

# BELL COUNTY WCID 1 REPORT

Killeen City Council

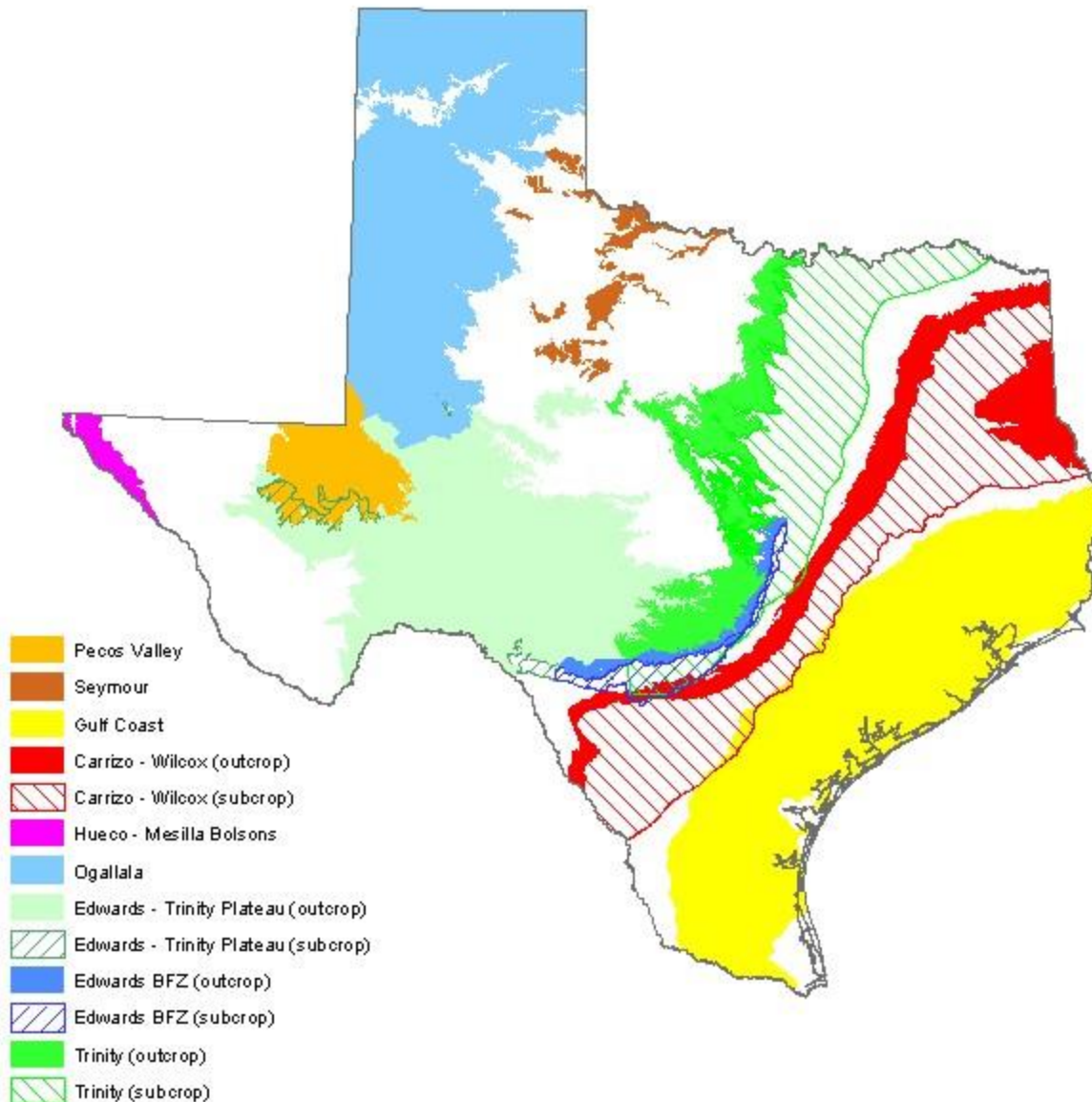
November 12, 2019

# WCID 1 Outline

- ▣ Water Overview
  - Surface Water vs Groundwater
  - Surface Water in Texas
  - Killeen's enviable status
  - ASR
- ▣ Wastewater Overview
  - Capacity Projections
- ▣ Lake Stillhouse Project Summary
- ▣ District Boundary Changes

