## Project Goal

Create visualizations using various R visualization techniques
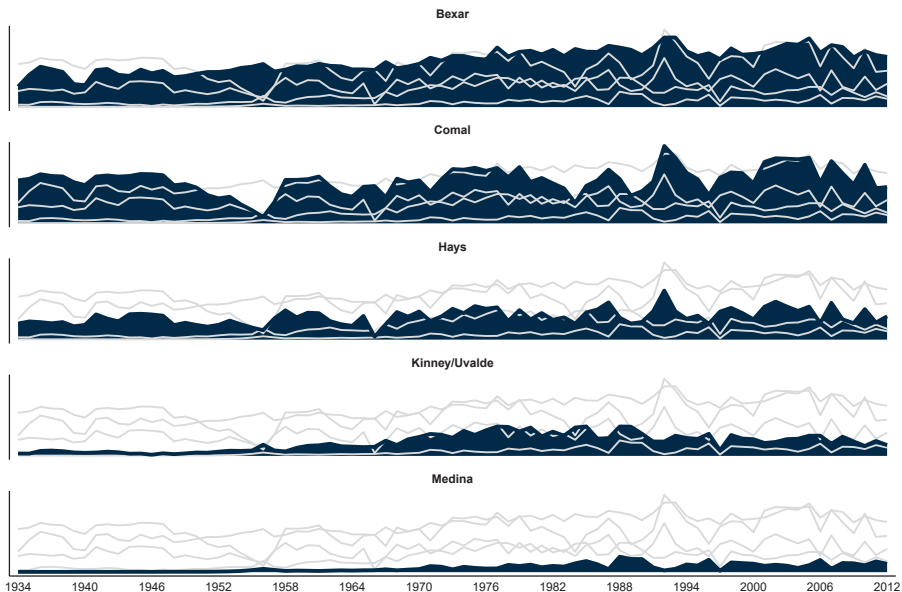
## Summary

Visualizations were used to analyze water consumption and education data. The data span various areas and include:
- Texas & regional water consumption
- Discharge from Edwards Aquifer
- Projected regional water demands
- Recycled water use
- Texas average precipitation and natural regions
- Graduation rates
- Geographic distribution
- Race & Ethnicity counts

## Included

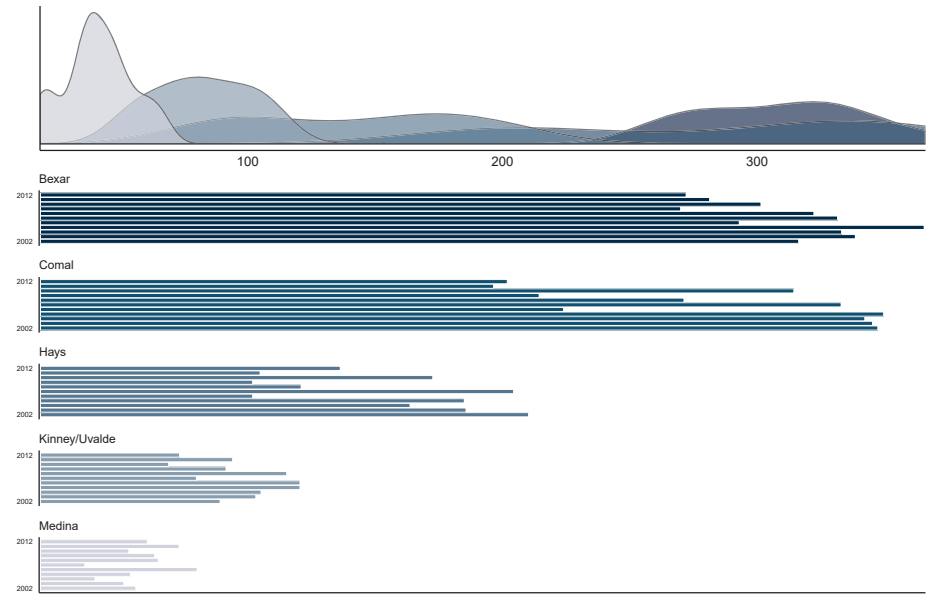Visualizations

## SAWS Edwards Aquifer Discharge by County 2002−2012
### 1,000 Acre feet

**Bexar**

**Comal**

**Hays**

**Kinney/Uvalde**

**Medina**

1934  1940  1946  1952  1958  1964  1970  1976  1982  1988  1994  2000  2006  2012

