

LCRA's New Water Supply Initiatives

Water Operations Committee Meeting
Sept. 22, 2021



Planning for Future Water Demand

LCRA Water Supply Projects ¹ 50-Year Horizon	Estimated Supply (acre-feet per year)
Ongoing	
Municipal water conservation programs	Up to 15,000
Agricultural water conservation programs	To be determined (interruptible supply)
Construction Phase	
Arbuckle Reservoir	Up to 90,000
Engineering/Design/Permitting Phase	
Griffith League Ranch groundwater	Up to 25,000
Import water from Williamson County	Up to 35,000
Planning/Future Development/Feasibility Phase	
Amend run-of-river water rights to add upstream diversion locations and/or storage	Improved efficiency
Midbasin off-channel reservoir	Up to 20,000
Brackish groundwater to supplement bay during drought ² (stryker wells)	TBD
Ocean water desalination ²	TBD
Aquifer Storage and Recovery Project	TBD
Additional groundwater	TBD
Lower basin off-channel reservoir	Up to 39,000
Brackish groundwater desalination	TBD
Managed aquifer recharge	TBD

¹ Implementation or planning phase as of fiscal year 2021. Project implementation order may affect supplies created by subsequent projects, therefore the values in the Estimated Supply column should not be summed at the full project amount.

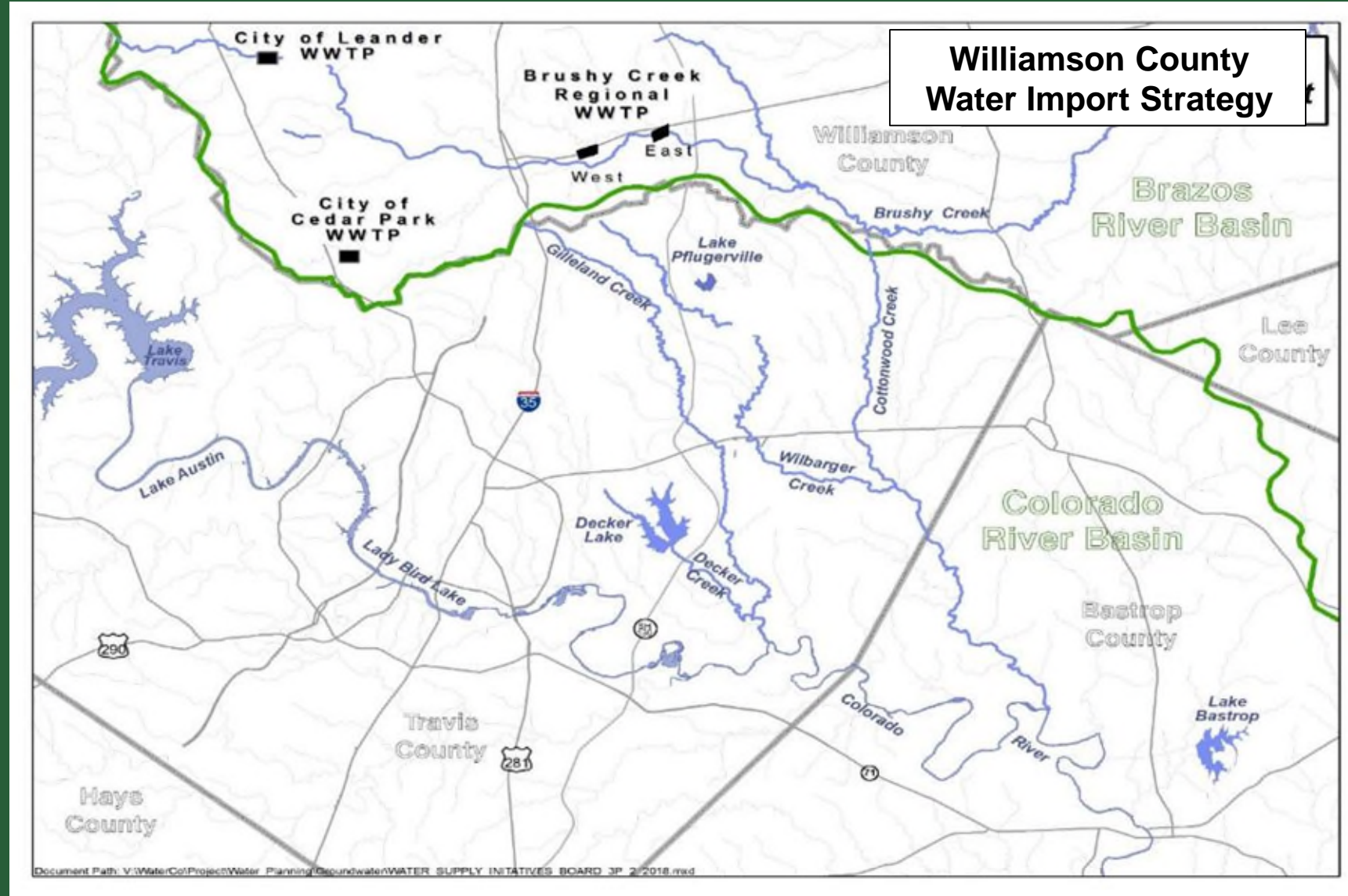
² Alternative strategy in 2020 Region K Water Plan

