

# EV Ranch Brackish Groundwater Desalination Project

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# Who is EV Ranch?

- Catahoula Water Company LLC
  - Dr. Michael Mintz & Darrell Brownlow
- 100,000 acres of the Eshelman Vogt Ranch
- In proximity to Laredo, Corpus Christi, and Rio Grande Valley
- 30,000 ac-ft/yr or roughly 25 MGD
- Located in the Brush County Groundwater Conservation District

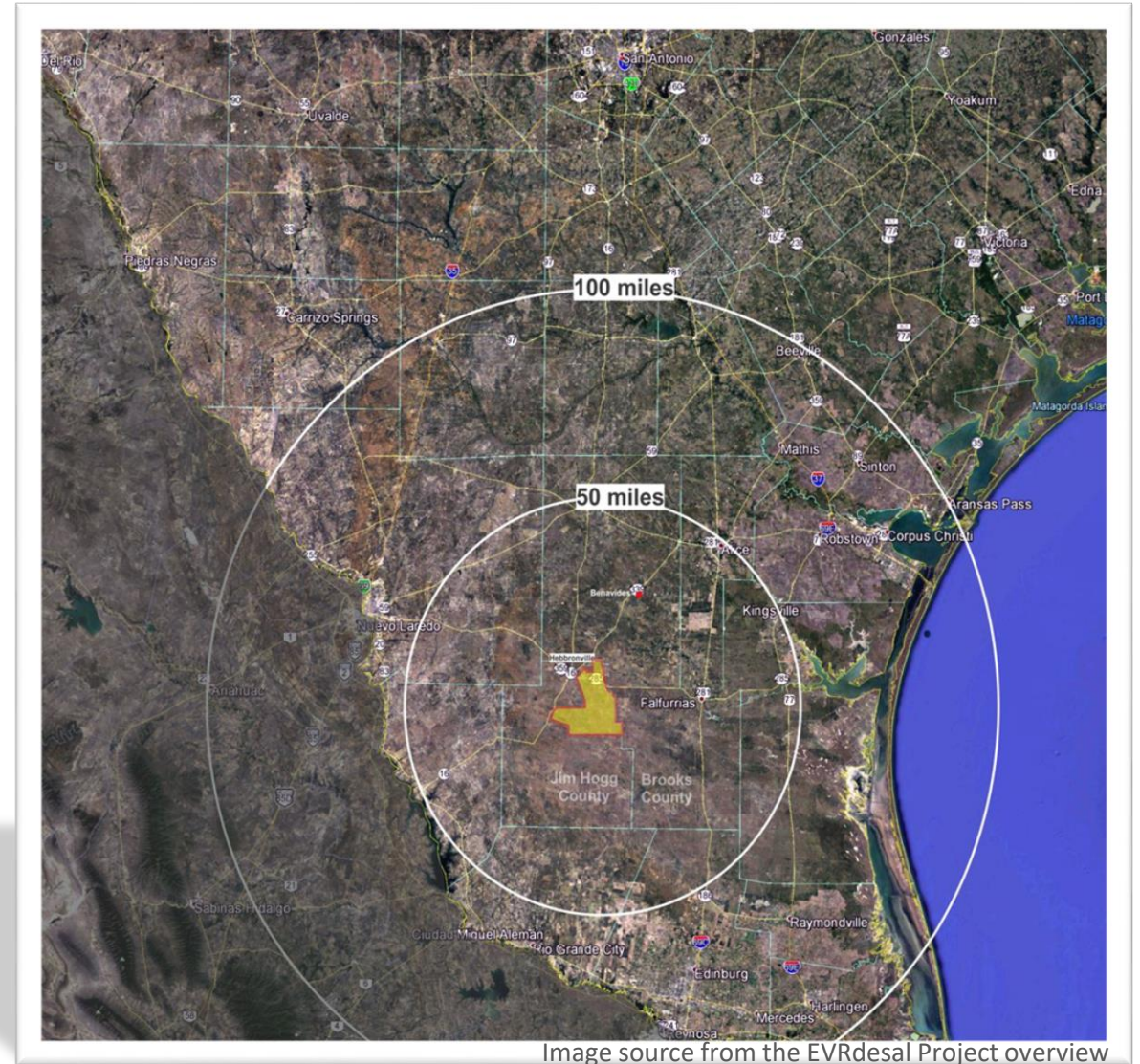
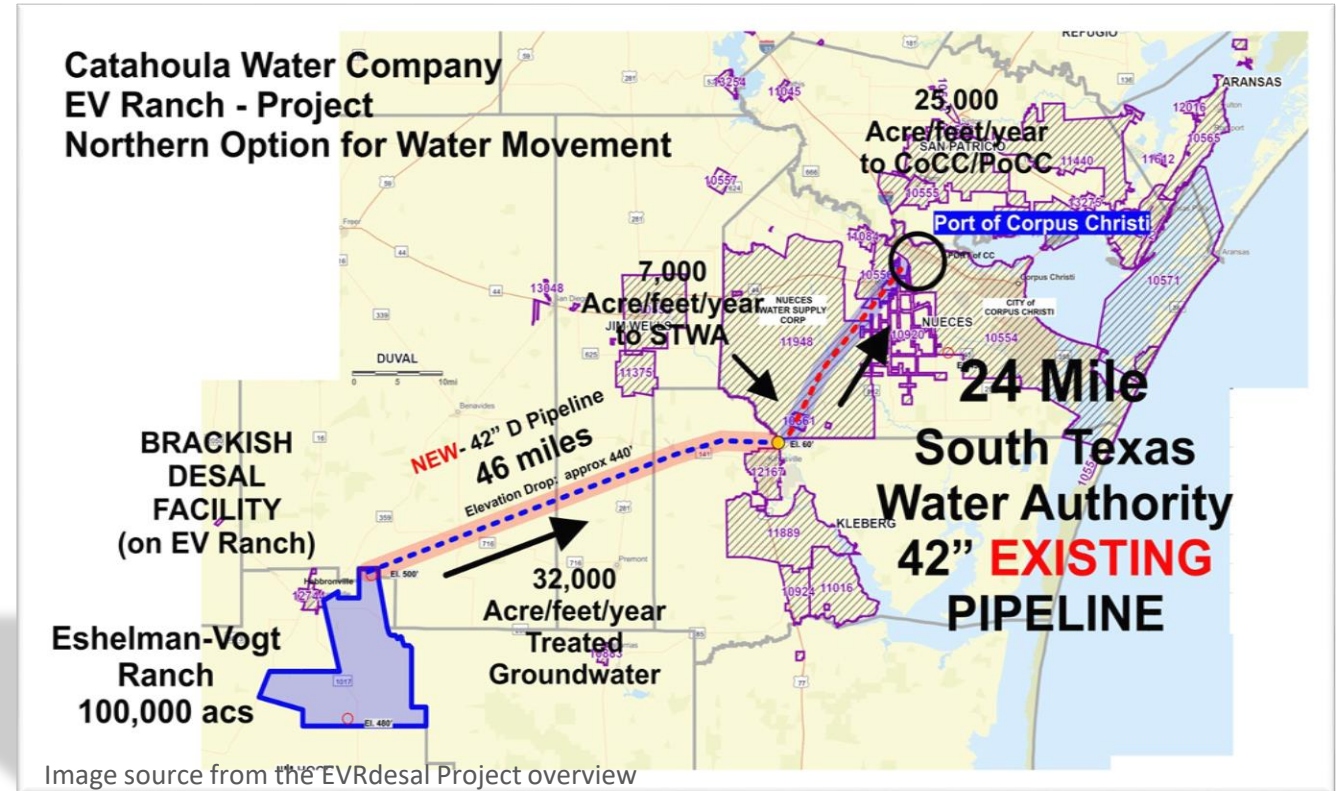


