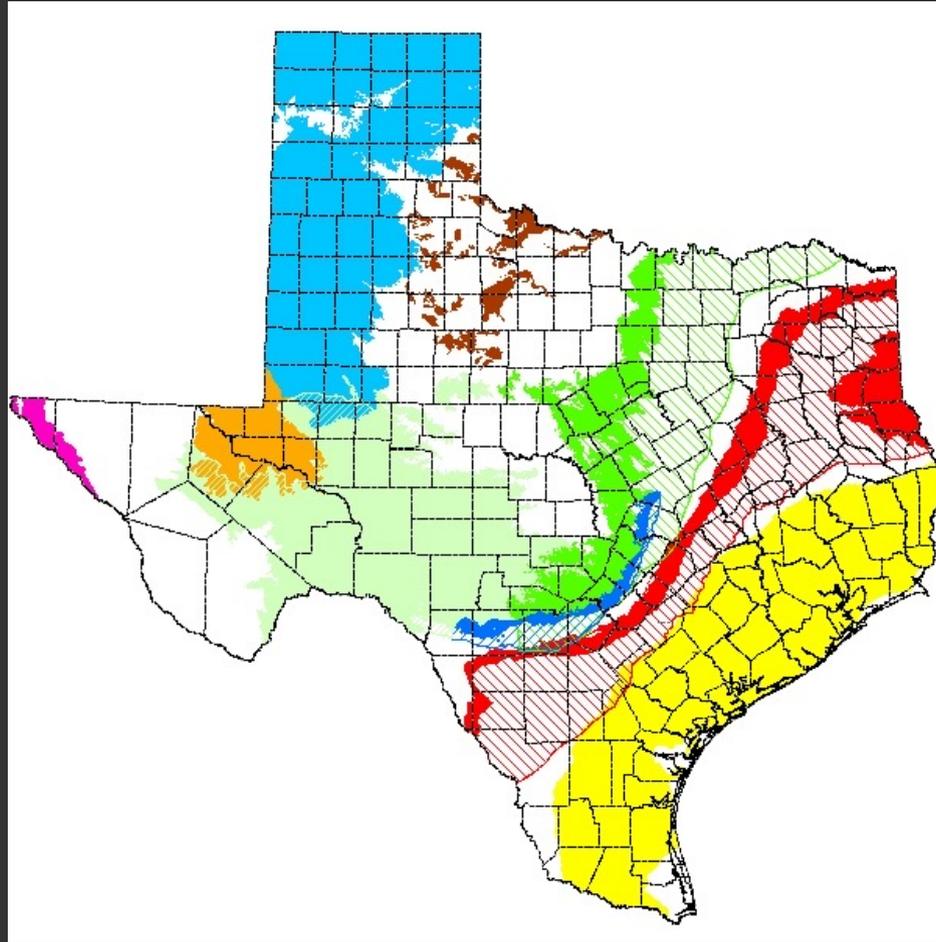


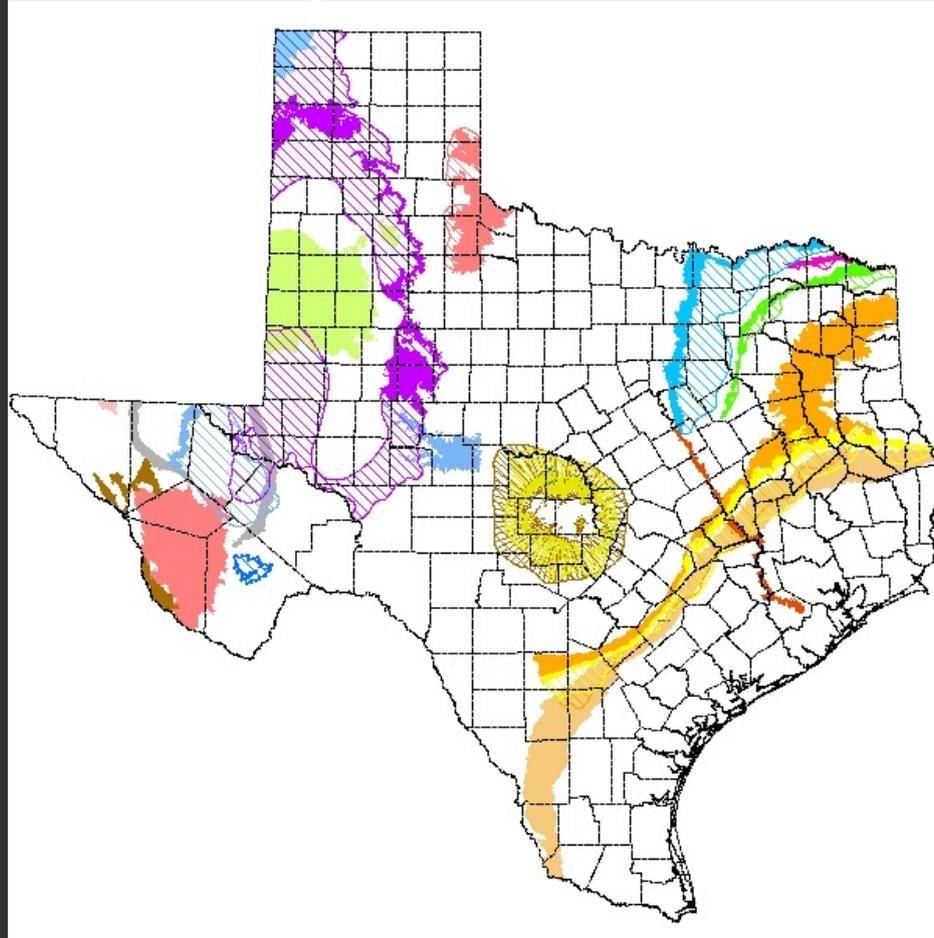
LPGCD New Board Member Orientation

Groundwater and Surface Water Resources within
the Lost Pines Groundwater Conservation District