Municipal and Agricultural Water Conservation Programs

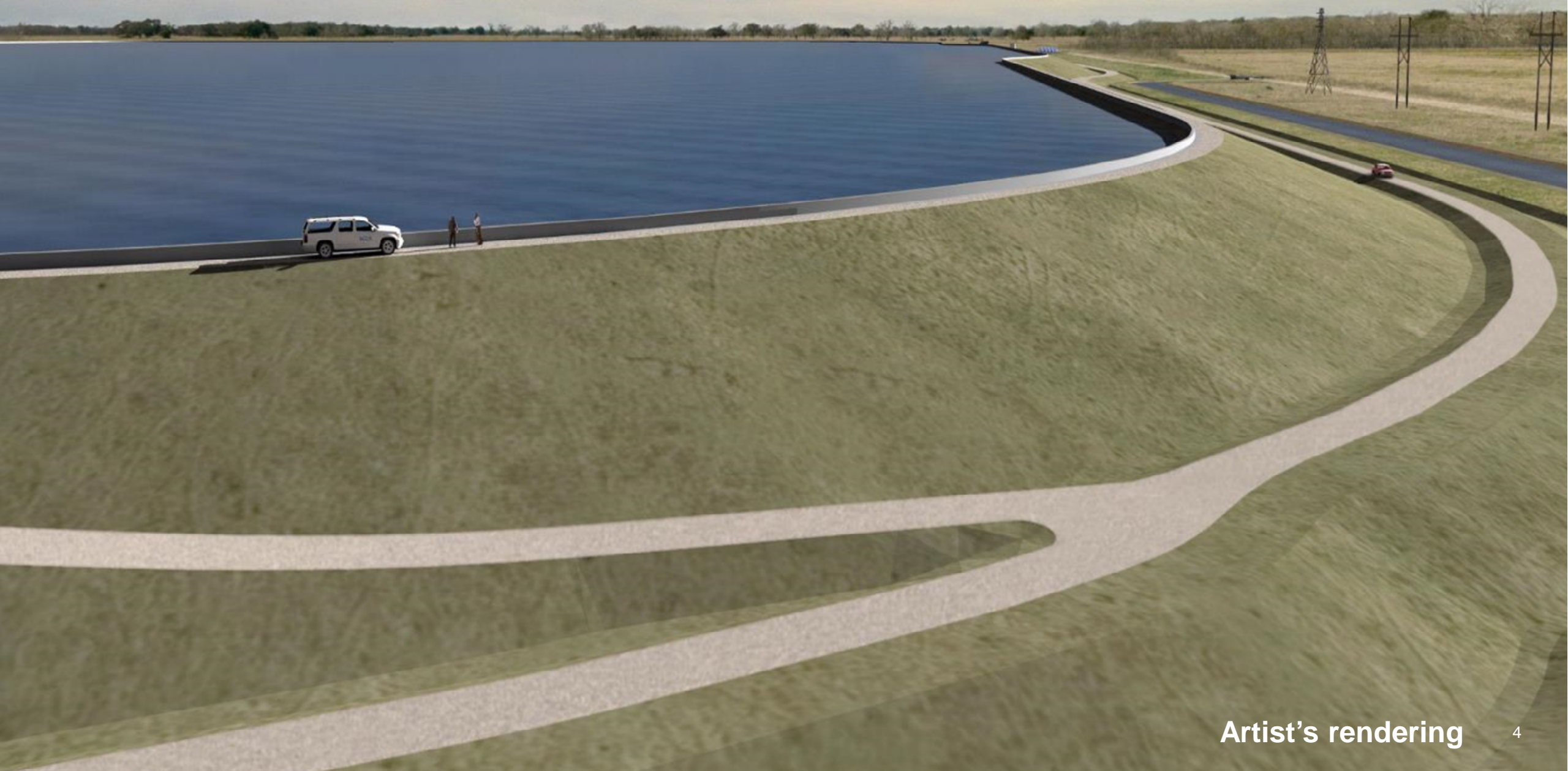
- **May 2019 – Board approved Raw Water Conservation Plan**
- **Includes municipal and agricultural five- and 10-year goals**
- **Five-year goals**
 - 700 a-f savings per year from firm industrial users
 - 6,500 a-f savings per year from firm municipal users
 - 15,000 a-f savings per year from agricultural users
- **10-year goals**
 - 700 a-f savings per year from industrial users
 - 9,000 a-f savings per year from firm municipal users
 - 18,000 a-f savings per year from agricultural users