Source: San Antonio Water Authority, 2014 Stats Book

## Discharge from Edwards Aquifer by County 2002−2012
### 1,000 Acre Feet

100    200    300

Bexar
2012
2002

Comal
2012
2002

Hays
2012
2002

Kinney/Uvalde
2012
2002

Medina
2012
2002

Source: San Antonio Water Authority, 2014 Stats Book

## Edwards Aquifer Level: San Antonio Index Well 2005−2014
### Feet Above Mean Sea Level

**2005**  **2006**  **2007**  **2008**  **2009**

700
690
680
670
660
650
640
630
620

**2010**  **2011**  **2012**  **2013**  **2014**

700
690
680
670
660
650
640
630
620

Source: San Antonio Water Authority, 2014 Stats Book

## Edwards Aquifer Discharge and Recharge 1934−2014
### 1,000 Acre Feet

**Discharge**

**Recharge**

**Gain/Loss**

**Net Loss= −349.07**

1934    1954    1974    1994    2014
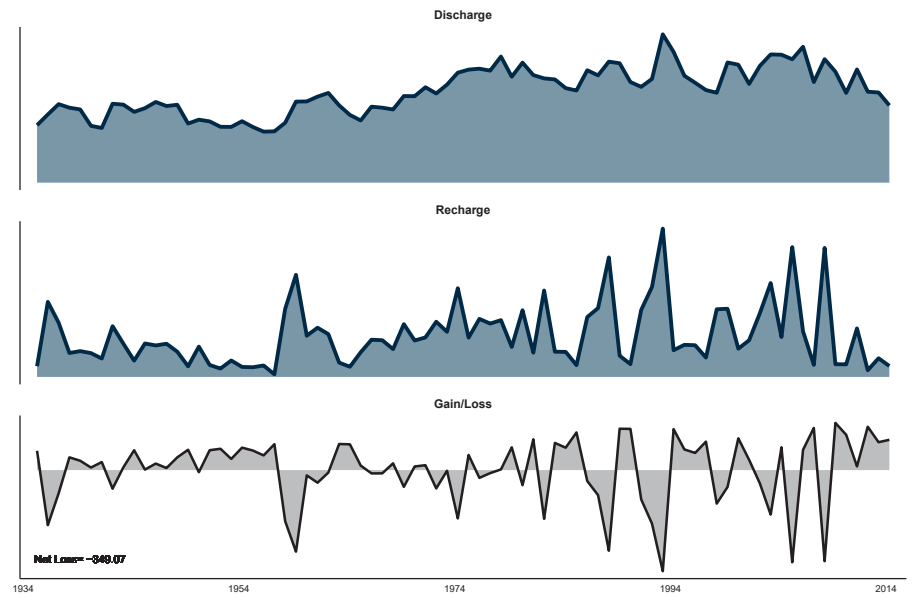
Source: San Antonio Water Authority, 2014 Stats Book
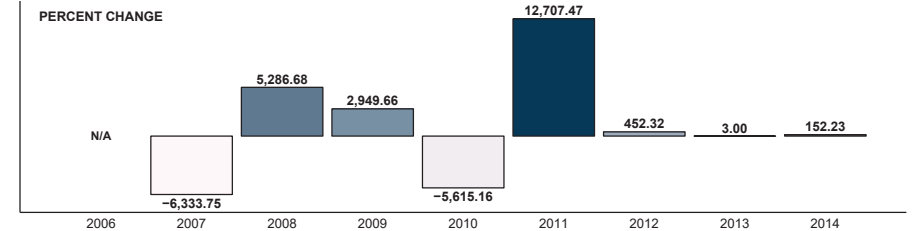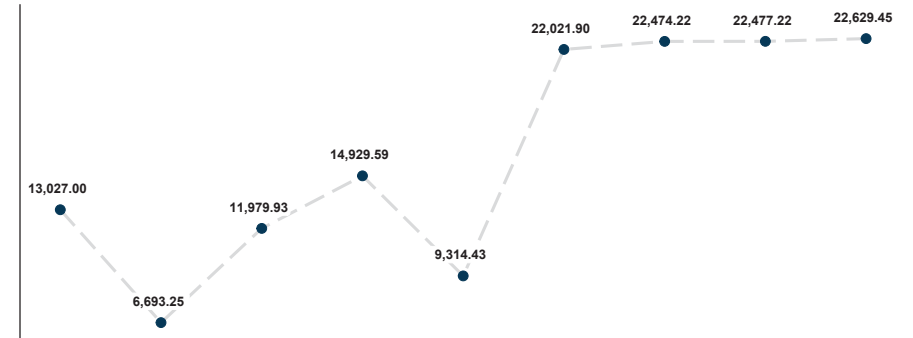
## Total Projected Regional Water Demands 2020–2070
Bexar, Comal, Hays, Medina, & Uvalde Counties, Acre Feet

