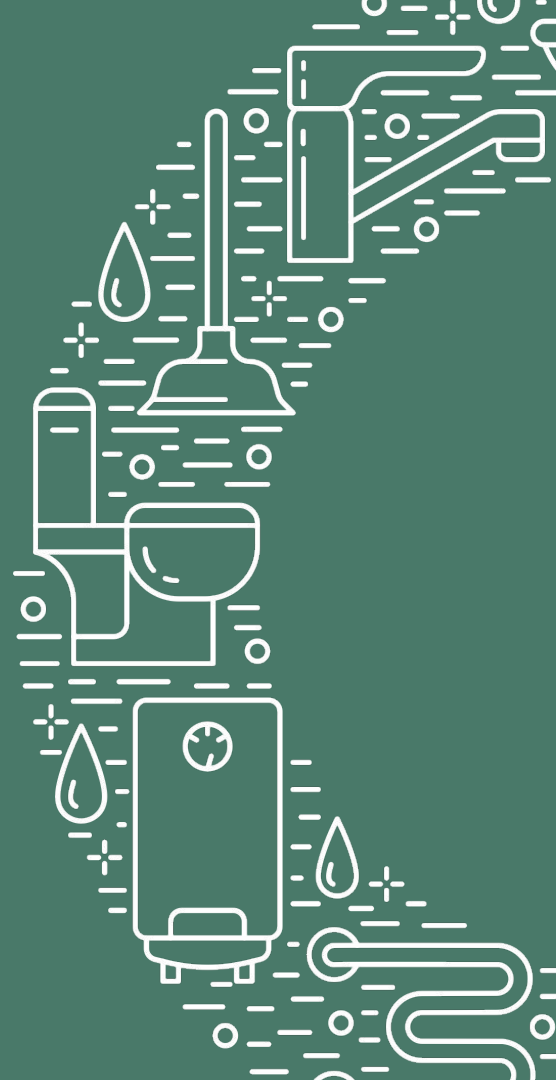


Residential Water Use in Texas

Central Texas Water Conservation Symposium

February 15, 2022





Speakers



Peter Mayer
Principal, WaterDM



Joe Fazio
VP of Enterprise Solutions,
Flume



Sarah Musiker
Director of Utilities, Flume

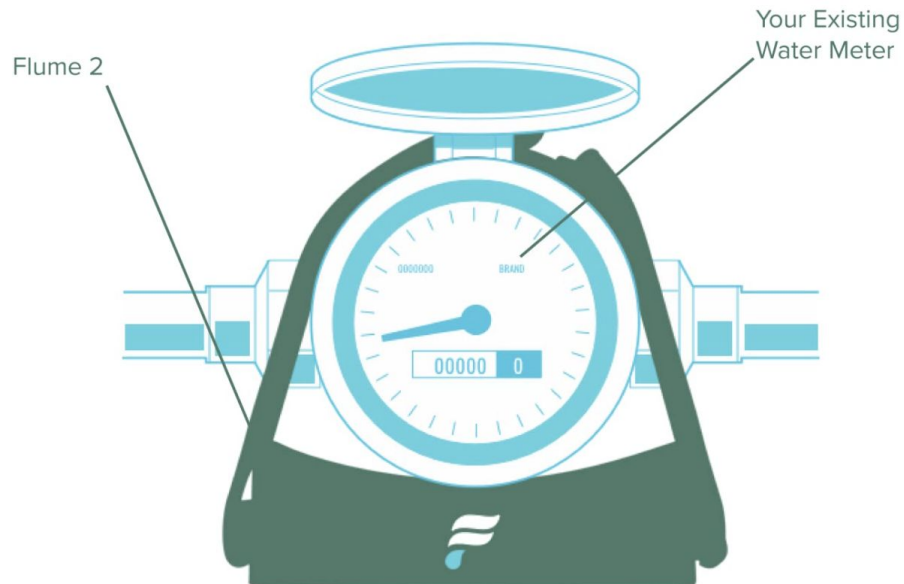
You can't manage what you can't measure. At Flume, our mission is to empower people and communities to understand how we use water by liberating the data behind it.





It Starts with a Sensor

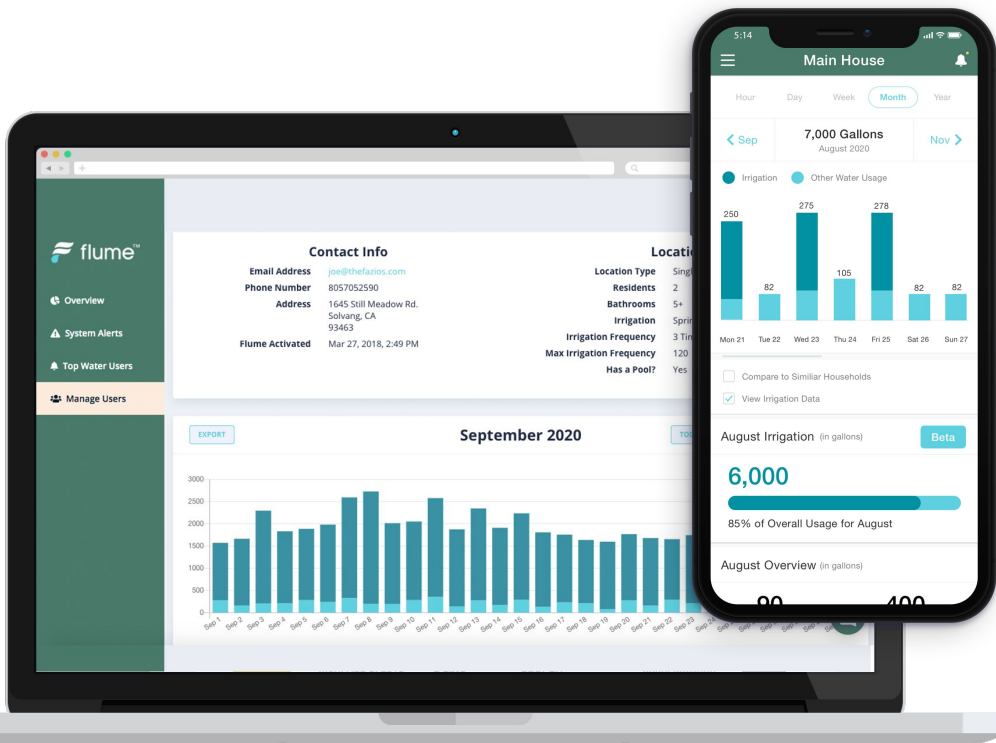
A plug-and-play system designed to help homeowners easily understand and manage their use.





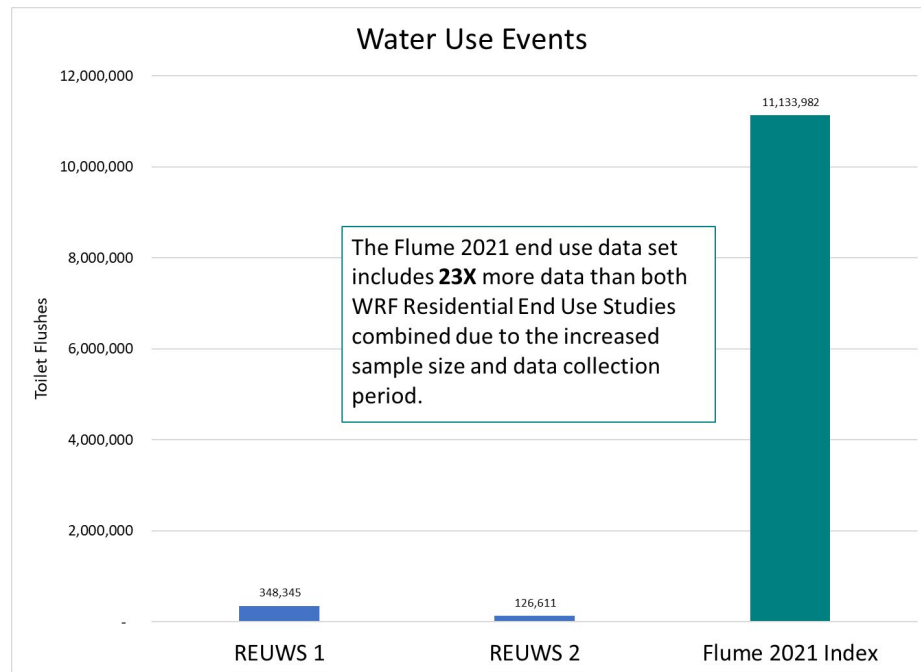
Accompanying Software Enables Granular Insights

Flume provides smartphone applications and utility dashboards for quick access to real-time data. Available to both customers and utilities.



30 Years of End Use

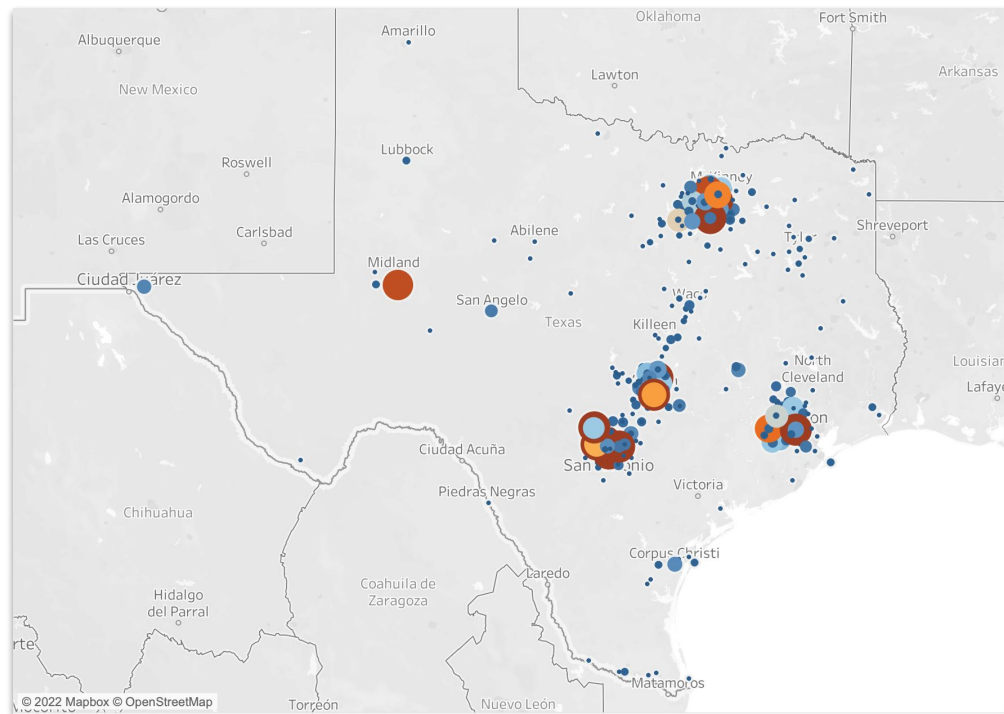
- Monthly disaggregation
- 1990's data loggers & disaggregation
- Residential End Uses of Water (1999, 2016)