Major Aquifers of Texas



Minor Aquifers of Texas

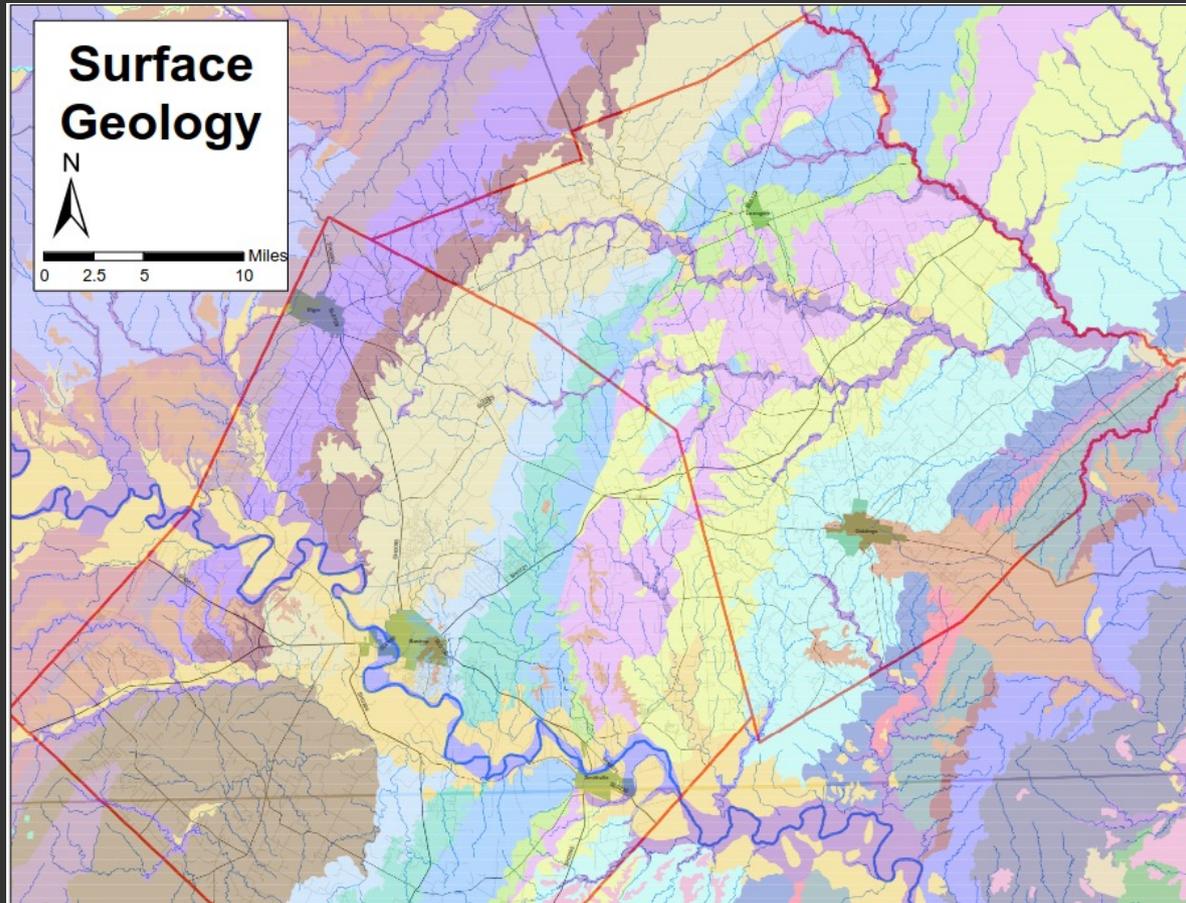


LPGCD Surface Geology

Surface Geology



0 2.5 5 10 Miles



Legend

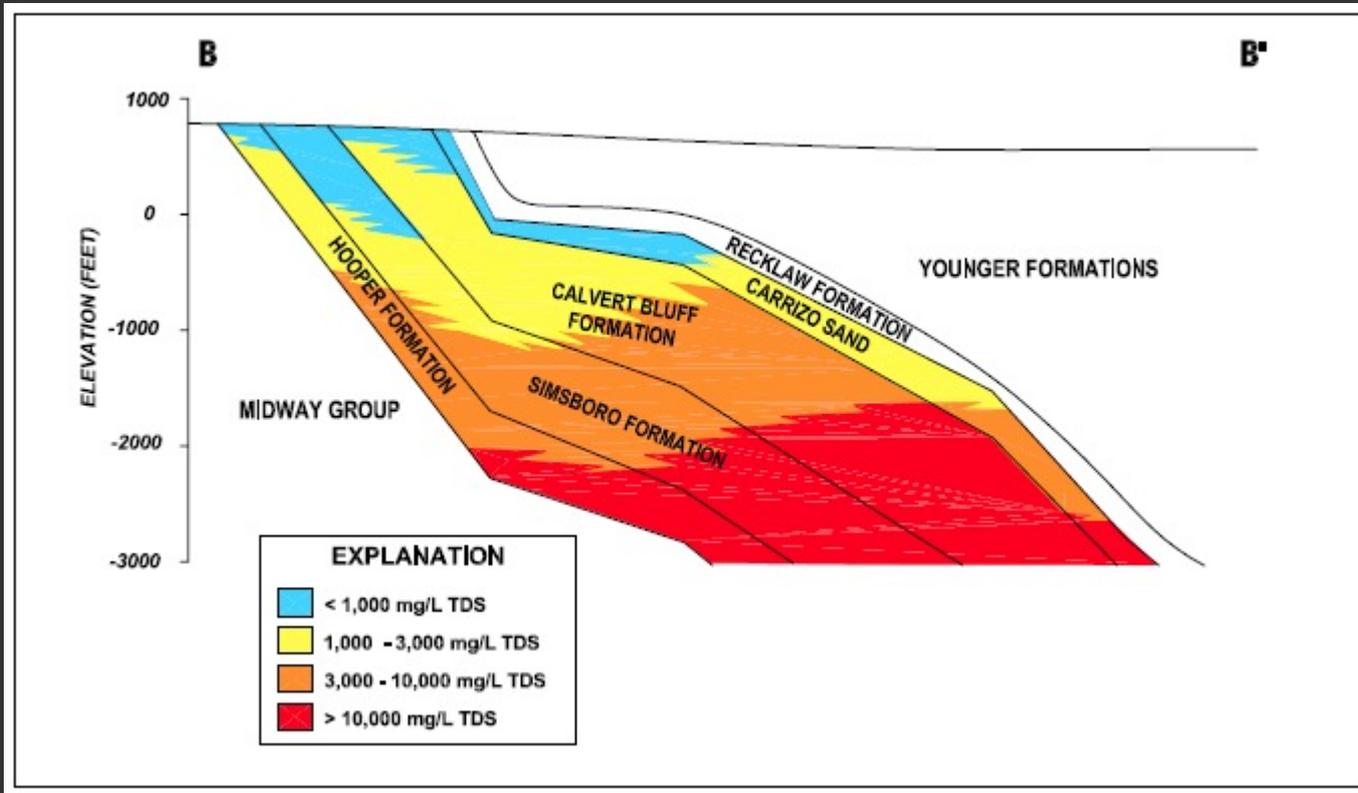
Ec - Carrizo Sand	Ewb - Wellborn Formation
Eca - Caddell Formation	Ewi - Wilcox Group
Ecb - Calvert Bluff Formation	Ey - Yegua Formation
Ecm - Cook Mountain Formation	Kxnm - Navarro Group and Marlbrook Marl ("upper Taylor marl")
Eh - Hooper Formation	Knt - Navarro and Taylor Groups undivided
Em - Manning Formation	Mc - Catahoula Formation
Emi - Midway Group	Qal - Alluvium
Eqc - Queen City Sand	Ohg - High Gravel deposits
Er - Reklaw Formation	Qt - Fluvial terrace deposits
Es - Sparta Sand	Wa - water
Esb - Simsboro Formation	



David R. Stephens & Associates, Inc.