# The Water Cycle



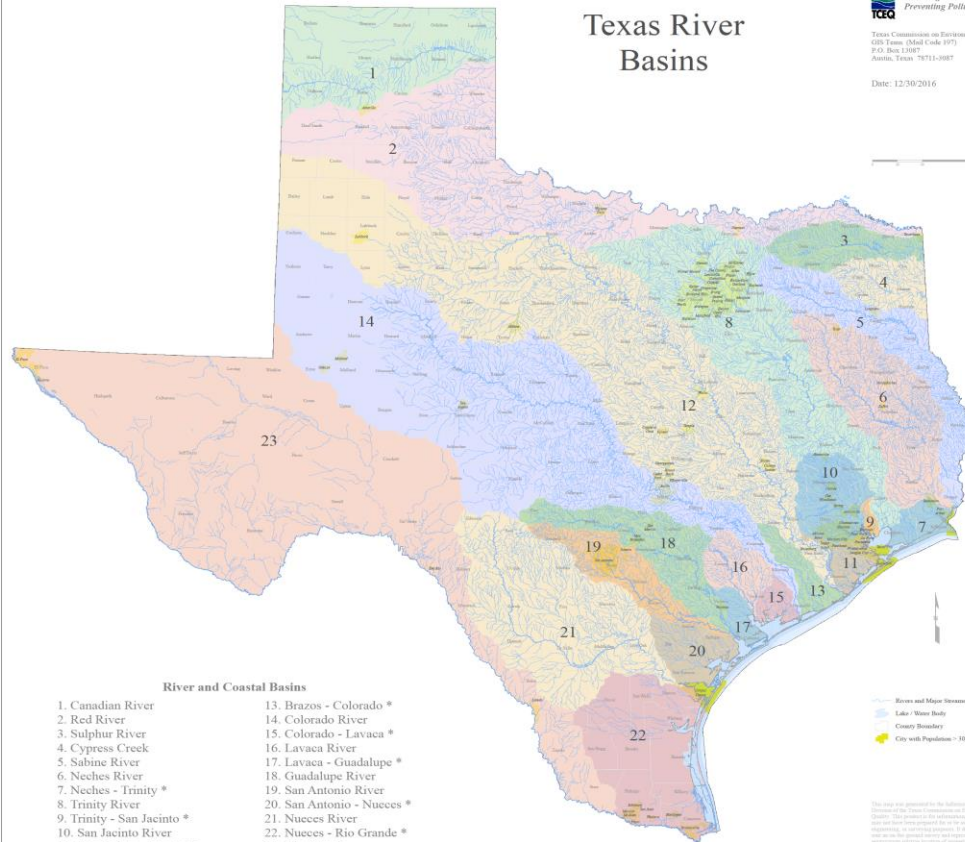


# Texas River Basins



Texas Commission on Environmental Quality  
6001 Foss (Mail Code 357)  
P.O. Box 13087  
Austin, Texas 78713-1087

Date: 12/30/2016



## River and Coastal Basins

- |                            |                            |
|----------------------------|----------------------------|
| 1. Canadian River          | 13. Brazos - Colorado *    |
| 2. Red River               | 14. Colorado River         |
| 3. Sulphur River           | 15. Colorado - Lavaca *    |
| 4. Cypress Creek           | 16. Lavaca River           |
| 5. Sabine River            | 17. Lavaca - Guadalupe *   |
| 6. Neches River            | 18. Guadalupe River        |
| 7. Neches - Trinity *      | 19. San Antonio River      |
| 8. Trinity River           | 20. San Antonio - Nueces * |
| 9. Trinity - San Jacinto * | 21. Nueces River           |
| 10. San Jacinto River      | 22. Nueces - Rio Grande *  |
| 11. San Jacinto - Brazos * | 23. Rio Grande             |
| 12. Brazos River           |                            |

