

BRAZOS RIVER ALLUVIUM DESIRED FUTURE CONDITIONS

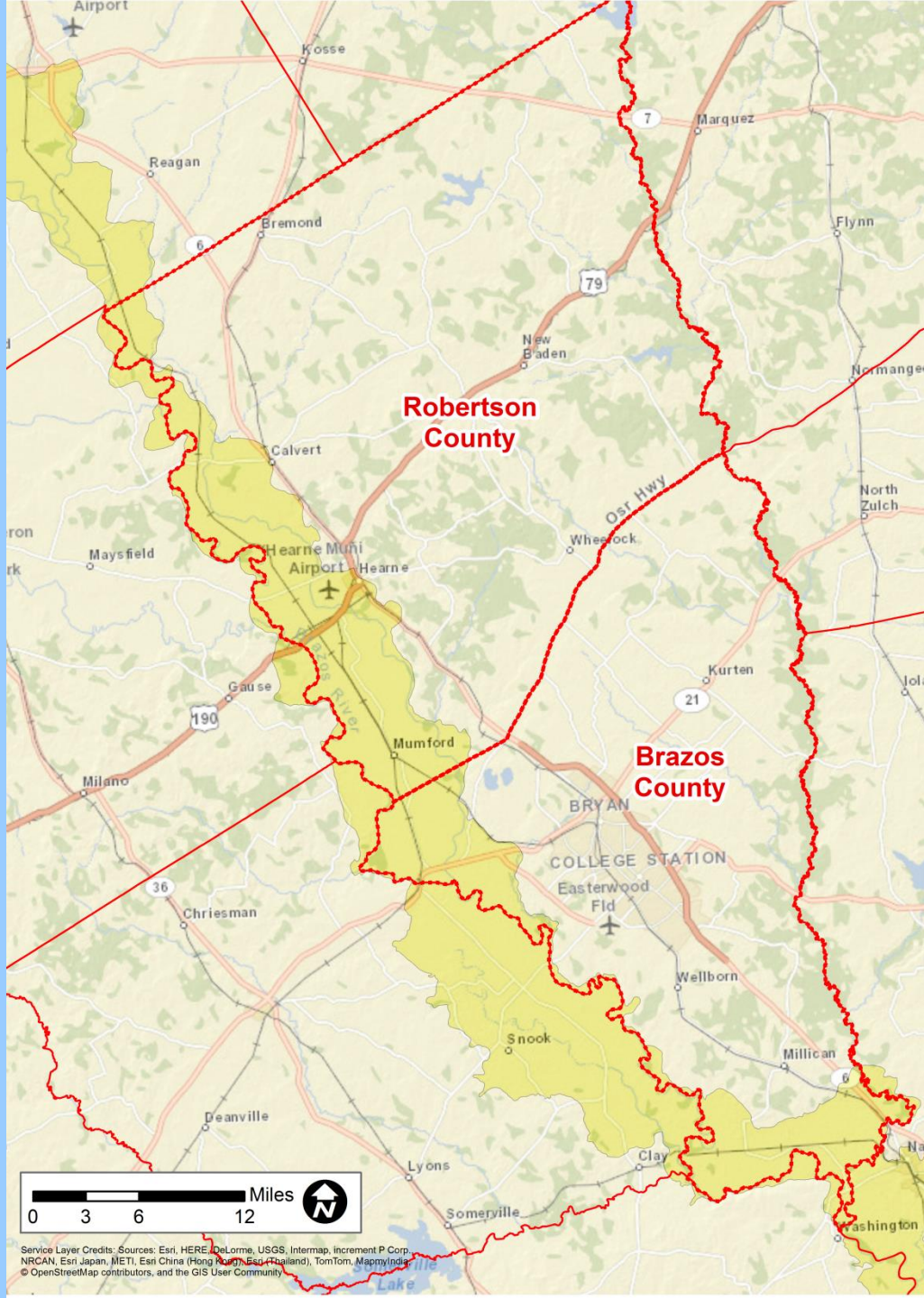


Presented to
GMA-12
by
Brazos Valley
Groundwater Conservation District

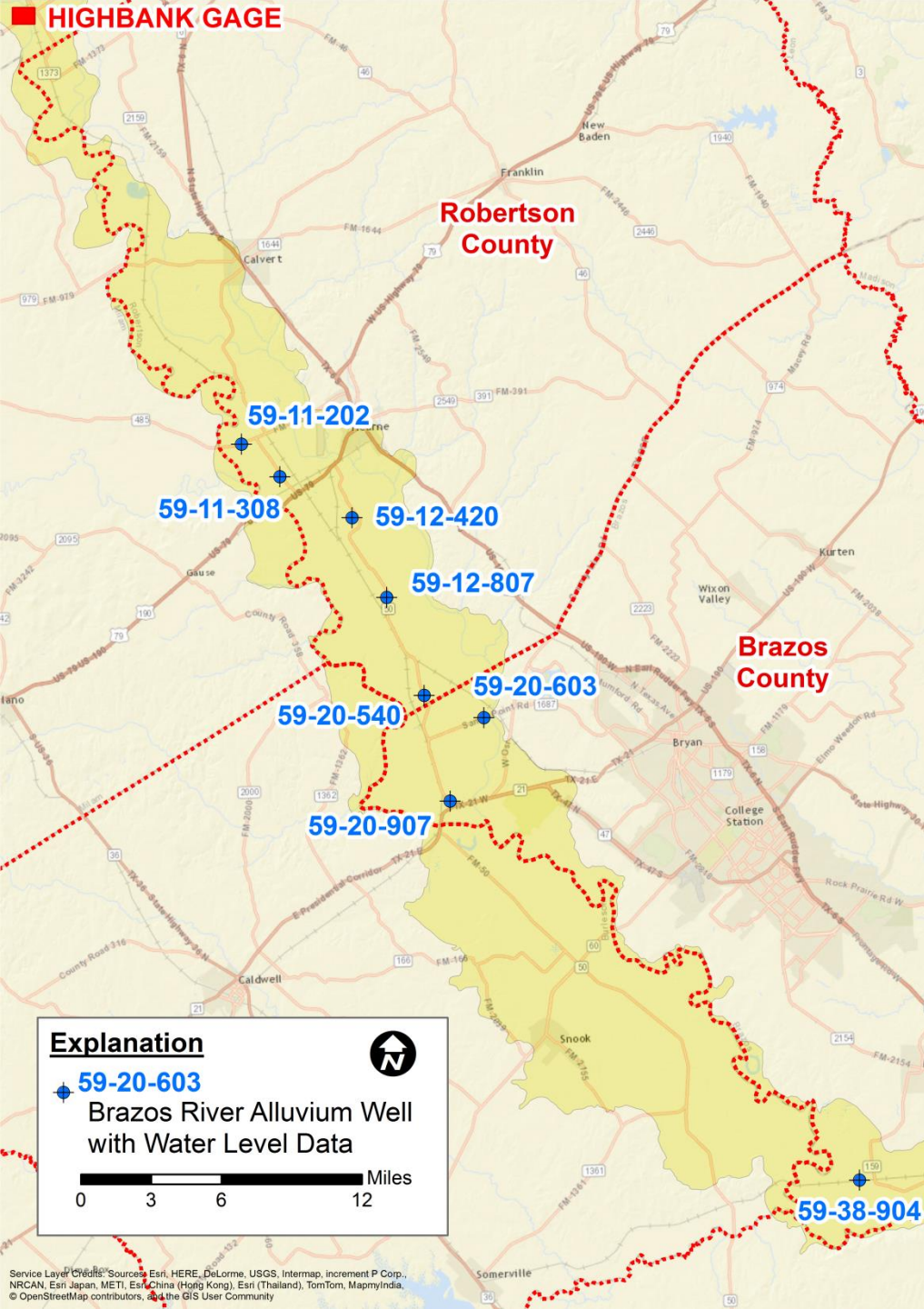
February 4, 2016

BRAZOS RIVER ALLUVIUM

- Principally used for irrigation and pumping has occurred for decades
- Pumping in Brazos, Burleson and Robertson Counties
- DFC for Brazos River Alluvium is being proposed
- Develop a reasonable approach for DFC
- Consider maintaining a percentage of saturation of Brazos River Alluvium