NOTE: This map is a working map produced for the LPGCD

Carrizo Wilcox Formation



(from LBG-Guyton, 2003)

LPGCD Aquifers

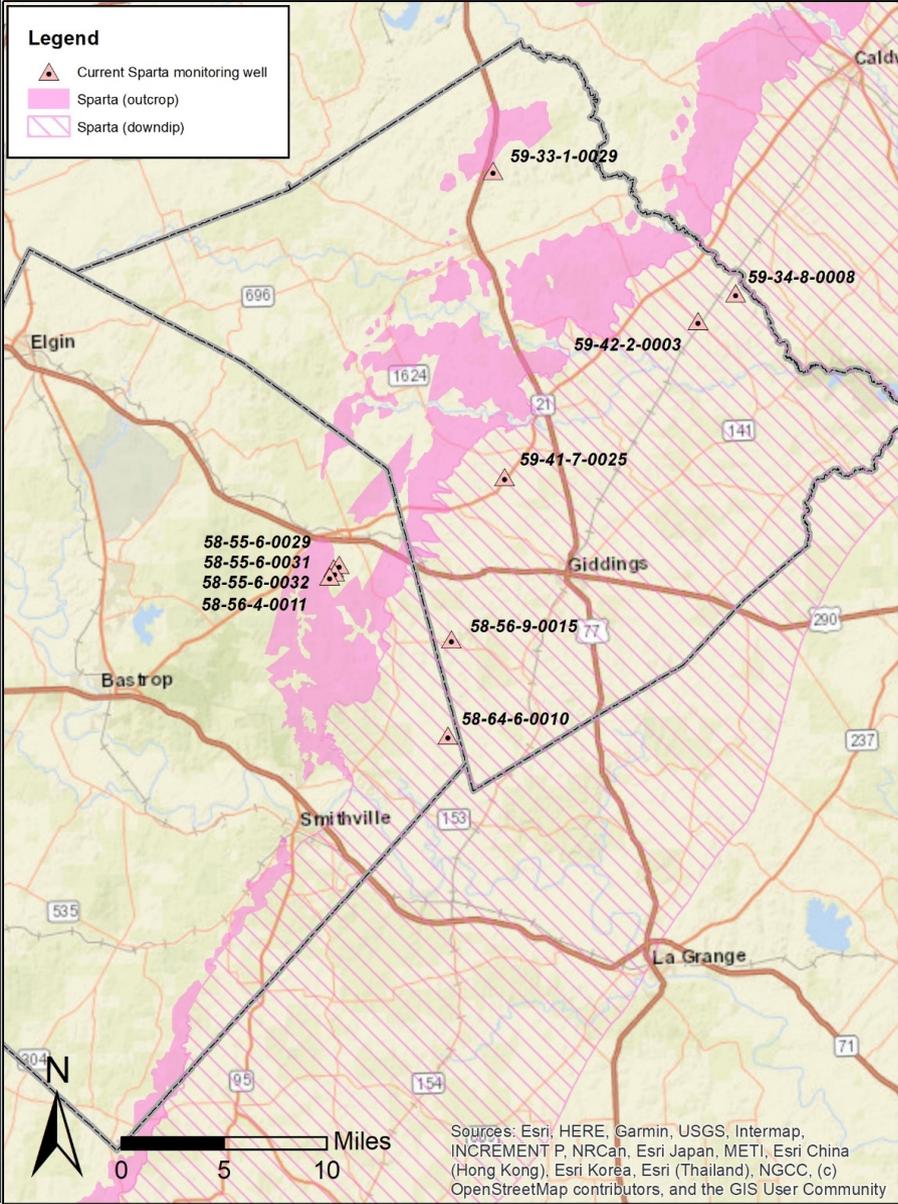
- Sparta
- Queen City
- Carrizo Wilcox
 - Carrizo
 - Calvert Bluff
 - Simsboro
 - Hooper
-
- Yegua-Jackson
- Trinity
- Colorado Alluvium

Sparta Aquifer

- Shallowest of the actively managed aquifers
- Few permits, very little permitted pumpage
- 535 ac-ft/yr of municipal permits
- Lee County FWSD
- Lee County WSC
- <200 ac-ft/yr permitted municipal pumpage
- Two irrigation permits