Williamson County Water Import Strategy

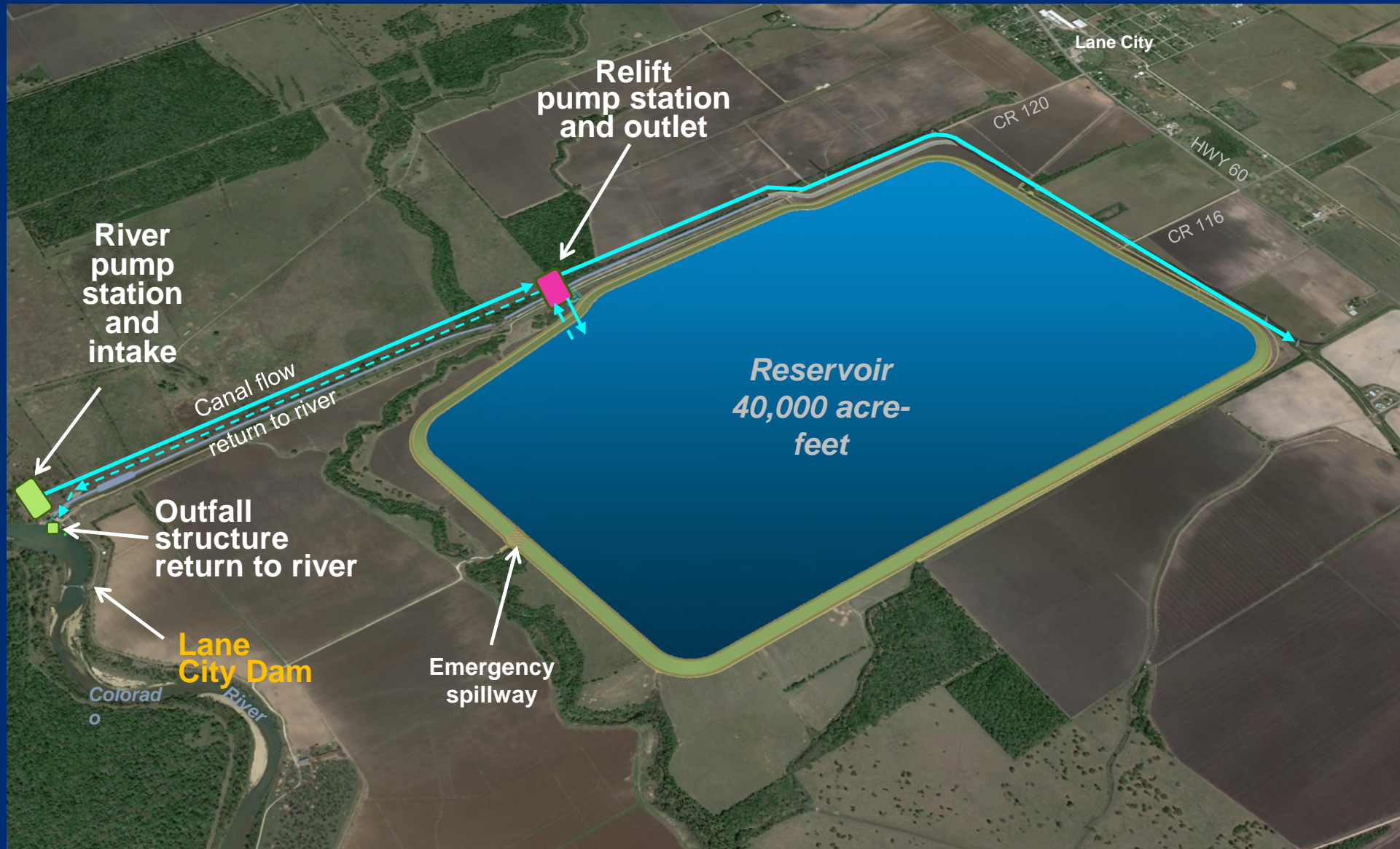
- Simple concept, difficult execution
- House Bill 1437 and the 25,000 a-f
- No net loss
- Effluent as a source of supply



