CITY OF CORPUS CHRISTI CORPUS CHRISTI WATER

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TO:

Peter Zanoni, City Manager

FROM:

Drew Molly, P.E., Chief Operating Officer

COPY:

Mayor & City Council

DATE:

May 16, 2025

SUBJECT: Alternative Water Supply Projects Update

Corpus Christi Water (CCW) continues to evaluate the four major alternative water supply projects under consideration:

1. Nueces River Groundwater Wells Project

- 2. Evangeline Laguna, LLP (Evangeline) Groundwater Project
- 3. Echelman-Voigt (EV) Ranch Groundwater Project
- 4. South Texas Water Authority (STWA) Project

Below, we have summarized the estimated costs, key risks, and projected implementation timelines associated with each project, including the Nueces River Brackish Groundwater Reverse Osmosis Facility (BWROF), the Evangeline Groundwater Project, the EV Ranch Project, and the STWA project.

Nueces River Groundwater Wells Project

Corpus Christi Water (CCW) has continued to develop the Nueces River Water Ground Water Well Program since the City Manager signed the emergency authorization on January 27, 2025. As of today, the current expenditures for this project are \$5,925,677.

Nueces River Brackish Groundwater RO Facility (BWROF)

The Nucces River Groundwater Project is estimated to produce between 12-15 MGD.

Estimated Cost:

• TBD – Garver is developing a conceptual overview of the project with estimated costs.

Timeline:

• Wells are currently being developed.

Risks:

 As with all groundwater projects, long-term sustainability of pumping must be managed appropriately to avoid impact to the local community

Advantages:

- Regulatory advantage to being in certain parts of Nueces County
- Ability to co-locate near existing infrastructure for raw water transmission, potable water delivery, and brine disposal

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• Project remains entirely under City control and financing, allowing predictable design, costs, and quality assurance

Evangeline Groundwater Project

The Evangeline Groundwater Project will produce up to 24 MGD based on production permits from the San Patricio Groundwater Conservation District.

Estimated Cost

- Total Capital Cost: \$730,000,000*
 - *These costs are from the February 2024 Pape-Dawson cost estimate
 - o Potable Water Production (Well Field + Water Right + Treatment): \$580,000,000
 - o Water Conveyance: \$150,000,000 (assuming a 42-inch waterline)

Timeline:

• The timeline is being developed to address permitting and design/construction schedules.

Risks:

- Drawdown risk in nearby communities, including Sinton, should be considered, which may affect the transport permit
- Test well data indicates elevated TDS (~800 mg/L) and arsenic levels
- Surface use is based on agreements, not permanent rights
- Land use agreements have not been independently verified
- Groundwater Conservation District retains regulatory power to reduce production permits in future years and hinder a transport permit from being granted

Advantages:

- The City has done an extensive evaluation of the Evangeline Groundwater Project as a result of previous negotiations
- Known water quality data from two wells
- Opportunity for the City to own the water rights
- Located near a regional water pipeline

EV Ranch Groundwater Project

As documented in the March 6, 2025, presentation to the City Council, the EV Ranch Project will produce up to 28.5 MGD.

Garver, the City's representative, met with EV Ranch representatives on May 14, 2025, for approximately 90 minutes to review updated technical, financial, and logistical aspects of the proposed project.

Estimated Cost:

- Total Capital Cost: \$720,909,202*
 - *Catahoula LLC provided these costs during March 06, 2025, Water Workshop
 - o Potable Water Production (Well Field + Treatment): \$440,000,000
 - Water Conveyance (\$121,242,000 + \$159,667,200): \$280,909,200 (assuming a 42-inch waterline)
 - The \$159,667,200 is the 24-mile leg from the STWA delivery point to ONSWTP, which was estimated by Garver at \$30 per inch in diameter per foot
 - The \$121,242000 are costs provided by the Catahoula LLC for the 42" waterline from their wellfield to the STWA delivery point to Kingsville. The City has not verified the pipeline conveyance costs, wellfield, and treatment plant costs.

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Timeline:

Multiple years are likely required for the feasibility period, permitting, and construction of a ~70-mile pipeline, Brackish Groundwater Treatment Plant, and well field with necessary tanks and conveyance systems.

Risks:

- Long conveyance distance adds substantial cost and complexity
- Unknown water quality (no test wells to date)
- Pipeline ownership and construction oversight will not belong to the City, which lowers the project value
- Private financing introduces long-term rate escalation risk
- Overall production capacity remains unverified

Advantages:

- The wellsite will be situated far from communities that use large amounts of water, which reduces the likelihood of impacting rural water wells
- The EV Ranch is at a surface elevation higher than the City, which reduces electrical conveyance costs

South Texas Water Authority (STWA)

Garver spoke with STWA's consultant, ICE, who indicated that STWA is preparing a package of information that will be sent to the Garver team for review next week.