



# **Concentrate Management at the Kay Bailey Hutchison Desalination Plant in El Paso, Texas**

2019 TCEQ Trade Fair - Austin, Texas  
May 15, 2019

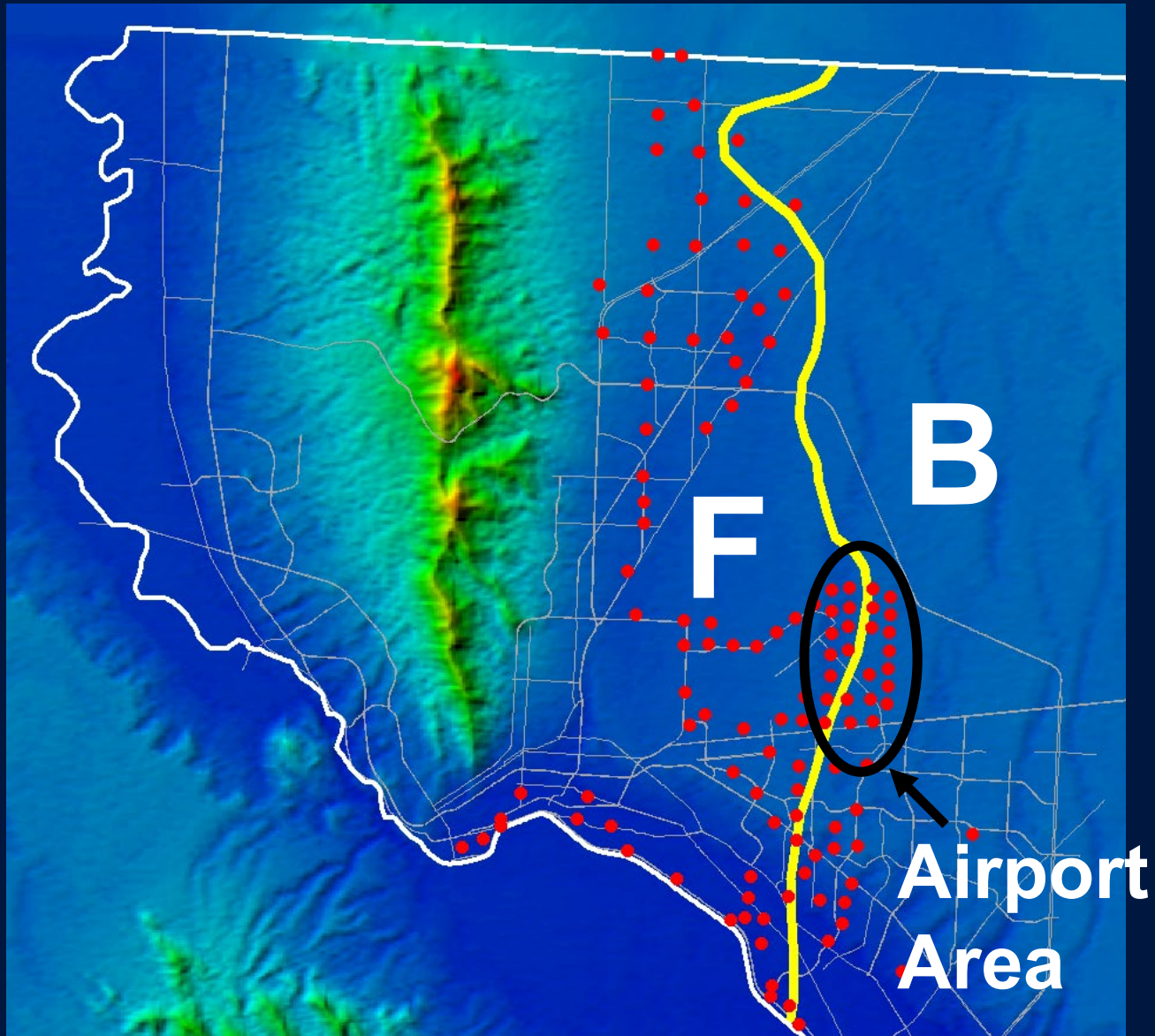
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# Kay Bailey Hutchison Desalination Plant