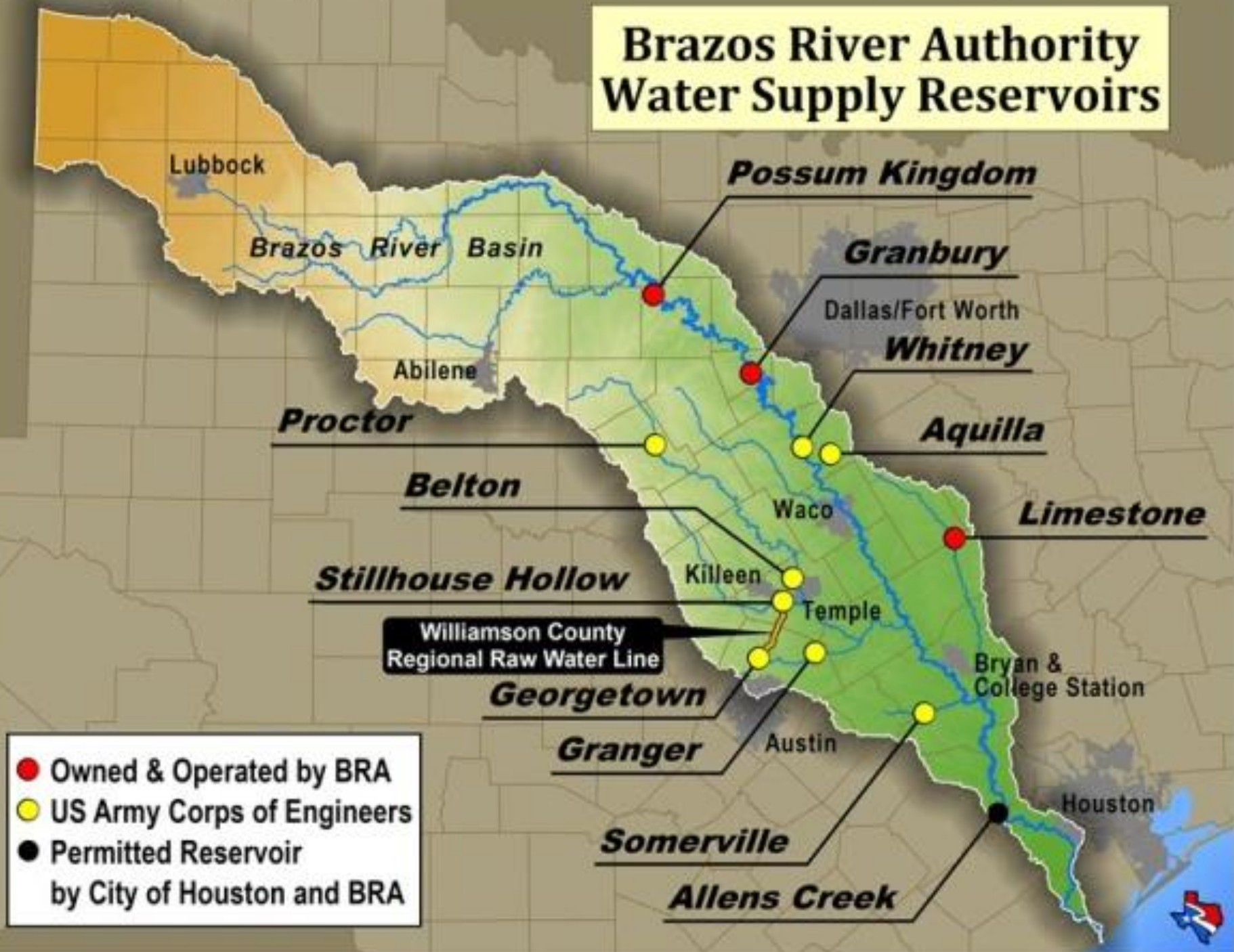
\* indicates Coastal Basin

- Rivers and Major Streams
- Lake / Water Body
- County Boundary
- City with Population > 10,000

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J. Kelly, CDE 10/1/17

# Brazos River Authority Water Supply Reservoirs



The  
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Water  
— *for* —  
Texas