Sparta Aquifer

Outcrop and down dip region within the District

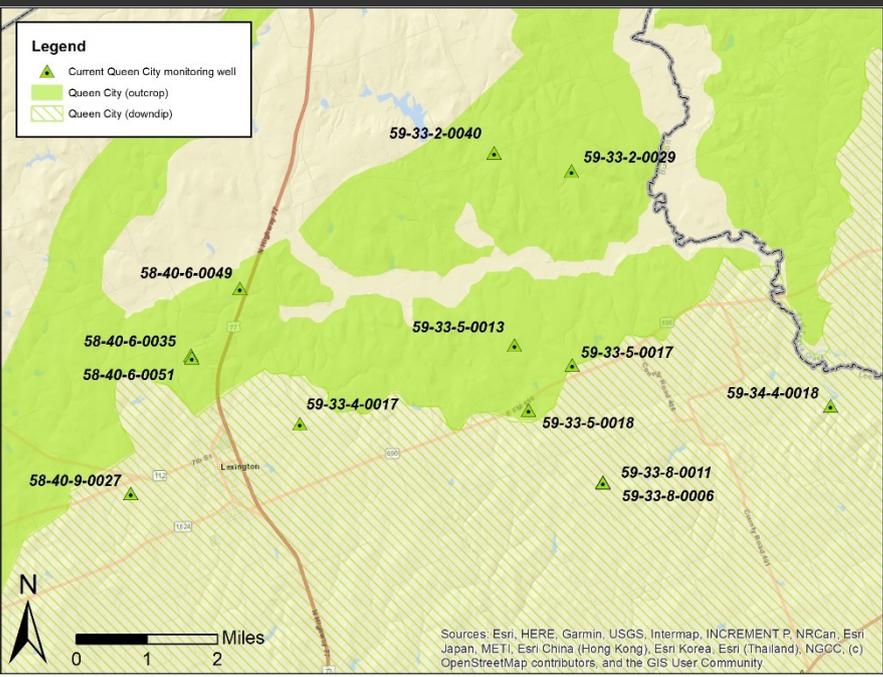
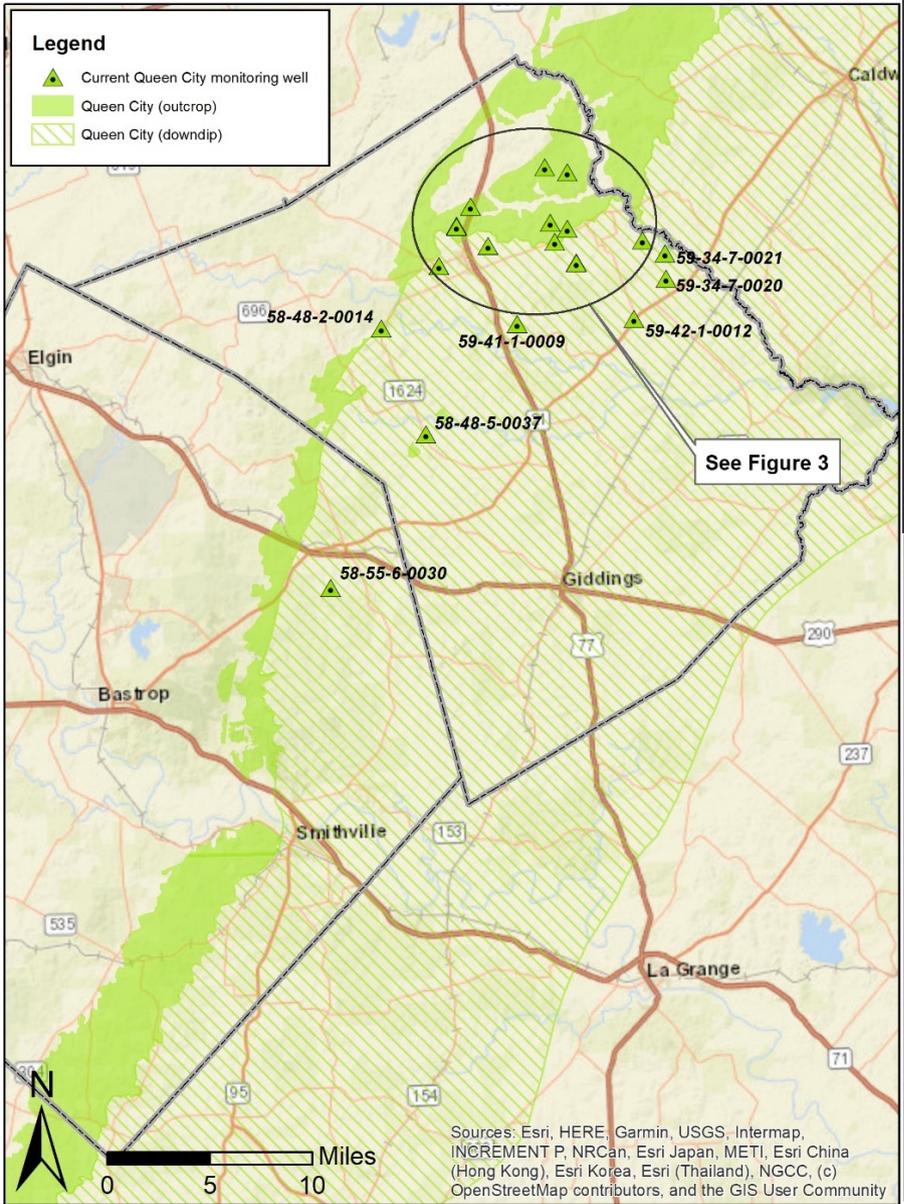


Queen City Aquifer

- Below the Sparta
- Few permits, very little permitted pumpage
- 885 ac-ft/yr of municipal permits
- Lincoln
- Lee County WSC
- <250 ac-ft/yr permitted municipal pumpage

