Groundwater Management Area 14

March 26, 2025

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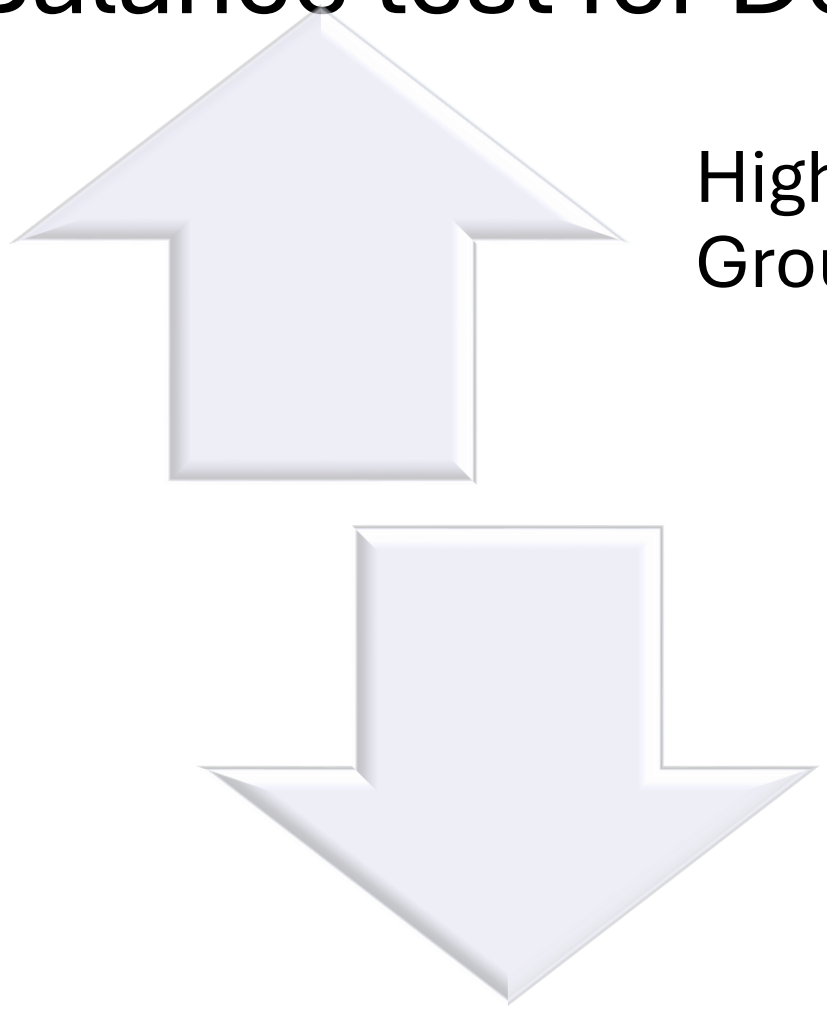
Balance test for Desired Future Conditions



Highest Practicable Level of Groundwater Production

Conservation, Preservation, Protection, Recharging, and Prevention of Waste of Groundwater, and Control of Subsidence

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9 Factors to consider

Aquifer Uses or Conditions	Supply Needs & Management Strategies	Hydrological Conditions
Environmental Impacts	Subsidence Impacts	Socioeconomic Impacts
Private Property Rights	DFC Feasibility	Other Relevant Information

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Factor 1- Aquifer Uses and Conditions

(1) aquifer uses or conditions within the management area, including conditions that differ substantially from one geographic area to another;

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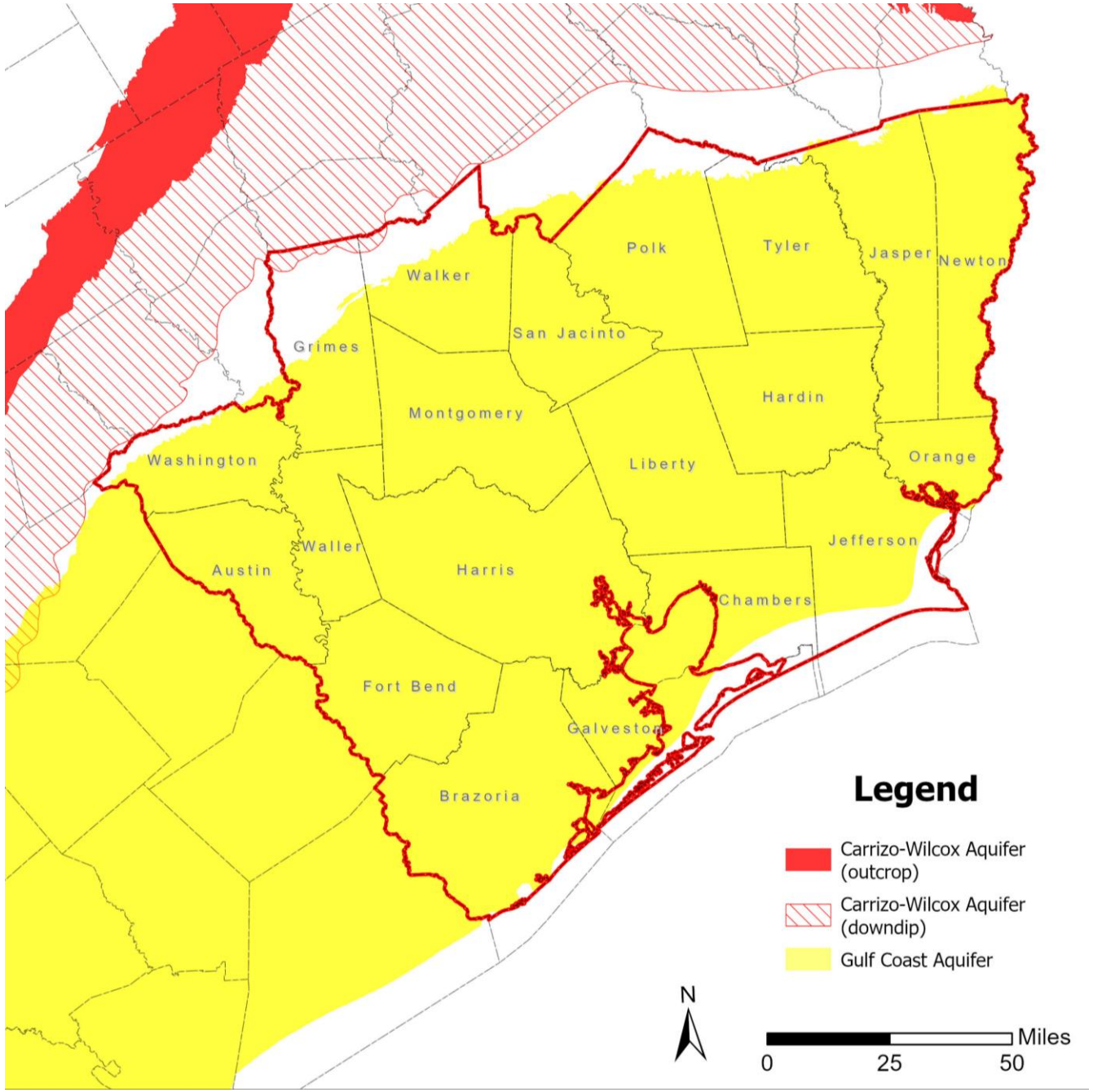
GMA 14 Major Aquifers

- Gulf Coast
- Carrizo-Wilcox*

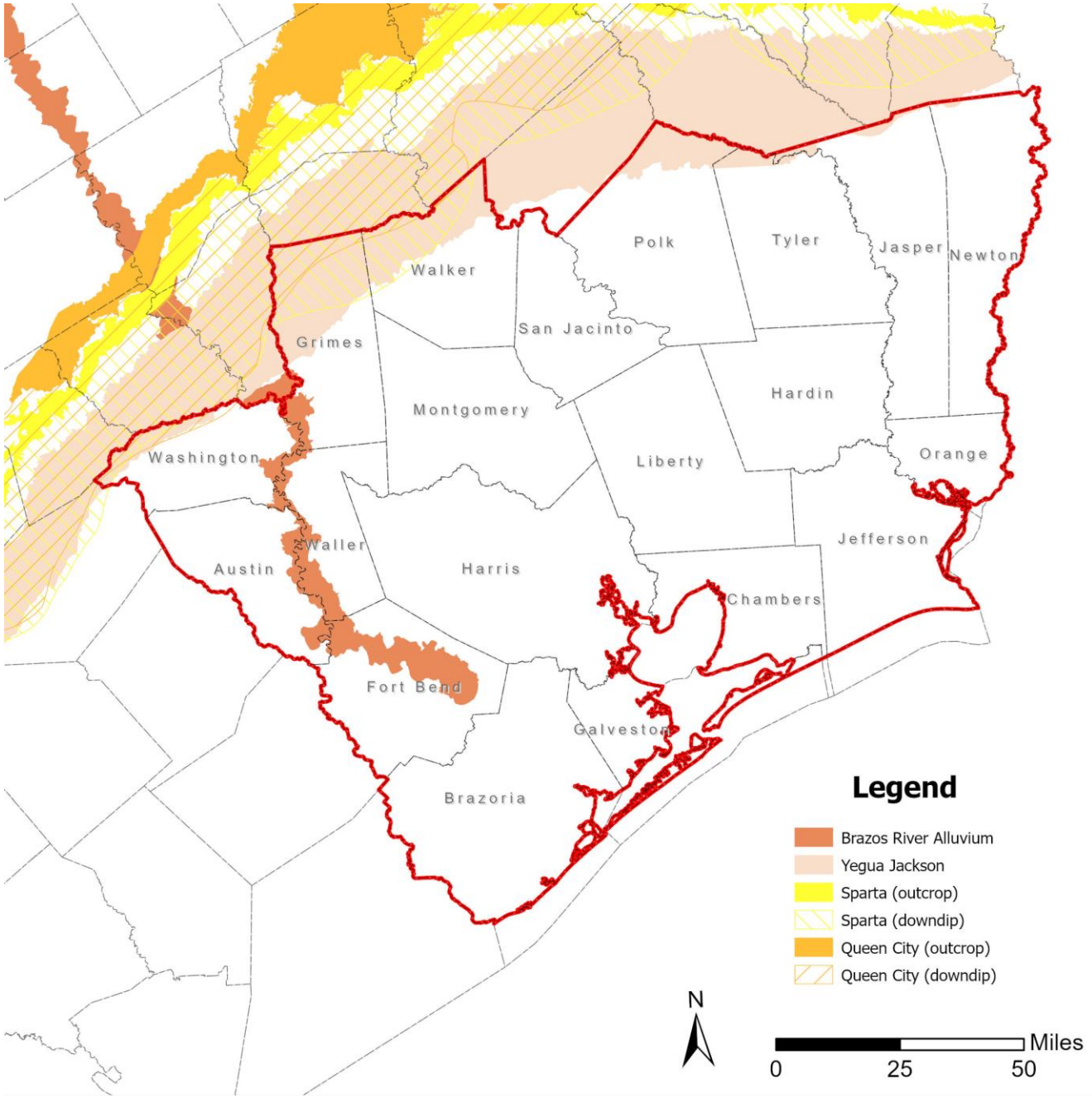
* Non-relevant for Joint Planning purposes in last round of planning



GMA 14 Minor Aquifers

- Yegua-Jackson*
- Queen City*
- Sparta*
- Brazos River Alluvium*
- *Other Aquifers*

* Non-relevant for Joint Planning purposes in last round of planning



Aquifer Uses

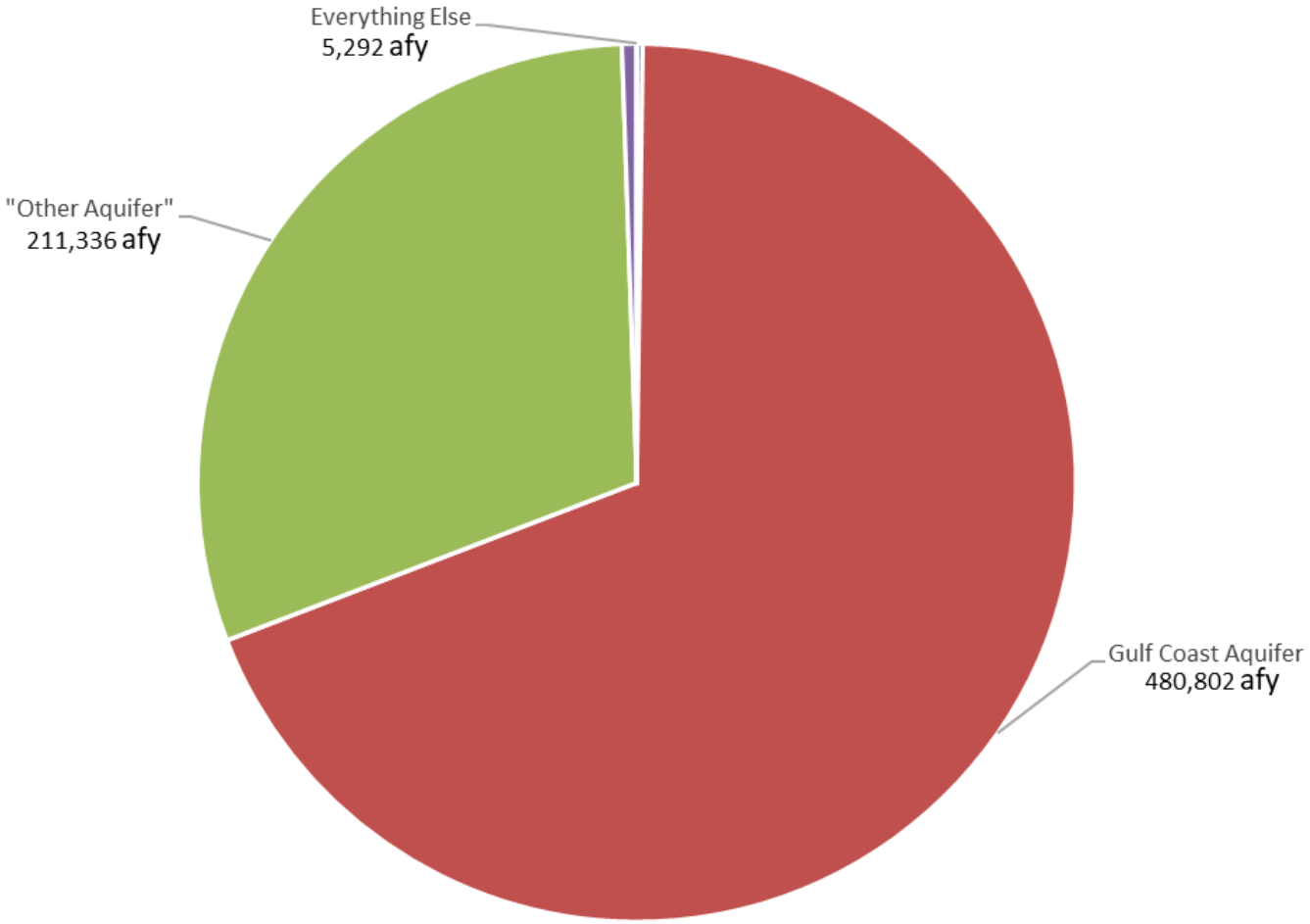
- Includes the following per TWDB:
  - *Municipal- city-owned, districts, WSCs, or private utilities supplying residential, commercial (non-goods-producing businesses), and institutional, and non-surveyed municipal (rural domestic)*
  - *Manufacturing- process water use reported by large manufacturing plants*
  - *Livestock*
  - *Irrigation*
  - *Mining- includes water used in the mining of oil, gas, coal, sand, gravel, and other materials*
  - *Steam-Electric Power- consumptive use of water by large power generation plants*

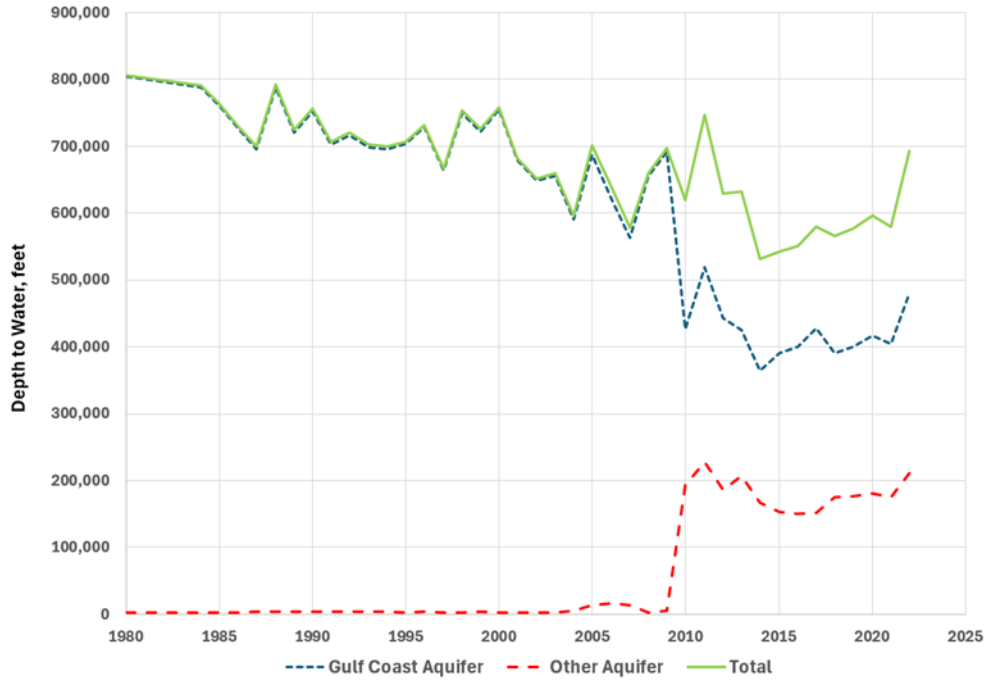
Aquifer Uses and Conditions

- Aquifer Uses
  - *2022 TWDB historic use data*
  - *Total pumping in GMA 14 in 2022 = 697,430 acre-feet*

- Aquifer Conditions
  - *Selected hydrographs*
  - *Other hydrologic conditions for each aquifer will be presented with the "hydrologic conditions" factor discussion*

2022 Groundwater Pumping in GMA 14





2022 Pumping =
697,430 acft/yr

"Other Aquifer" is used by survey respondents to denote uncertainty regarding groundwater source aquifer

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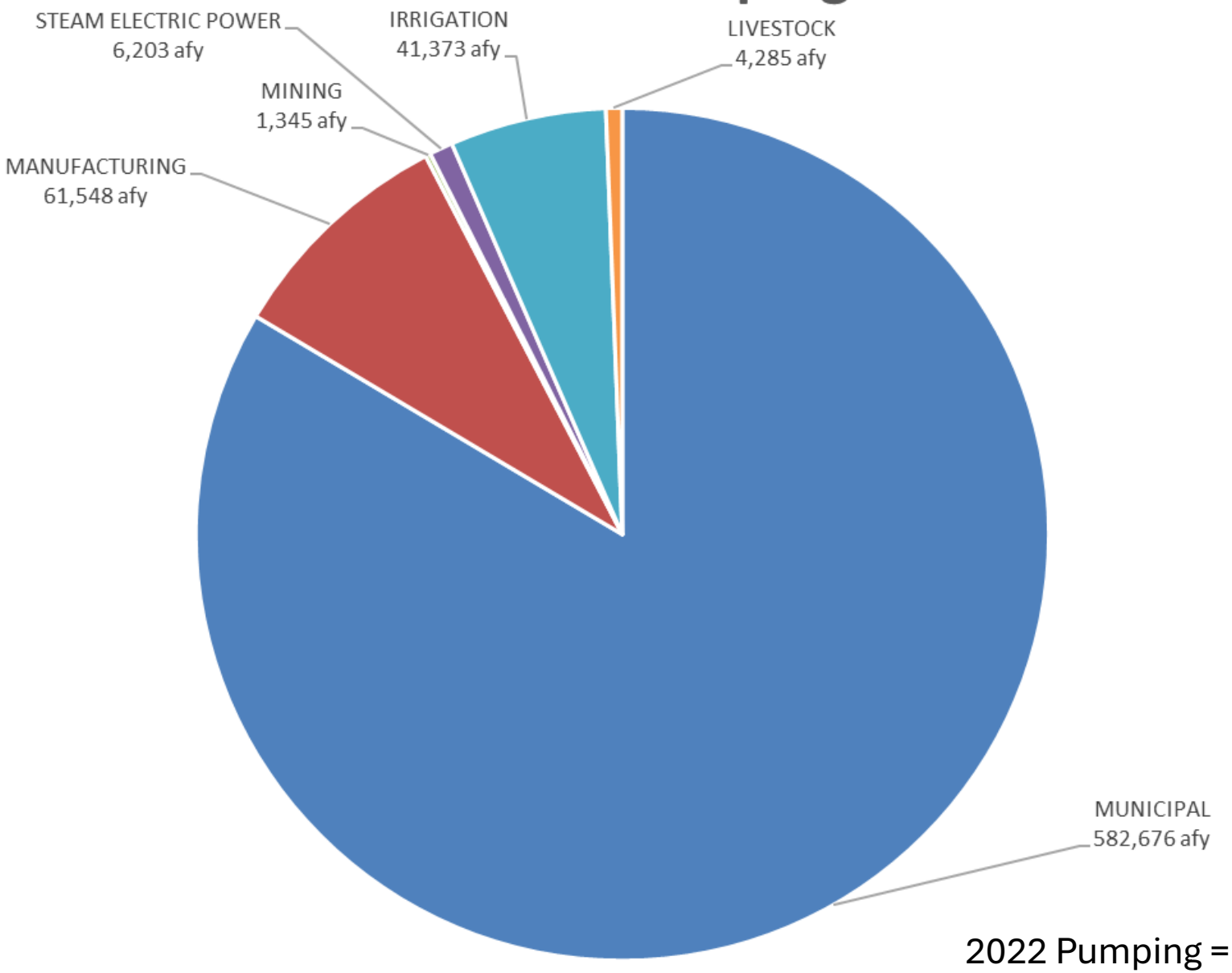
2022 Groundwater Pumping in GMA 14



