Project Goal
Create visualizations using various R visualization techniques
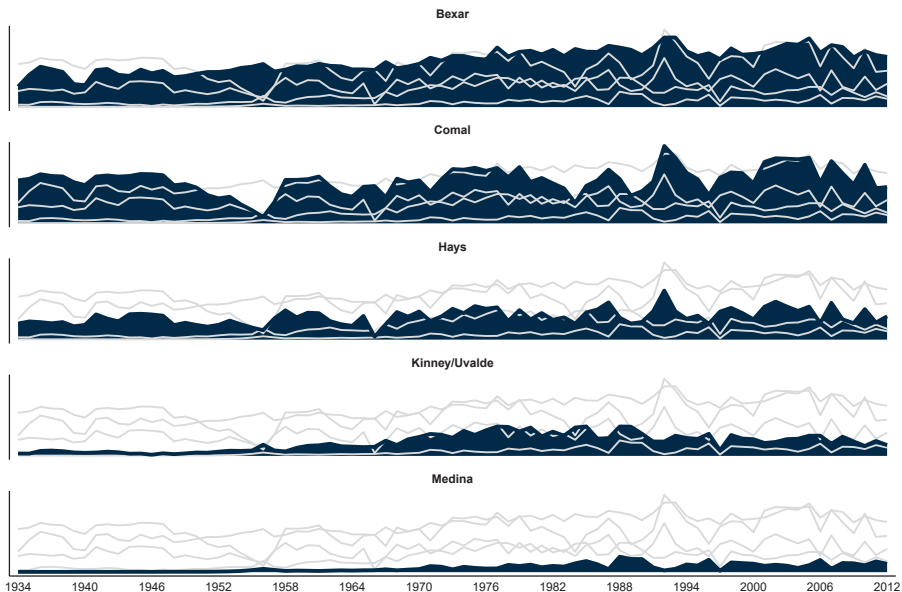
Summary
Visualizations were used to analyze water consumption and use in Texas. The data span various areas and include:
• Texas & regional water consumption
• Discharge from Edwards Aquifer
• Projected regional water demands
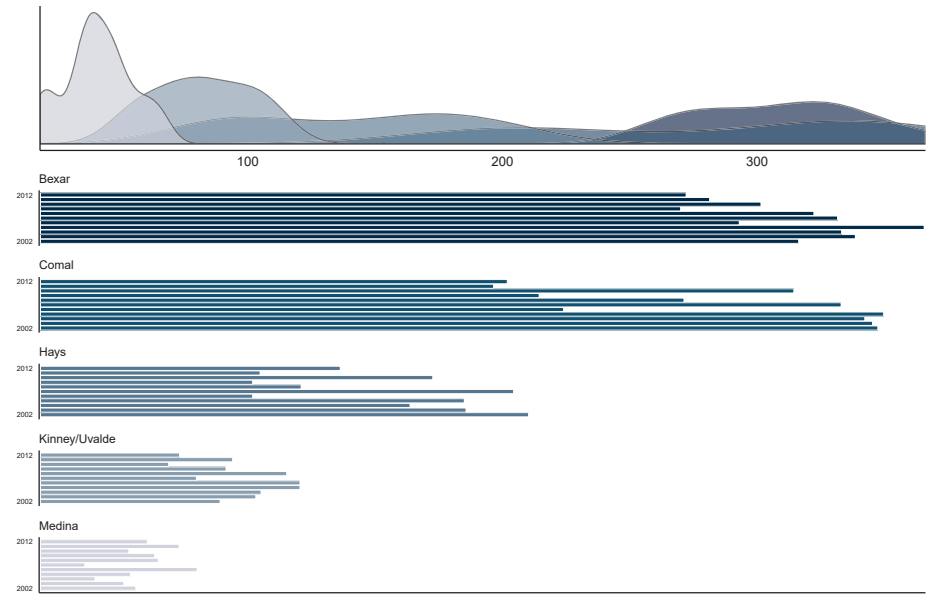• Recycled water use