Queen City Aquifer

Outcrop and down dip region within the District

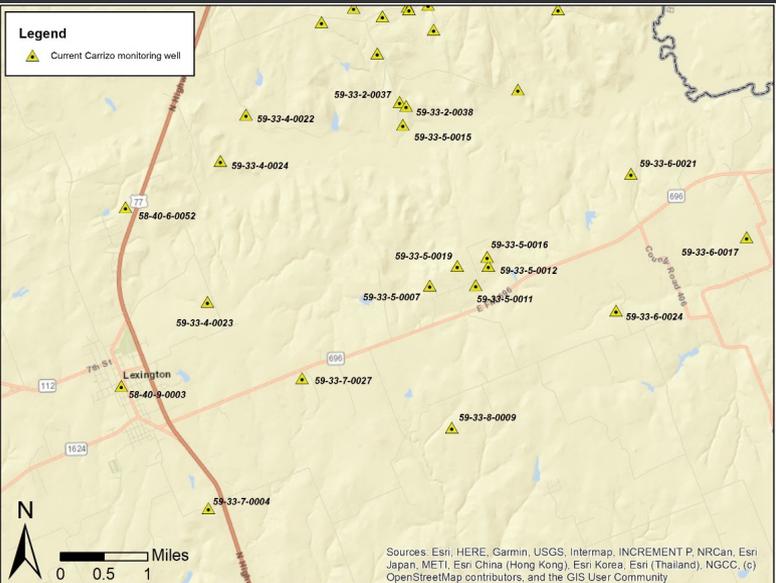
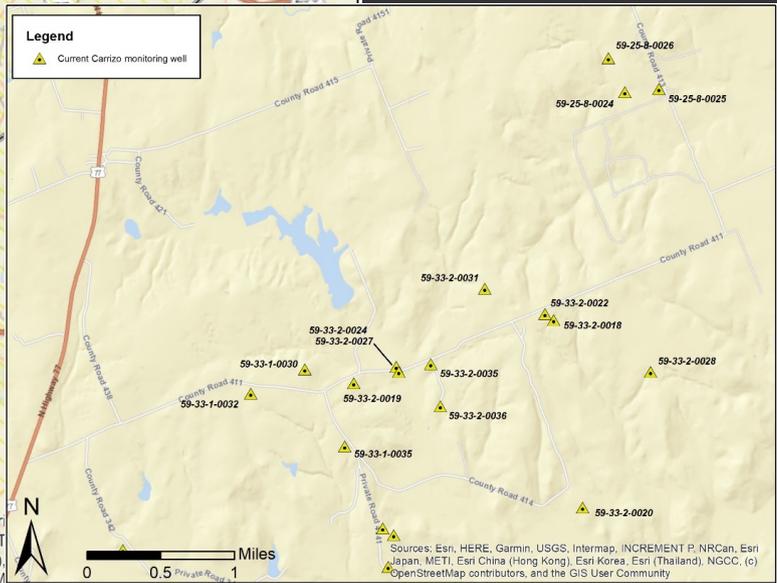
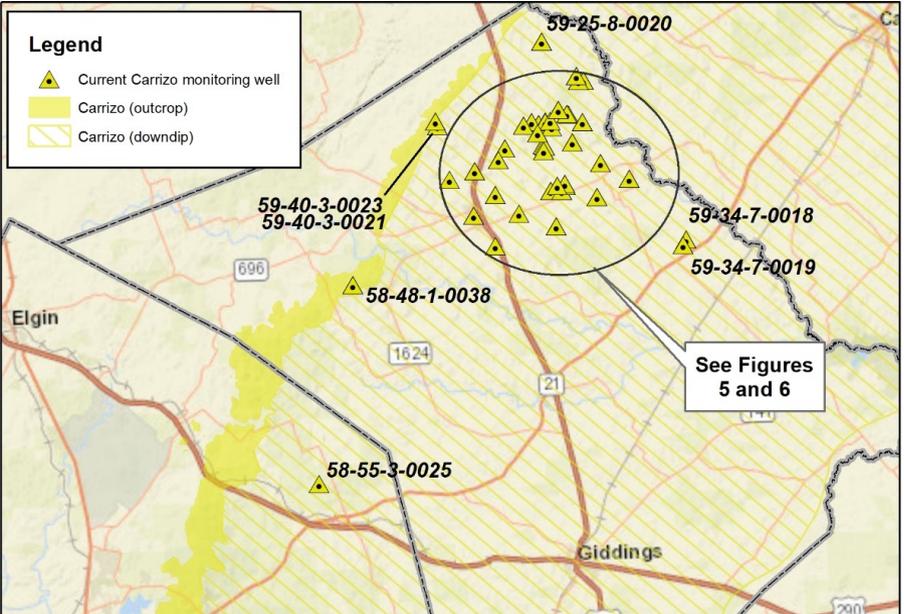