2022 Pumping =
697,430 acft/yr

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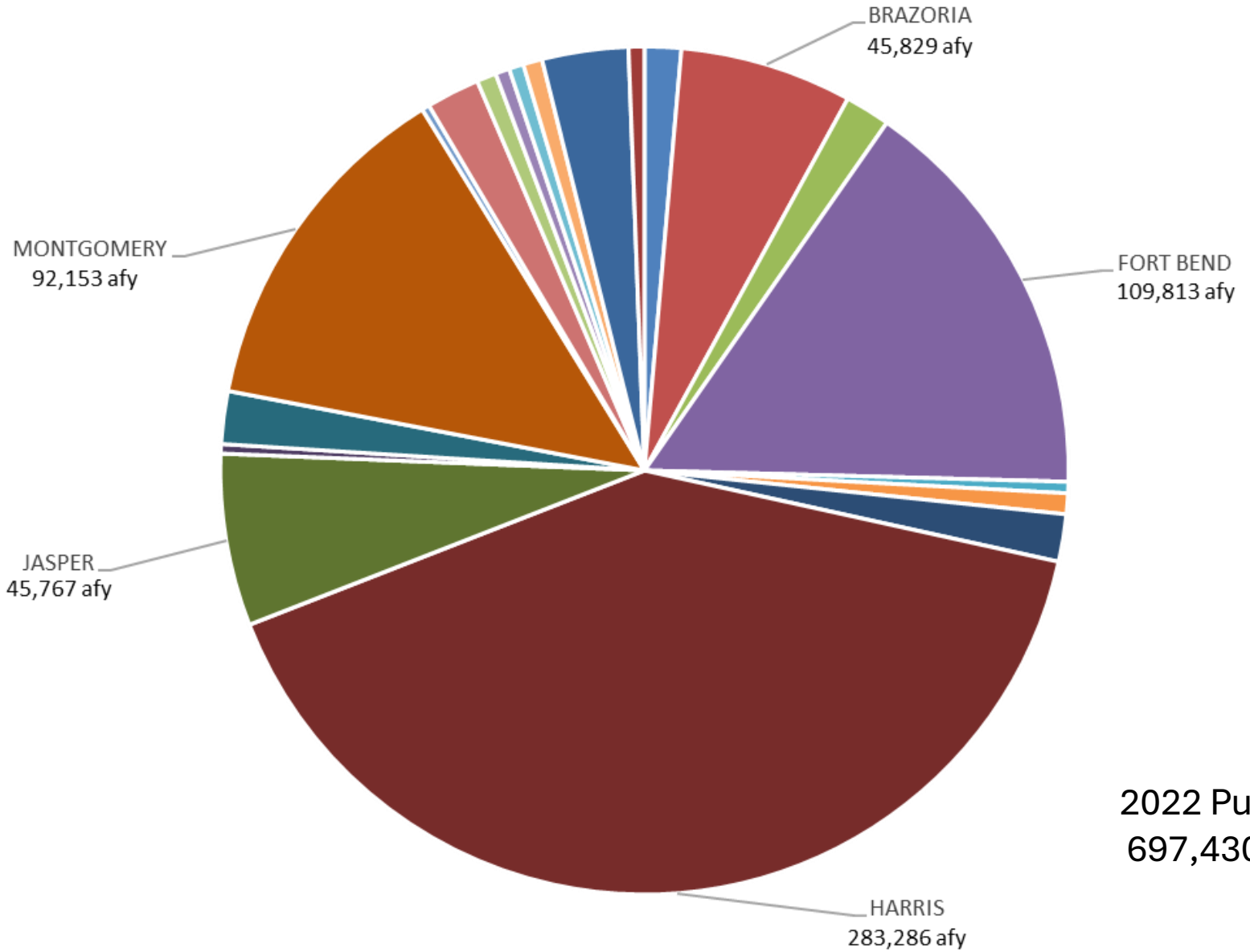
2022 Groundwater Pumping in GMA 14 (by county)



2022 Pumping =
697,430 acft/yr

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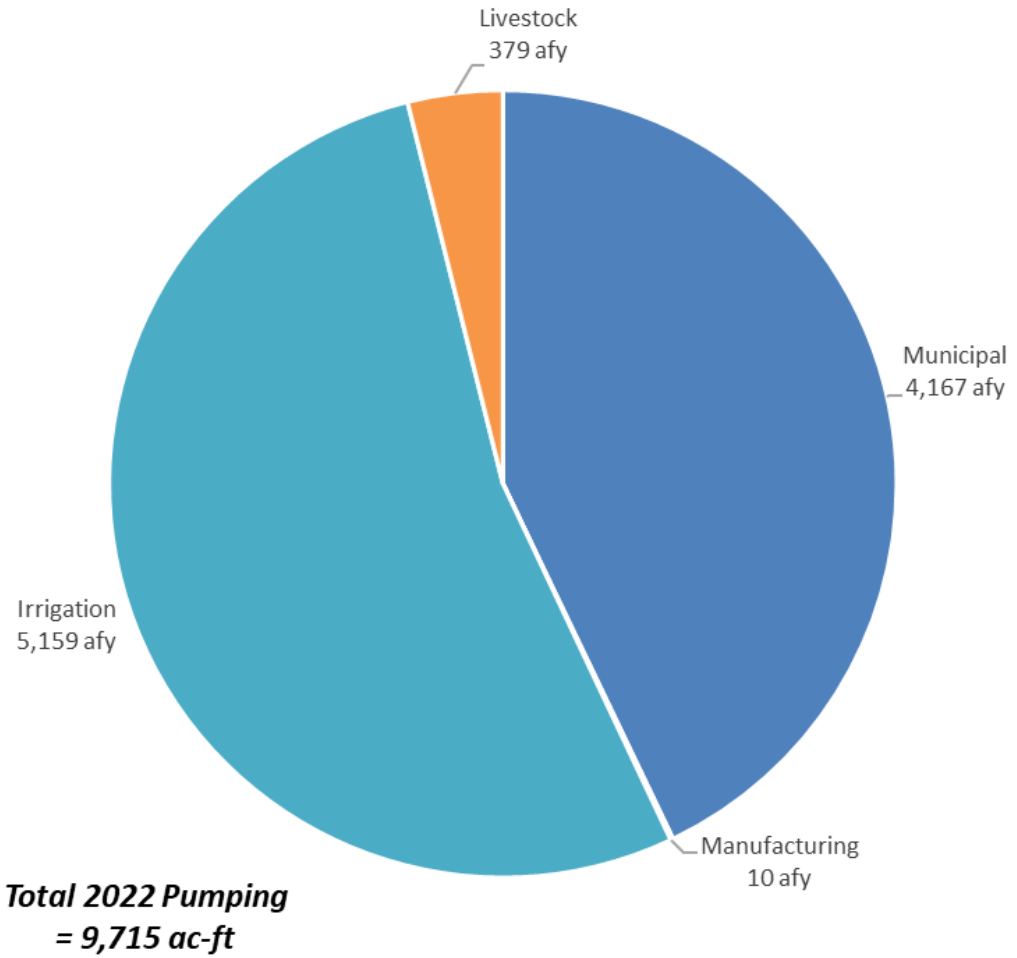
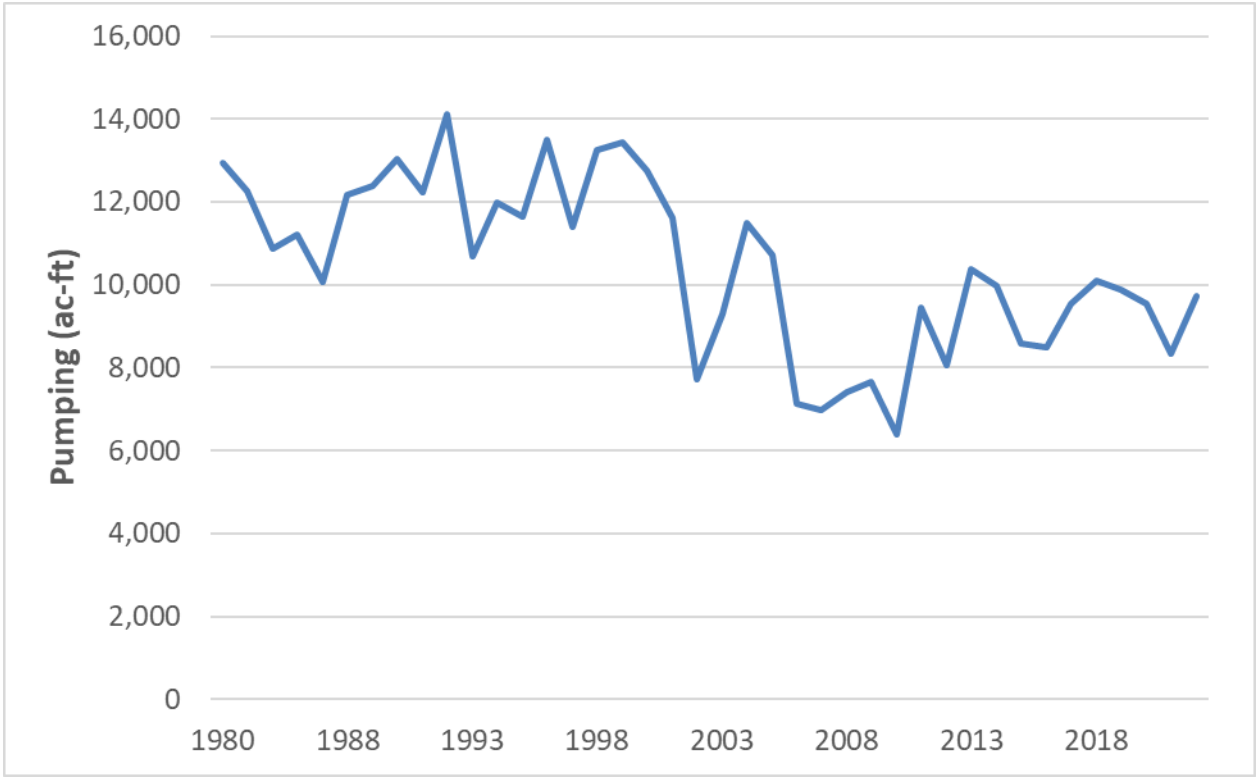
Austin County



Total 2022 Pumping = 9,715 ac-ft



Source: TWDB Water Use Survey

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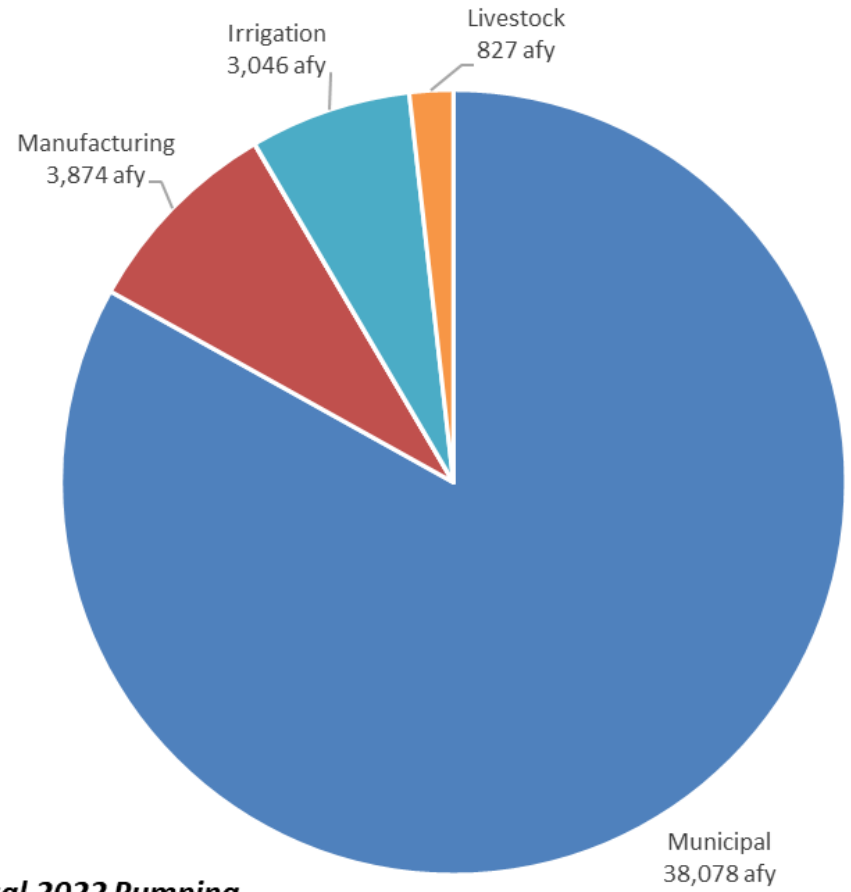
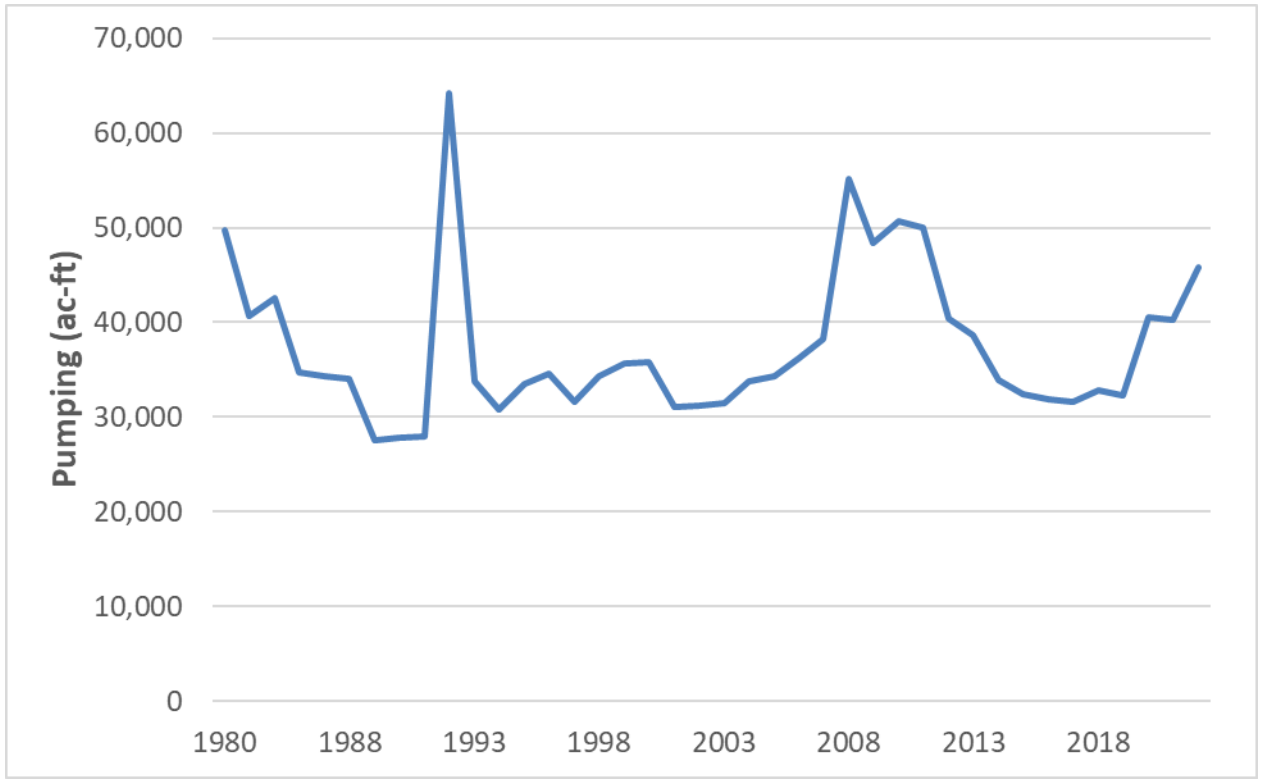
Brazoria County



Total 2022 Pumping = 45,829 ac-ft



Source: TWDB Water Use Survey

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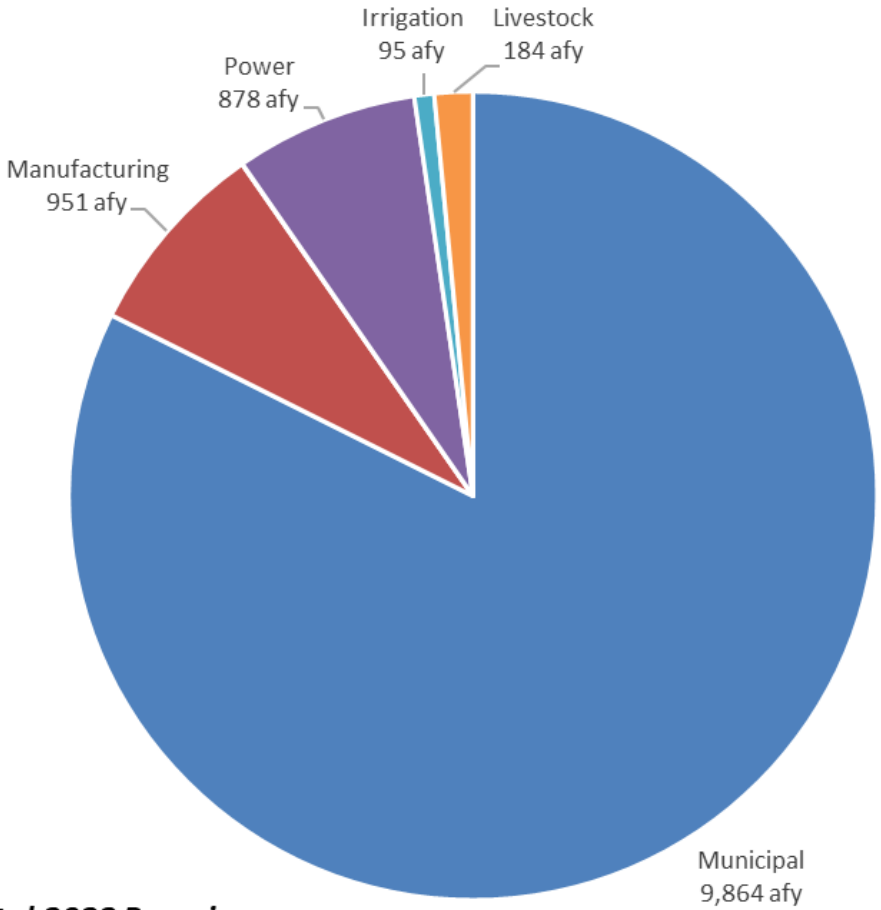
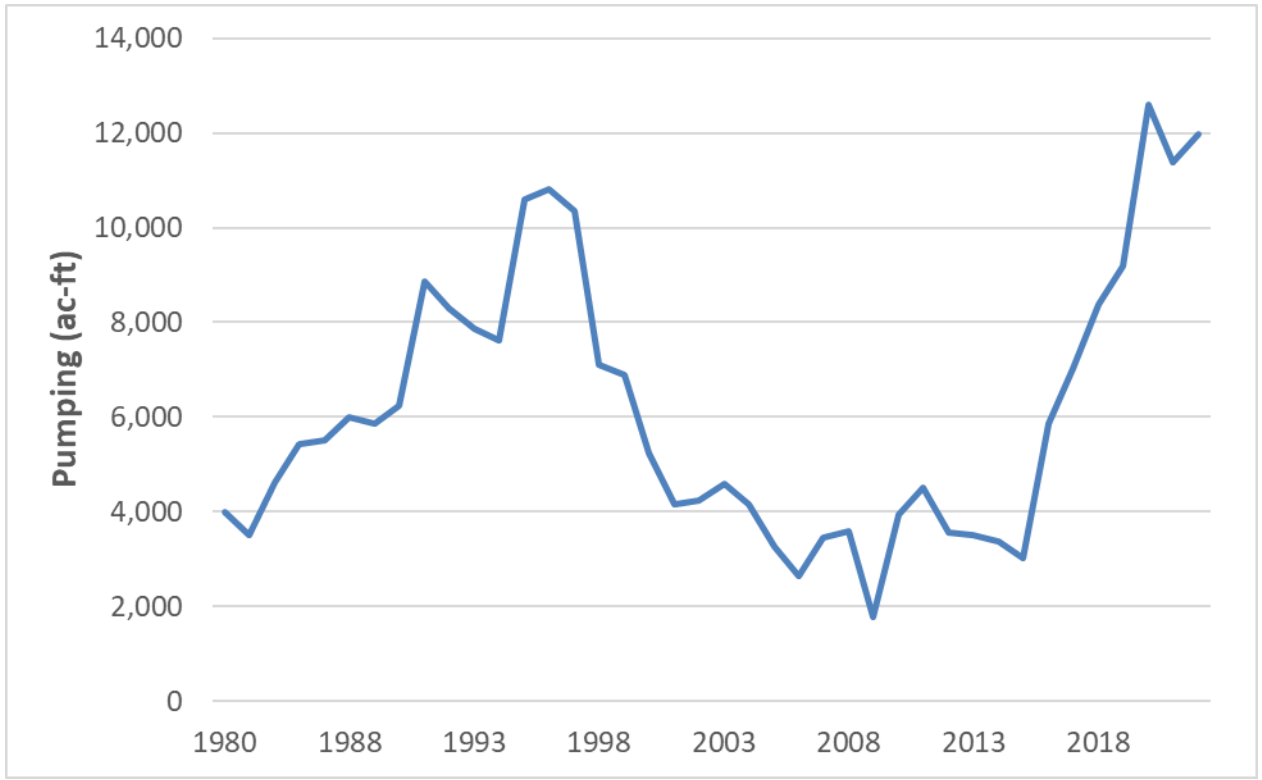
Chambers County