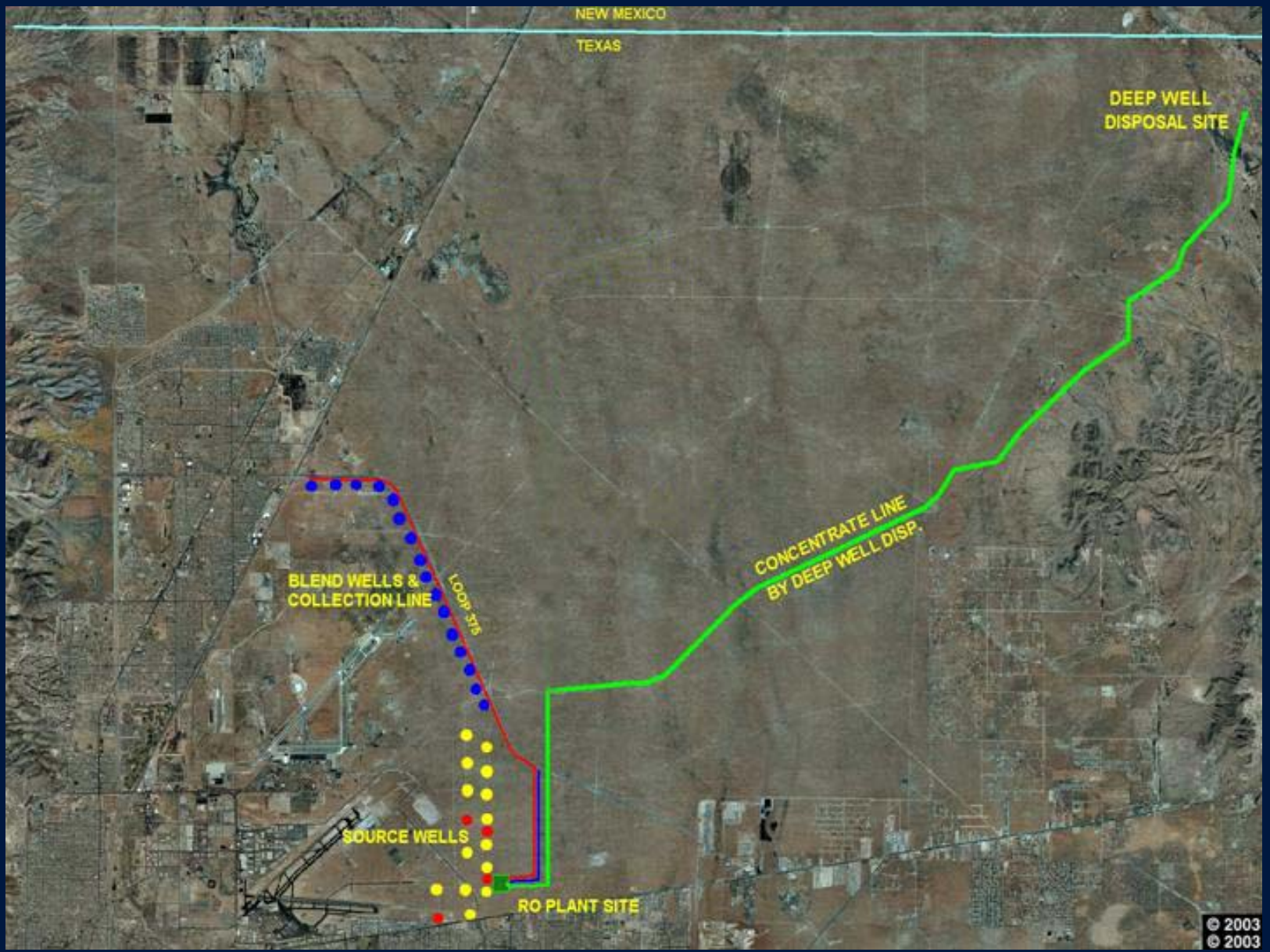
Opened in 2007 to deal with:

- Drought
- Emergency situations
- Growth
- Brackish water intrusion



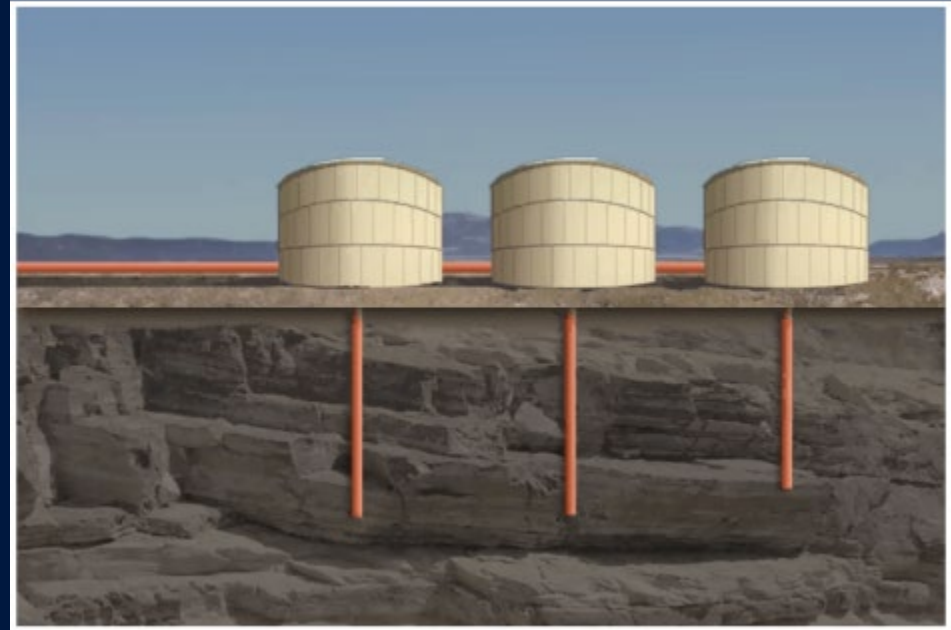






# Remote Concentrate Disposal Area

- Less costly and less environmental impact than evaporation ponds
- 3 injection wells
- Concentrate pipeline (22 mi)