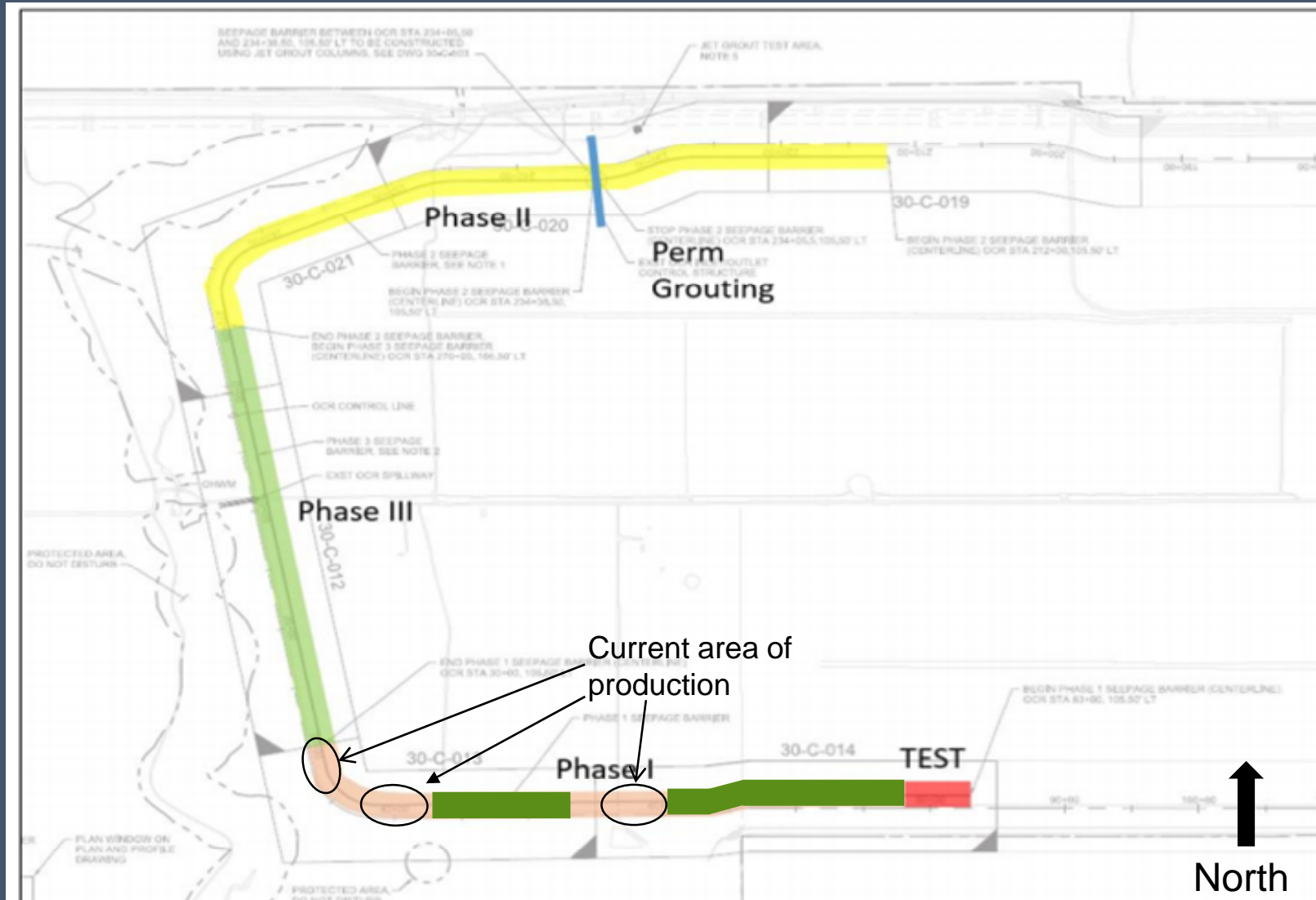
Arbuckle Reservoir



Artist's rendering



General Overview of Work Site