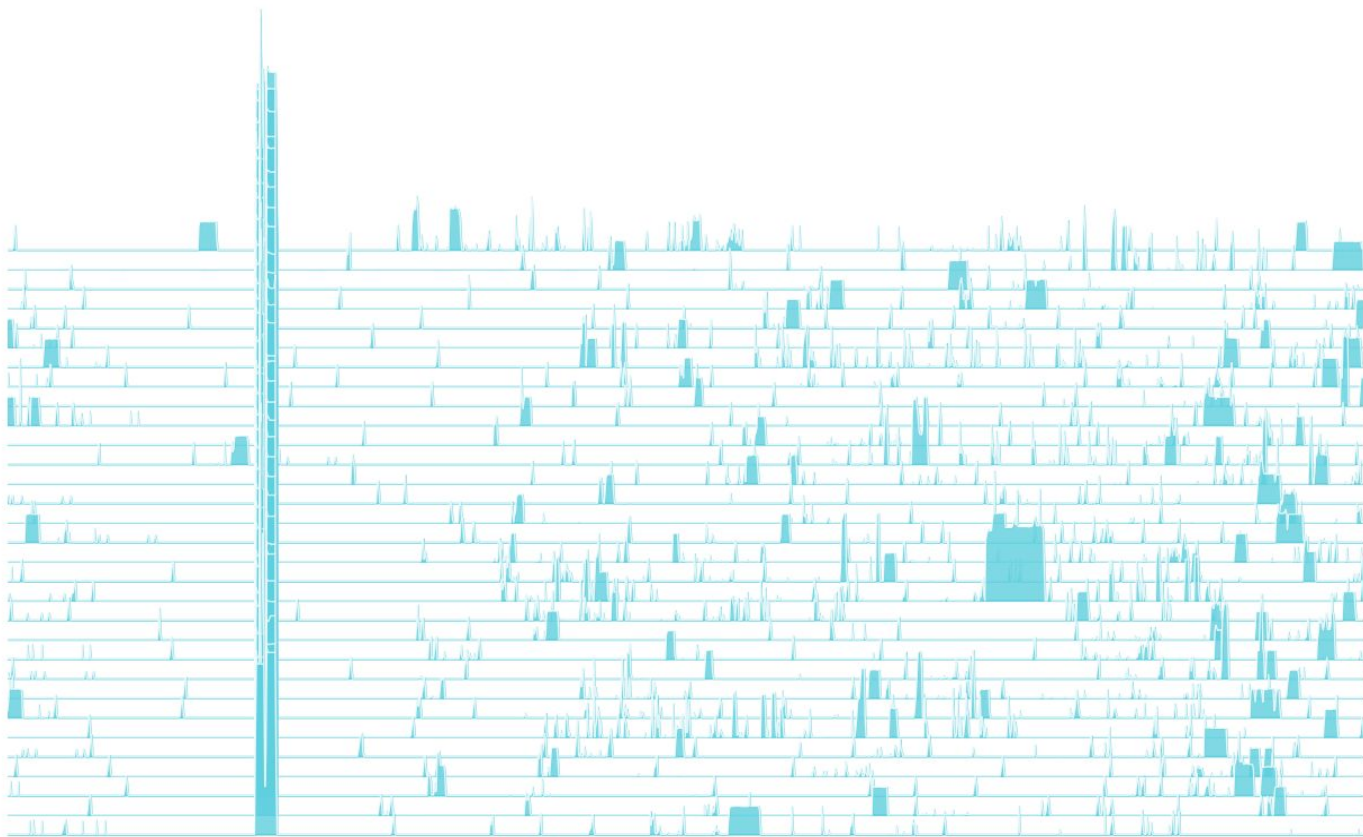


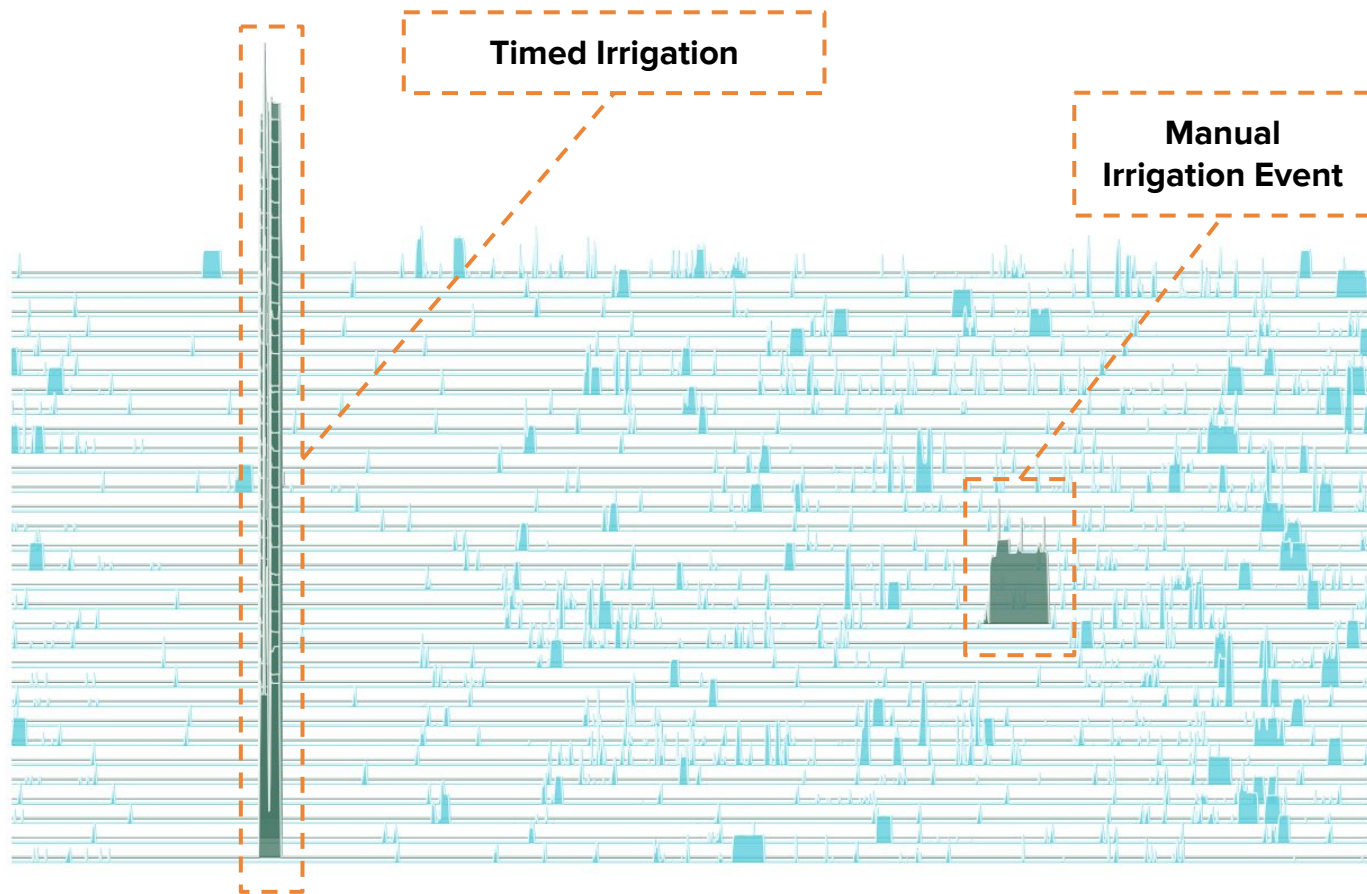
Advances in Water Use Research

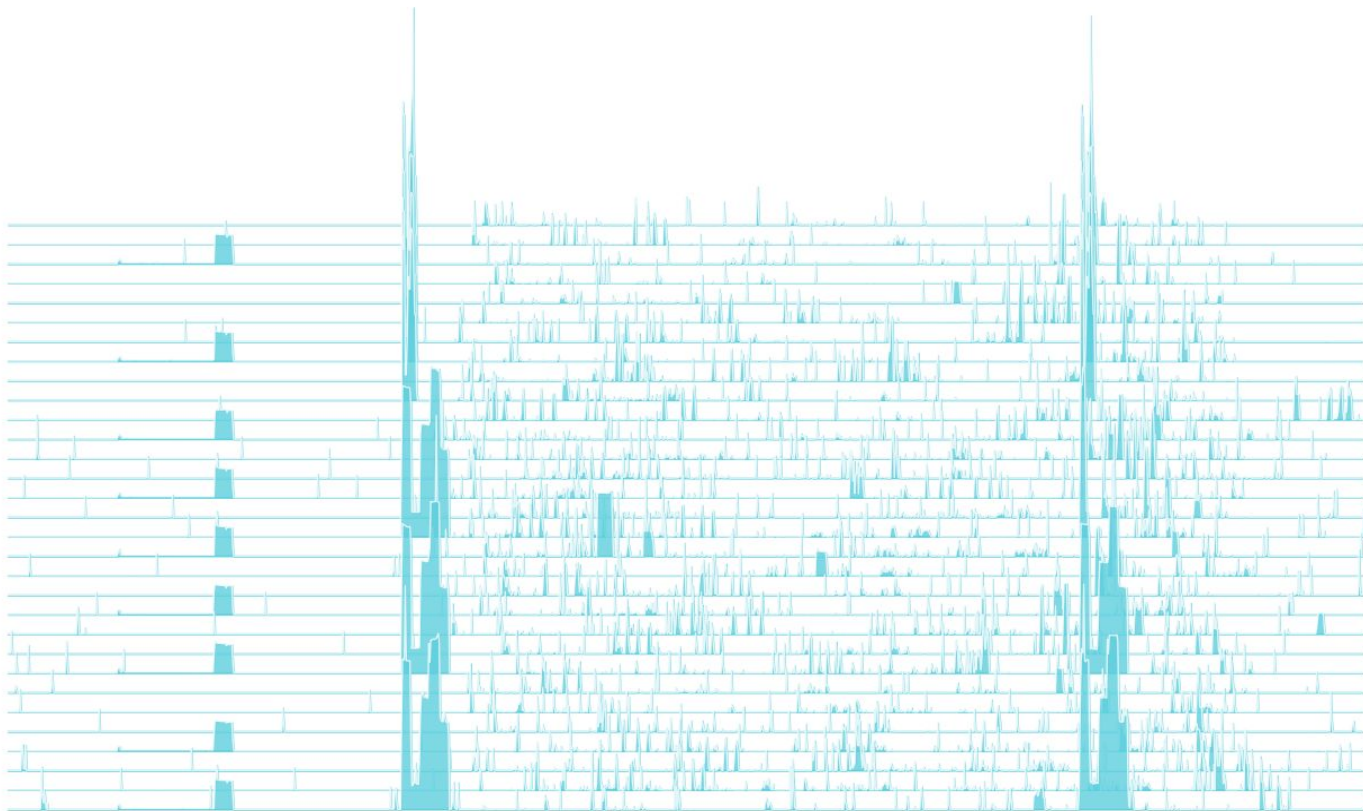


- Much less expensive data collection
- Easy for utilities to participate, low administrative burden
- Continuous 5-second data collection, no time-limit
- Disaggregation and analysis by end use
- Peak demand analysis and time of day of use
- Leakage and low-flow quantification
- Water budget vs. actual