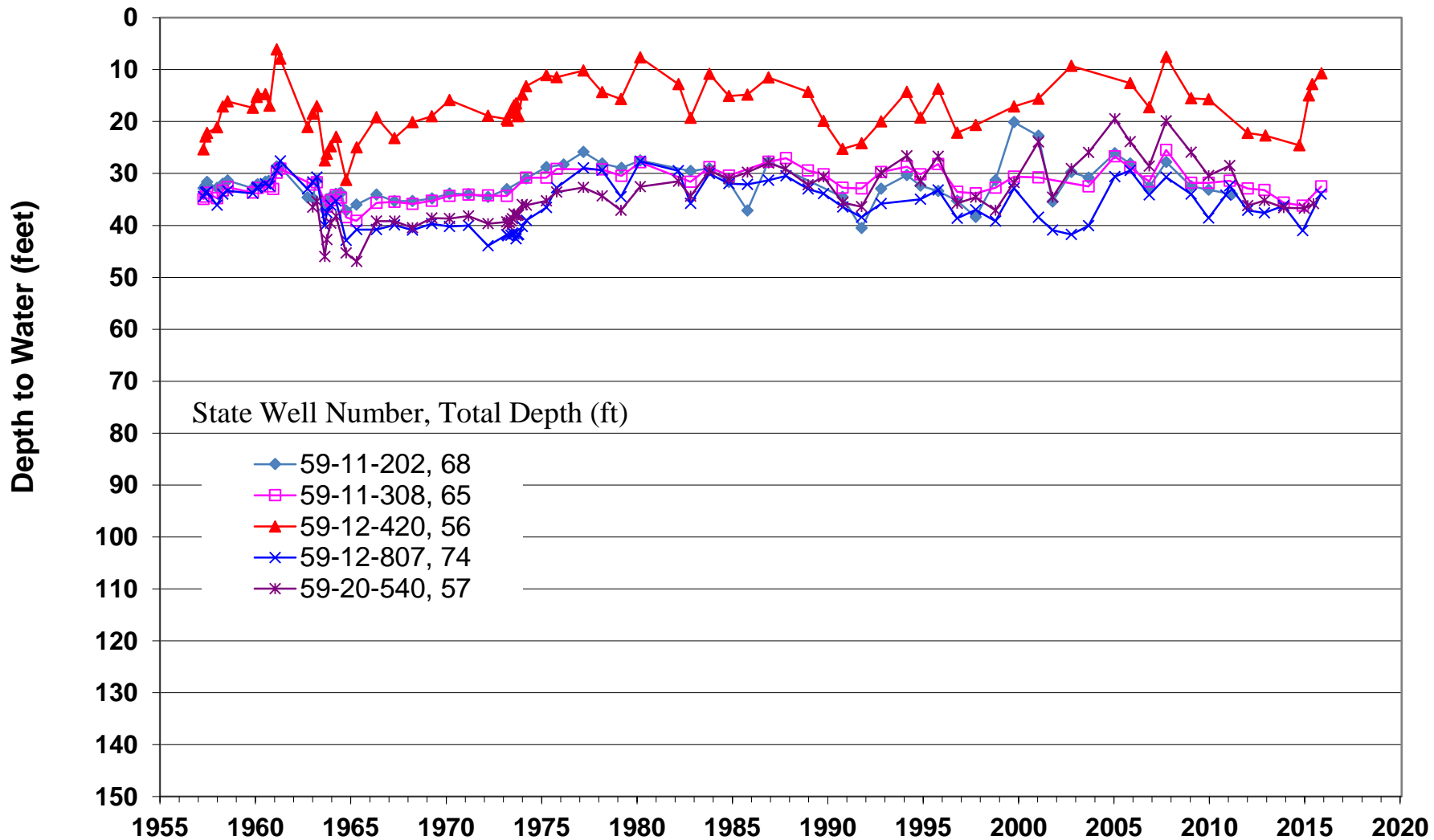


Extent of Brazos River Alluvium

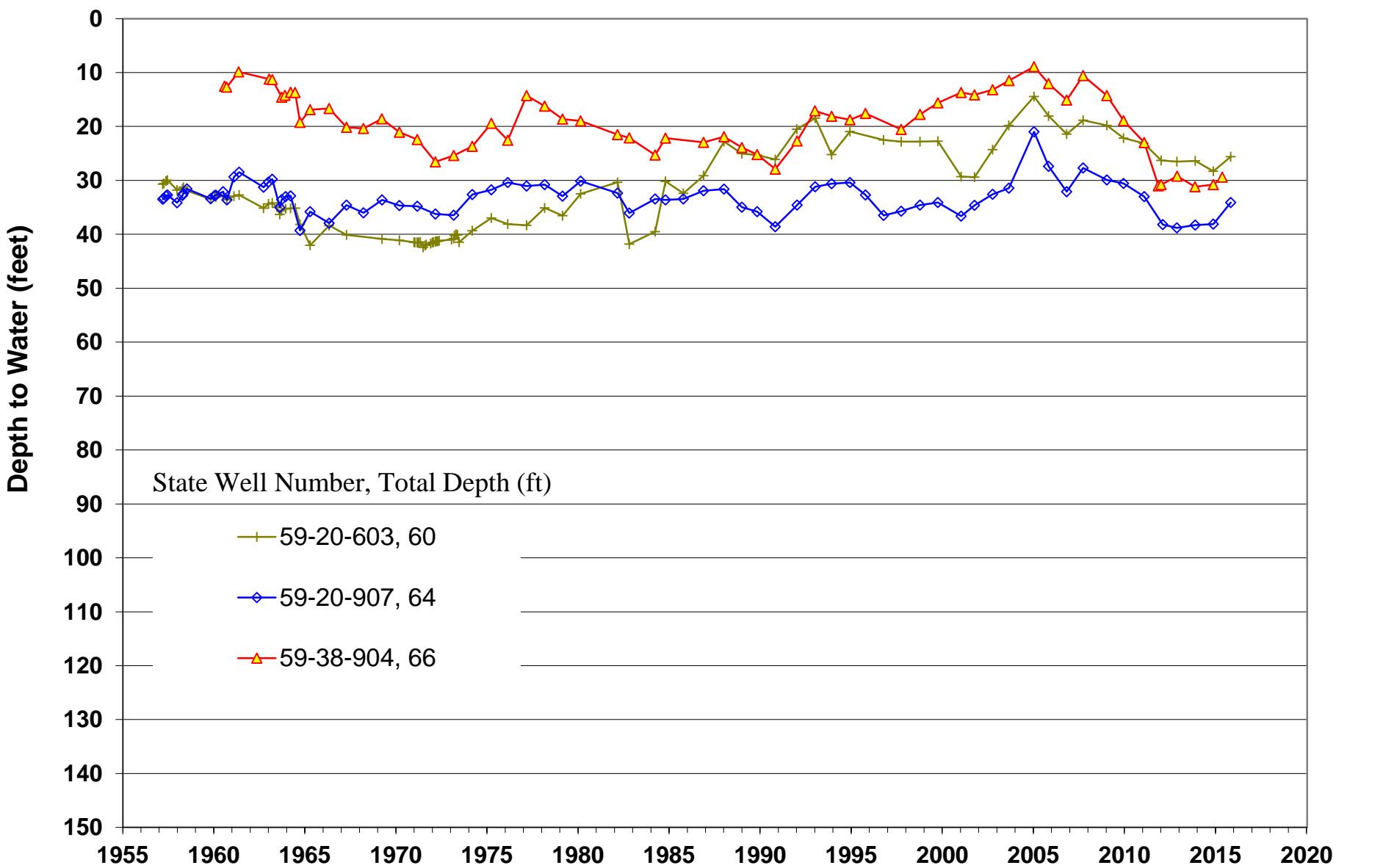


Location of Brazos River Alluvium Wells With Water Level Hydrographs

Brazos River Alluvium Water Level Data - Robertson County

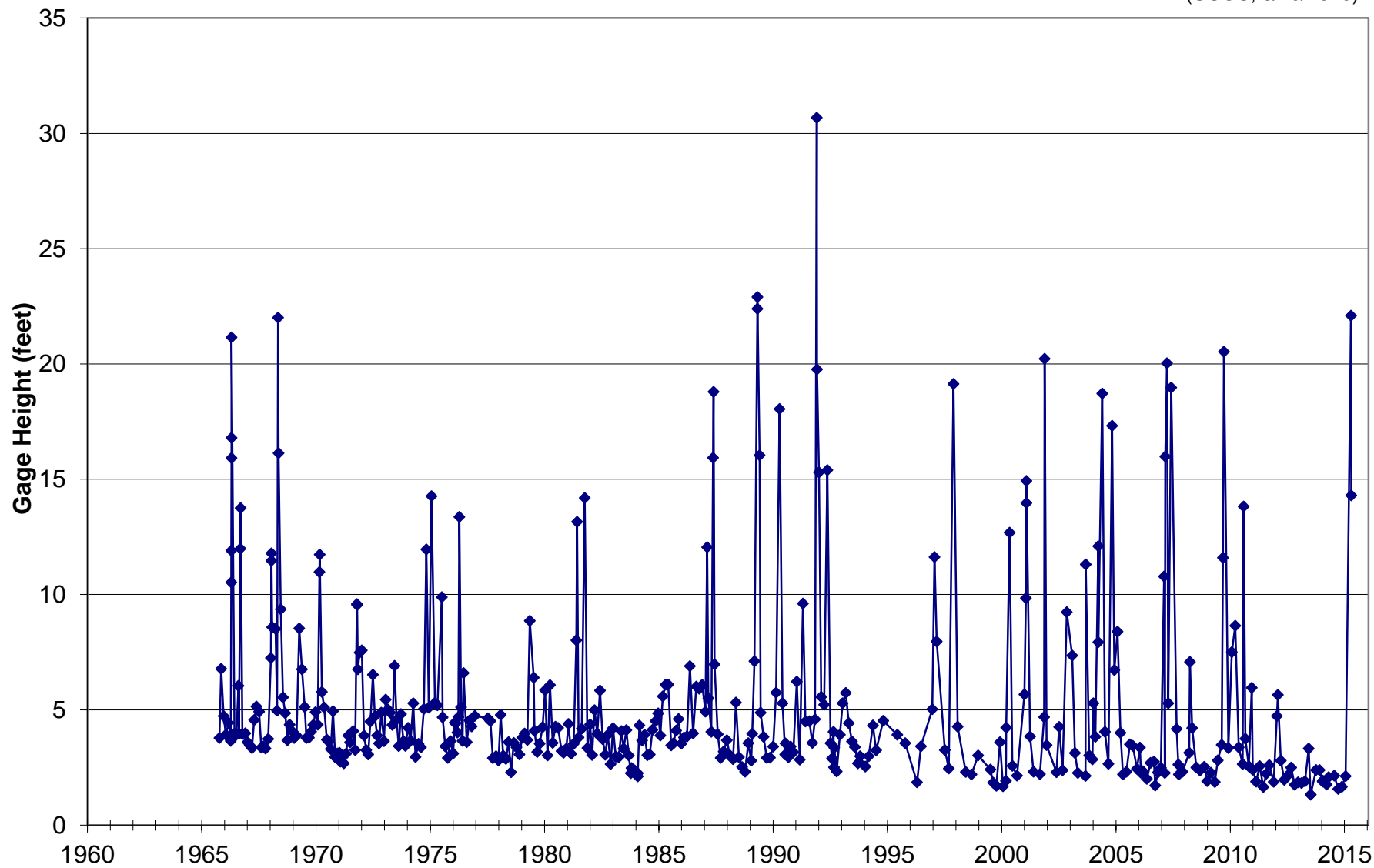


Brazos River Alluvium Water Level Data - Brazos County

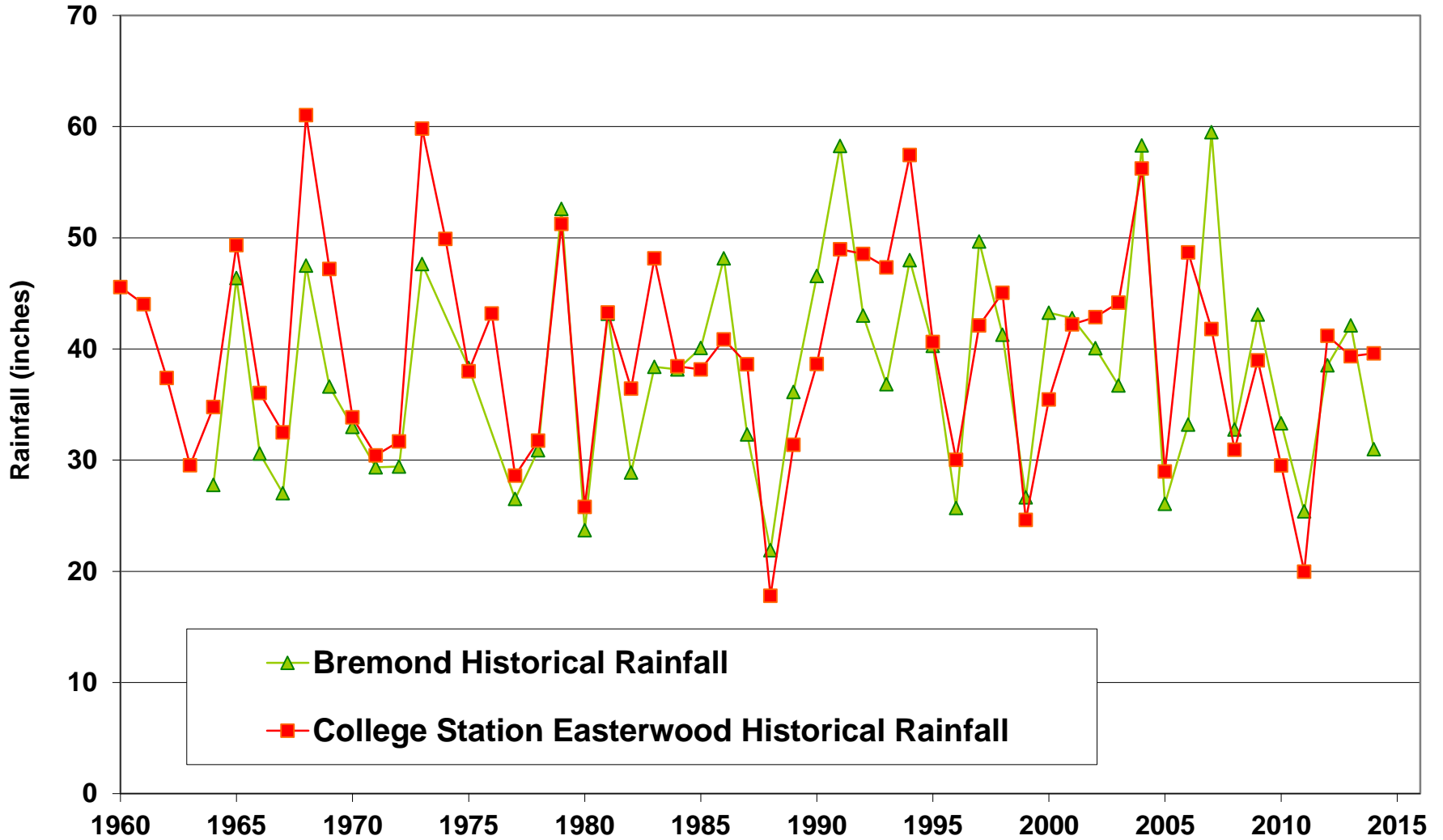


USGS 08098290 Brazos River Near Highbank, TX

(USGS, 6/10/2015)