2017 State  
Water Plan

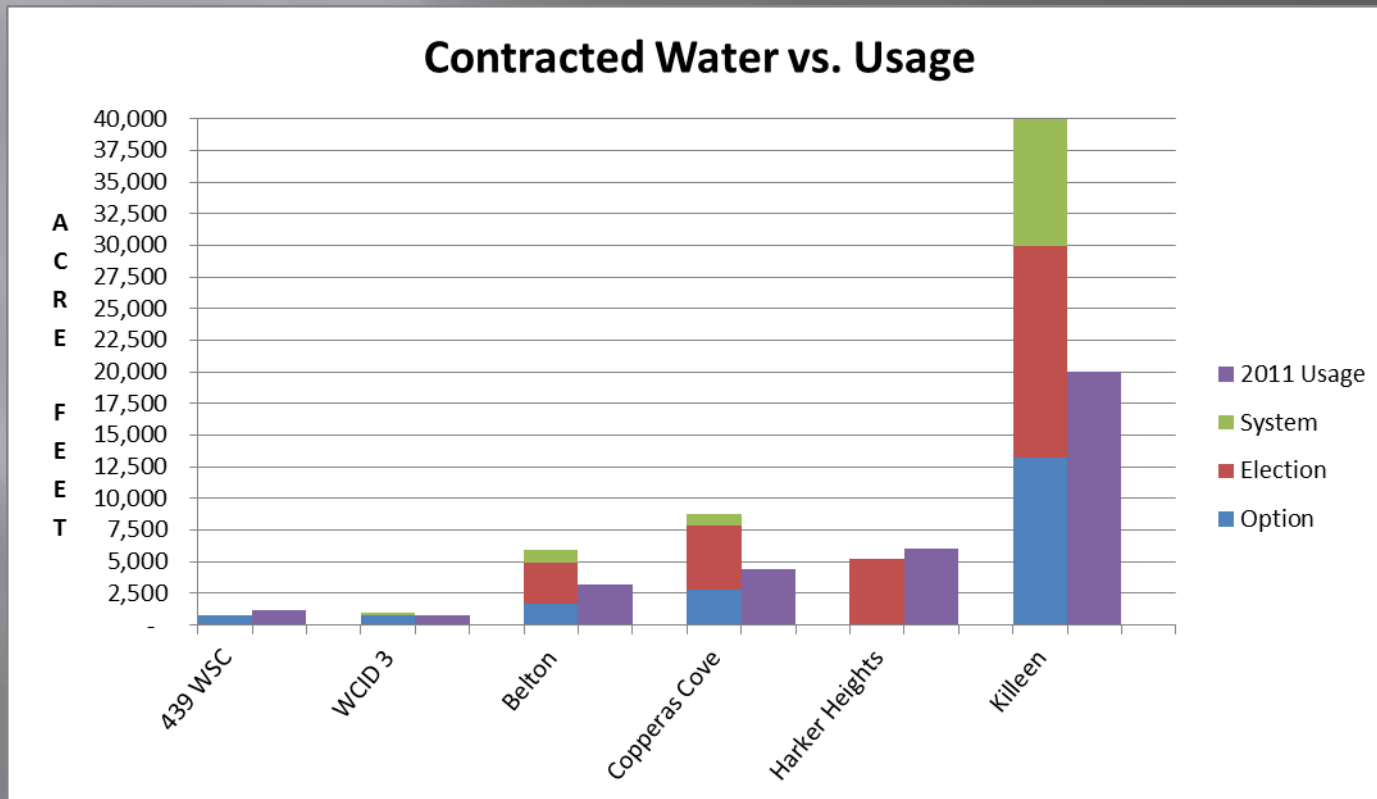
**Texas Water**  
Development Board

# Capacity

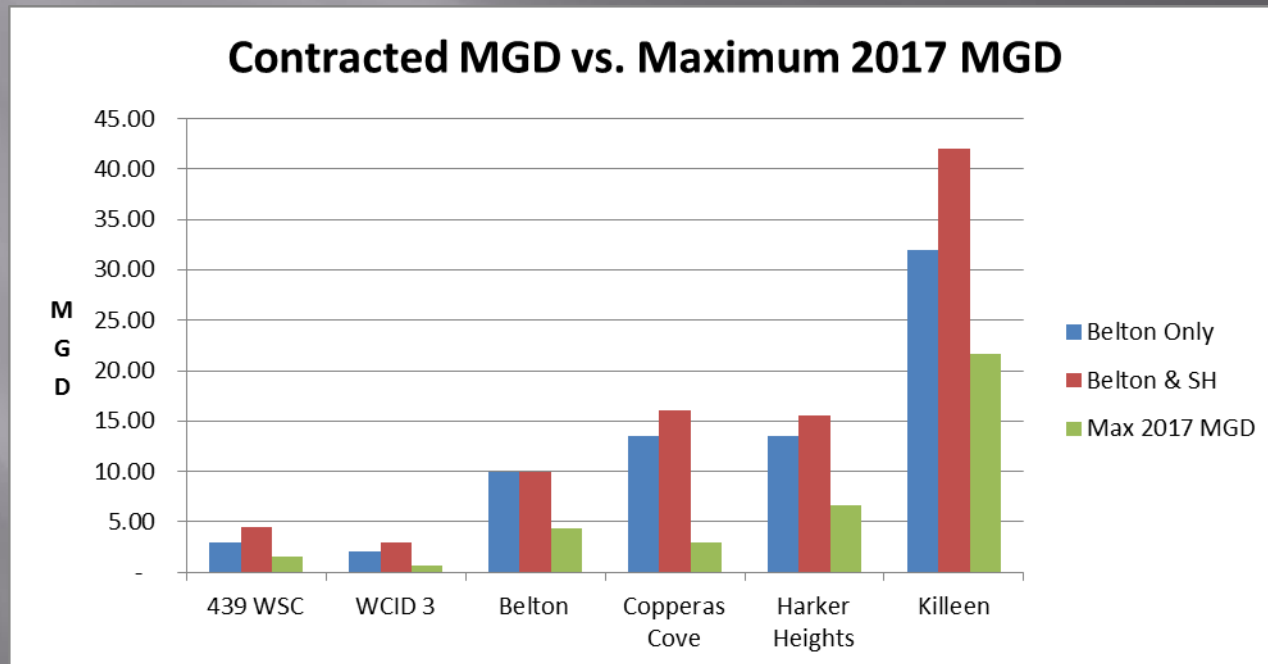
## Water Rights Summary

Entity	Two Tier Water (Option/Election Use)	System Water	Other Water Rights	Total Water Rights
Killeen	29,964	10,000	-	39,964
Copperas Cove	7,824	1,000	-	8,824
Belton	4,966	1,000	2,500	8,466
Harker Heights	5,265	-	3,235	8,500
WCID #3	740	250	-	990
439	750	-	1,409	2,159
District	-	750	-	750
Totals	49,509	13,000	7,144	69,653