# Highlights of 10 year Plant Operation

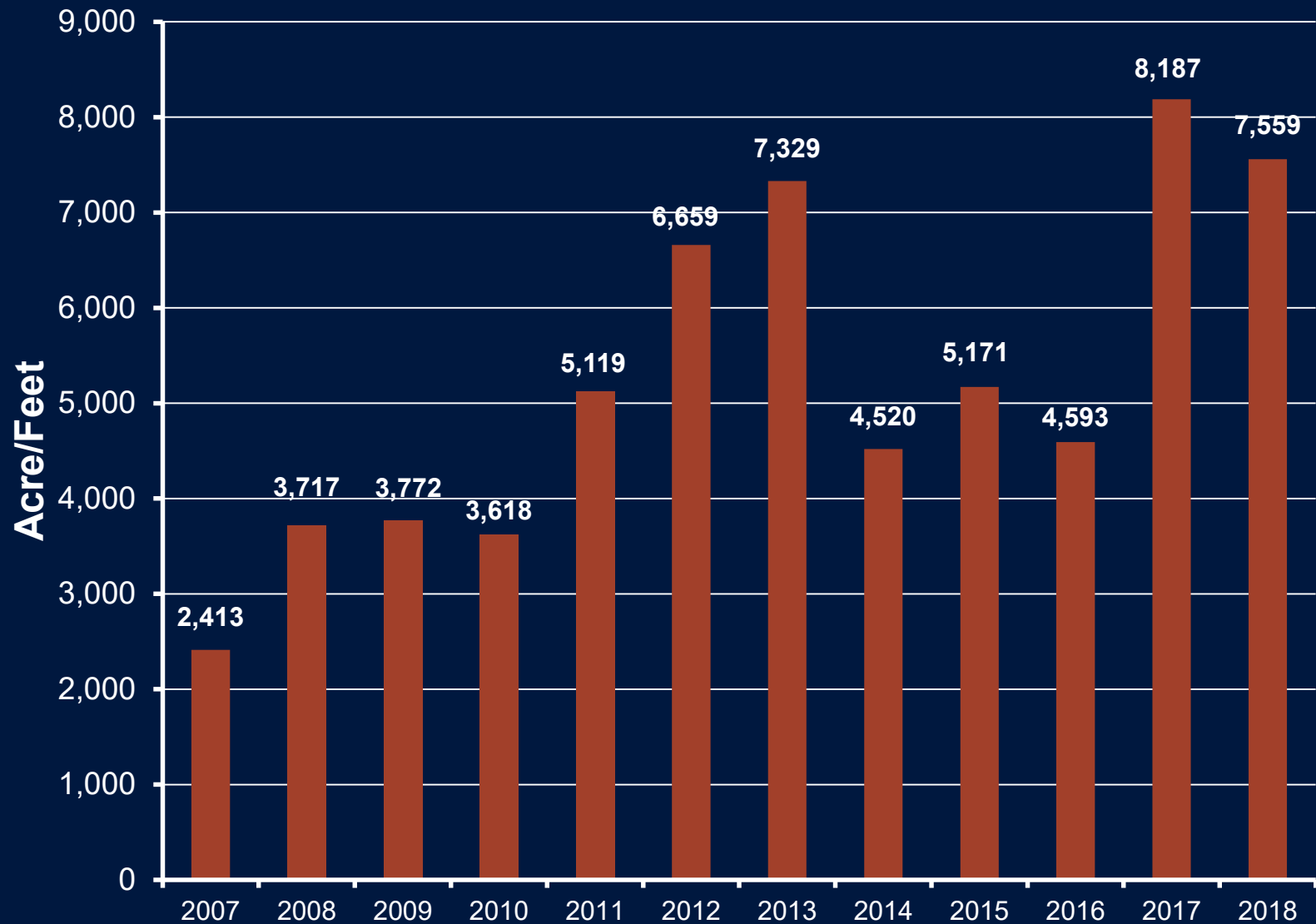
- Peak annual production was 2013 (7329 acre-feet) corresponding to lowest river supply in 100 years
- Over 53,000 acre-feet of finished water produced in 10 years



# Highlights of 10 year Plant Operation

- Typical operation - 8 MGD
- February 7, 2011 - Big Freeze - 22 MGD to help restore water supply in El Paso
- Drought conditions - May 2012, no surface water in May - 19 consecutive days of production over 20 MGD

# Kay Bailey Hutchison Desalination Plant



# Enviro Water Minerals Company (EWM), Public Private Partnership

- Partnership between EPWater and EWM
- Construction of a new plant adjacent to existing desalination plant
- EWM uses EPWater concentrate to recover minerals
- EPWater receives an additional 2 million gallons of potable water from EWM



# Enviro Water Minerals Company (EWM), Public Private Partnership



Enviro Water Minerals is using cutting edge technology to recover minerals from waste brine from desalination plants.

# Enviro Water Minerals (EWM)

EWM chemically separates the concentrate into high-purity industrial grade minerals products that are highly valued in commercial markets.