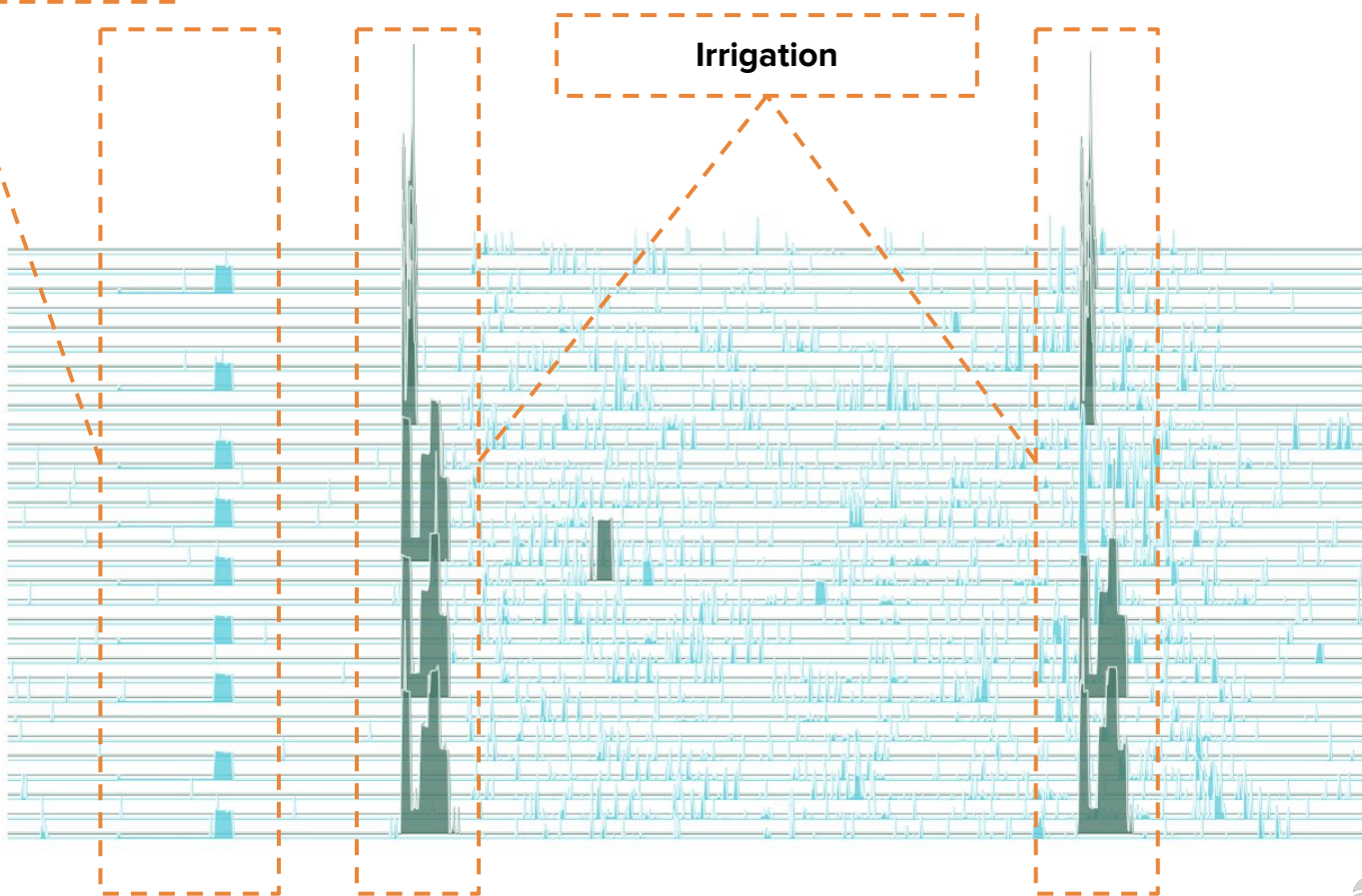






Water Softener

Irrigation



Residential Water Use in Texas



Title

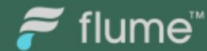
Distribution

Indoor Use

Outdoor Use

Total Use

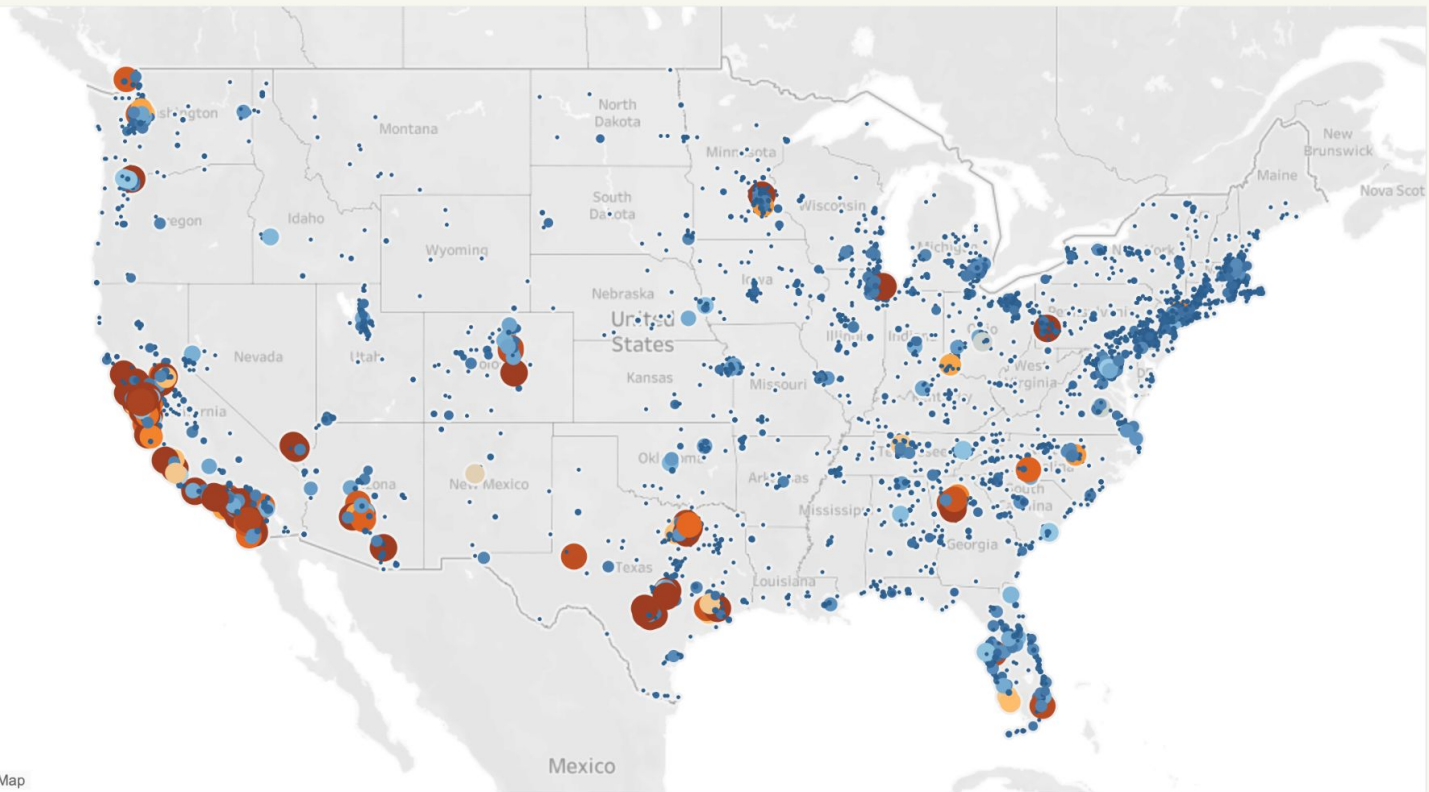
End



National

Texas

Distribution of Flume Devices Installed National as of Dec 31, 2021



Title

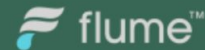
Distribution

Indoor Use

Outdoor Use

Total Use

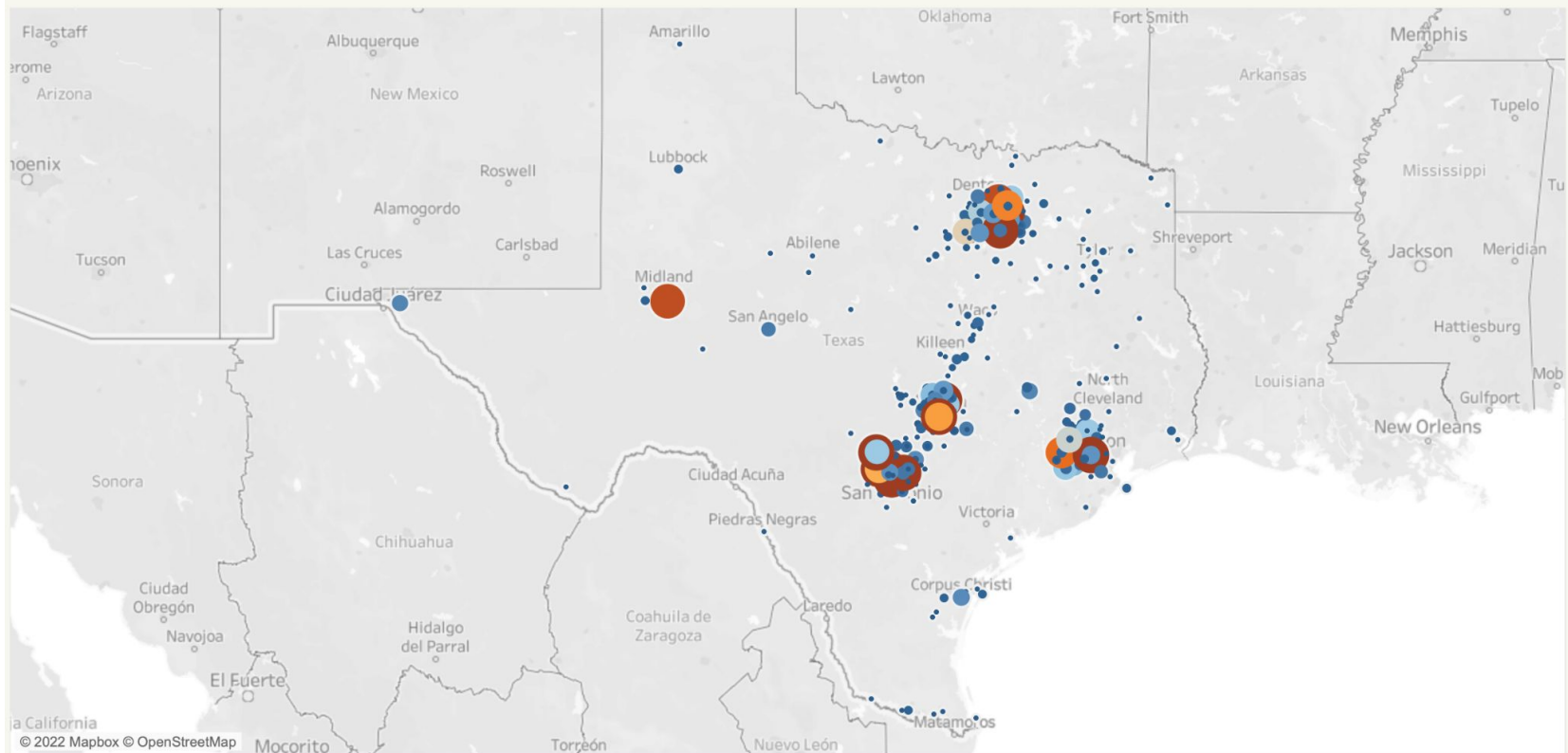
End



National

Texas

Distribution of Flume Devices Installed Texas as of Dec 31, 2021



Title

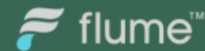
Distribution

Indoor Use

Outdoor Use

Total Use

End



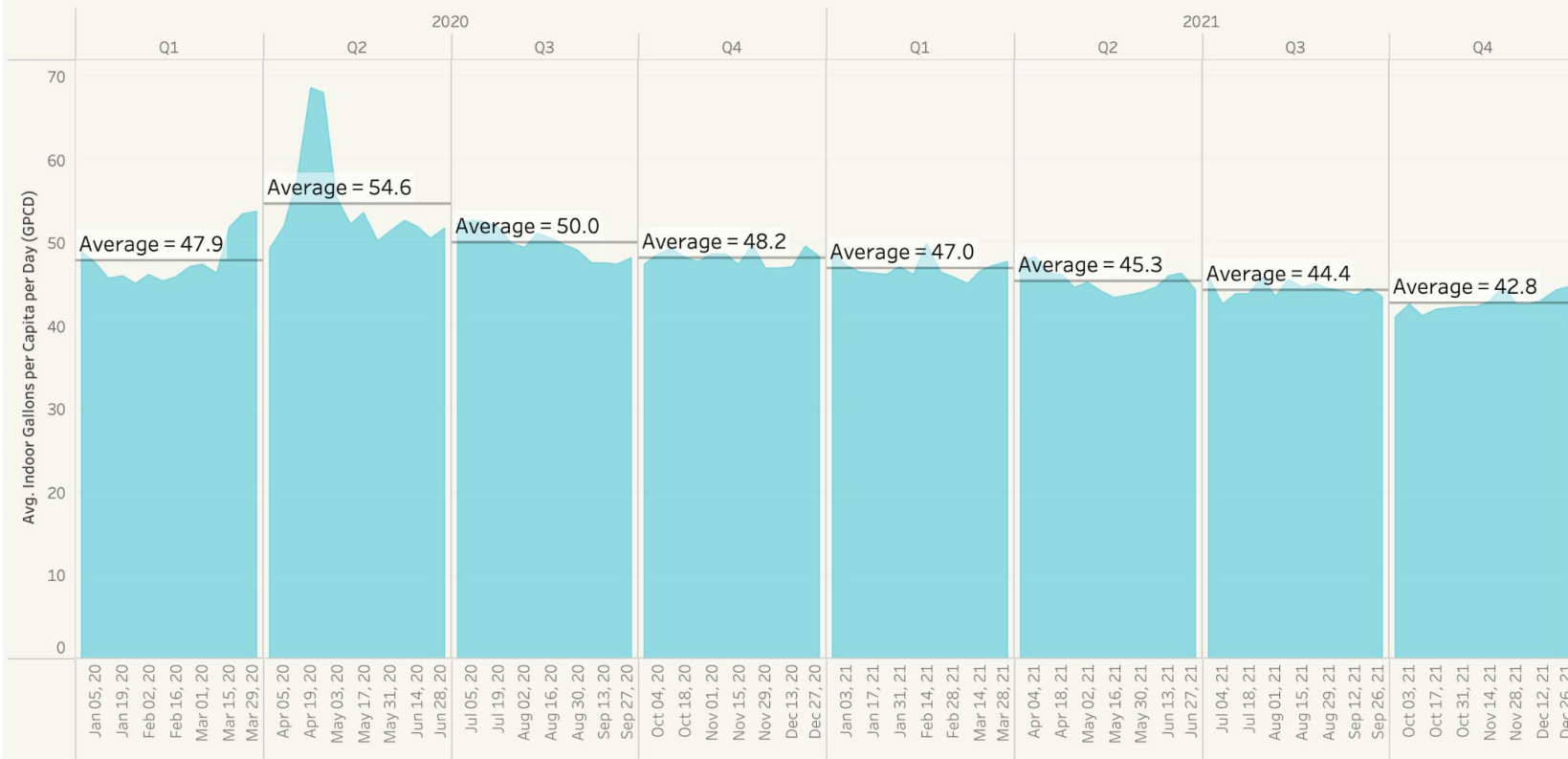