# Capacity-Available and Used

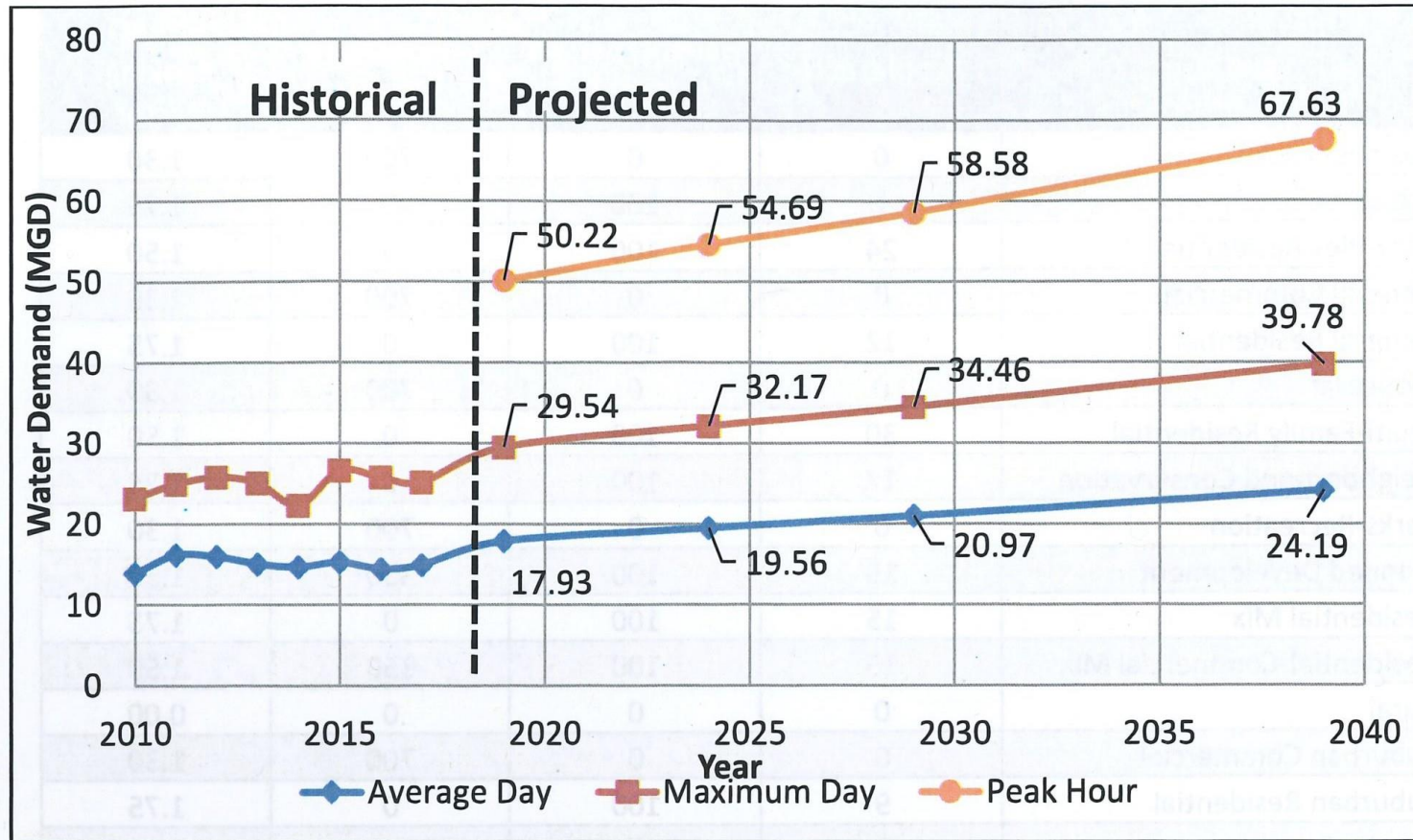


# Capacity – Daily Usage



# FROM DRAFT MASTER PLAN

Figure 3-1 Historical and Projected Water Demands



# Surface Water Constraints

- ▣ Surface water is considered waters of the state and withdrawal is managed through the Water Rights system. If availability is limited, the water right that is senior, by date, has first priority for the water that's available.
- ▣ Unlike groundwater, surface water is subject to evaporation. During droughts, evaporation becomes a significant factor that diminishes supplies.

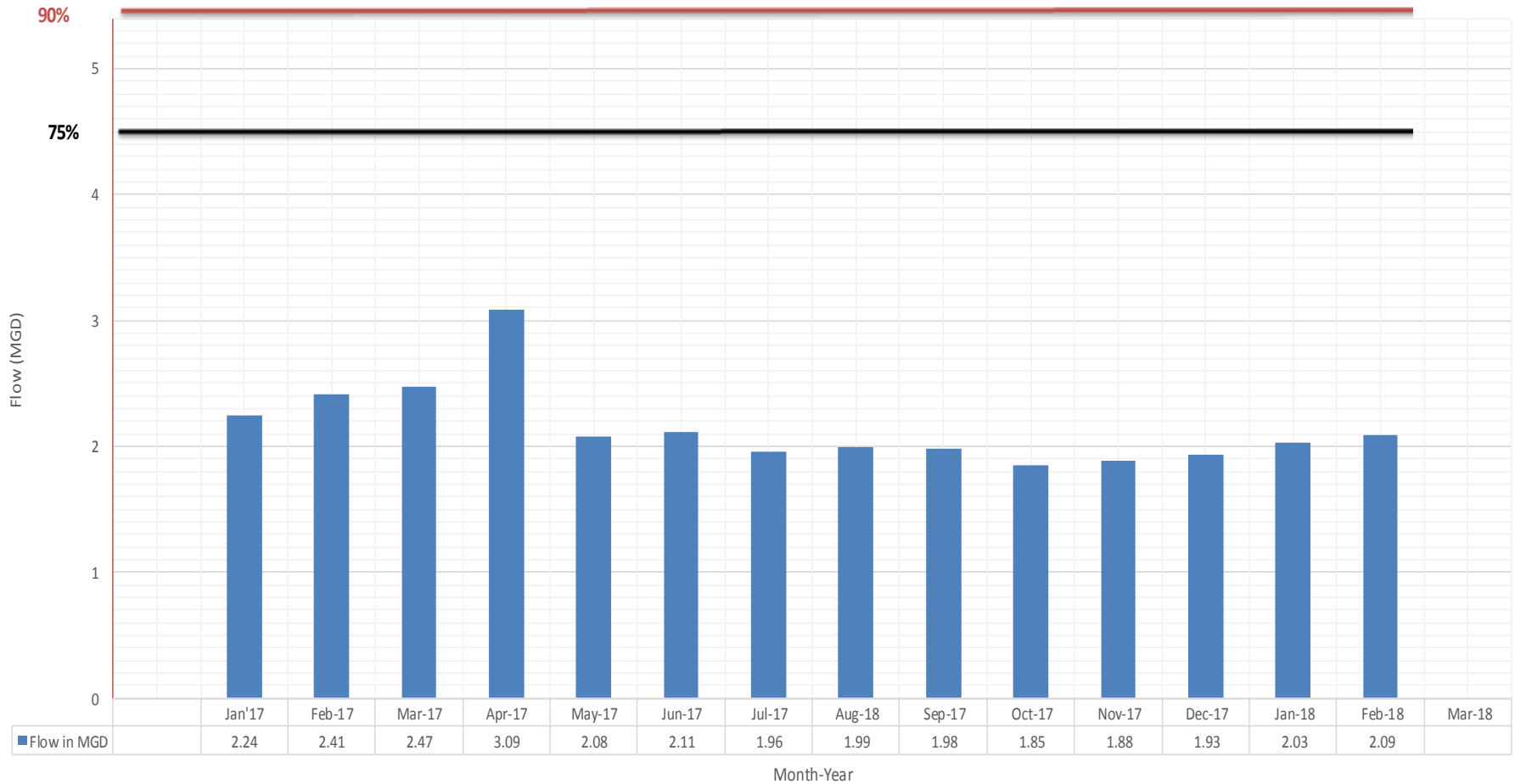
# What is ASR

- ▣ ASR or Aquifer Storage and Recovery as the name implies involves storing water in an aquifer to be recovered/used at a later date. This is a proven technique that is not available or feasible in many places. Most areas of the Trinity for example, the aquifer sands are too tight to allow storage without imparting a great deal of energy. Also, the storage “room” is limited.