Included
Visualizations

VISUAL

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

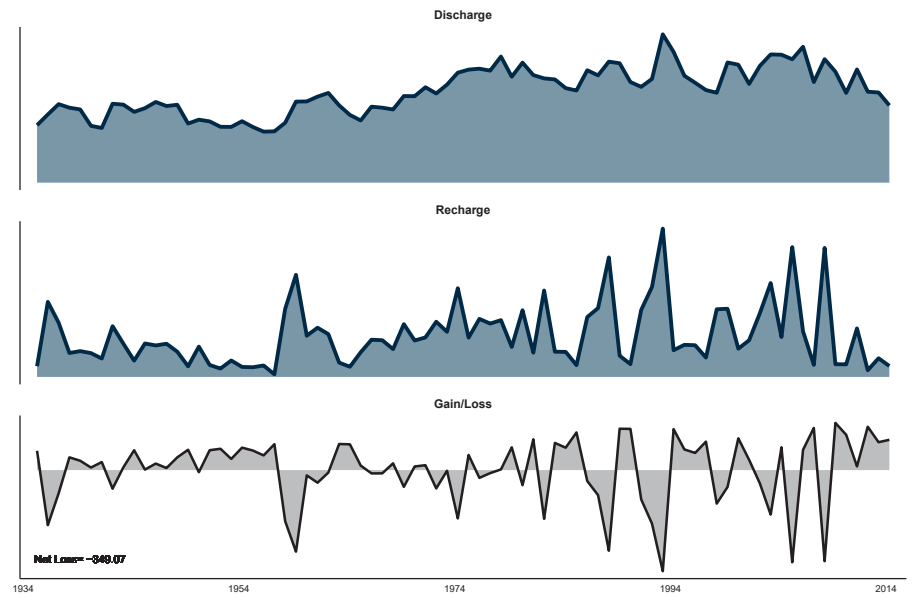Source: San Antonio Water Authority, 2014 Stats Book

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

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

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

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

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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

Municipal

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

Steam & Electric

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

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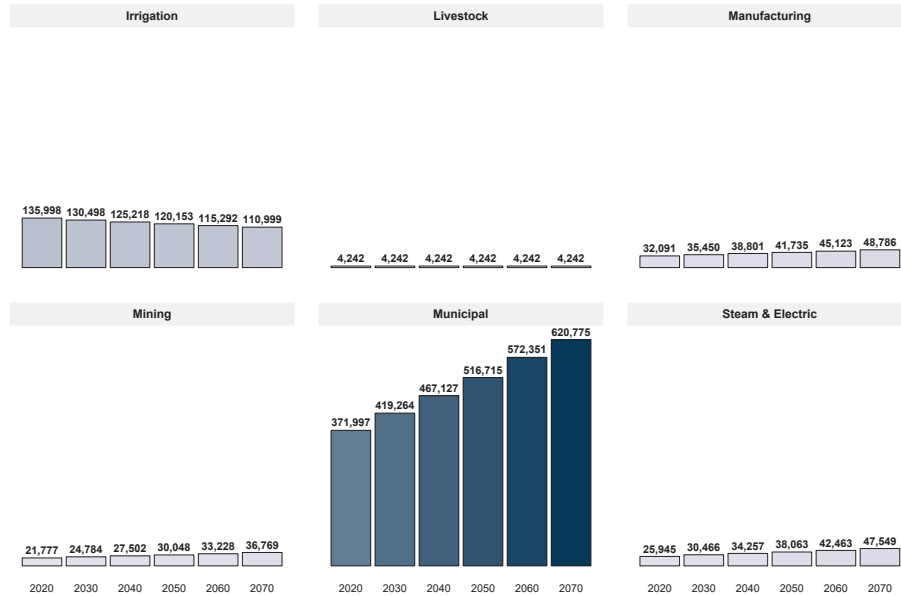
Source: San Antonio Water Authority, 2014 Stats Book