Texas

Top MSA's

Texas vs. Nation

Toilet Efficiency

Texas Indoor Water Use (per capita) 2020 - 2021



Title

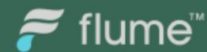
Distribution

Indoor Use

Outdoor Use

Total Use

End



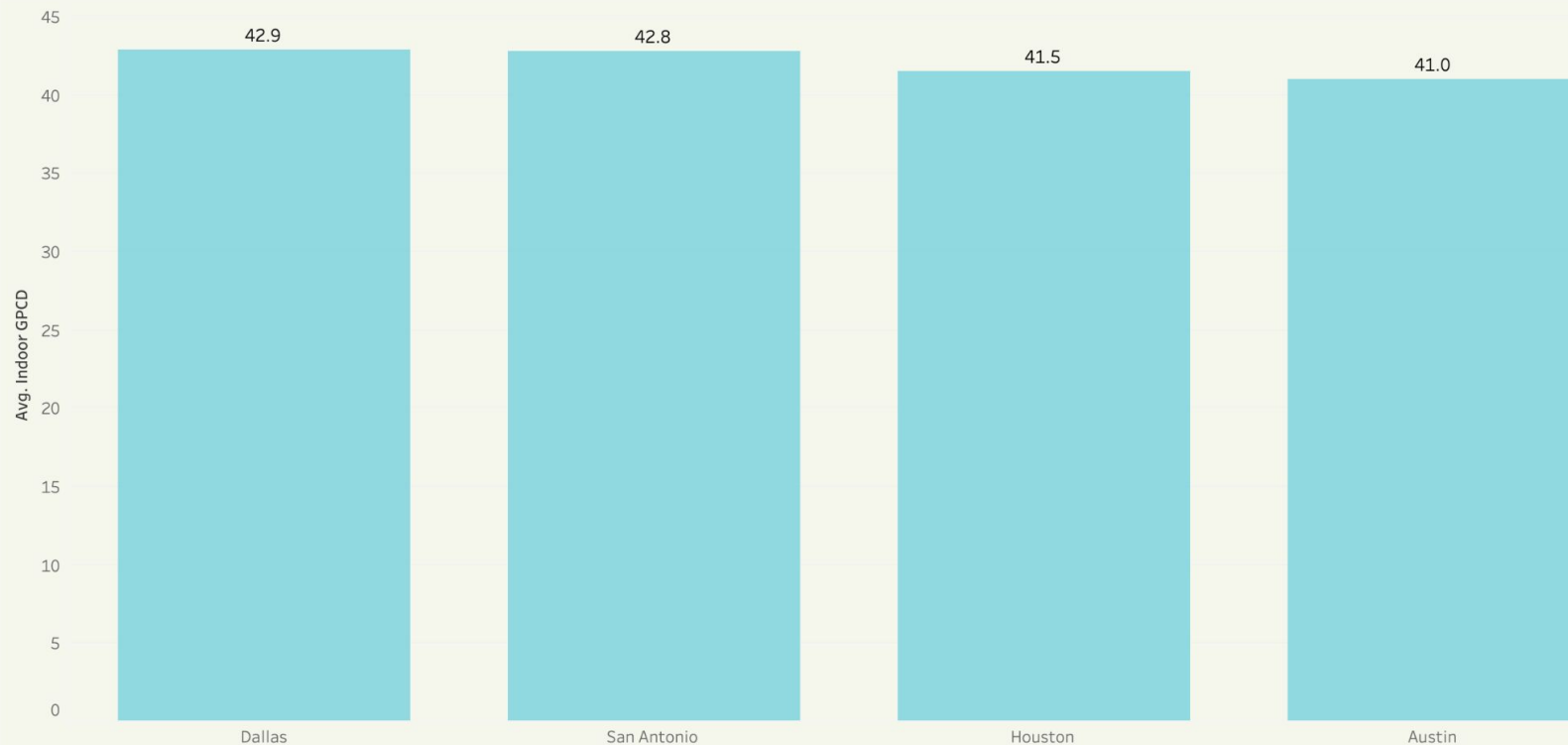
Texas

Top MSA's

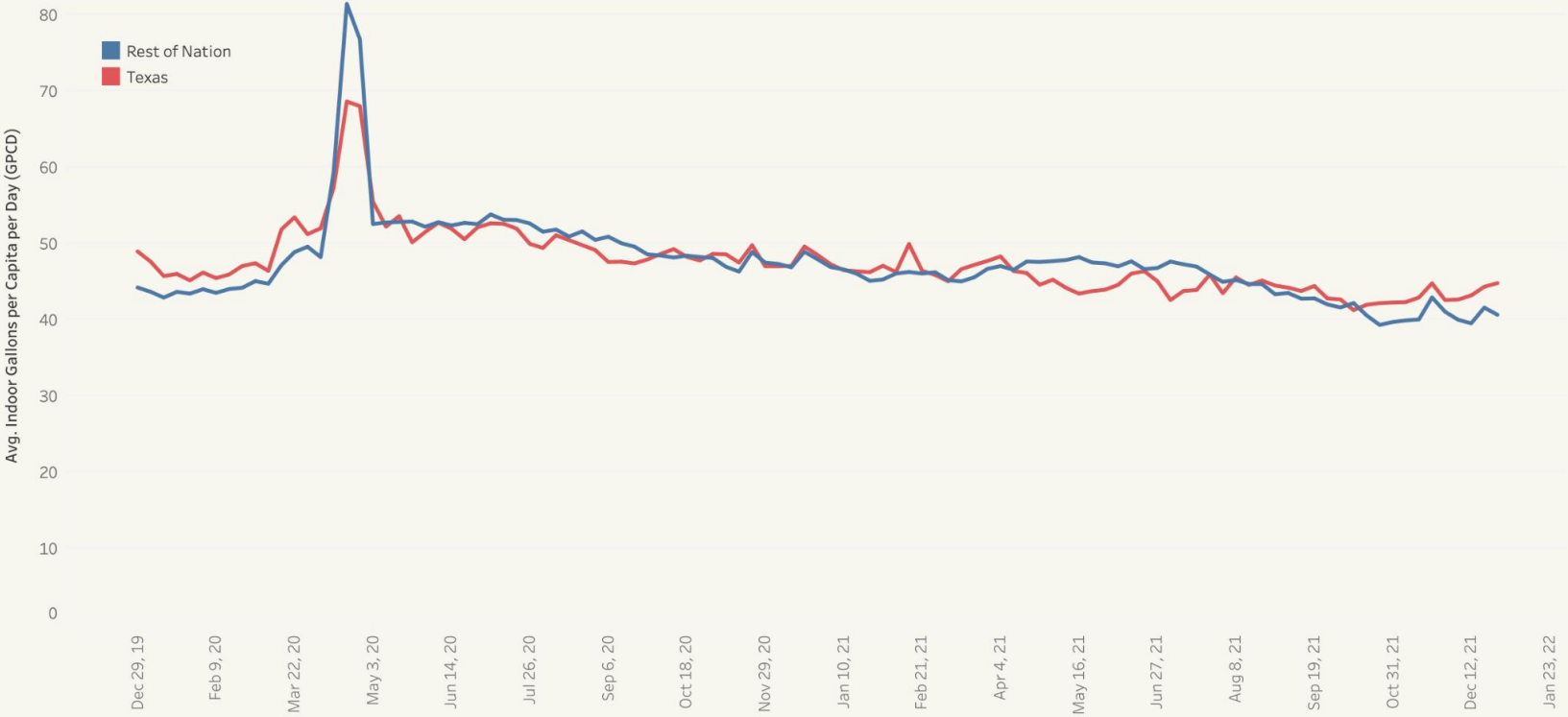
Texas vs. Nation

Toilet Efficiency

Indoor Water Use (per capita) by Metro Area *Q4 2021*



Indoor Water Use Texas vs. Rest of Nation



Title

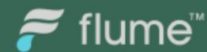
Distribution

Indoor Use

Outdoor Use

Total Use

End



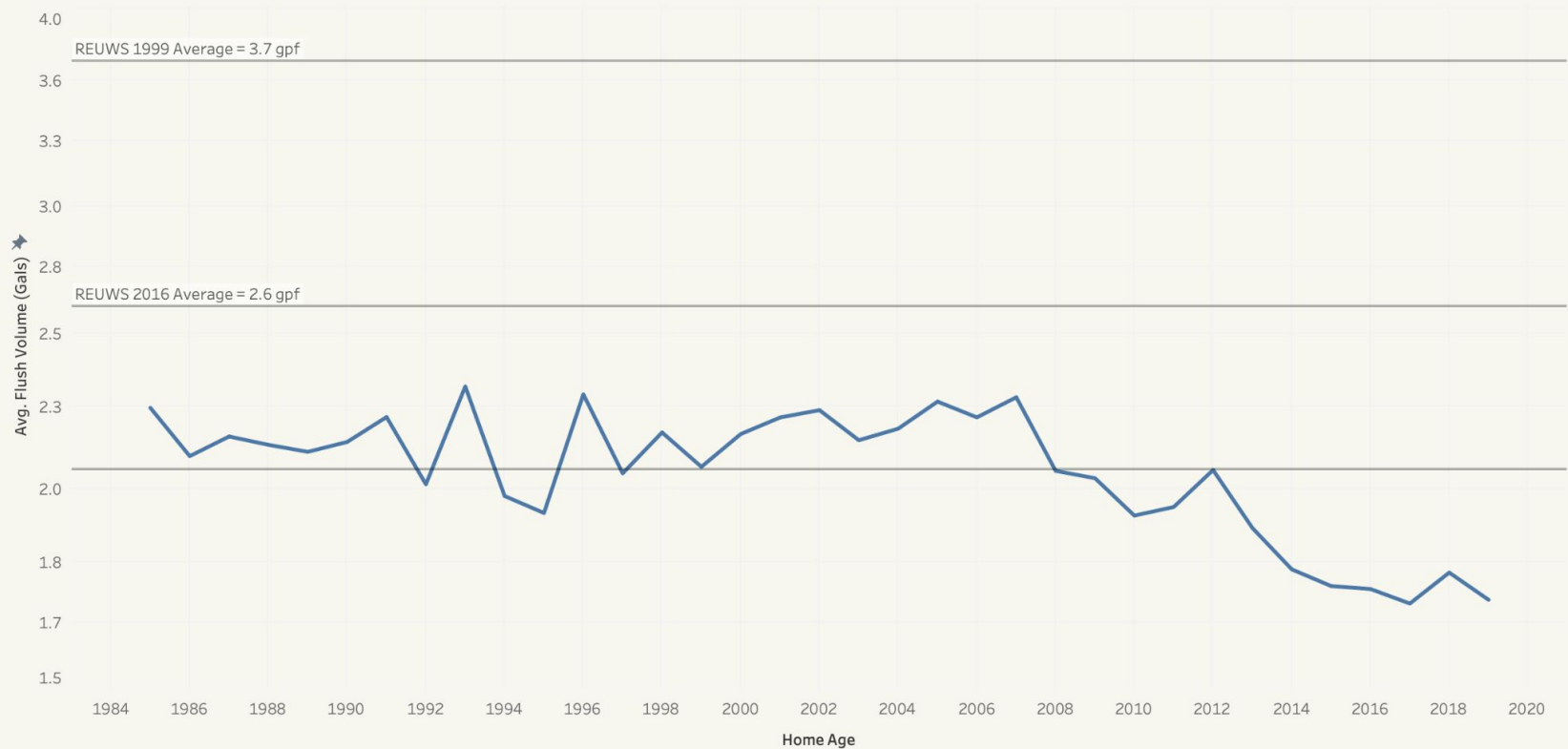
Texas

Top MSA's

Texas vs. Nation

Toilet Efficiency

Toilet Efficiency San Antonio, TX



Title