Potash Liquid Fertilizer

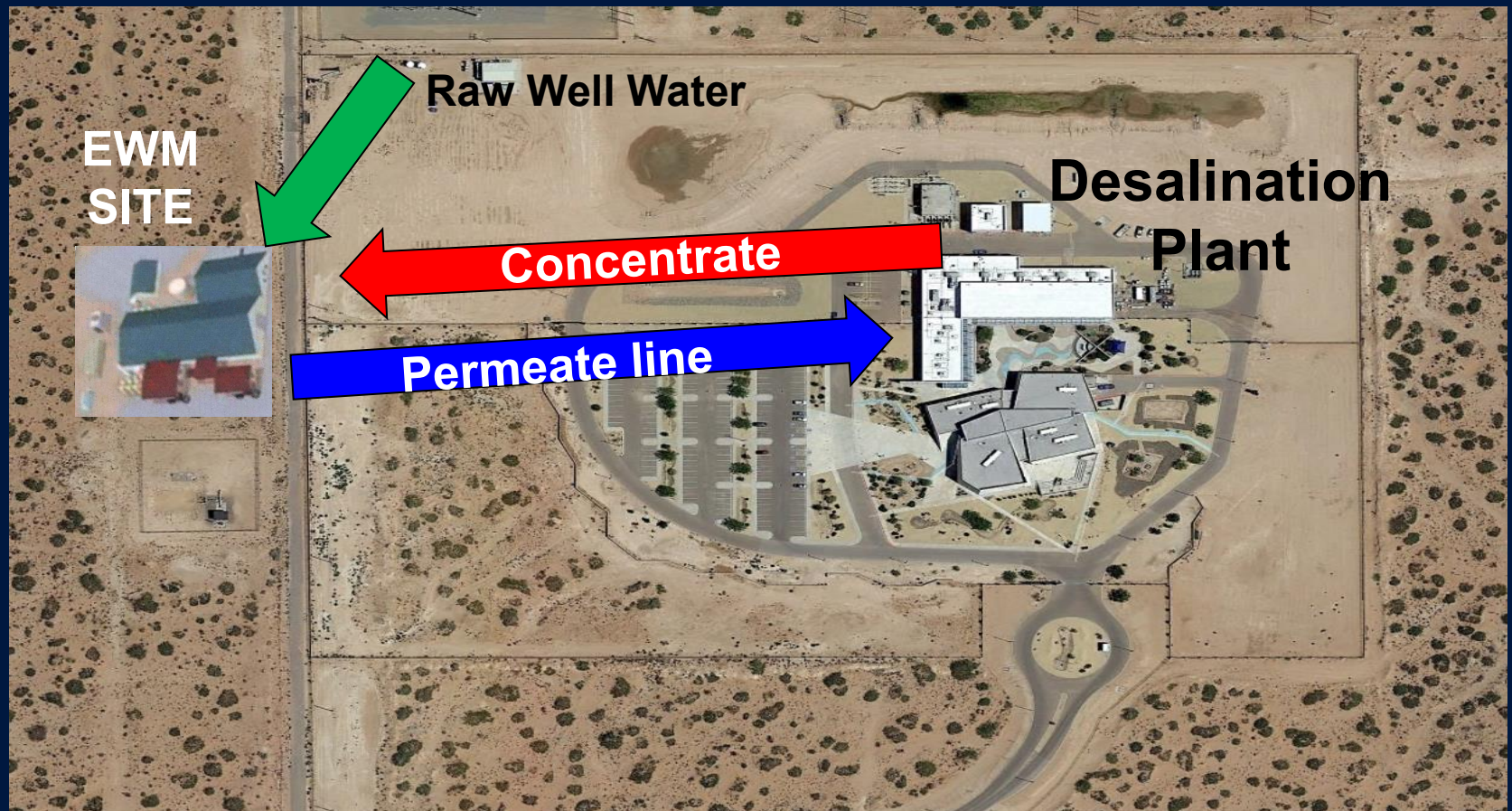


Bromide Rich Brine  
(Power plant mercury scrubbing)



Milk of Magnesia (Water treatment)

# Proposed EWM Concentrated and Effluent Alignment





# EWM Proposal and Agreement to EPWater

Permeate will be treated to meet TCEQ drinking water standards where it will then be pumped into EPWater's potable water distribution system.



# Questions