**Irrigation**

135,998  130,498  125,218  120,153  115,292  110,999

**Livestock**

4,242  4,242  4,242  4,242  4,242  4,242

**Manufacturing**

32,091  35,450  38,801  41,735  45,123  48,786

**Mining**

21,777  24,784  27,502  30,048  33,228  36,769

2020  2030  2040  2050  2060  2070

**Municipal**

371,997  419,264  467,127  516,715  572,351  620,775

2020  2030  2040  2050  2060  2070

**Steam & Electric**

25,945  30,466  34,257  38,063  42,463  47,549

2020  2030  2040  2050  2060  2070
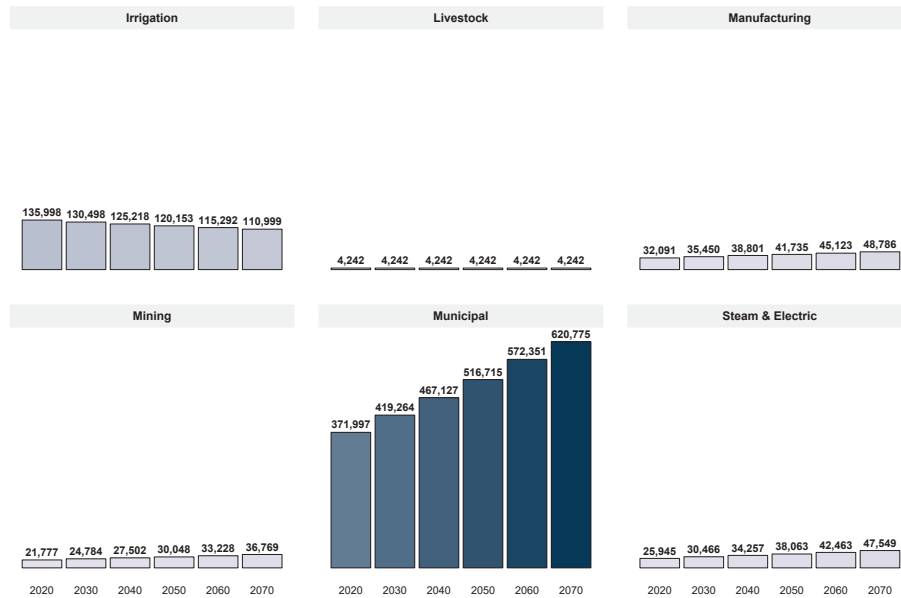
Source: San Antonio Water Authority, 2014 Stats Book

## SAWS Recycled Water Customer Usage 2006–2014
Acre Feet

13,027.00   6,693.25   11,979.93   14,929.59   9,314.43   22,021.90   22,474.22   22,477.22   22,629.45