Arbuckle Drilling Rig

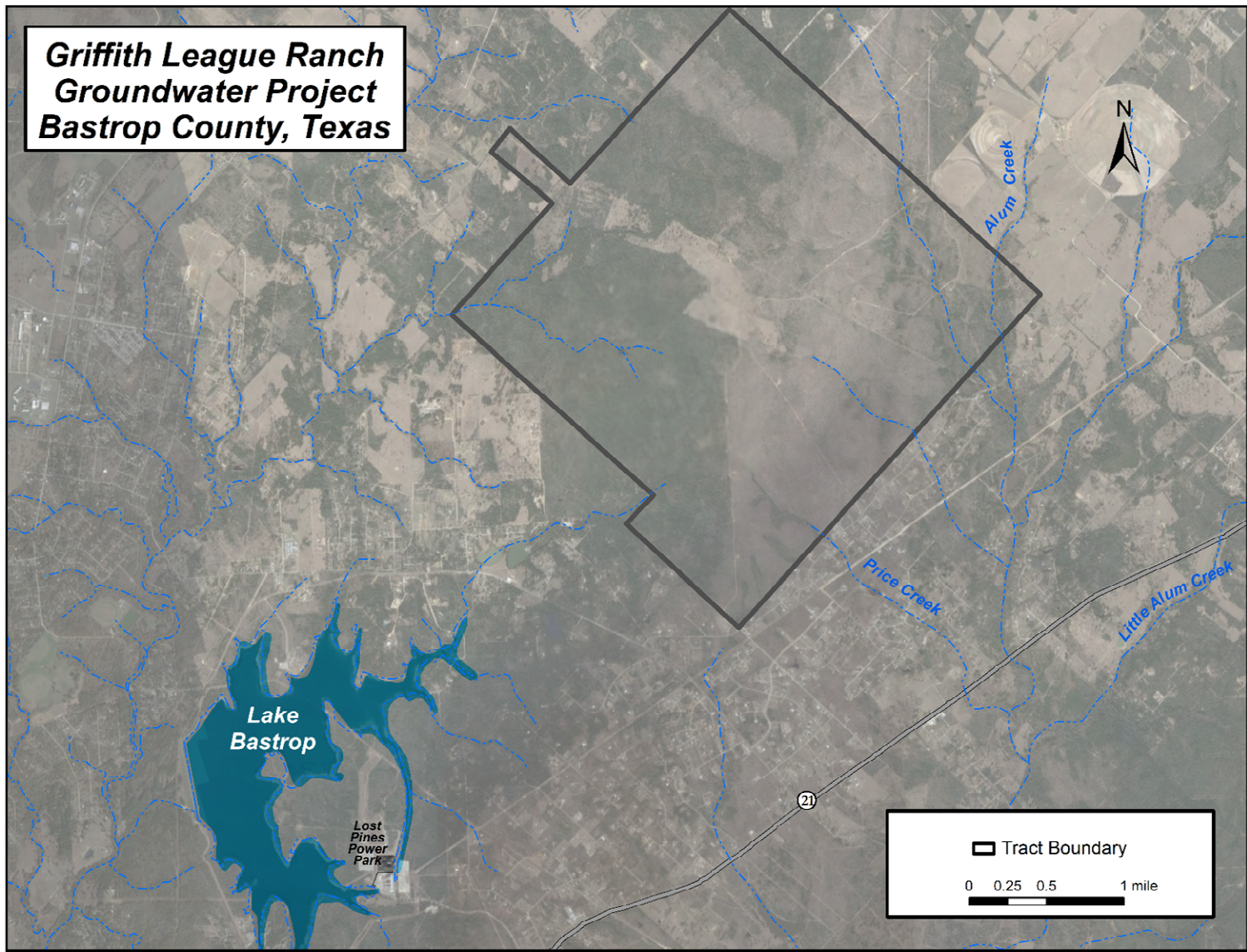
There are four of these rigs onsite that are used for drilling purposes