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
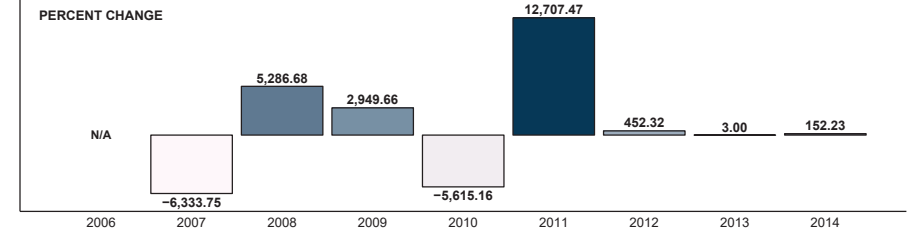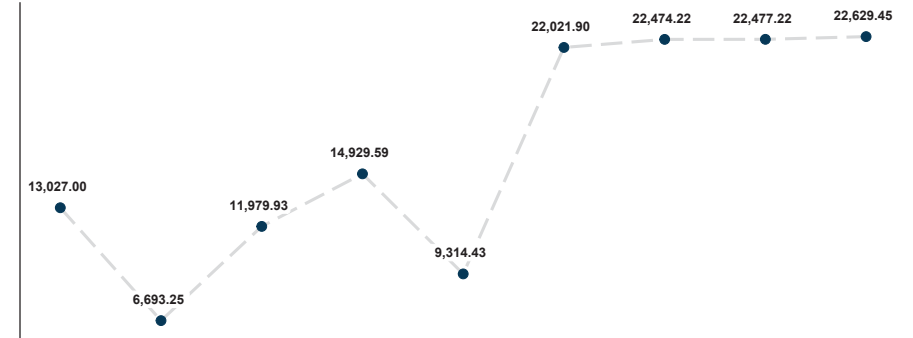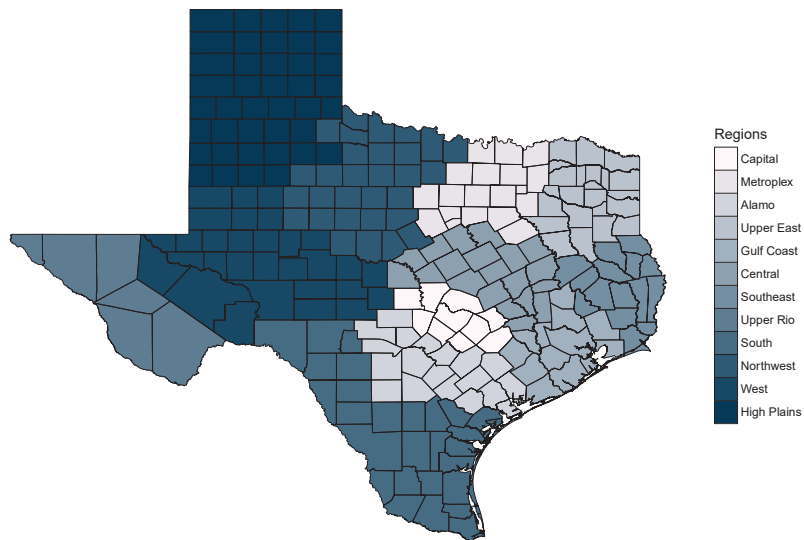
Source: San Antonio Water Authority, 2014 Stats Book

Texas Regional Per Capita Water Consumption 2003–2012

Mean Acer Feet per Person

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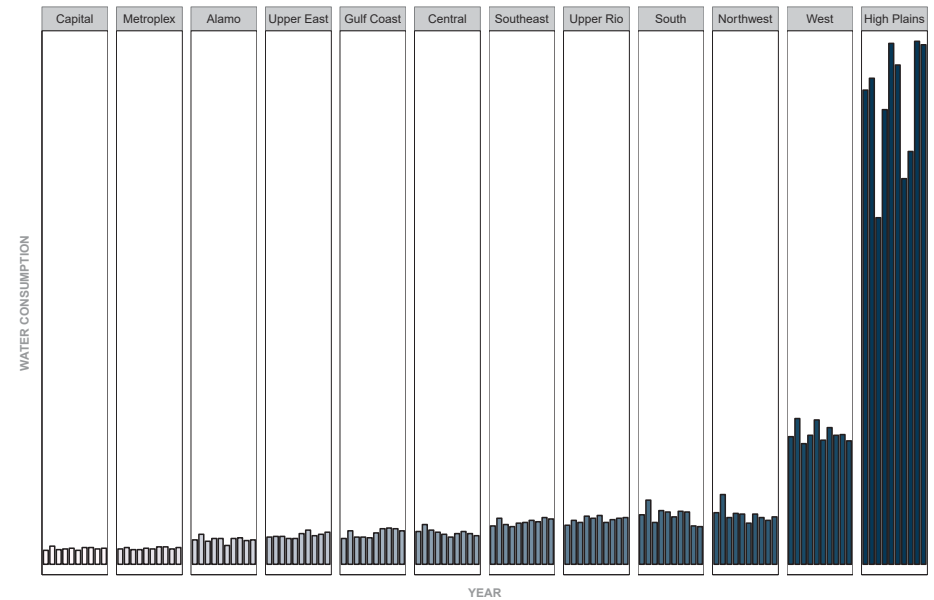- Central
- Southeast
- Upper Rio
- South
- Northwest
- West
- High Plains

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