Bremond and College Station Historical Rainfall



Potential DFC Percent of Aquifer Saturation

WD = Well Depth, ft

DTW = Depth to Water, ft

$$\text{Percent Saturation (PS)} = \frac{\text{WD} - \text{DTW}}{\text{WD}}$$

Static water-level data to estimate PS would be collected during the winter months following the irrigation season. To reach a DFC the average PS for all wells measured would have to be below the applicable PS for three consecutive years.

P.S. = 30%

Robertson County

Irrigation Well Depths
Range: 45 to 72 feet
Average ~ 55 to 60 feet

Potential DFC Threshold on
Allowable Percent Saturation
P.S. \geq 30% or 40%
depending on location

P.S. = 30%

Brazos County

Average Irrigation Well Depth
60 to 65 feet

P.S. = 40%

Burleson County

Average Irrigation Well Depth
60 to 65 feet

**Brazos River Alluvium
Well Data**

Irrigation Well

0 5 10 20 Miles

Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

An aerial photograph showing a vast expanse of white, fluffy clouds stretching to the horizon. In the center, a bright sun is setting or rising, creating a golden glow and long, horizontal rays of light across the sky. Below the clouds, a dark, winding road is visible on a dark, textured ground. The sky is a deep blue with some wispy clouds and a few thin, white contrails.

Thank you!

Questions?