Carrizo Aquifer

- Part of the Carrizo-Wilcox Aquifer
- Moderate number of permits, moderate permitted pumpage
- 12,913 ac-ft/yr of municipal permits
- Lexington, Smithville, Giddings
- Lee County WSC
- Aqua WSC
- 2,500 to 3,000 ac-ft/yr permitted municipal pumpage
- One irrigation permit

Carrizo Aquifer

Outcrop and down dip region within the District



Calvert Bluff Aquifer

- Part of the Carrizo-Wilcox Aquifer
- Shallowest of the three Wilcox aquifers
- Few permits, limited permitted pumpage
- 5,437 ac-ft/yr of municipal permits
- Bastrop County WCID#2
- Aqua WSC
- <1,000 ac-ft/yr permitted municipal pumpage
- Two irrigation permits

Simsboro Aquifer

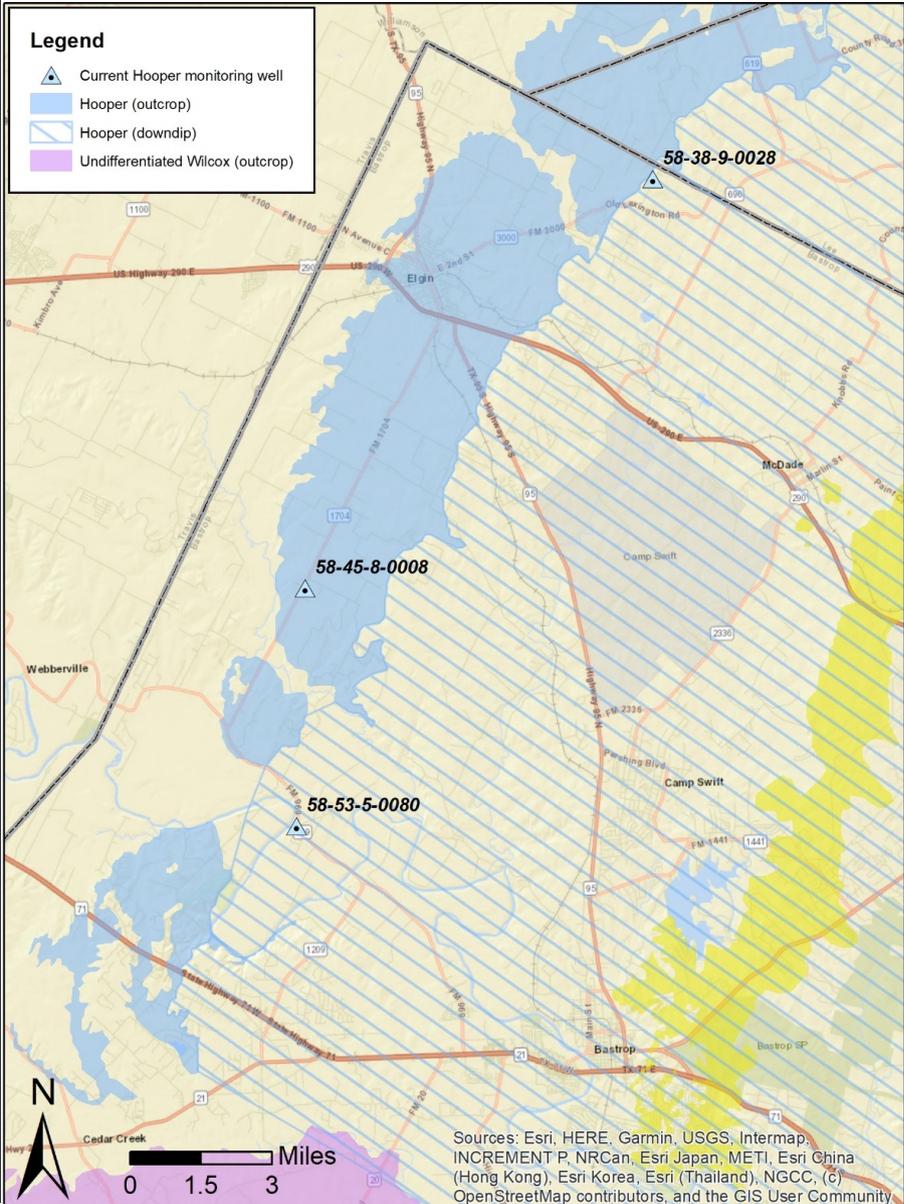
- Part of the Carrizo-Wilcox Aquifer
- Middle of the three Wilcox aquifers
- Most heavily permitted/used aquifer in the District
- 61,119 ac-ft/yr of municipal permits
- Bastrop, Elgin, Hutto
- Aqua WSC
- Manville WSC
- 13,000 to 15,000 ac-ft/yr permitted municipal pumpage