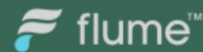
Distribution

Indoor Use

Outdoor Use

Total Use

End



Texas

Top MSA's

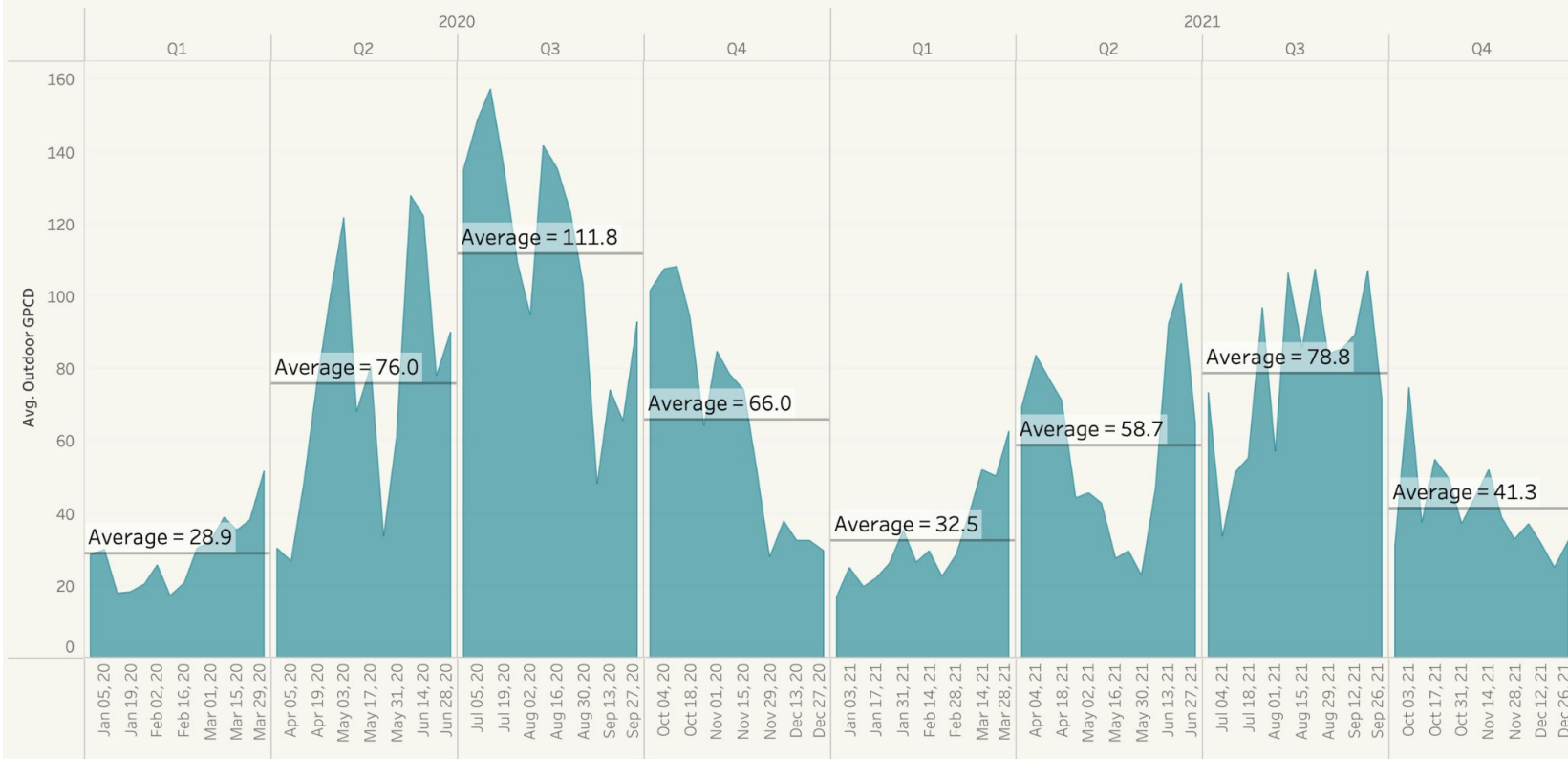
Texas vs. Nation

San Antonio ET

Irrigation

Sprinklers v. Hose

Texas Outdoor Water Use (per capita) 2020 - 2021



Title

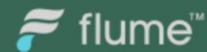
Distribution

Indoor Use

Outdoor Use

Total Use

End



Texas

Top MSA's

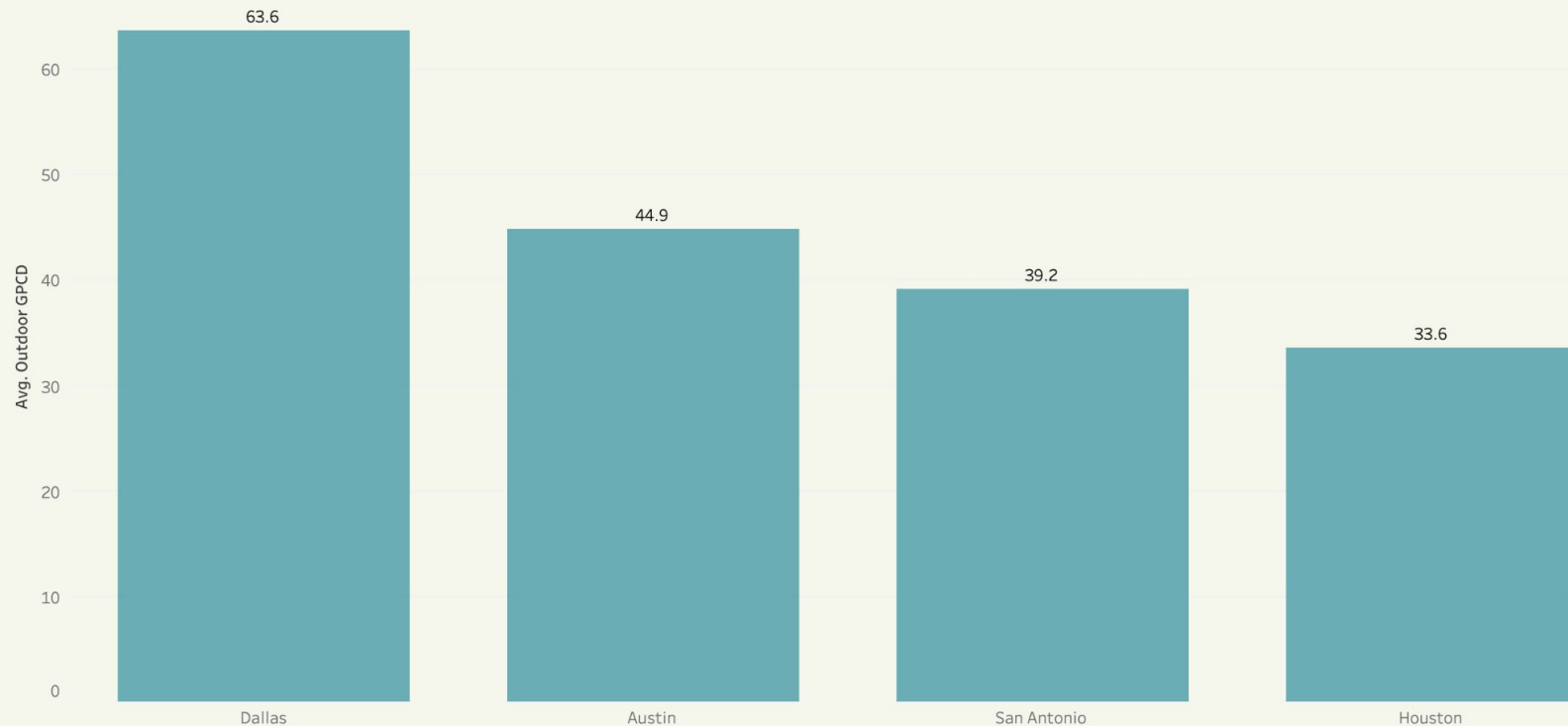
Texas vs. Nation

San Antonio ET

Irrigation

Sprinklers v. Hose

Outdoor Water Use (per capita) by Metro Area *Q4 2021*



Title

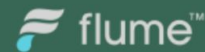
Distribution

Indoor Use

Outdoor Use

Total Use

End



Texas

Top MSA's

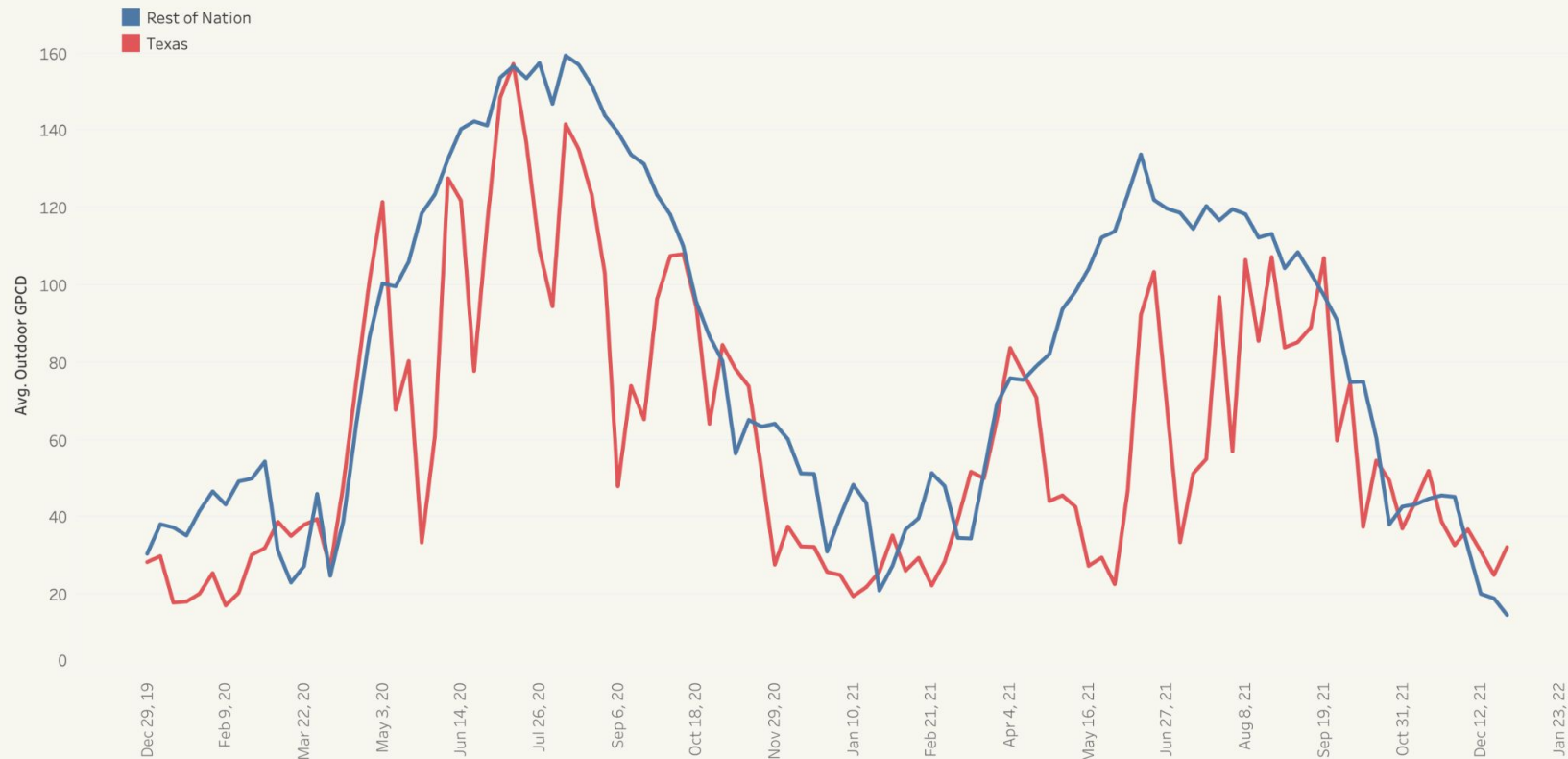