# Wastewater Overview

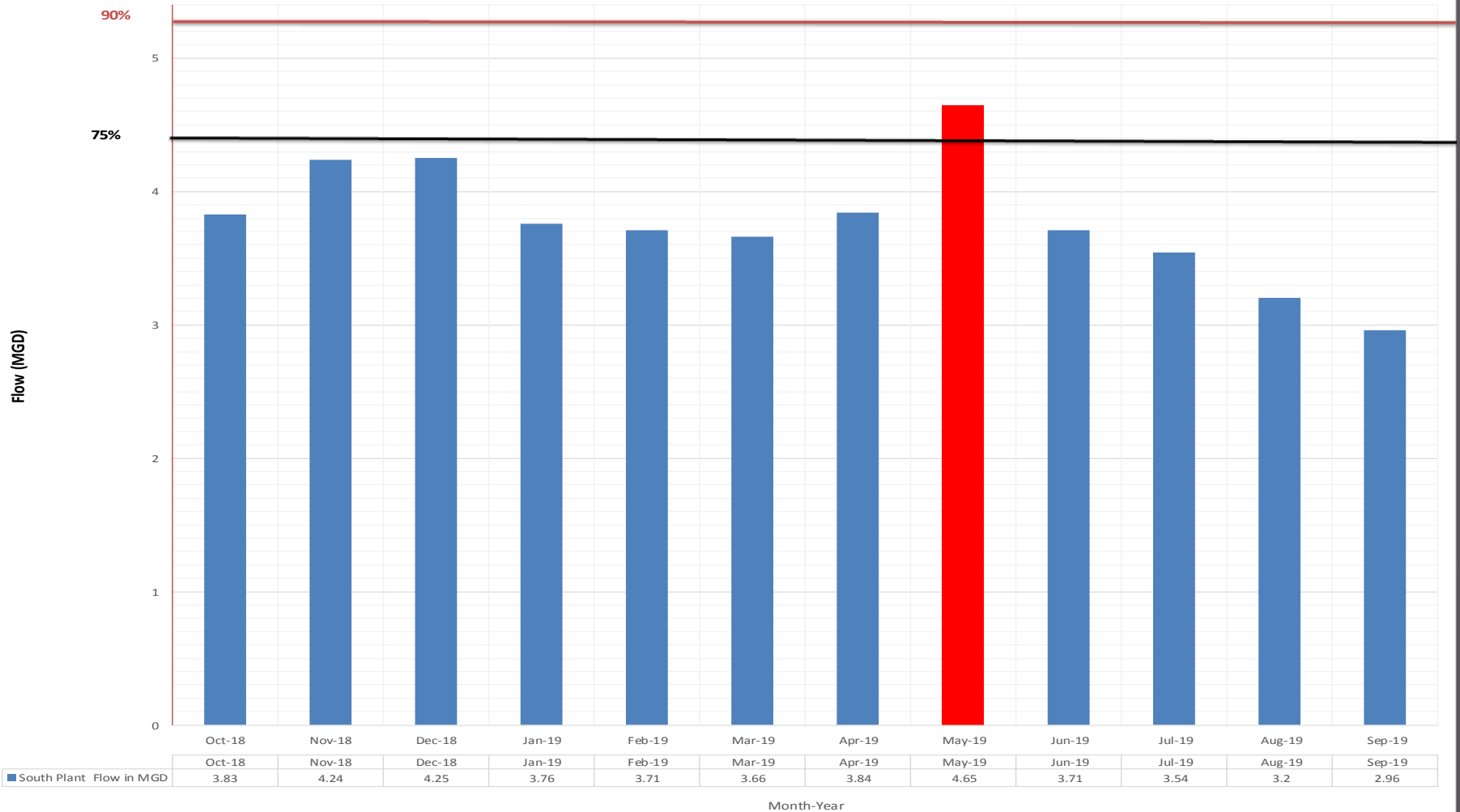
# Capacity Projections

South Plant Flow in MGD



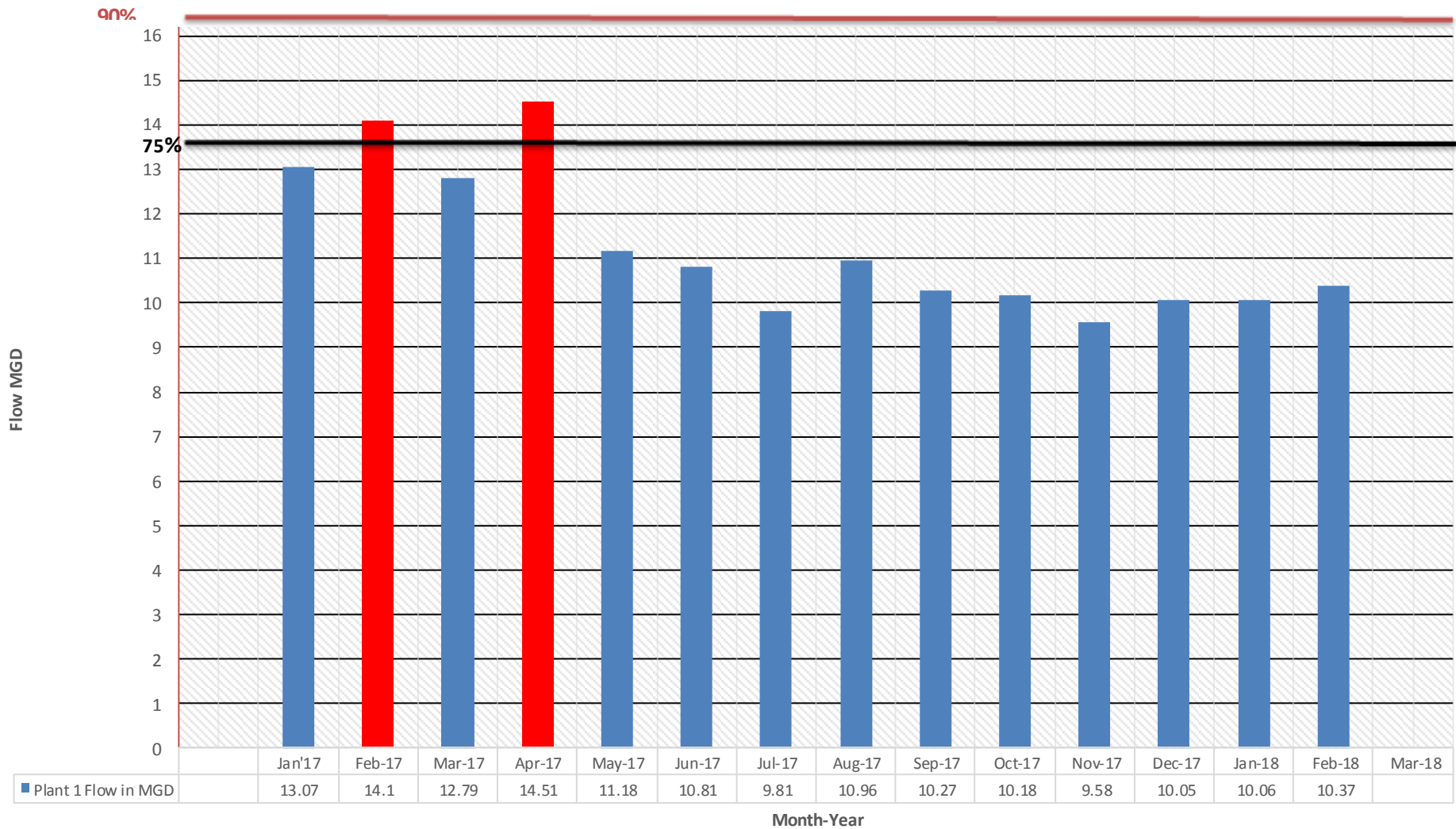
# Historical Flows

**South Plant Flow in MGD**



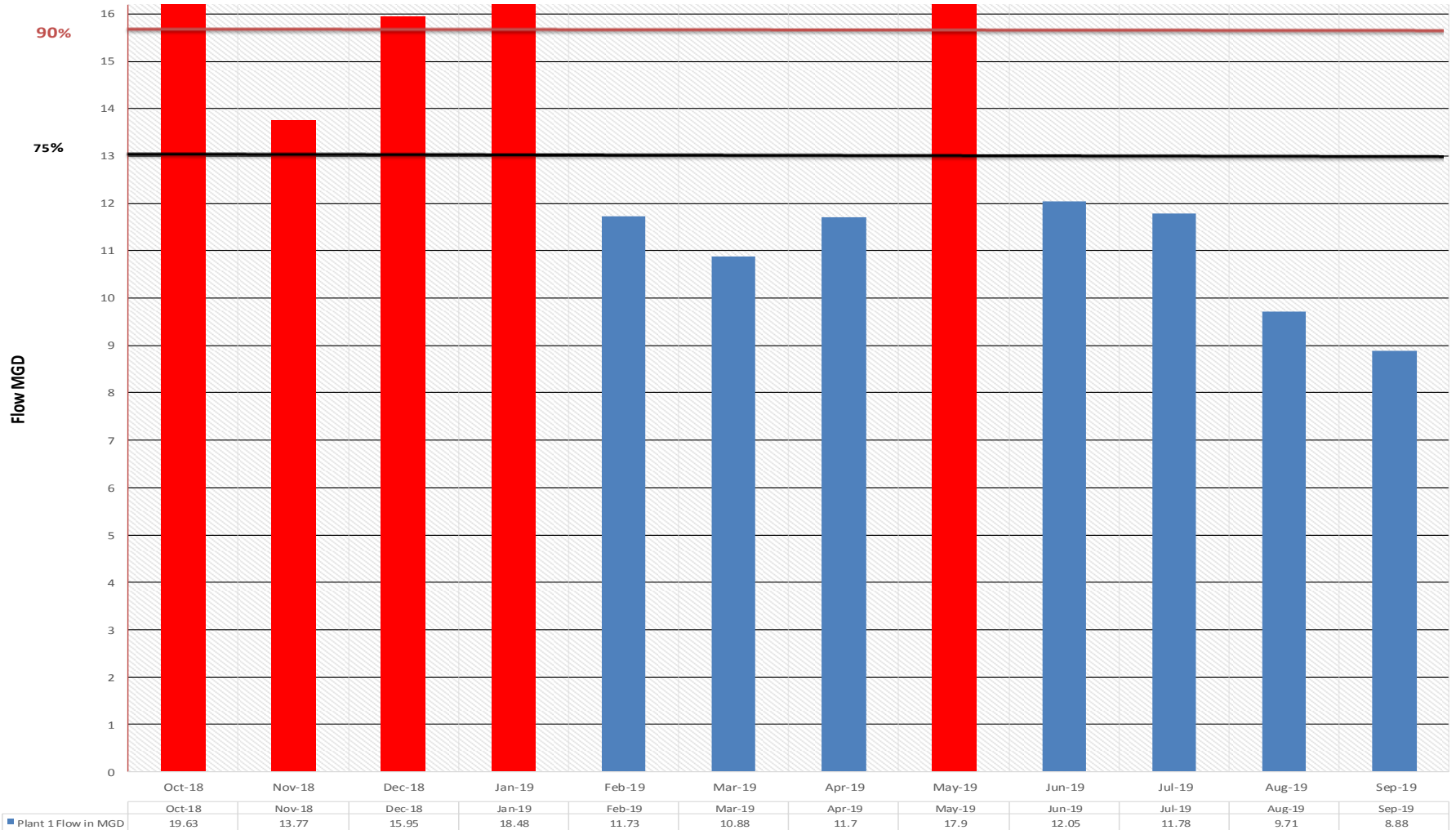
# Capacity Projections

Plant 1 Flow in MGD



# Historical Flows

**Plant 1 Flow in MGD**



Month-Year