Challenges Faced to Date

- **Pandemic**
- **Construction crews coming from overseas during pandemic**
- **Material deliveries**
- **Weather and lightning**
- **Complex and specialized construction**
- **Revised completion date of September 2022**

**Griffith League Ranch
Groundwater Project
Bastrop County, Texas**



Griffith League Ranch Groundwater

Surface Water Permit Amendments

Completed:

- Gulf Coast
- Garwood

Pending:

- Excess Flows amendment

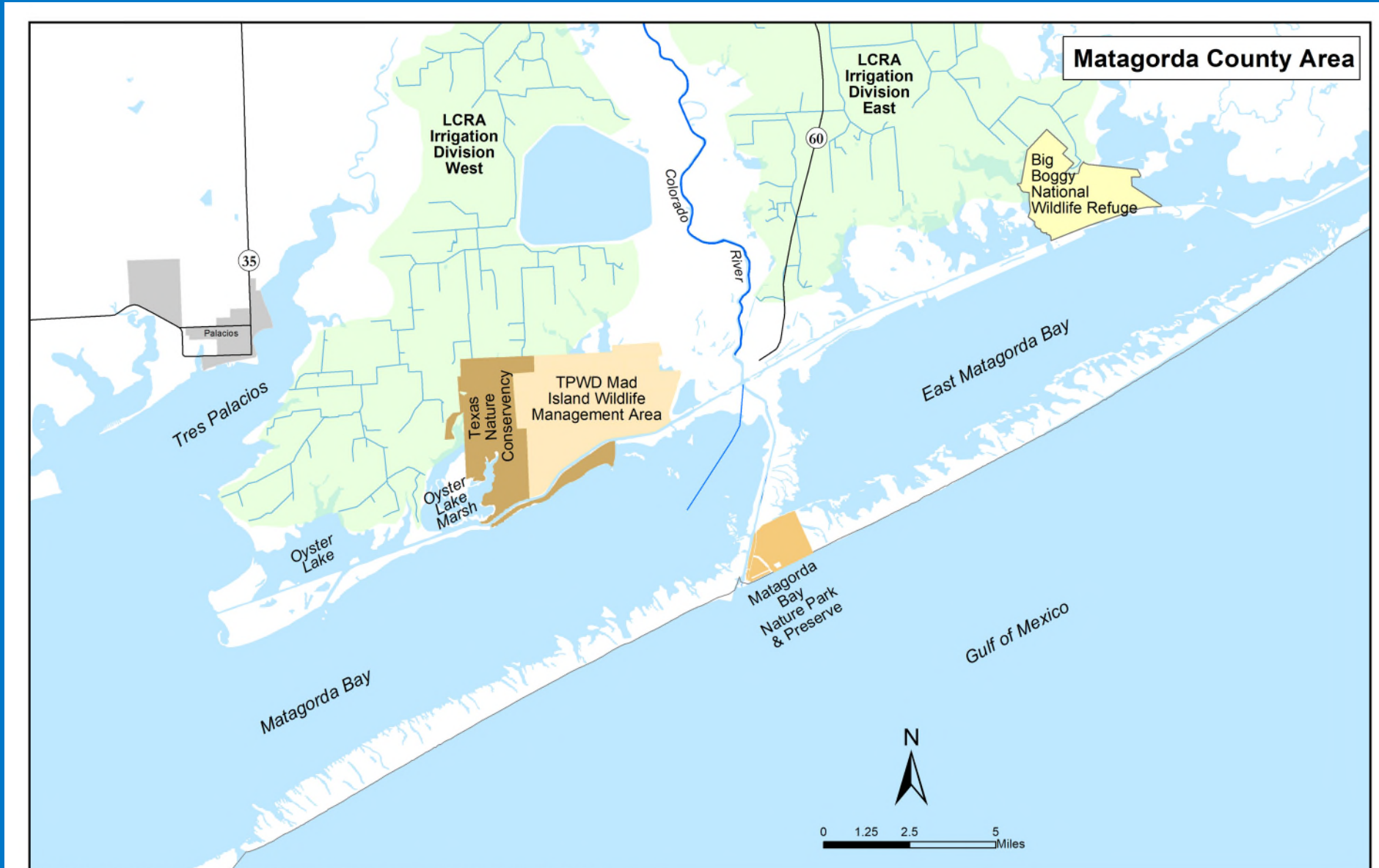
Future amendments: Would add diversion locations and storage