Total 2022 Pumping = 11,974 ac-ft



Source: TWDB Water Use Survey

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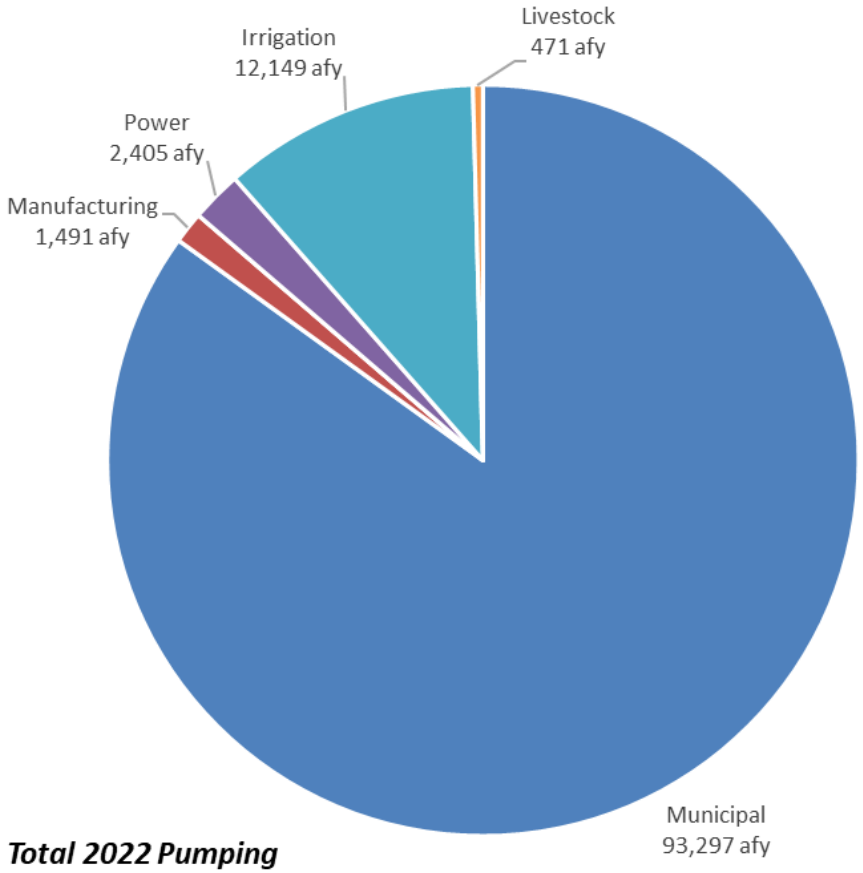
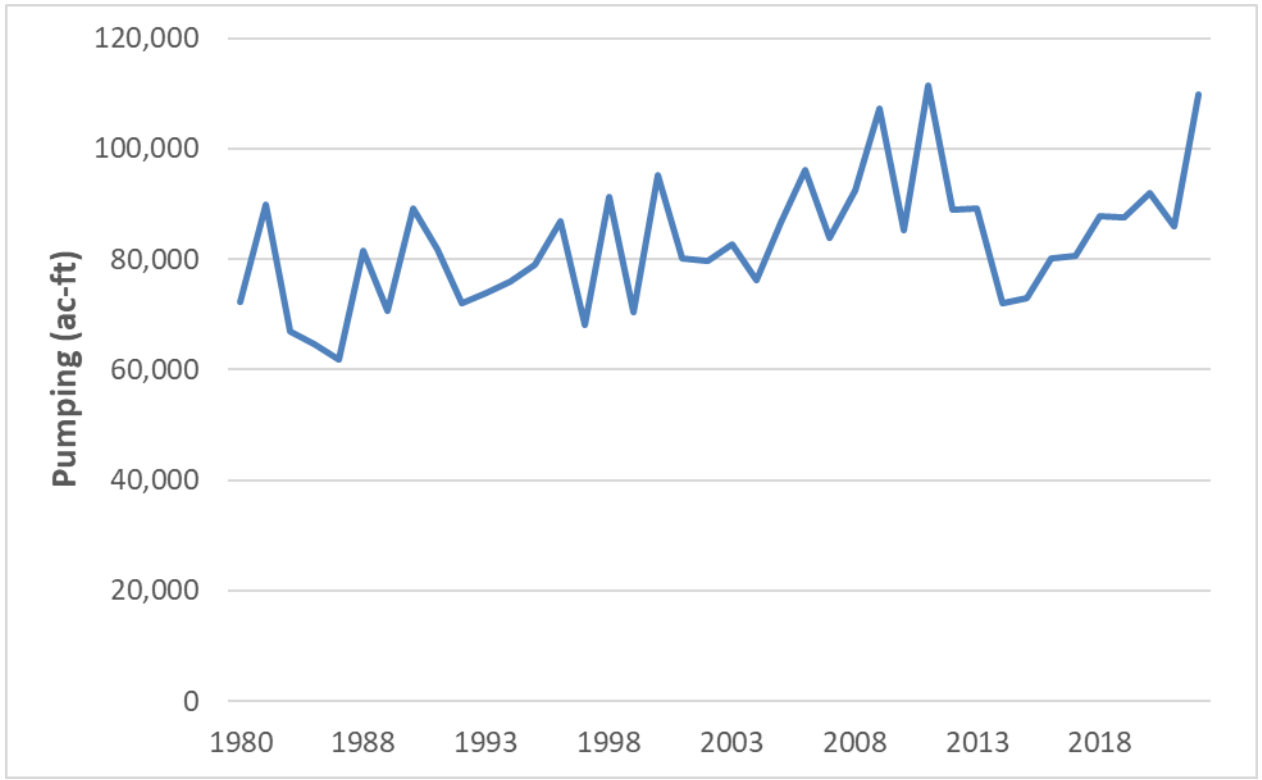
Fort Bend County



Total 2022 Pumping = 109,813 ac-ft



Source: TWDB Water Use Survey

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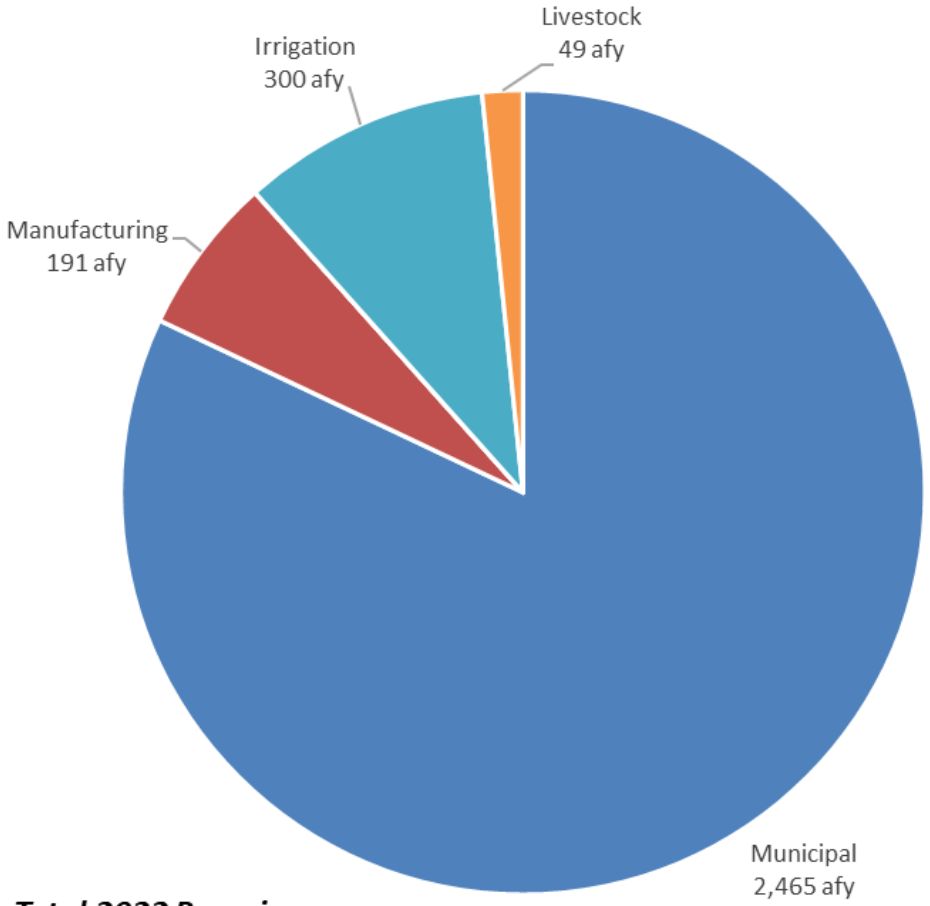
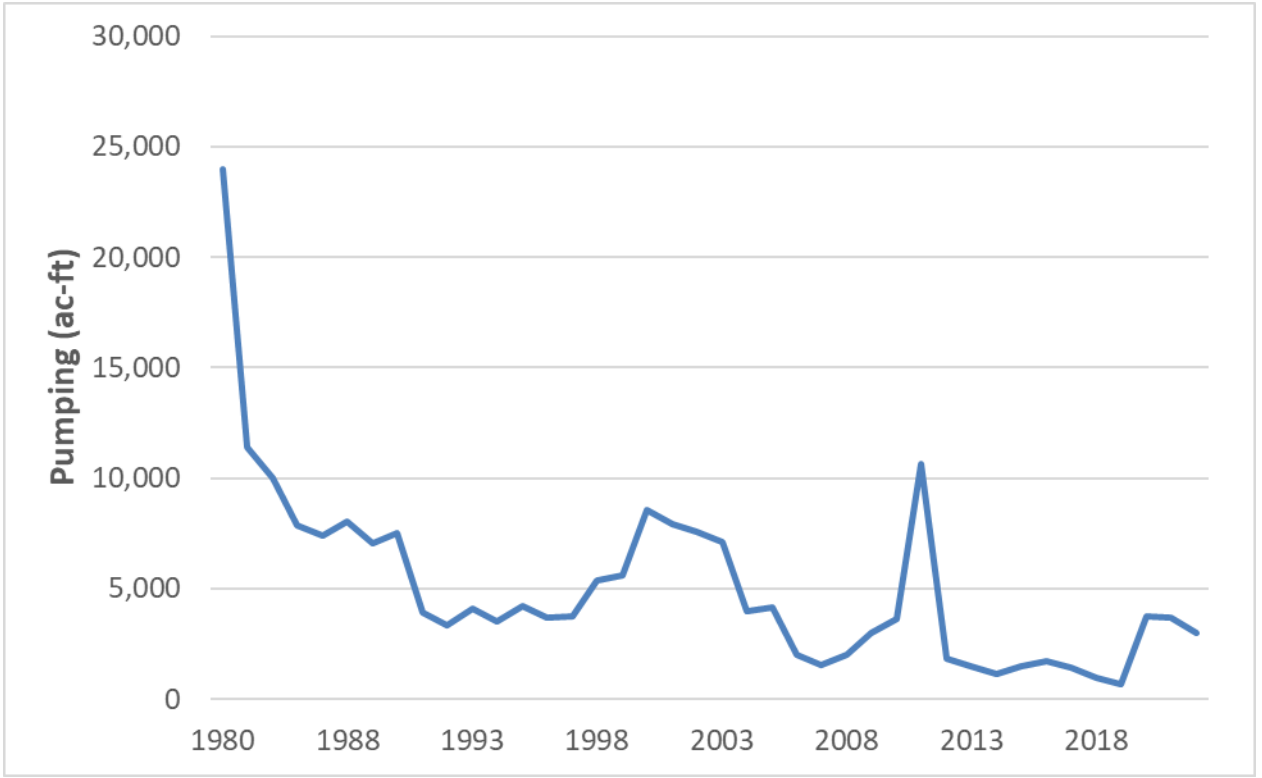
Galveston County



Total 2022 Pumping = 3,005 ac-ft



Source: TWDB Water Use Survey

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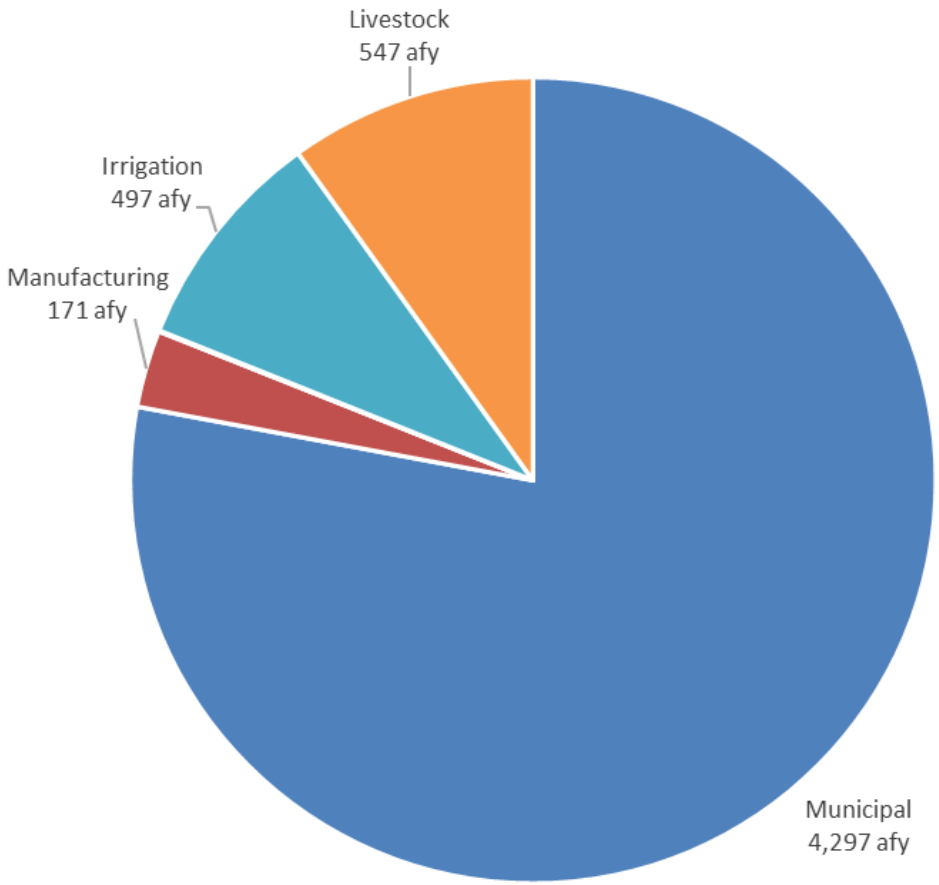
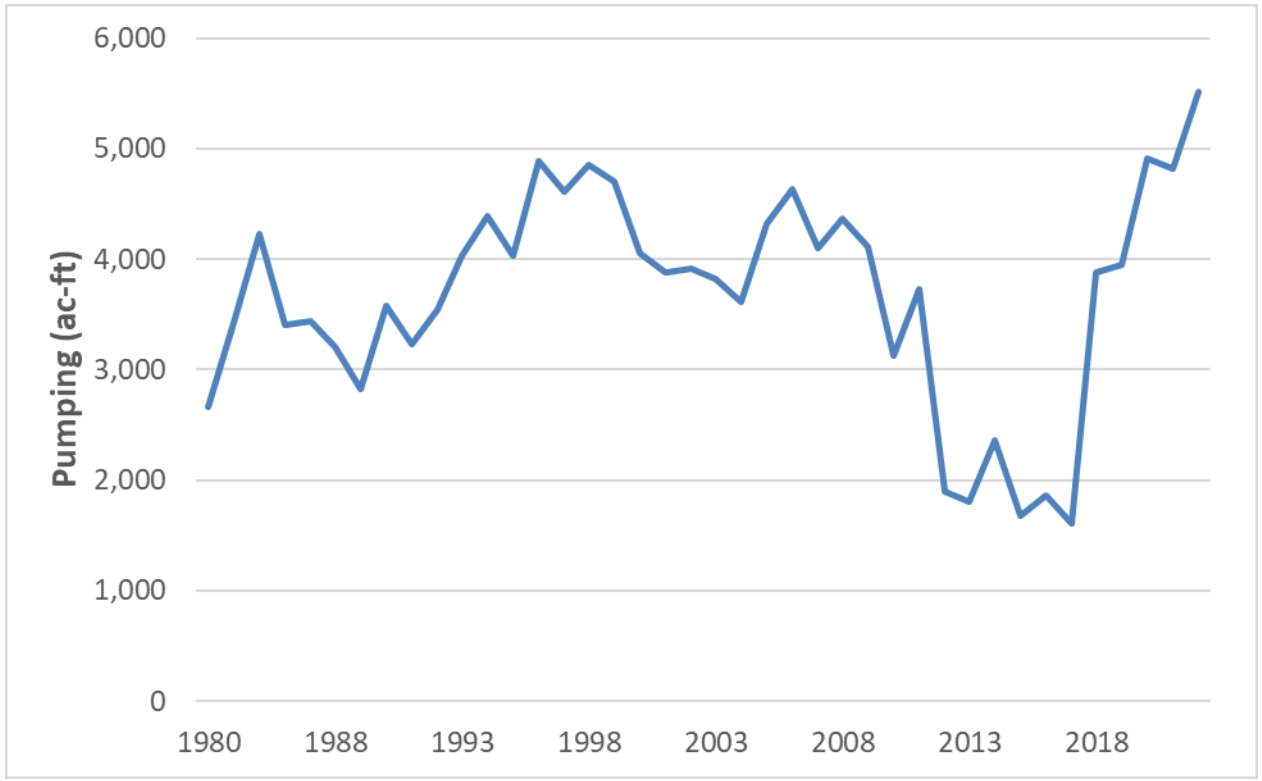
Grimes County