Texas vs. Nation

San Antonio ET

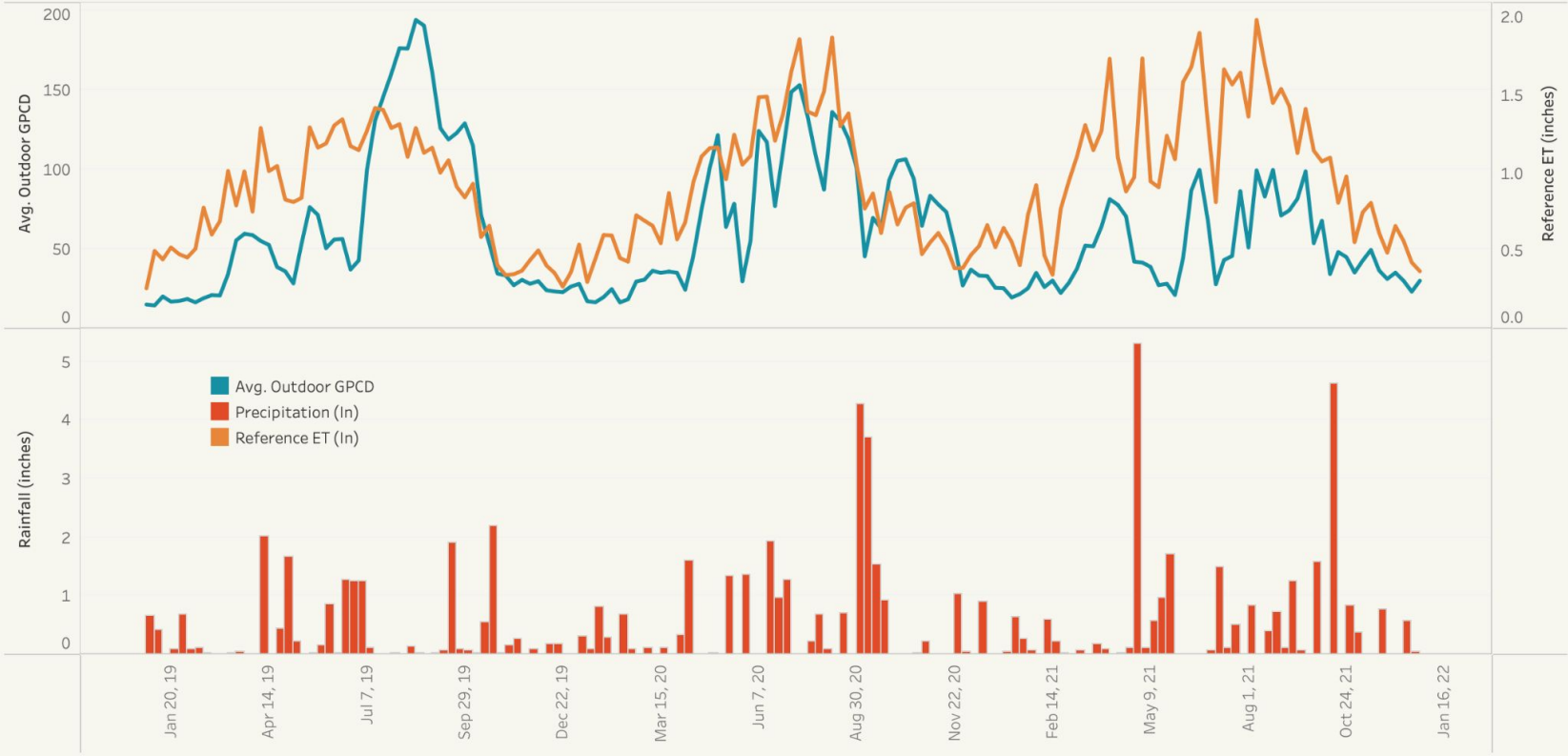
Irrigation

Sprinklers v. Hose

Outdoor Water Use Texas vs. Rest of Nation



Effect of Weather on San Antonio Water Use 2019 - 2021



Title

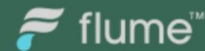
Distribution

Indoor Use

Outdoor Use

Total Use

End



Texas

Top 15 MSA's

Texas vs. Nation

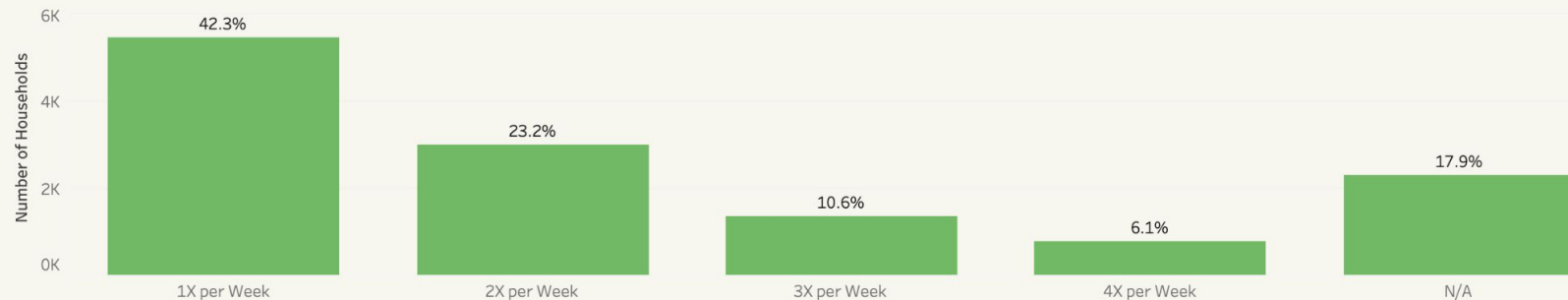
San Antonio ET

Irrigation

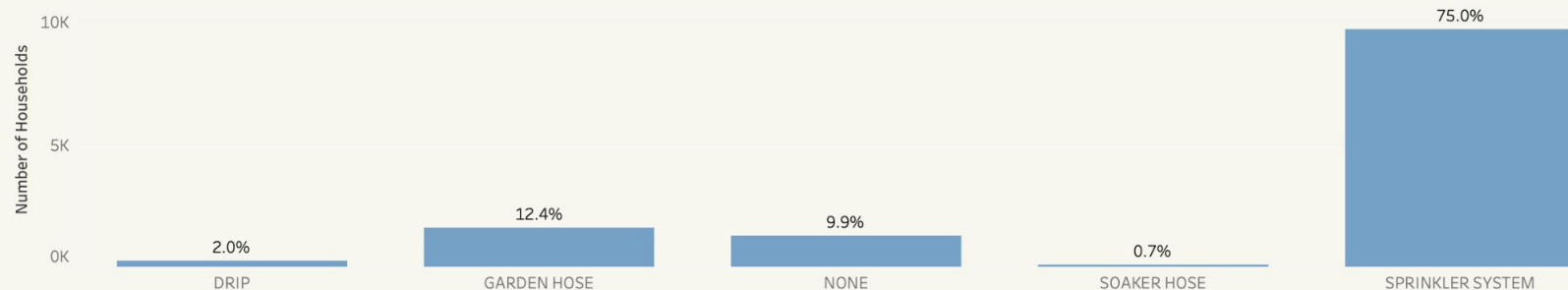
Sprinklers v. Hose

Self-Reported Irrigation Frequency and Type *Texas*

Irrigation Frequency



Irrigation Type



Title

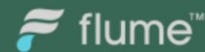
Distribution

Indoor Use

Outdoor Use

Total Use

End



