacy of the areal and temporal coverage of aquifer water-level data.
 - Analyze historical production and water-level data prior to and since reductions in production in north Harris County area beginning in 2010.

Project Scope of Work (cont'd)

- Task 1 - Groundwater Production and Monitoring Assessment (cont'd)
 - Prepare draft technical memorandum and hold stakeholder meeting.
 - Provide recommendations on adjusting production reporting and monitoring program.

Project Scope of Work (cont'd)

- Task 1 - Groundwater Production and Monitoring Assessment (cont'd)
 - Obtain stakeholder comments and address them prior to finalizing technical memorandum.
 - Provide review of aquifer response in Montgomery County area following surface water conversion in 2016.

Project Scope of Work (cont'd)

- Task 2 - Review of Total Estimated Recoverable Storage
 - Review procedures and data sources utilized by TWDB in developing TERS and the practical realities of both artesian pressure reduction and removal of water from storage.
 - Estimate potential volumes of fresh and brackish groundwater in storage.
 - Assign current groundwater production by well for the Chicot, Evangeline, Jasper and Catahoula Aquifers.

Project Scope of Work (cont'd)

- Task 2 - Review of Total Estimated Recoverable Storage (cont'd)
 - Estimate amount of groundwater removed from storage using available tools.
 - Assemble data regarding artesian head declines, pumping lift changes and any water-quality changes, and of subsidence through 2009.

Project Scope of Work (cont'd)

- Task 2 - Review of Total Estimated Recoverable Storage (cont'd)
 - Prepare draft technical memorandum and present results to Findings and Review Committee.
 - Hold stakeholder meetings regarding results of the study and receive stakeholder comments. Revise technical memorandum to address all comments received and submit final technical memorandum to the LSGCD Board of Directors.

Project Scope of Work (cont'd)

- Task 3 – Future Groundwater Availability
 - Evaluate response of Catahoula Aquifer to pumping since 2010 and potential future response as pumping increases.
 - Use GMA 14 groundwater modeling results to illustrate Chicot, Evangeline, and Jasper Aquifer response to future estimates of pumping.
 - Develop pumping options for areas outside current areas of substantial artesian head decline. Perform simulations using Houston Area Groundwater Model for pumping after the 2016 conversion.

Project Scope of Work (cont'd)

- Task 3 – Future Groundwater Availability (cont'd)
 - Evaluate modeling results for the Chicot, Evangeline and Jasper Aquifers.
 - Provide evaluation of the potential for increased groundwater pumping or redistribution of pumping.
 - Consider population projections, water demand projections and water availability analysis included in 2016 Region H Regional Water Plan.
 - Reevaluate potential for aquifer management zones.

Project Scope of Work (cont'd)

- Task 3 – Future Groundwater Availability (cont'd)
 - Process will include established stakeholder participation.
 - Consider impacts on aquifers in neighboring counties.
 - Recommendations shall be applicable to Chicot, Evangeline, Jasper and Catahoula Aquifers.

Project Schedule

Task Description	Time Frame
0 Project Communications	Duration of Project
1 Groundwater Production and Monitoring Assessment	Months 1 – 8
2 Review of TWDB Total Estimated Recoverable Storage	Months 1 – 8
3 Future Groundwater Availability	Months 9 – 21

QUESTIONS?

THANK YOU!