Total 2022 Pumping = 5,514 ac-ft



Source: TWDB Water Use Survey

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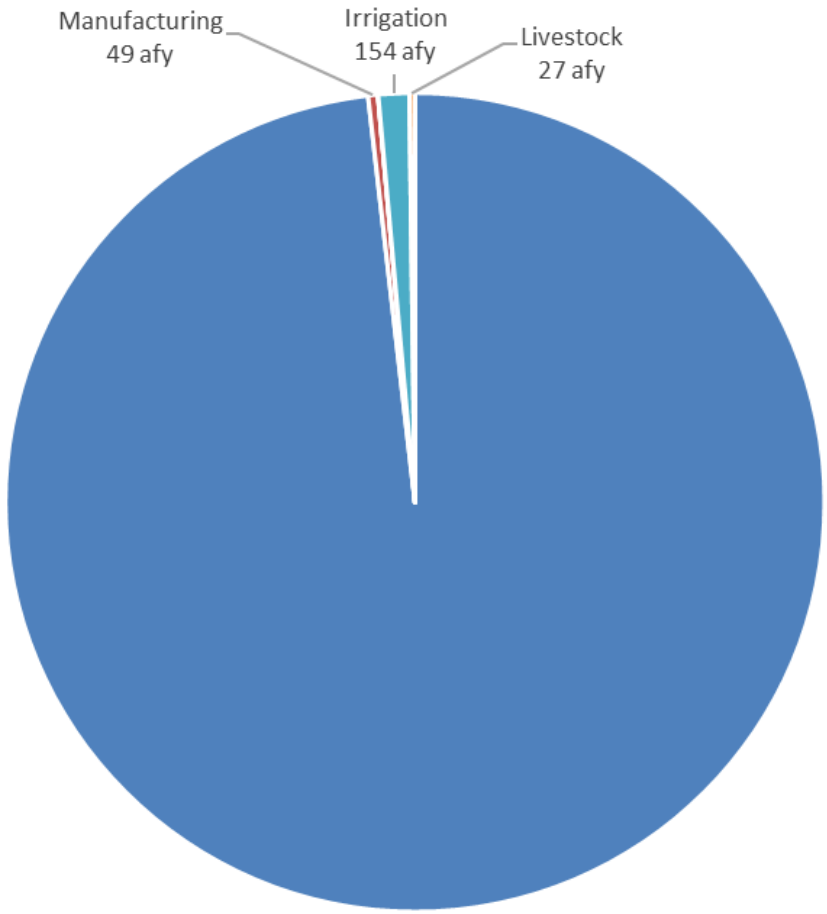
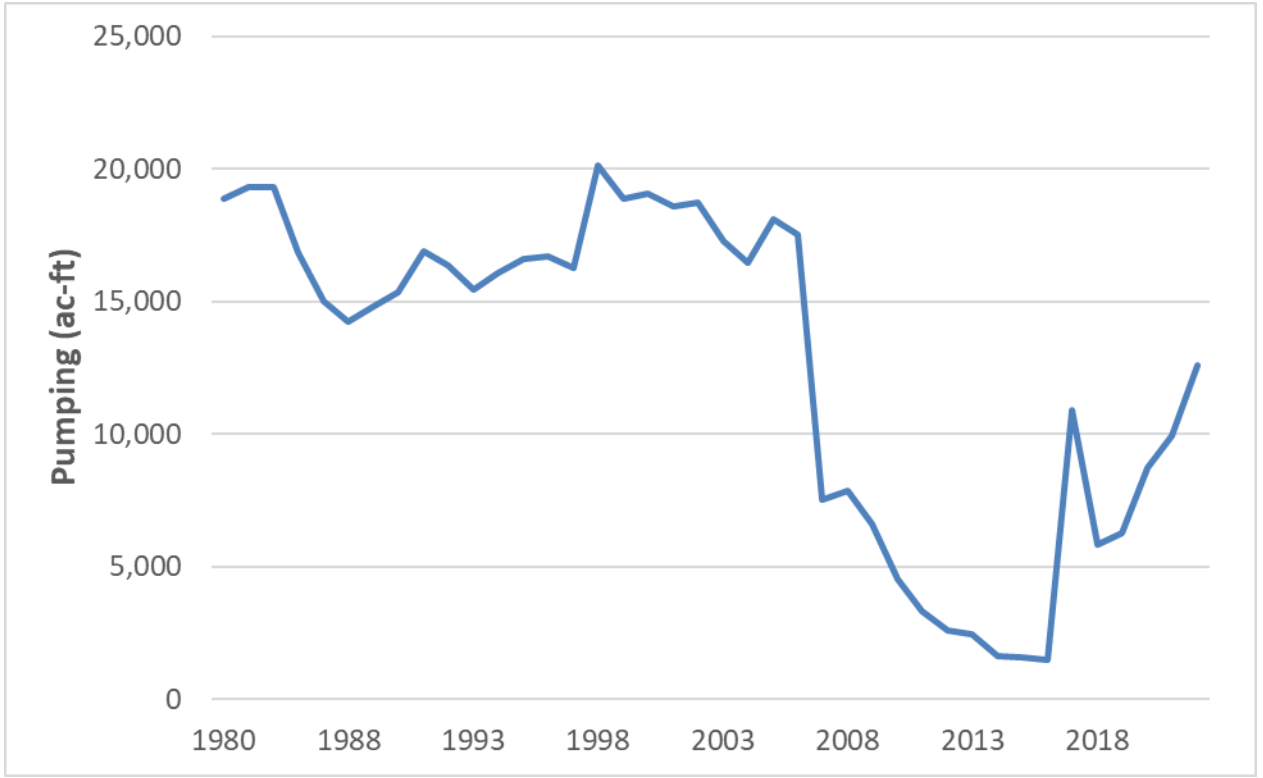
Hardin County



Total 2022 Pumping = 12,608 ac-ft



Source: TWDB Water Use Survey

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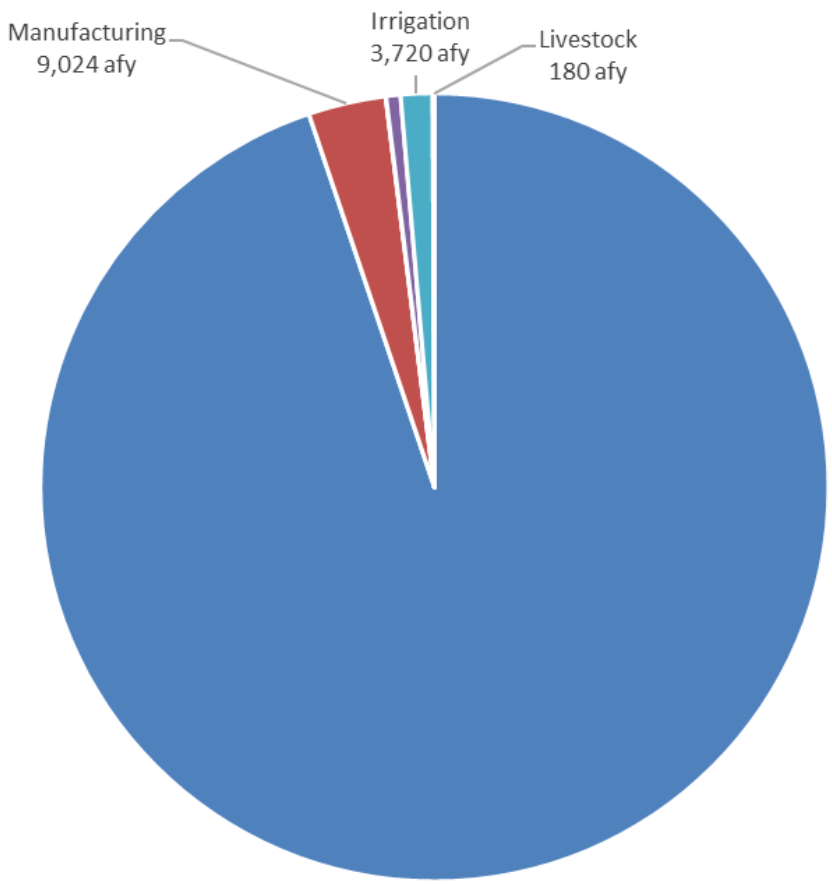
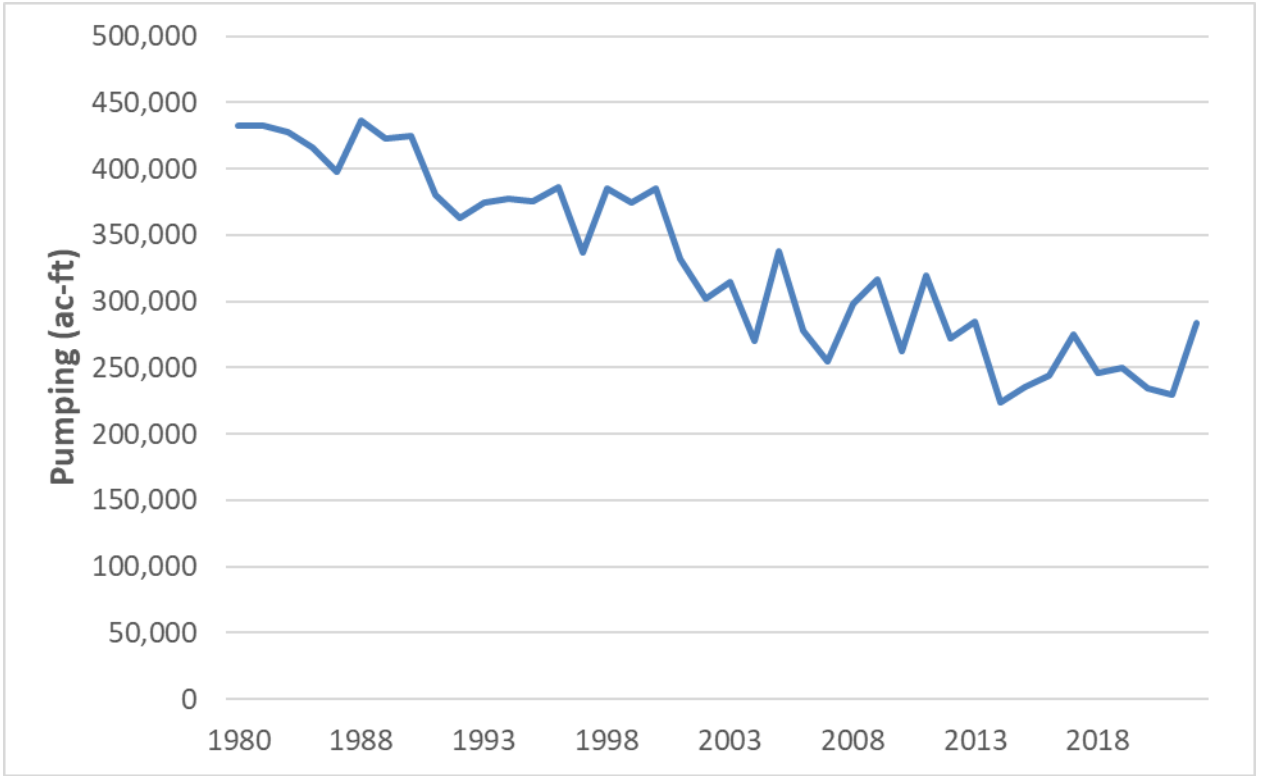
Harris County



Total 2022 Pumping = 283,286 ac-ft



Source: TWDB Water Use Survey

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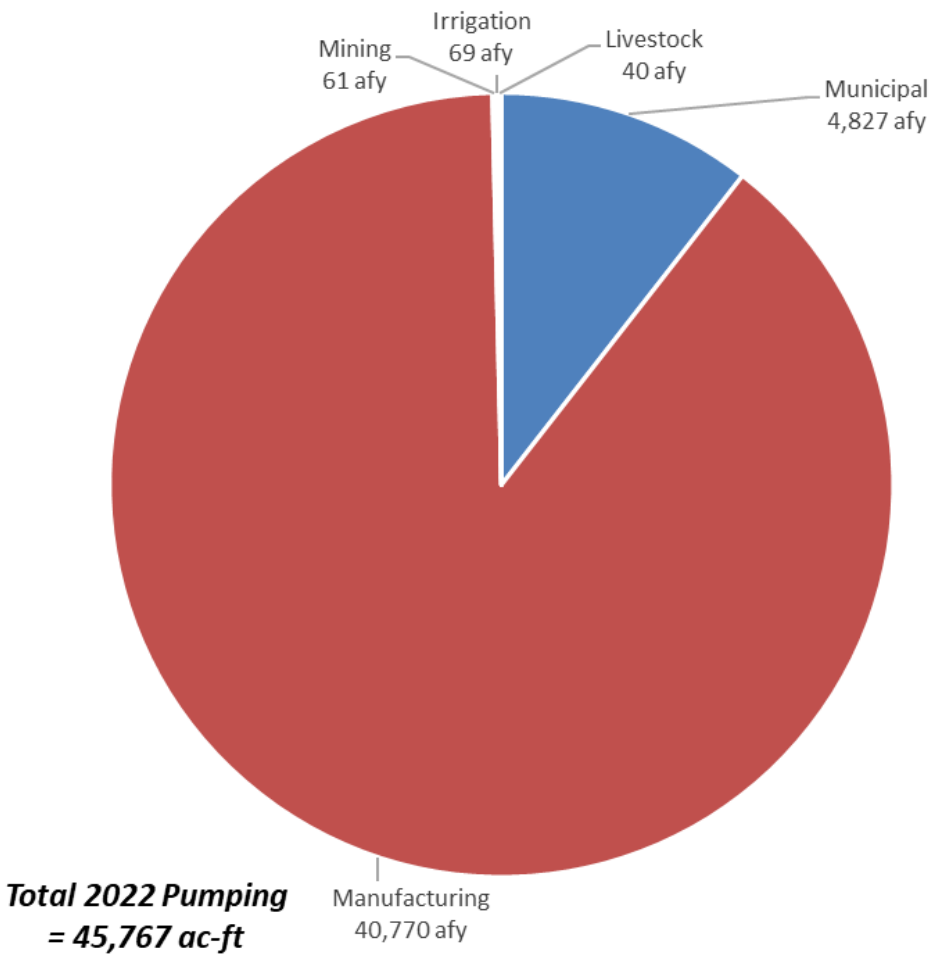
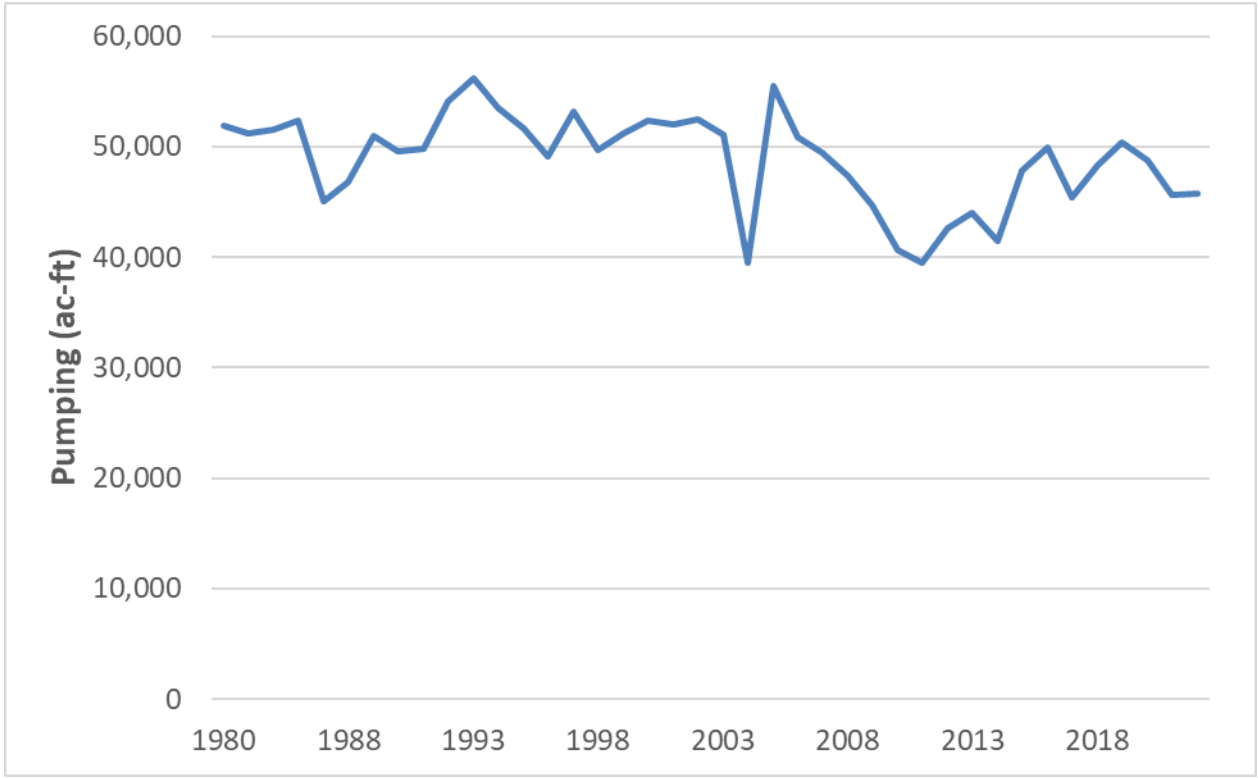
Jasper County