Midbasin Storage

Additional storage closer
to high-demand areas

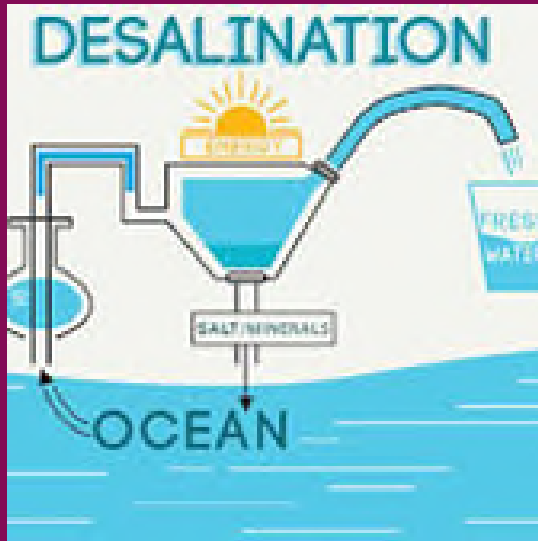


Brackish Groundwater/Stryker Wells



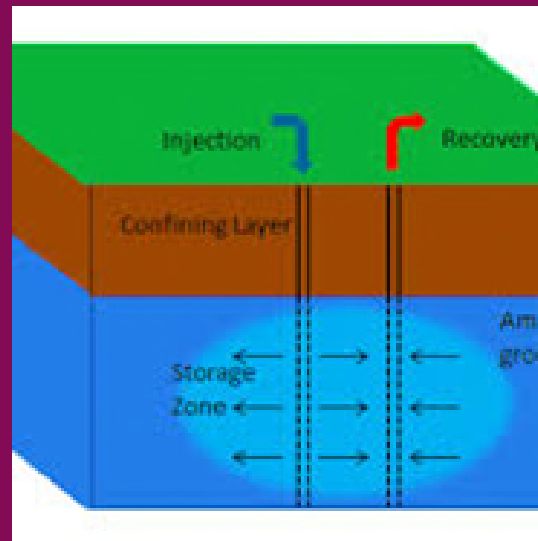
Path: V:\WaterCo\Project\Water_Planning\Groundwater\3P_Presentation_Brackish_STRYKER_WELLS_map.mxd

Additional Strategies



Desalination

Brackish and Gulf
seawater



Aquifer Storage

Aquifer storage and
recovery with
off-channel reservoir



Groundwater

Additional
conjunctive use



Importation

Future opportunities
to partner

Water Supply Resources Plan/Report

Water Supply Resource Plan



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