Hooper Aquifer

- Part of the Carrizo-Wilcox Aquifer
- Deepest of the three Wilcox aquifers
- Few permits, limited permitted pumpage
- 2,712 ac-ft/yr of municipal permits
- Aqua WSC
- Manville WSC
- <1,000 ac-ft/yr permitted municipal pumpage
- Two small permits

Legend

- ▲ Current Hooper monitoring well
- Hooper (outcrop)
- Hooper (down dip)
- Undifferentiated Wilcox (outcrop)



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

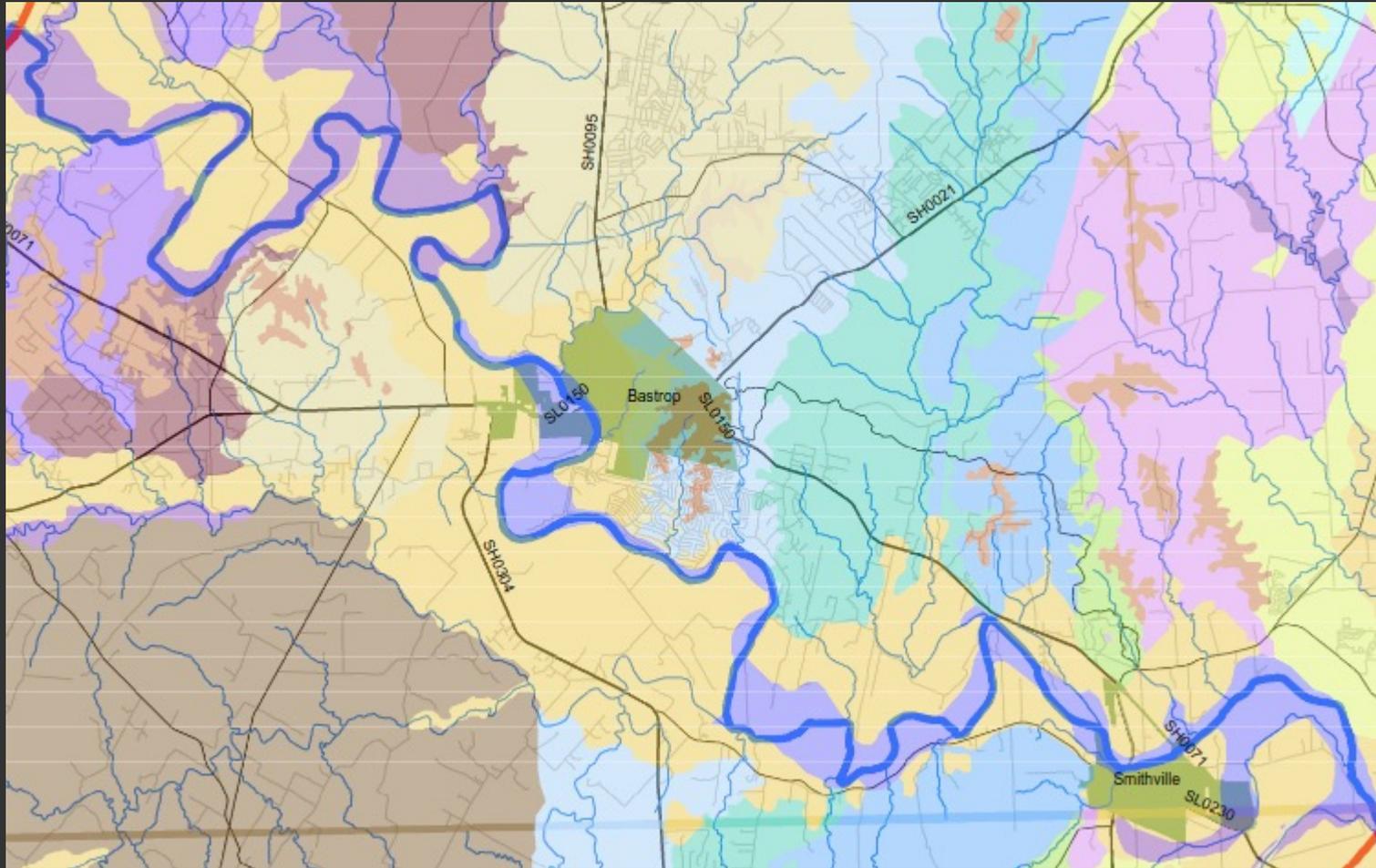
Hooper Aquifer

Outcrop and down dip region within the District

Alluvial Aquifers

- River and stream alluvium
- None are “official” major or minor aquifers
- Shallow wells (less than 100 feet)
- City of Bastrop has permitted wells in the Colorado River Alluvium

Alluvial Aquifers



Questions?