Total 2022 Pumping = 45,767 ac-ft



Source: TWDB Water Use Survey

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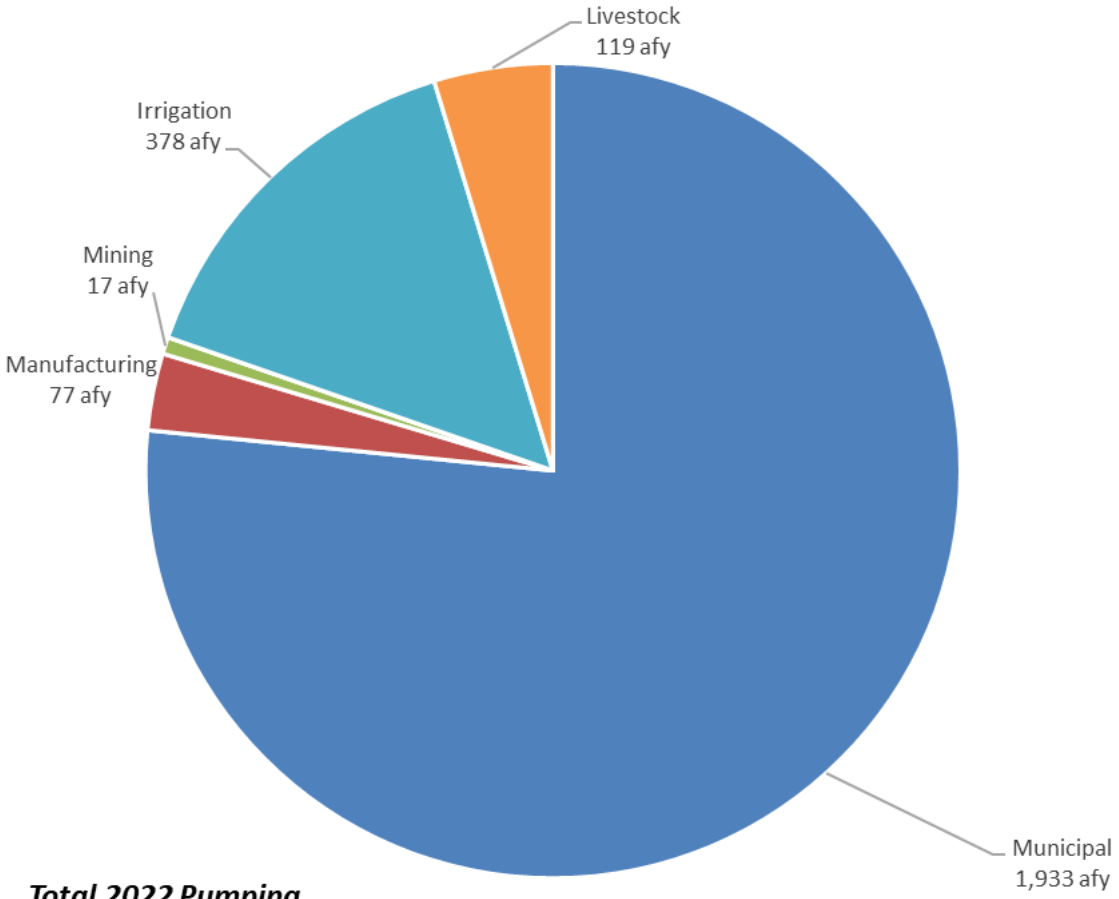
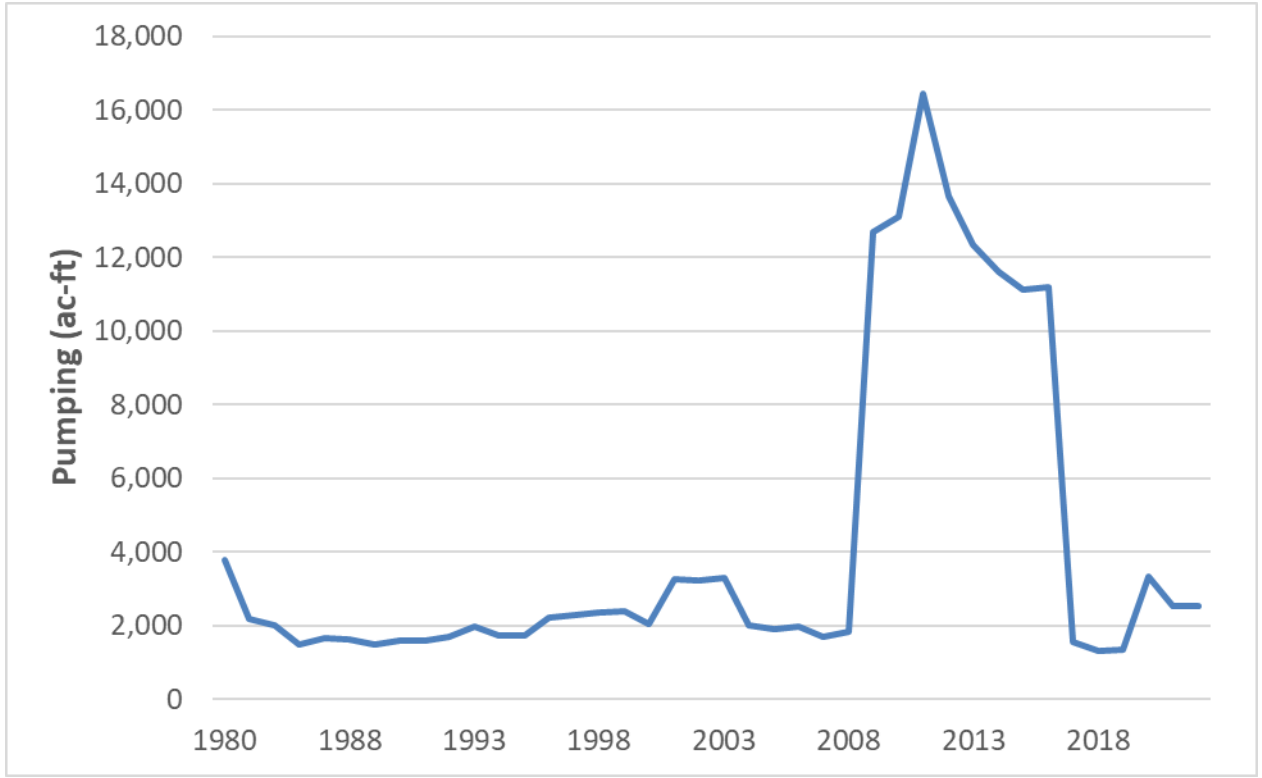
Jefferson County



Total 2022 Pumping = 2,524 ac-ft



Source: TWDB Water Use Survey

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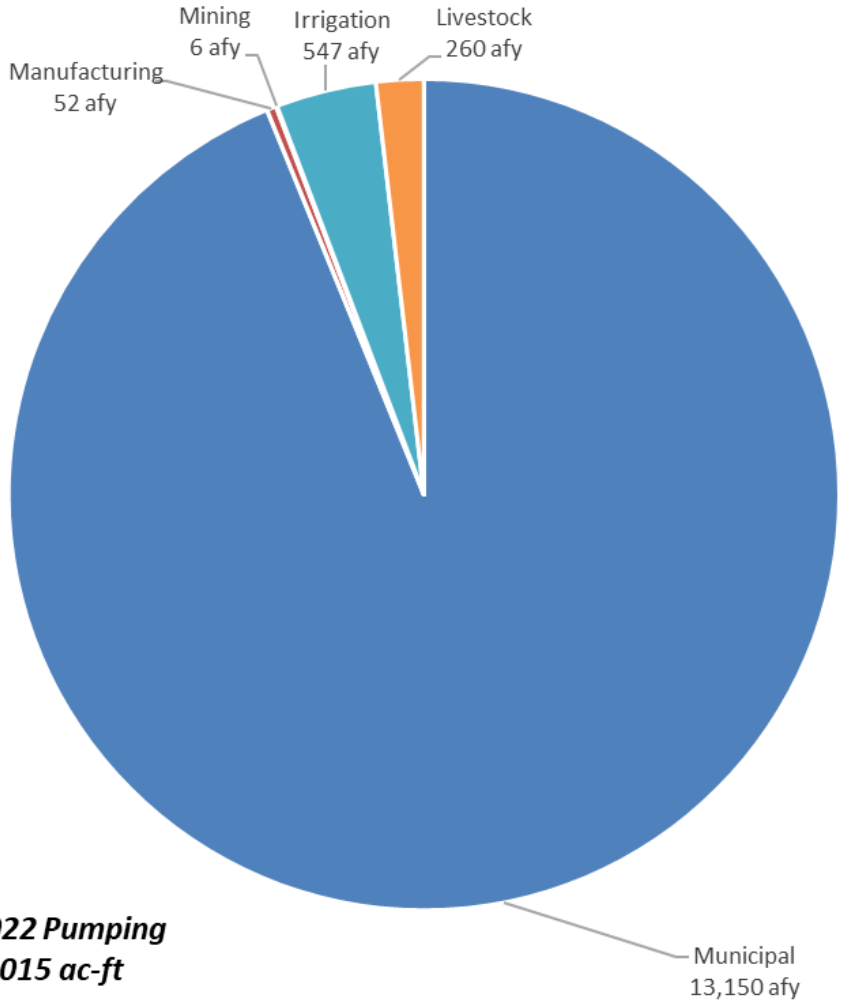
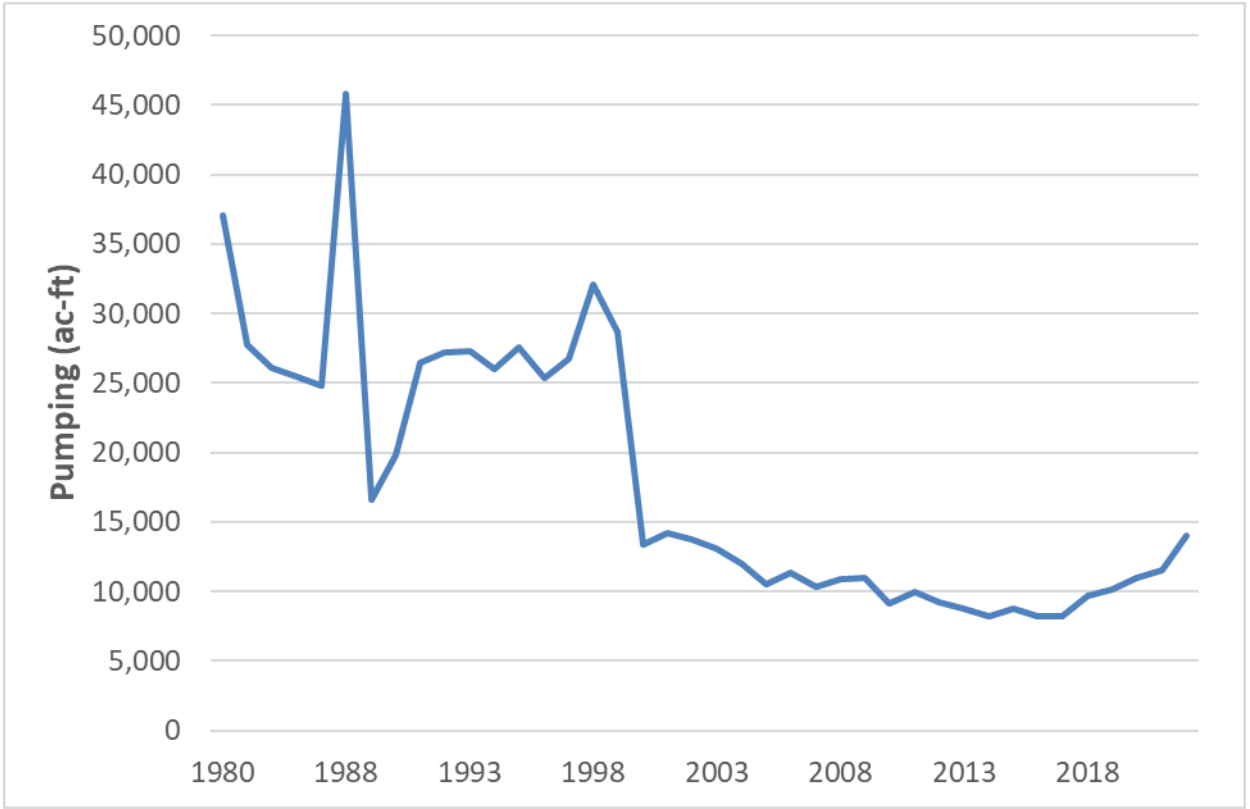
Liberty County



Total 2022 Pumping = 14,015 ac-ft



Source: TWDB Water Use Survey

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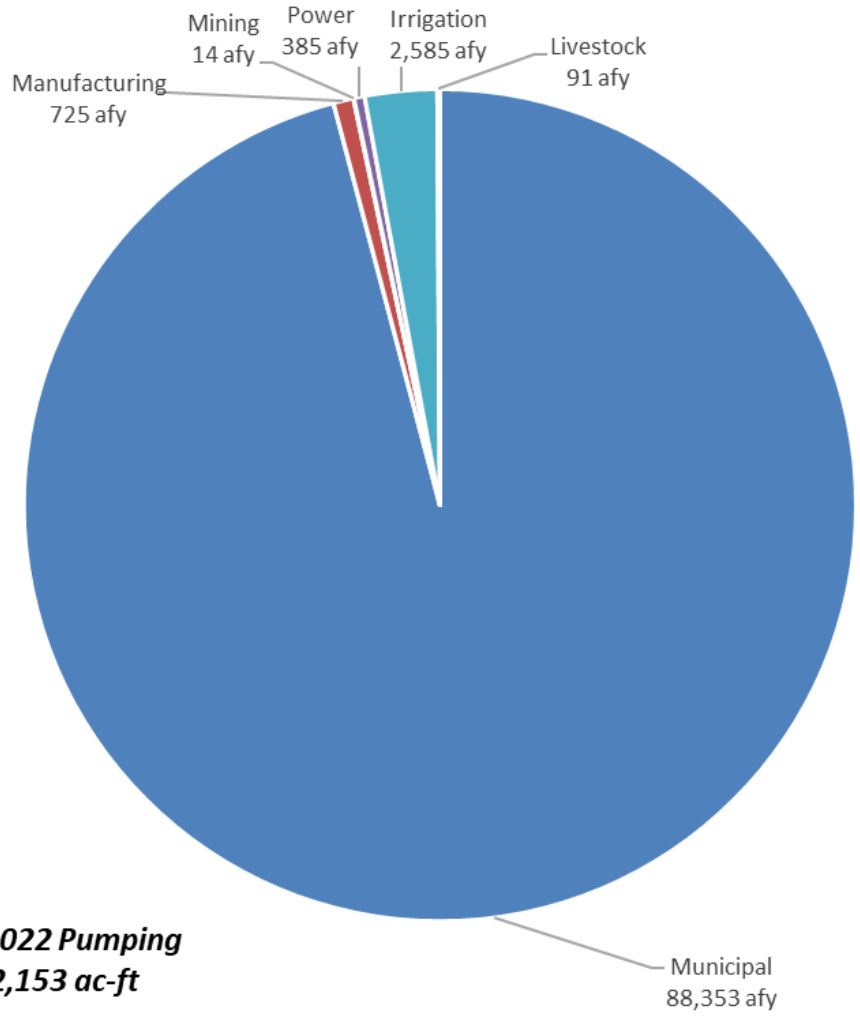
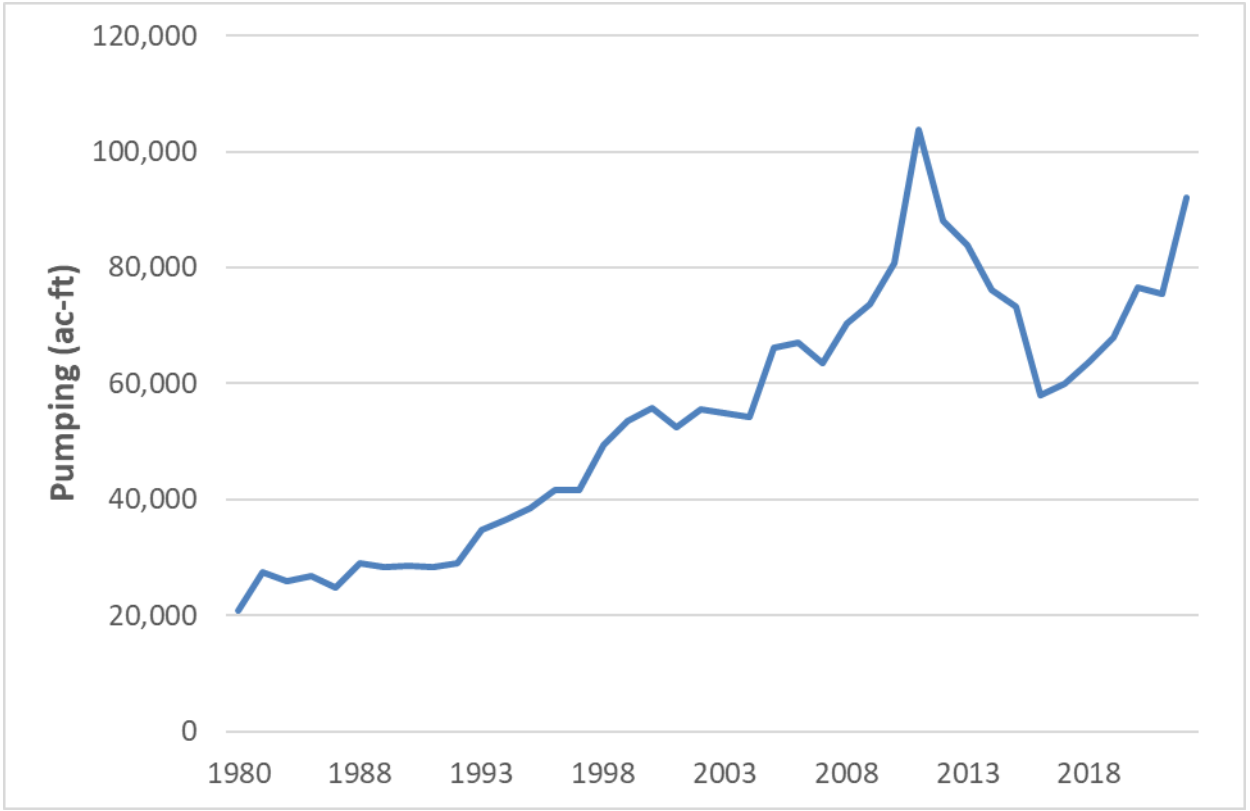
Montgomery County



Total 2022 Pumping = 92,153 ac-ft



Source: TWDB Water Use Survey

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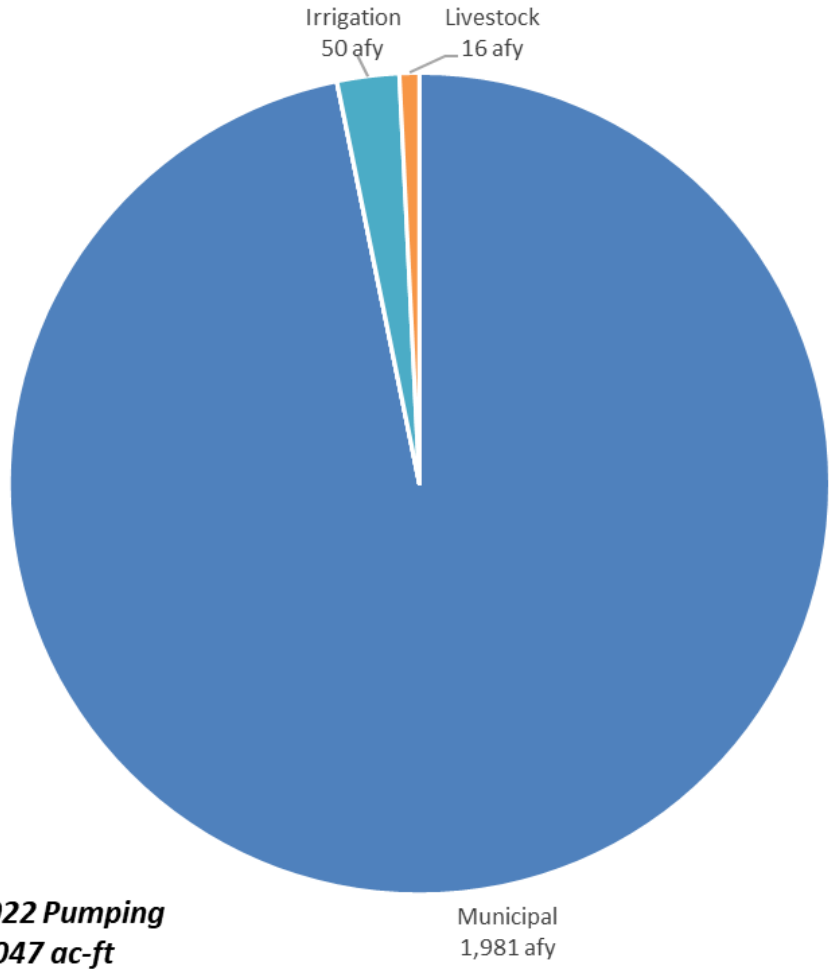
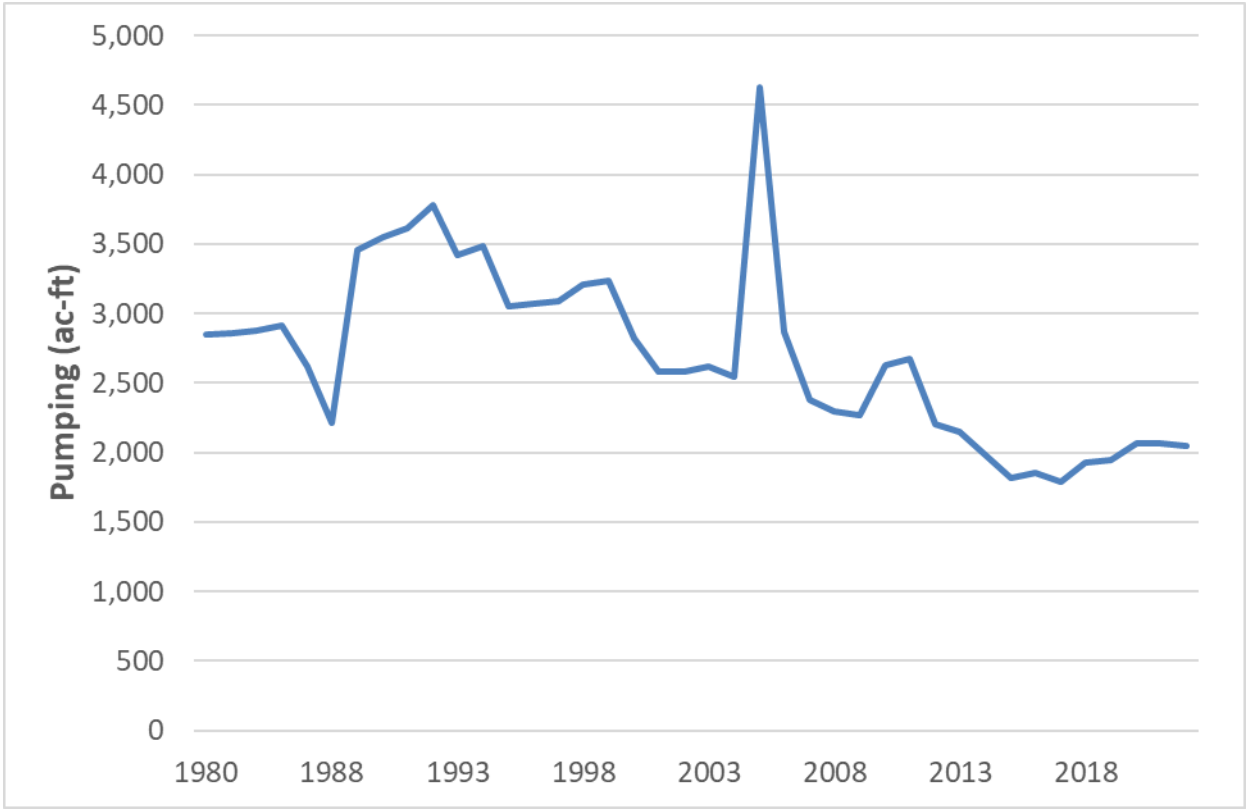
Newton County