Texas

Top 15 MSA's

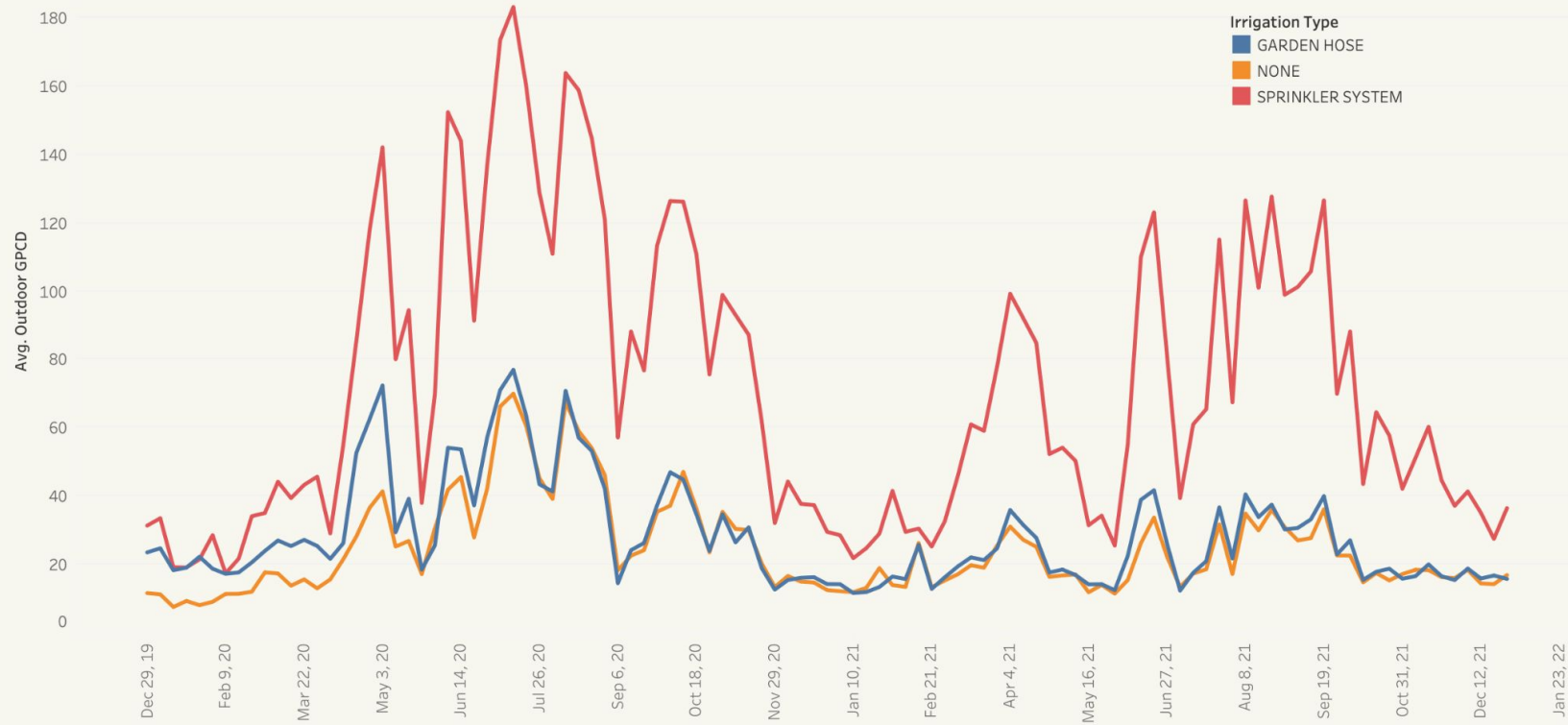
Texas vs. Nation

San Antonio ET

Irrigation

Sprinklers v. Hose

Outdoor Use *Sprinkler v. Hose Irrigation*



Title

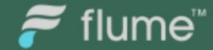
Distribution

Indoor Use

Outdoor Use

Total Use

End



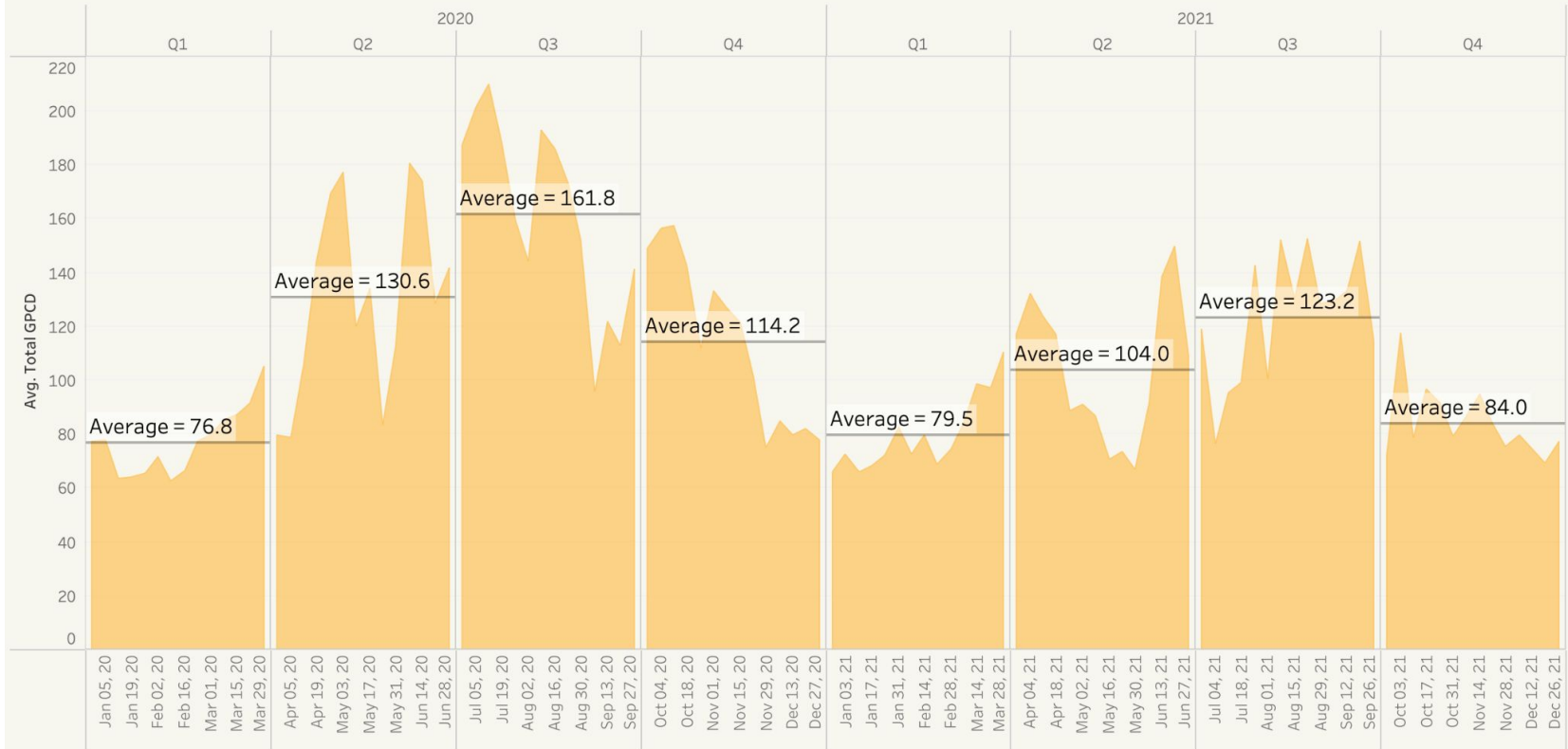
Texas

Top MSA's

Texas vs. Nation

Combined

Texas Total Water Use (per capita) 2020 - 2021



Title

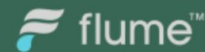
Distribution

Indoor Use

Outdoor Use

Total Use

End



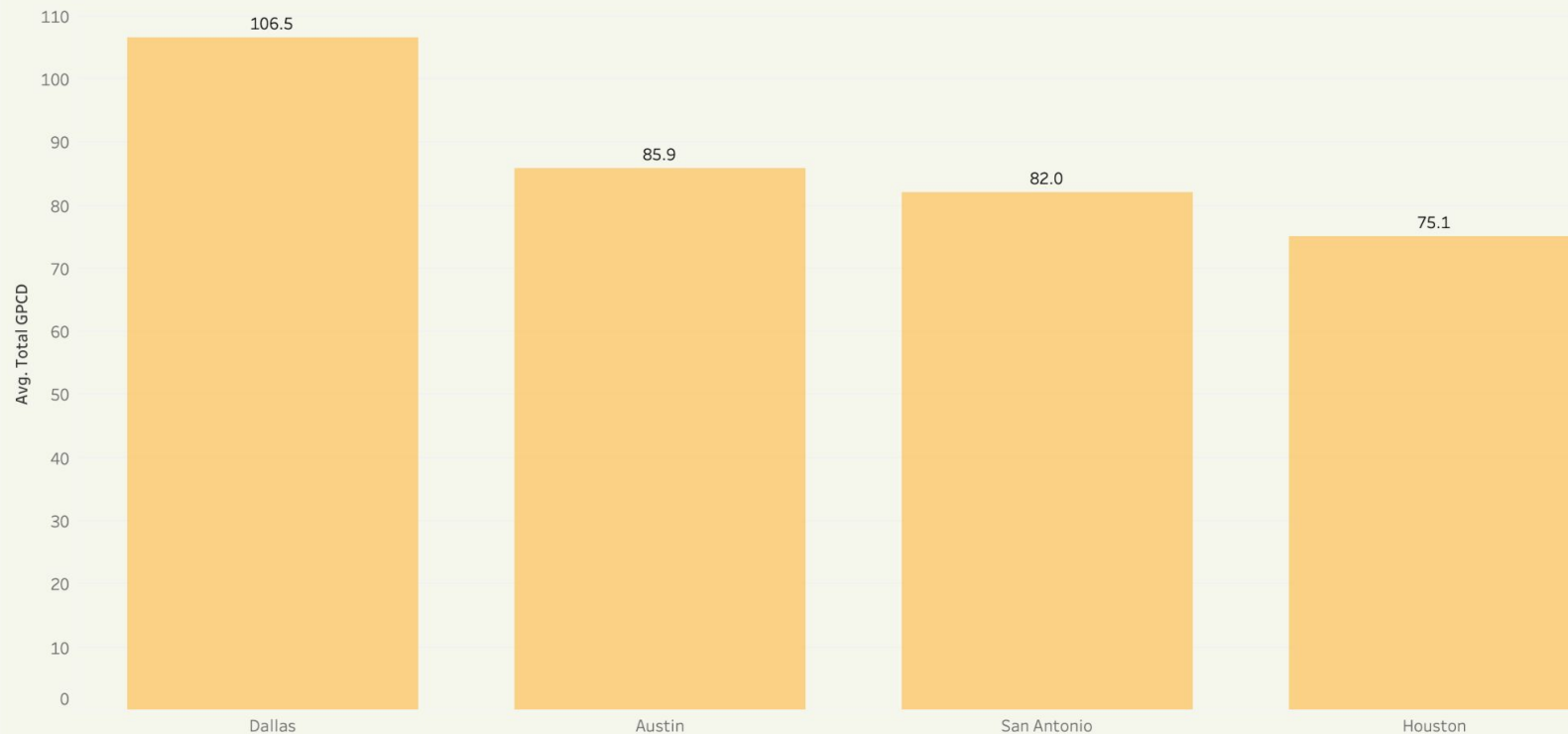
Texas

Top MSA's

Texas vs. Nation

Combined

Average Total Water Use (per capita) by Metro Area *Q4 2021*



Title

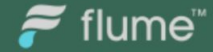