**PERCENT CHANGE**

N/A   −6,333.75   5,286.68   2,949.66   −5,615.16   12,707.47   452.32   3.00   152.23
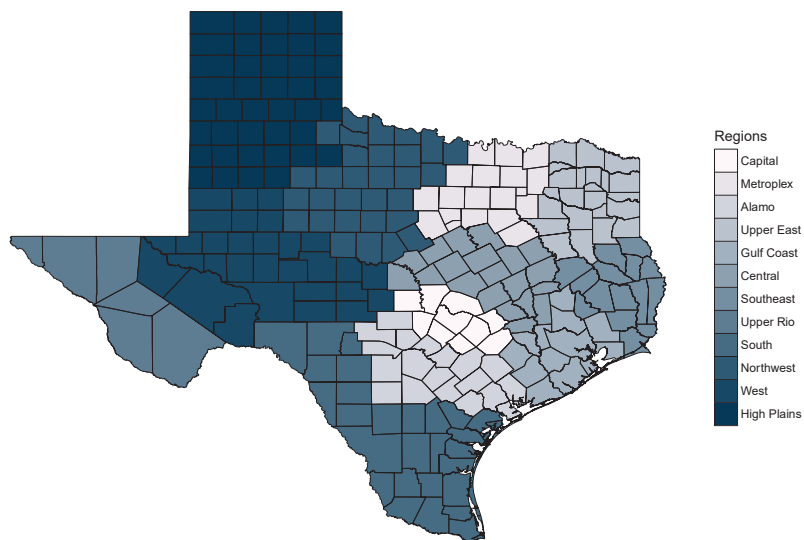
2006  2007  2008  2009  2010  2011  2012  2013  2014

Source: San Antonio Water Authority, 2014 Stats Book

## Texas Regional Per Capita Water Consumption 2003–2012
Mean Acer Feet per Person

Regions
- Capital
- Metroplex
- Alamo
- Upper East
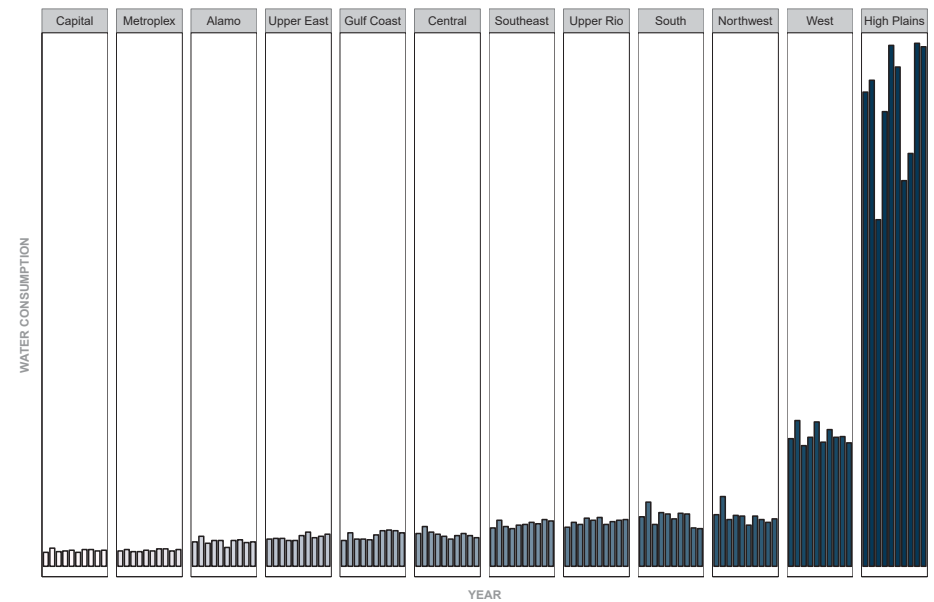- Gulf Coast
- Central
- Southeast
- Upper Rio
- South
- Northwest
- West
- High Plains

Source: Texas Comptroller of Public Accounts

## Texas Regional Per Capita Water Consumption 2003–2012
Acre Feet per Person per Year

Capital | Metroplex | Alamo | Upper East | Gulf Coast | Central | Southeast | Upper Rio | South | Northwest | West | High Plains

WATER CONSUMPTION

YEAR

Source: Texas Comptroller of Public Accounts

**VISUAL**