Total 2022 Pumping = 2,047 ac-ft



Source: TWDB Water Use Survey

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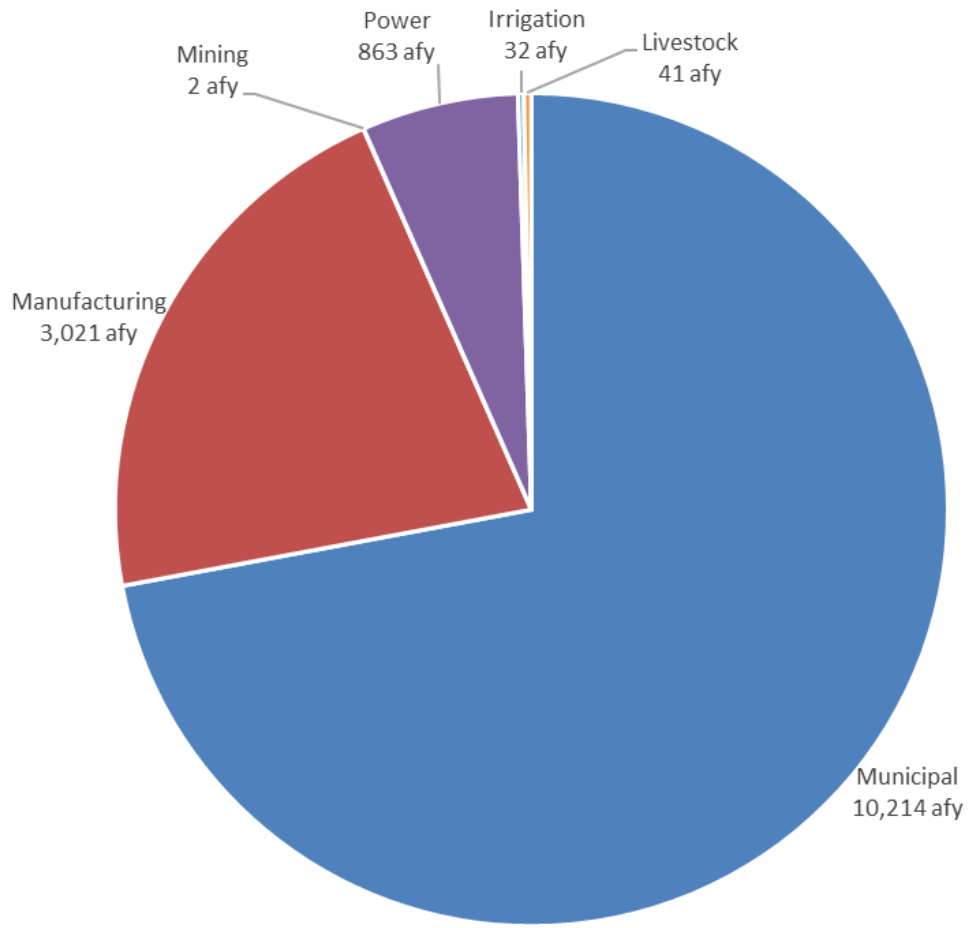
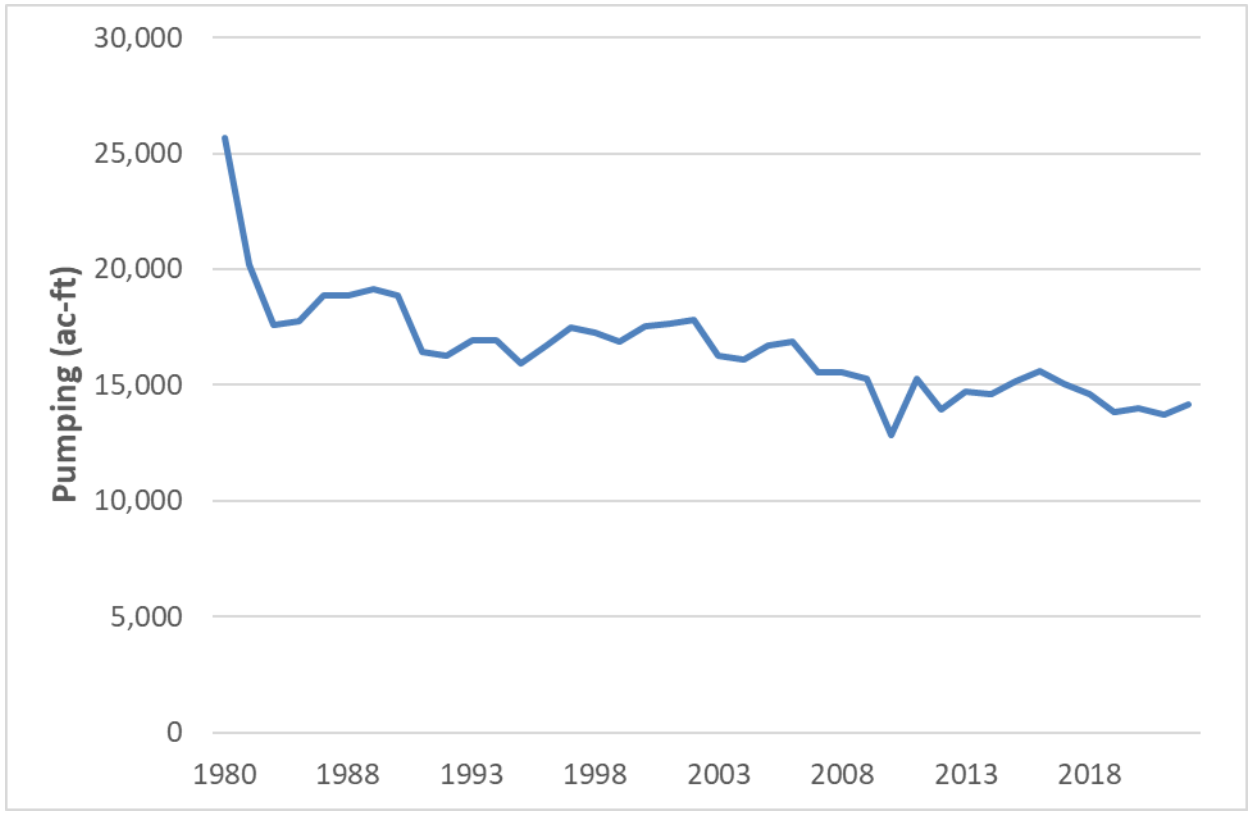
Orange County



Total 2022 Pumping = 14,173 ac-ft



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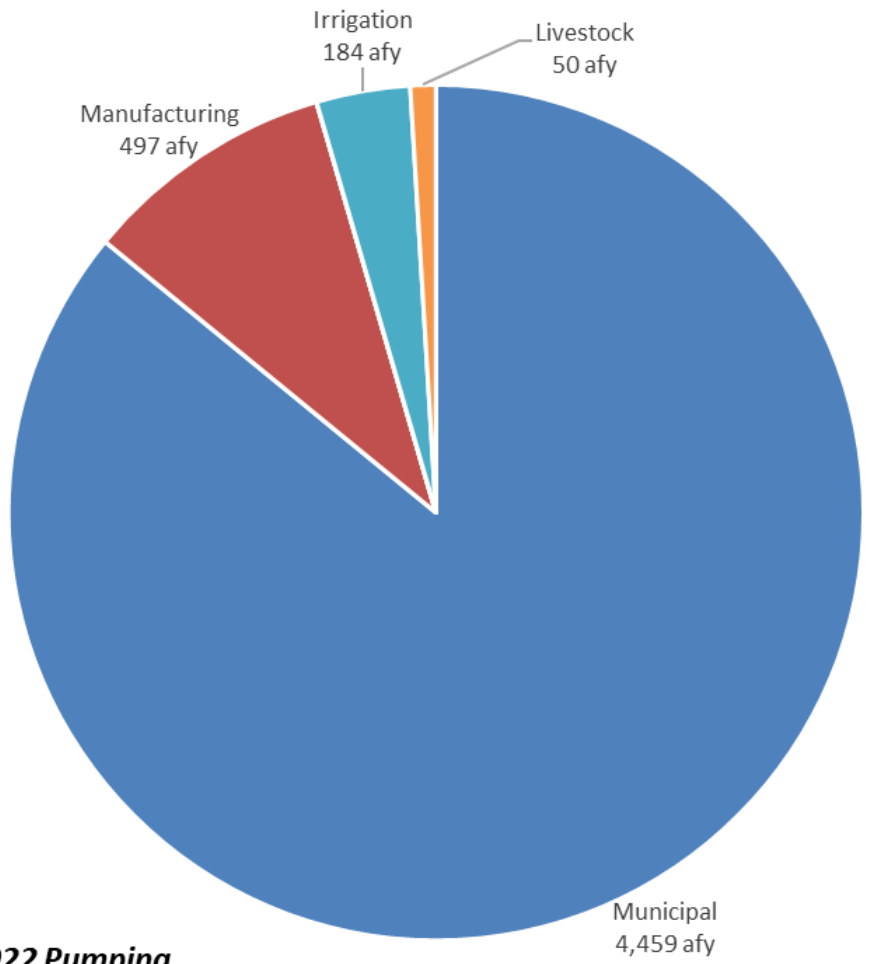
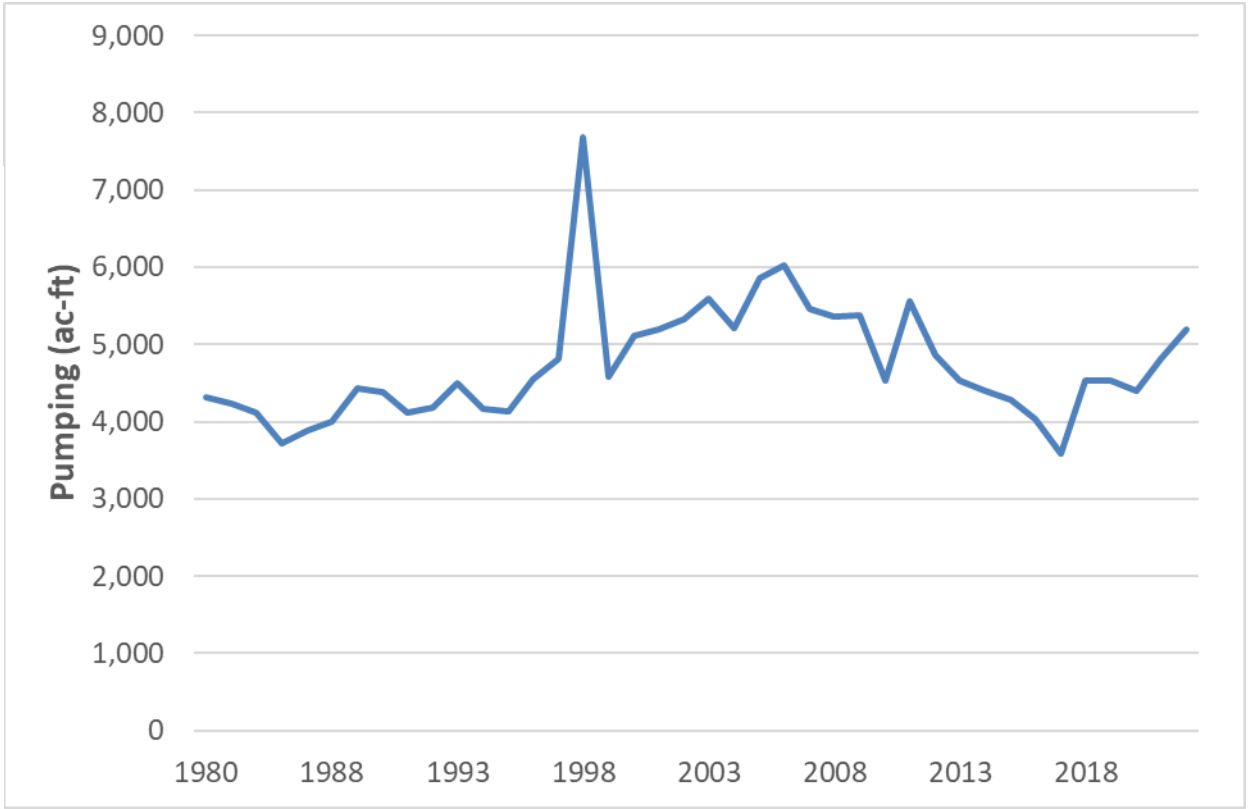
Polk County



Total 2022 Pumping = 5,190 ac-ft



Source: TWDB Water Use Survey

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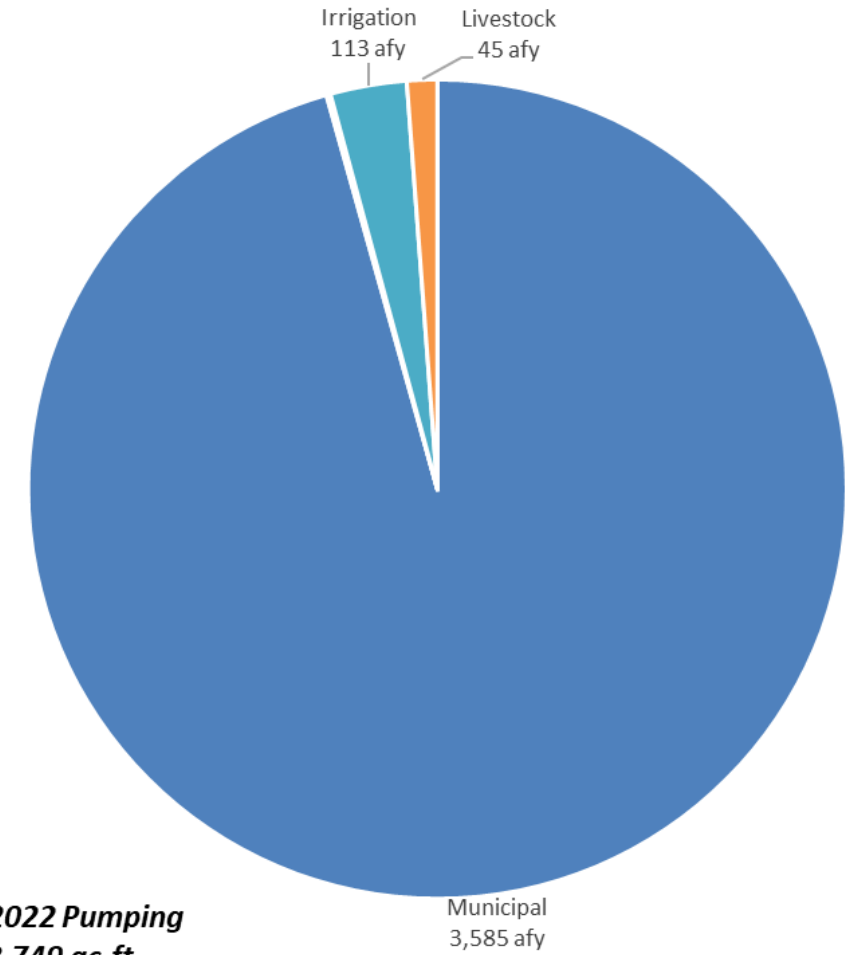
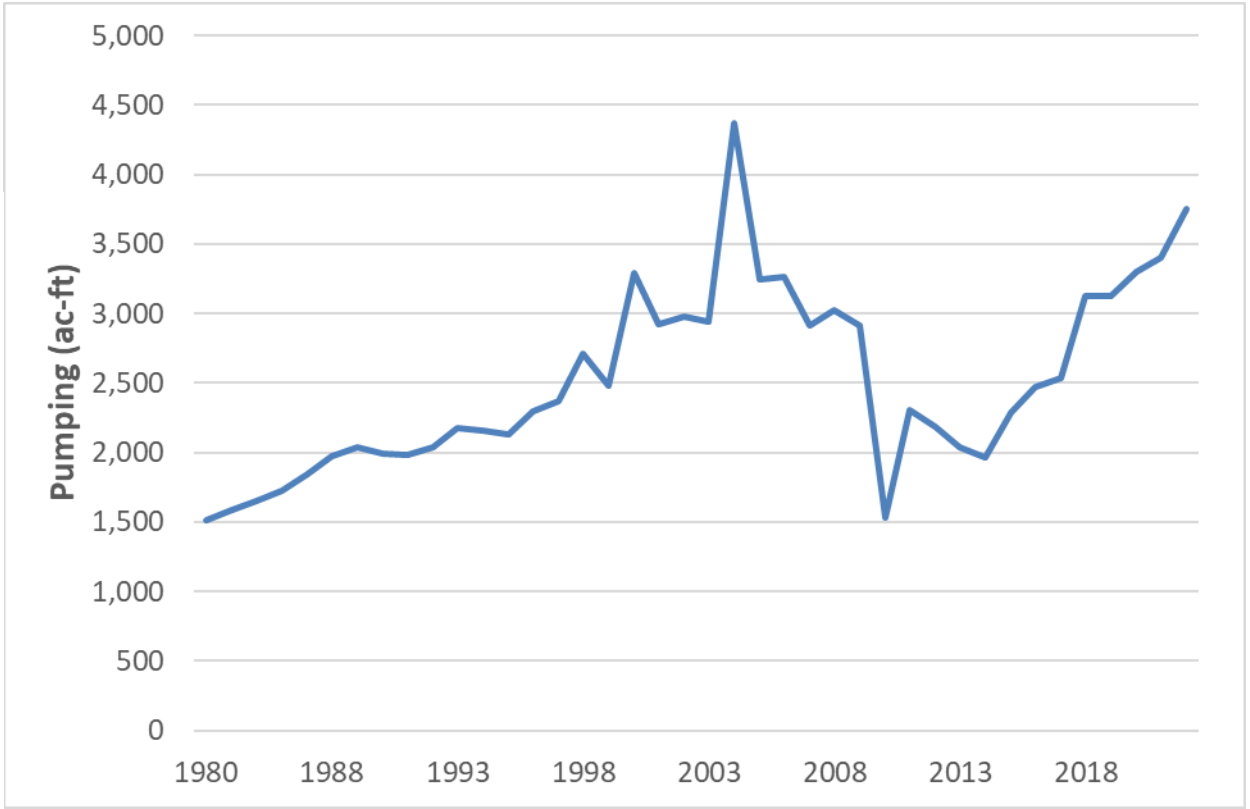
San Jacinto County