# Stillhouse Project Summary



FM 3481

Stillhouse Dam Rd  
FM 1671

FM 2484

WCID 1 Stillhouse Plant

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Google Earth

Imagery Date: 1/23/2018 31°01'12.05" N 97°35'18.29" W elev 0 ft eye alt 10.33 mi

## Stillhouse WTP Site Comparison

Comparison of Sht CR-1 to aerial photo

Legend

Google Earth

© 2018 Google

CDM  
Smith

STILLHOUSE  
WATER TREATMENT PLANT

700 ft

N



# SCHEDULE

*Updated May 20, 2019*

[illegible]

## Legend

### Water Pipelines

#### Diameter (in)



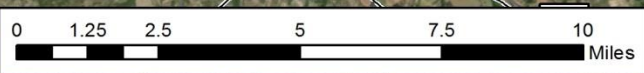
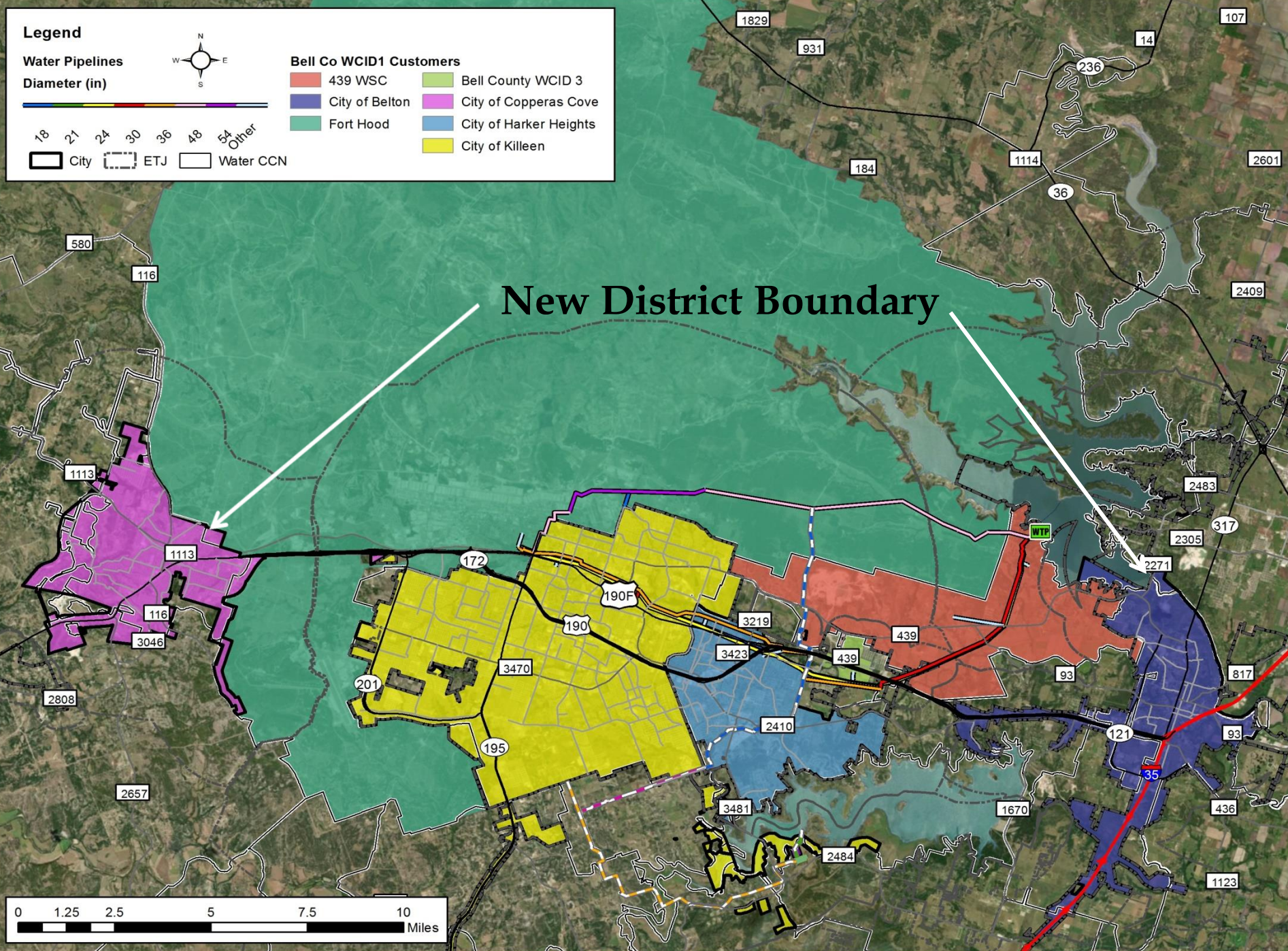
18 21 24 30 36 48 54 Other

City ETJ Water CCN

### Bell Co WCID1 Customers



# New District Boundary



Questions?