Image source from the EVRdesal Project overview

# Project Location and Overview

- Approximately 46 miles to the City's nearest customer – South Texas Water Authority (STWA).
- Without STWA participation, approximately 24 miles of additional pipeline would be required to bring water to O.N. Stevens WTP.





# Project Challenges

- **Significant Pipeline Infrastructure Requirements:**

- Current 46 miles of 42-inch pipeline is estimated to be \$180M or ~\$3.9 million per mile by EV Ranch .
- Piping estimates from Pape Dawson for Evangeline project of similar 42-inch pipeline was estimated to be \$6.6 million per mile or \$304M for 46 miles of pipeline.
- If piping is required to go to ON Stevens, an additional 26 miles of pipeline is required, for a total estimated piping cost of \$475M.
- Acquiring right-of-way may be complex due to the large pipeline corridor necessary to develop.

- **Project needs an Engineer Of Record (EOR) that can develop it successfully.**

- **More cost information is needed.**

# Groundwater - Water Quality Considerations

- New water sources will include regimented piloting and testing.
- EPA secondary MCL for Total Dissolved Solids (TDS) is 500 mg/l.
- Most groundwater in our region exceeds EPA standard and should be treated.
- Existing water supplies that exceed this standard are grandfathered.
- Knowingly acquiring new sources of water that exceed this standard without treatment is not recommended.

# Project Advantages

- Potential partnership with STWA.
- Royalty fees are competitive at \$0.30/TG versus initial royalty fee of \$1.76/TG for Evangeline.
  - \$1.76/TG @ 25 MGD = \$16.6M/year
  - \$0.30/TG @ 25 MGD = \$2.74M/year
- Environmental impact is minimized by discharging brine into disposal wells versus sending brine to surface water body like Evangeline.
- Less likely to impact landowners due to minimal population in area and the depth of the groundwater wells.
- EV Ranch is located at 470-feet ASL and therefore has a favorable hydraulic grade to the City of Corpus Christi.
- Agreeable to long term commitment of up to 50 years; whereas Evangeline was 30 years.
- Treatment plant with Reverse Osmosis will be required, just like virtually every large scale groundwater project will require in this region.

# Next Steps

- City has discussed project with the Port of Corpus Christi (Port).
- The Port is talking to Dr. Mintz about potential funding opportunities.
- Port will consider this project at their full-time Planning Committee Meeting in March 2025.
- City has reached out to STWA as a potential partner in project.
- City has recommended that Dr. Mintz secure a full-time engineering firm to develop the project.

Four horizontal, wavy bands of blue and cyan colors that span the width of the slide, creating a water-like effect.

Thank you!