Total 2022 Pumping = 3,749 ac-ft



Source: TWDB Water Use Survey

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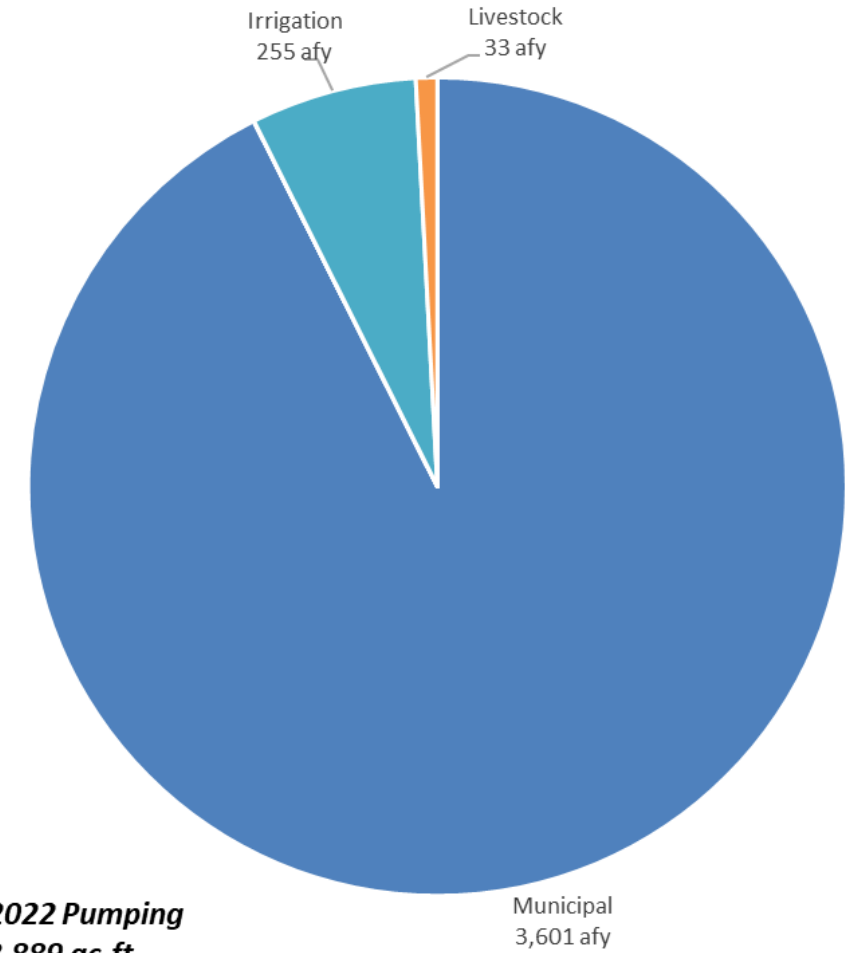
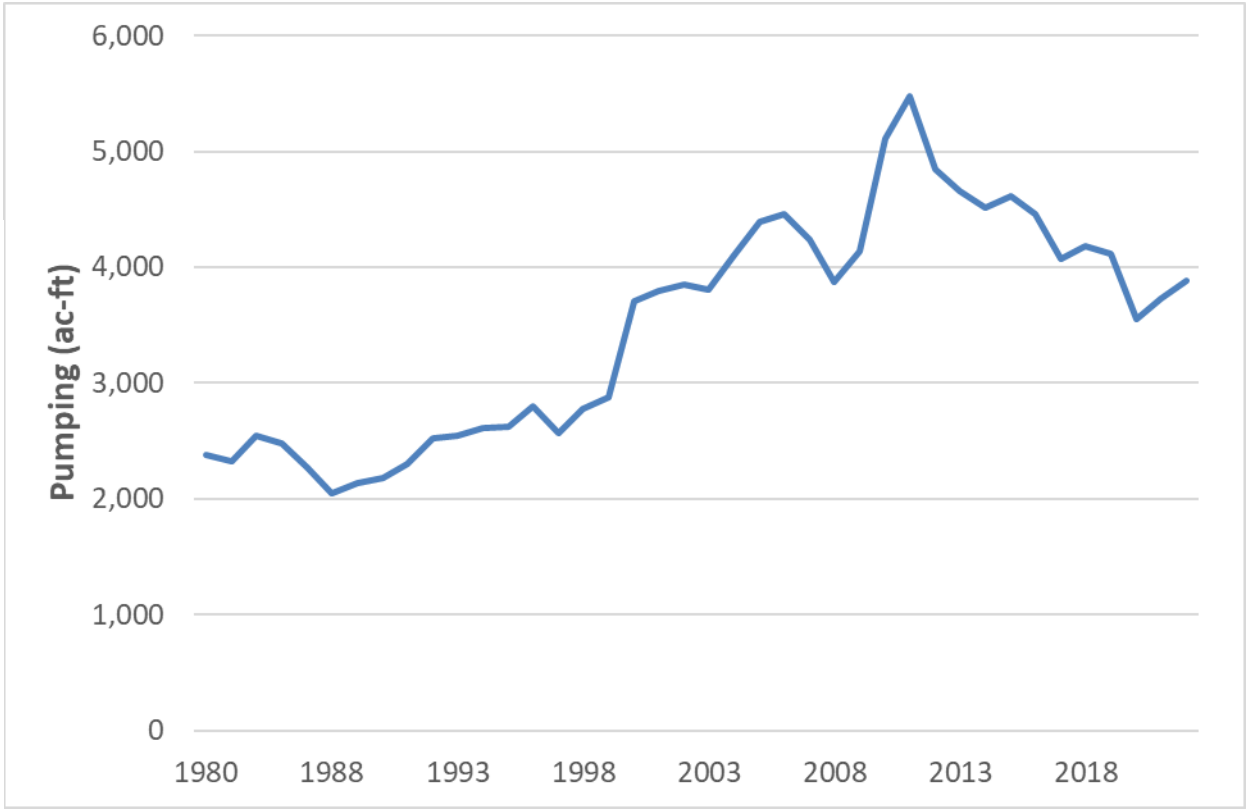
Tyler County



Total 2022 Pumping = 3,889 ac-ft



Source: TWDB Water Use Survey

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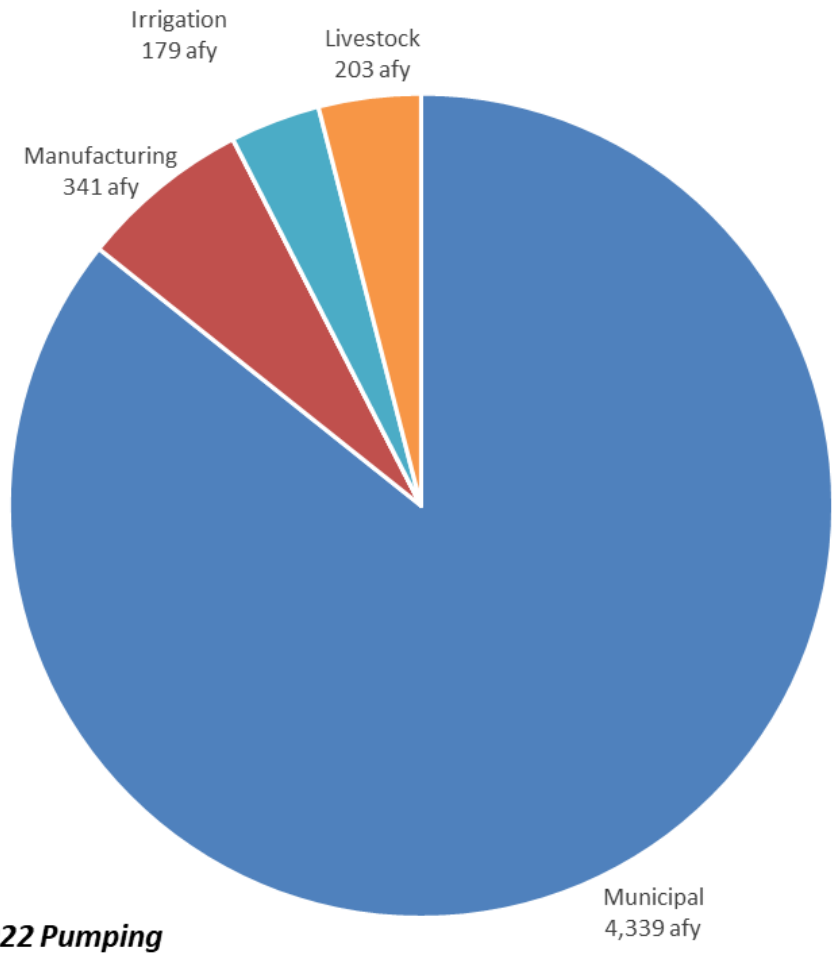
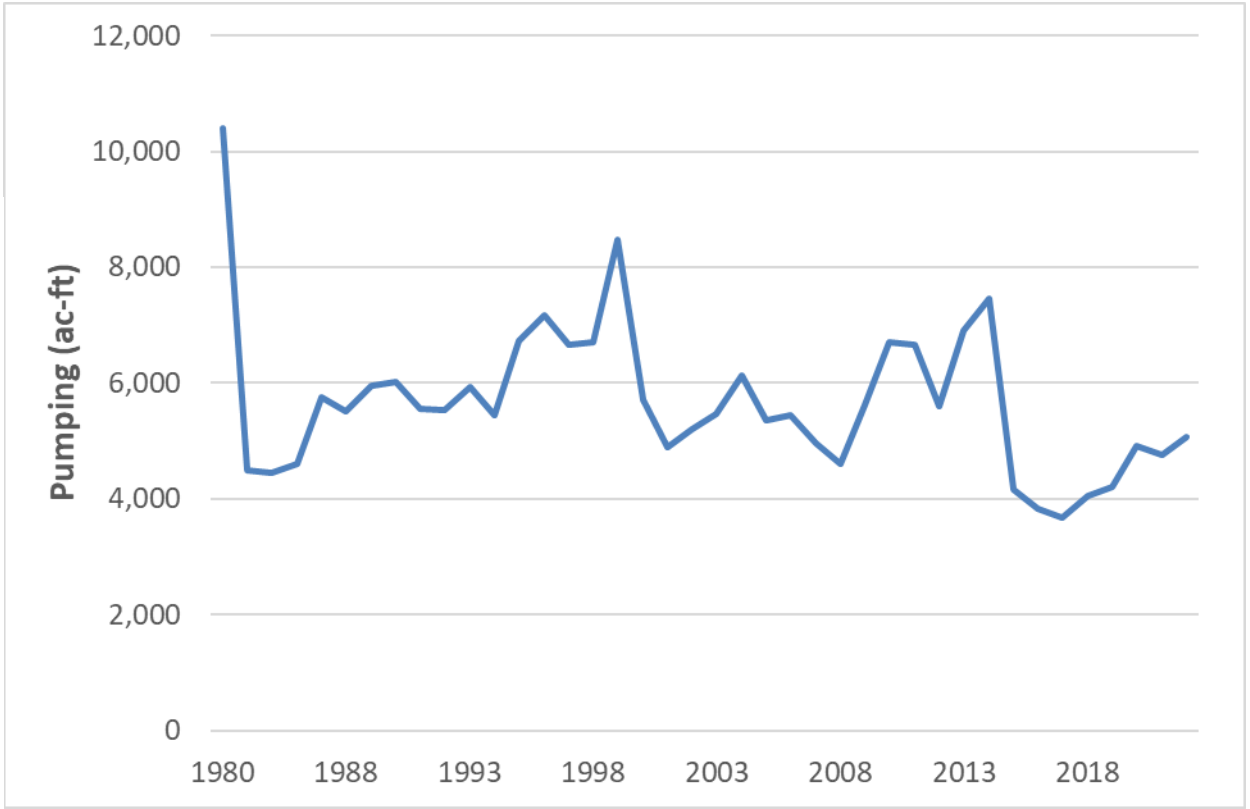
Walker County



Total 2022 Pumping = 5,062 ac-ft



Source: TWDB Water Use Survey

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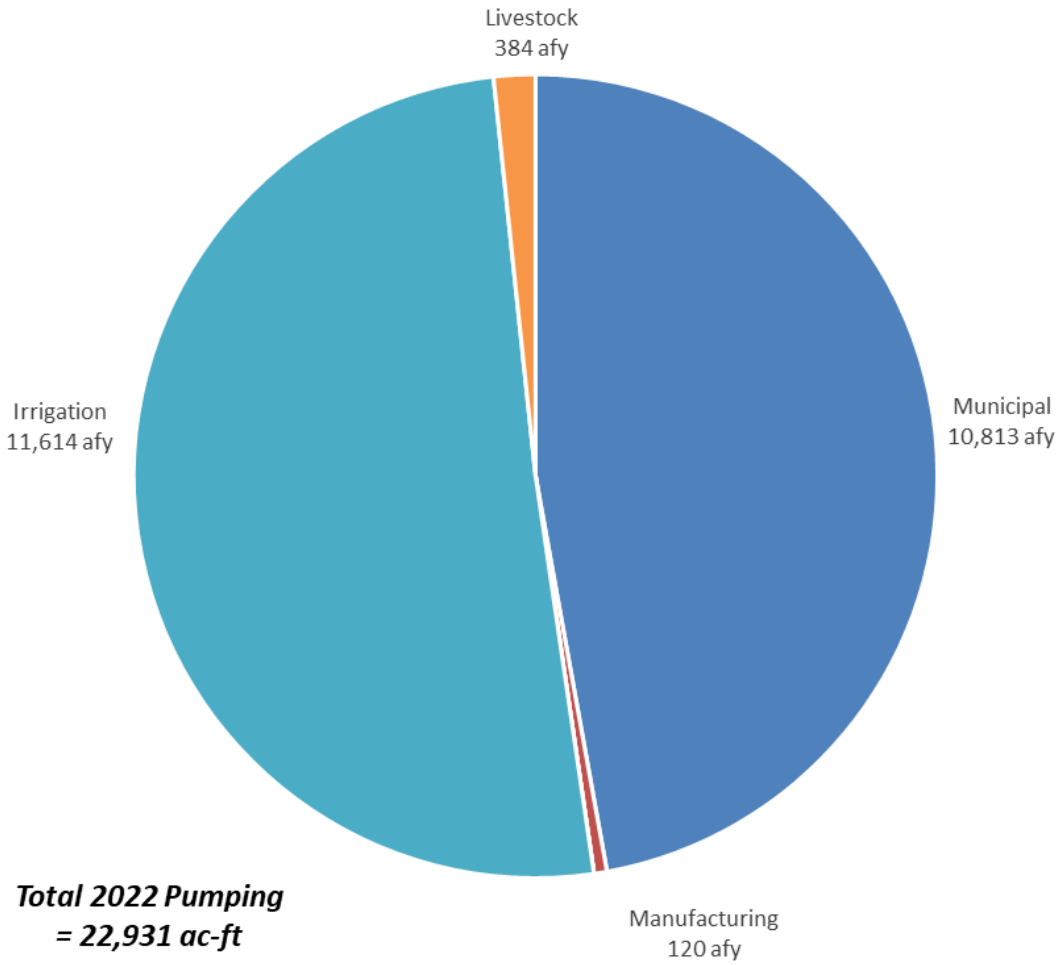
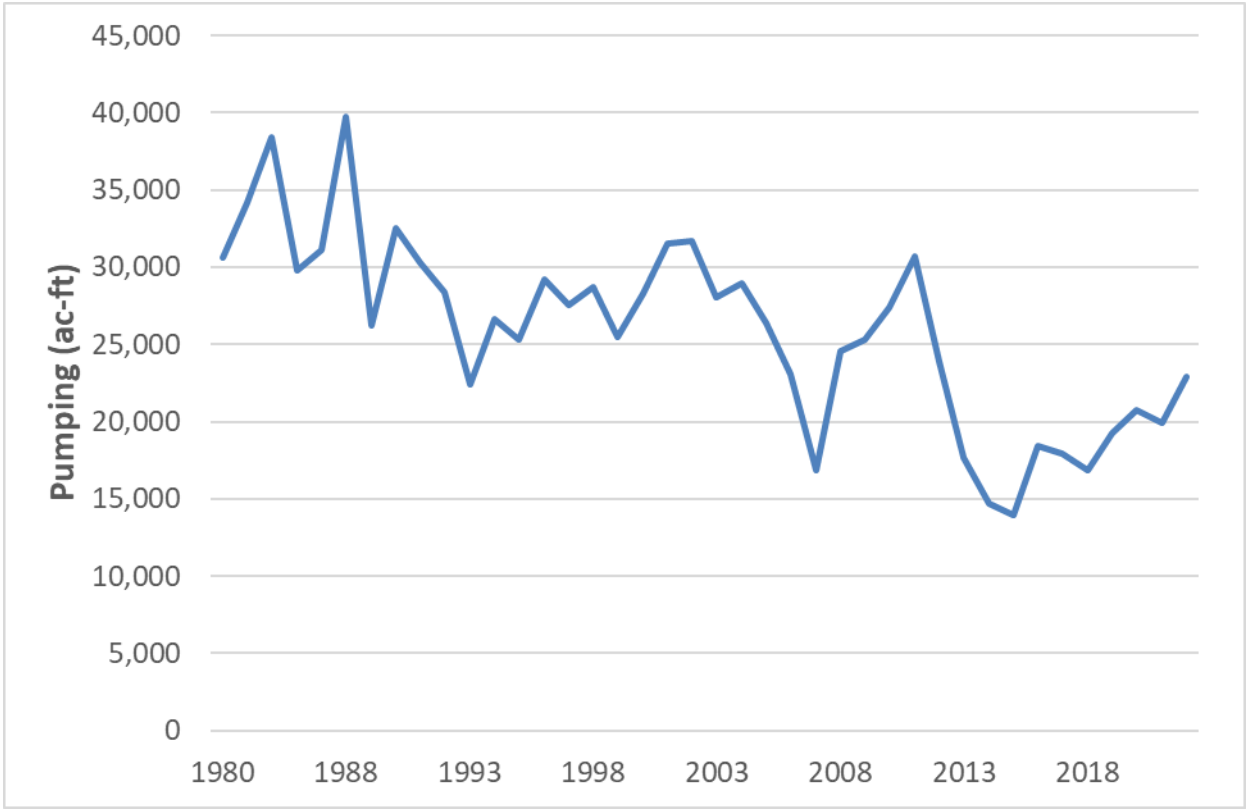
Waller County



Total 2022 Pumping = 22,931 ac-ft



Source: TWDB Water Use Survey

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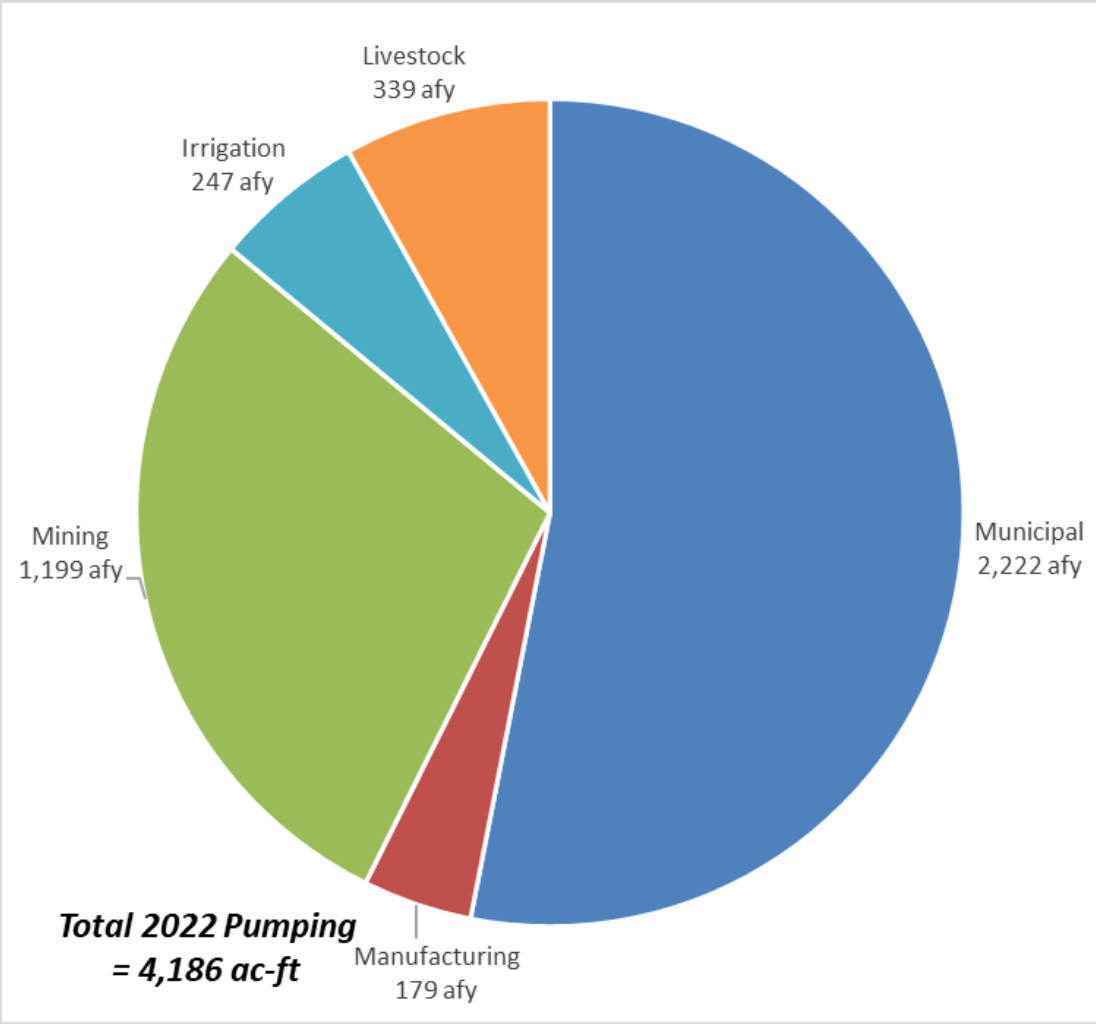
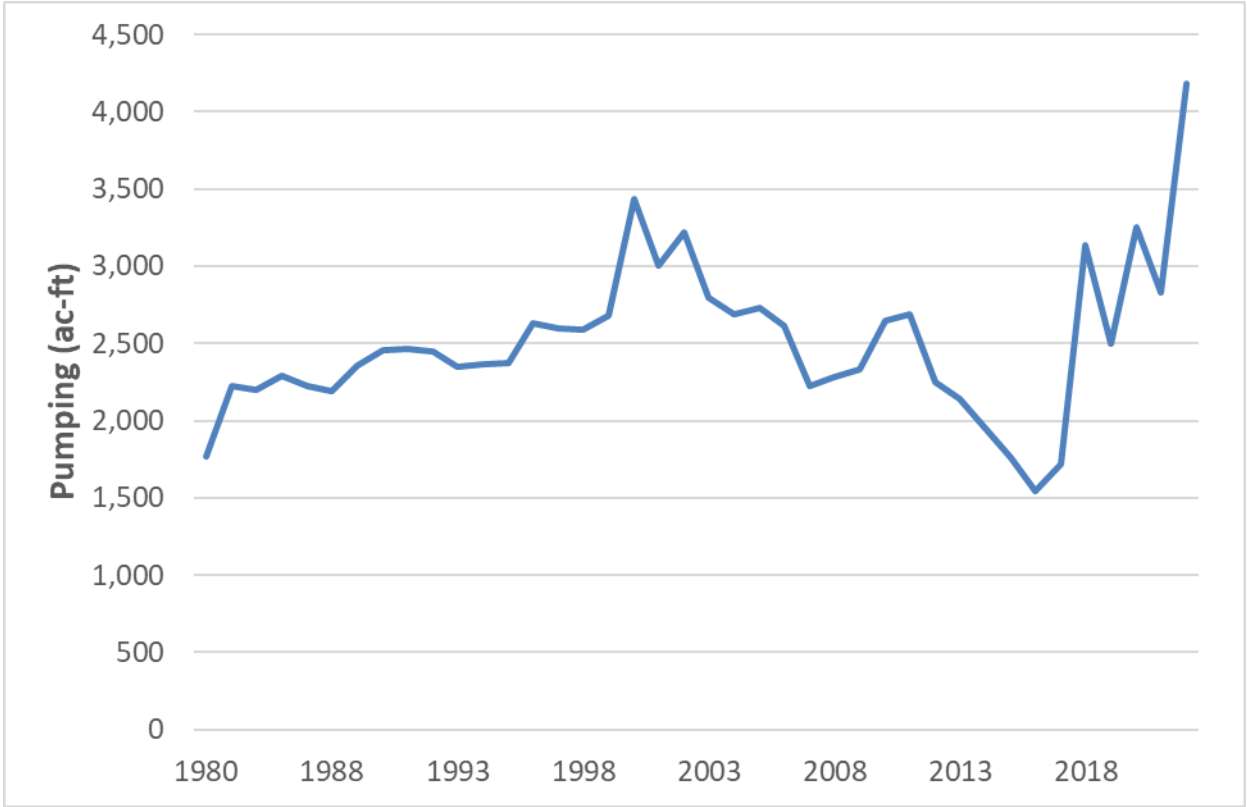
Washington County