Distribution

Indoor Use

Outdoor Use

Total Use

End



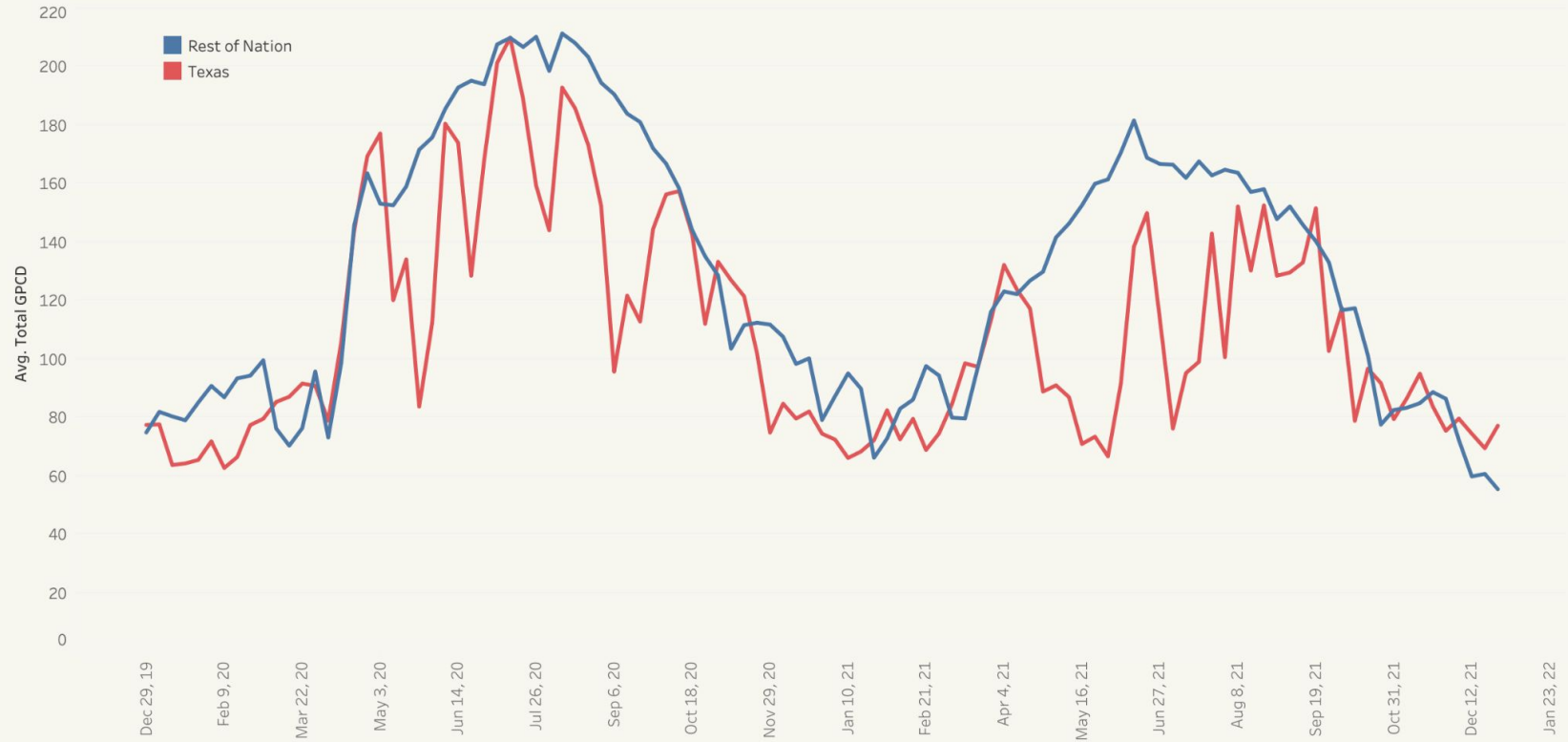
Texas

Top MSA's

Texas vs. Nation

Combined

Total Water Use Texas vs. Rest of Nation



Title

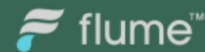
Distribution

Indoor Use

Outdoor Use

Total Use

End



Texas

Top MSA's

Texas vs. Nation

Combined

Texas Indoor, Outdoor and Total Water Use (per capita) 2020 - 2021



Q&A



For more information:

Interested in end-use insights for your service area?

Contact joe@flumewater.com

Interested in conservation or efficiency programs?

Contact sarah@flumewater.com

Learn more at flumewater.com and visit index.flumewater.com to view today's data.



THANK YOU