Source: TWDB Water Use Survey

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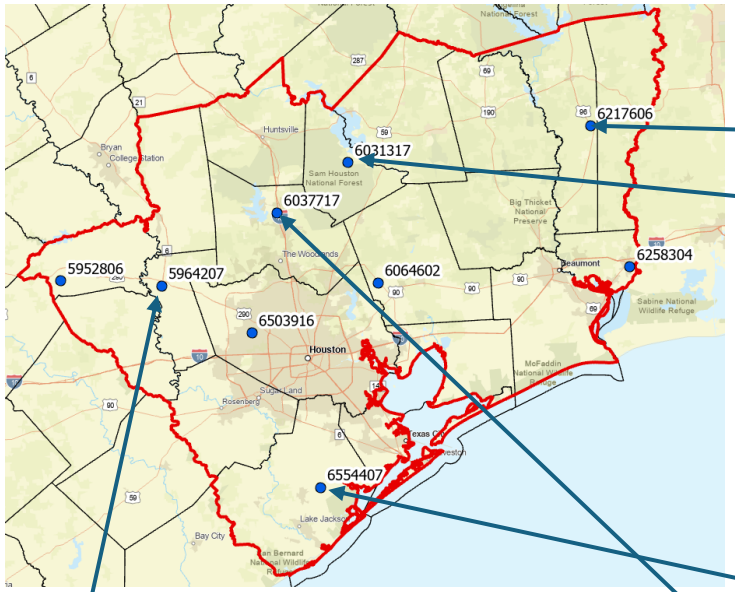
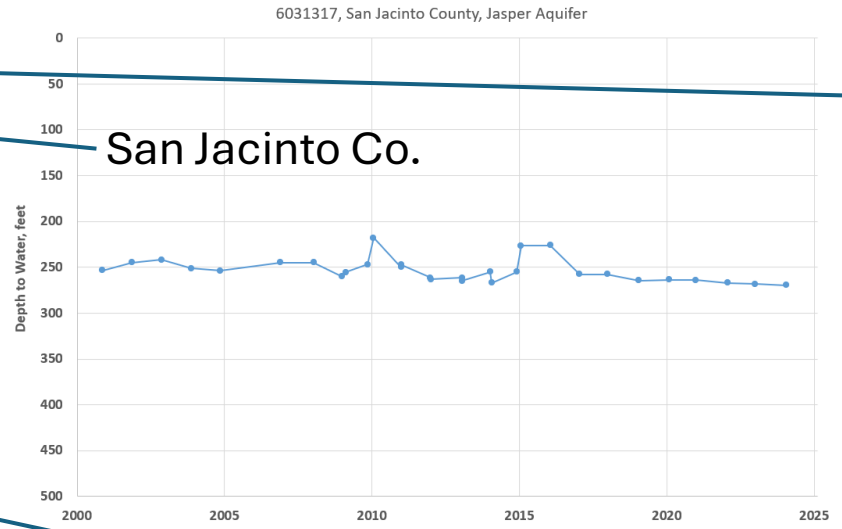
County Summary

- Most counties use Gulf Coast groundwater for the majority of their municipal supply.
- Only Austin, Jasper, and Walker counties use less than 50% of Gulf Coast groundwater for municipal demands.
- Austin and Walker counties use more than 50% for irrigation.
- Jasper and Orange counties use a large percentage for manufacturing.
- Very little Gulf Coast groundwater used for mining, steam-electric power, or livestock in GMA 14.





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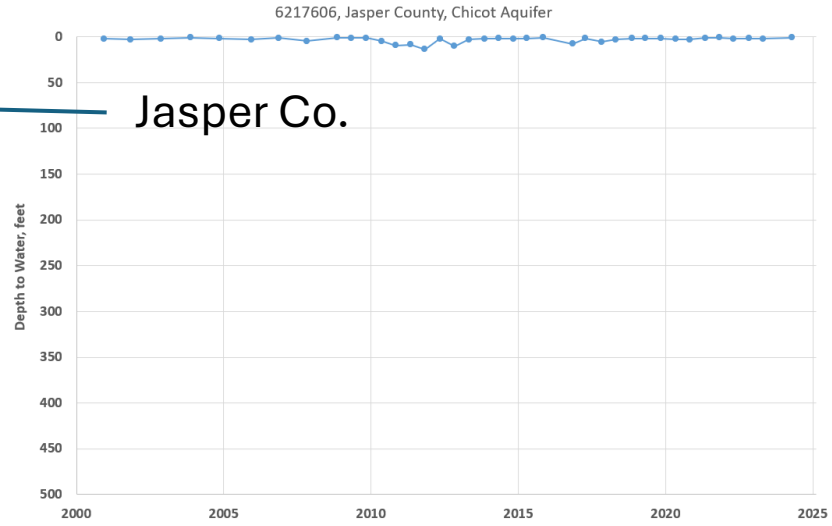
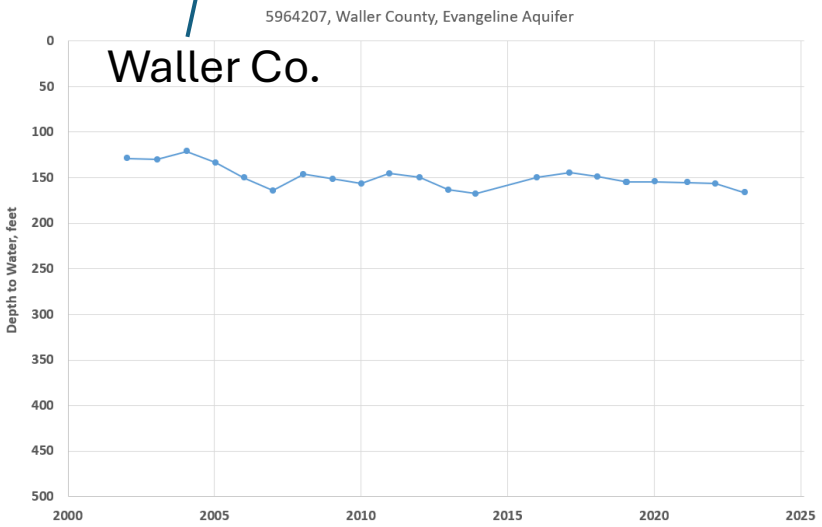


Jasper Co.



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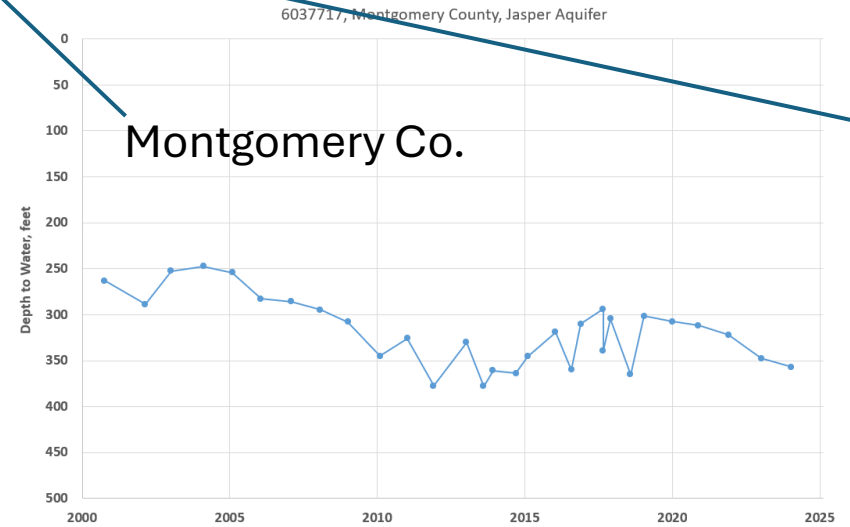
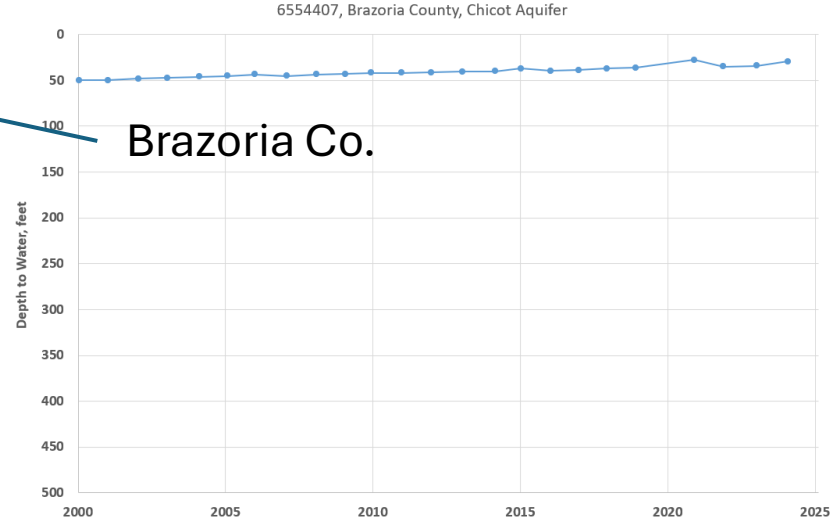


Montgomery Co.



Brazoria Co.

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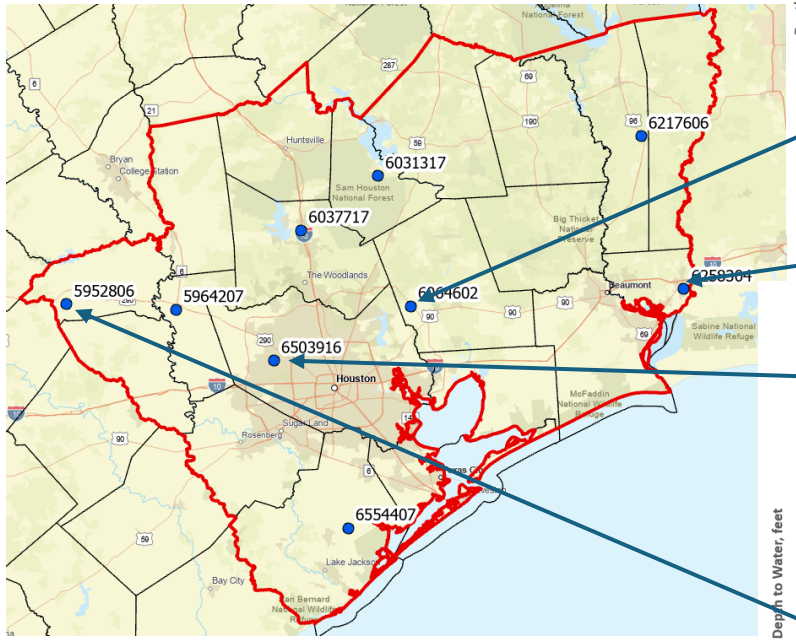
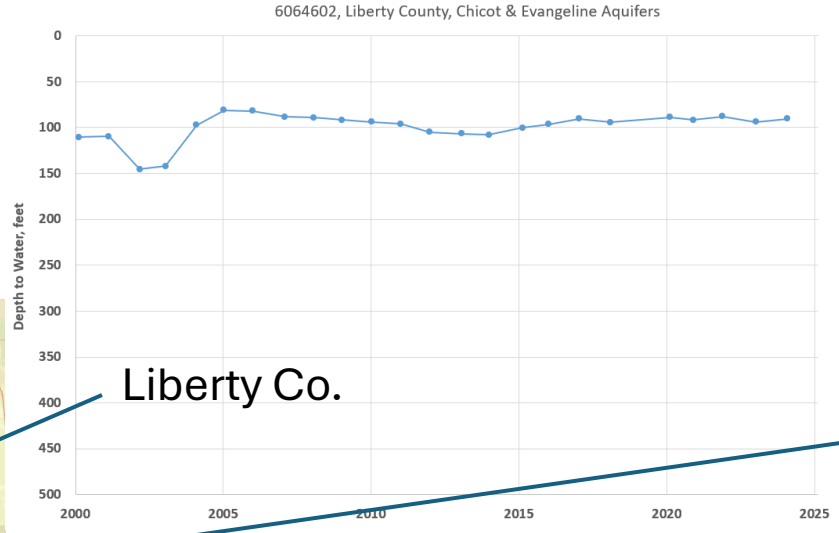
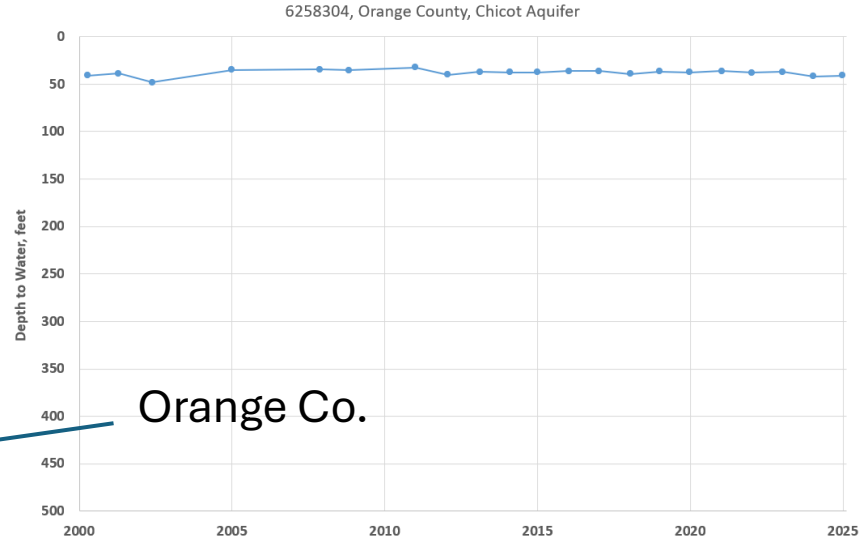
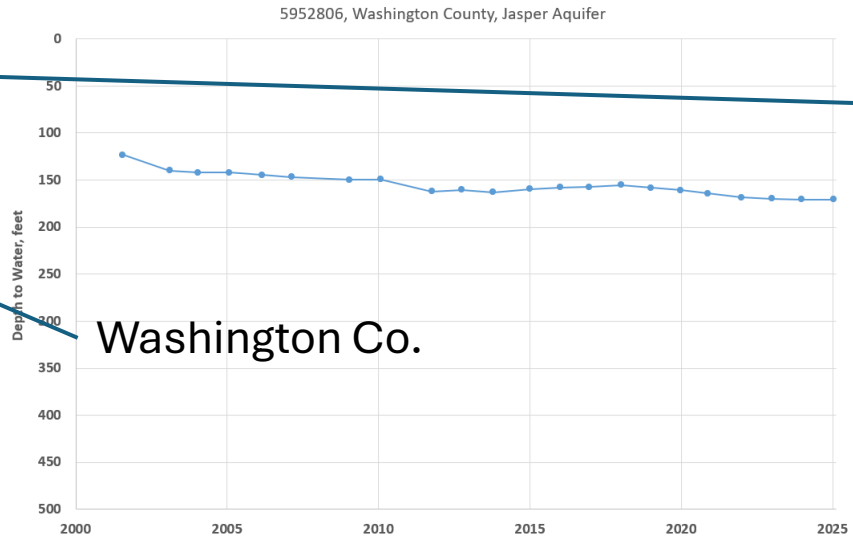




Liberty Co.



Orange Co.



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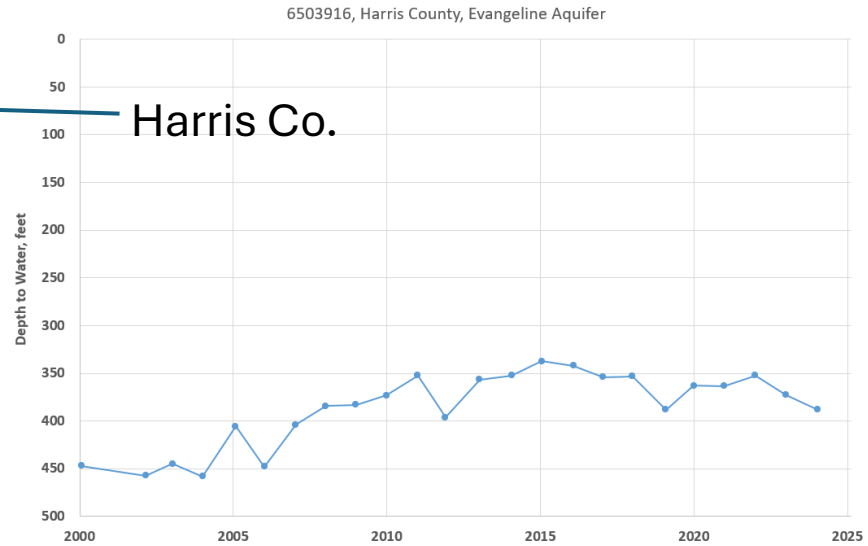

Harris Co.

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Questions?

Clarification / Disclaimer

- GCDs in GMA 14 will determine DFCs, not the hydrogeologic consultant.
- Chapter 36 of the Texas Water Code contains concepts that blend legal and technical issues. AGS is not a law firm and does not provide legal advice. Any statements relating to regulatory or legal issues shall not be considered legal advice.
- AGS may provide commentary based on our experience working with groundwater conservation districts, permitting, joint groundwater planning, GCD rules and management plans, water supply entities, and our general understanding of industry practices.