

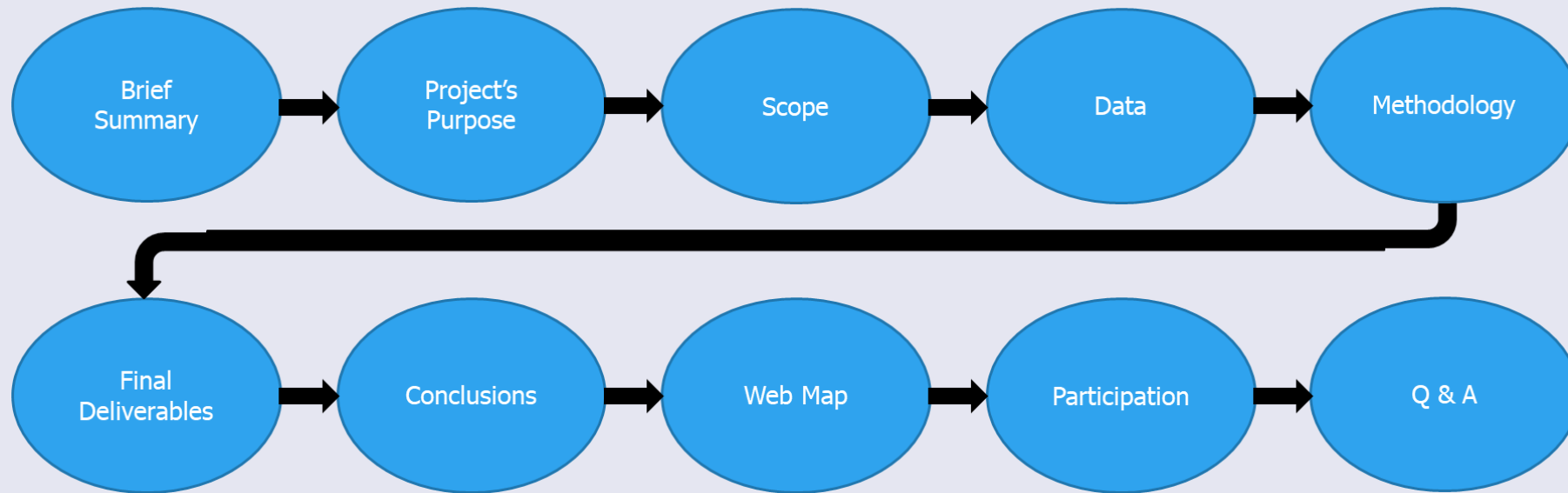


WASTEWATER
TREATMENT PLANTS
ON THE EDWARD'S
AQUIFER

A small mascot character wearing a purple and yellow patterned wizard hat and a purple robe with a yellow star pattern.
WATER WIZARDS
GIS CONSULTING

Presented by:
Tay Floyd
Haley Busse
Tyler Heck

PRESENTATION OVERVIEW



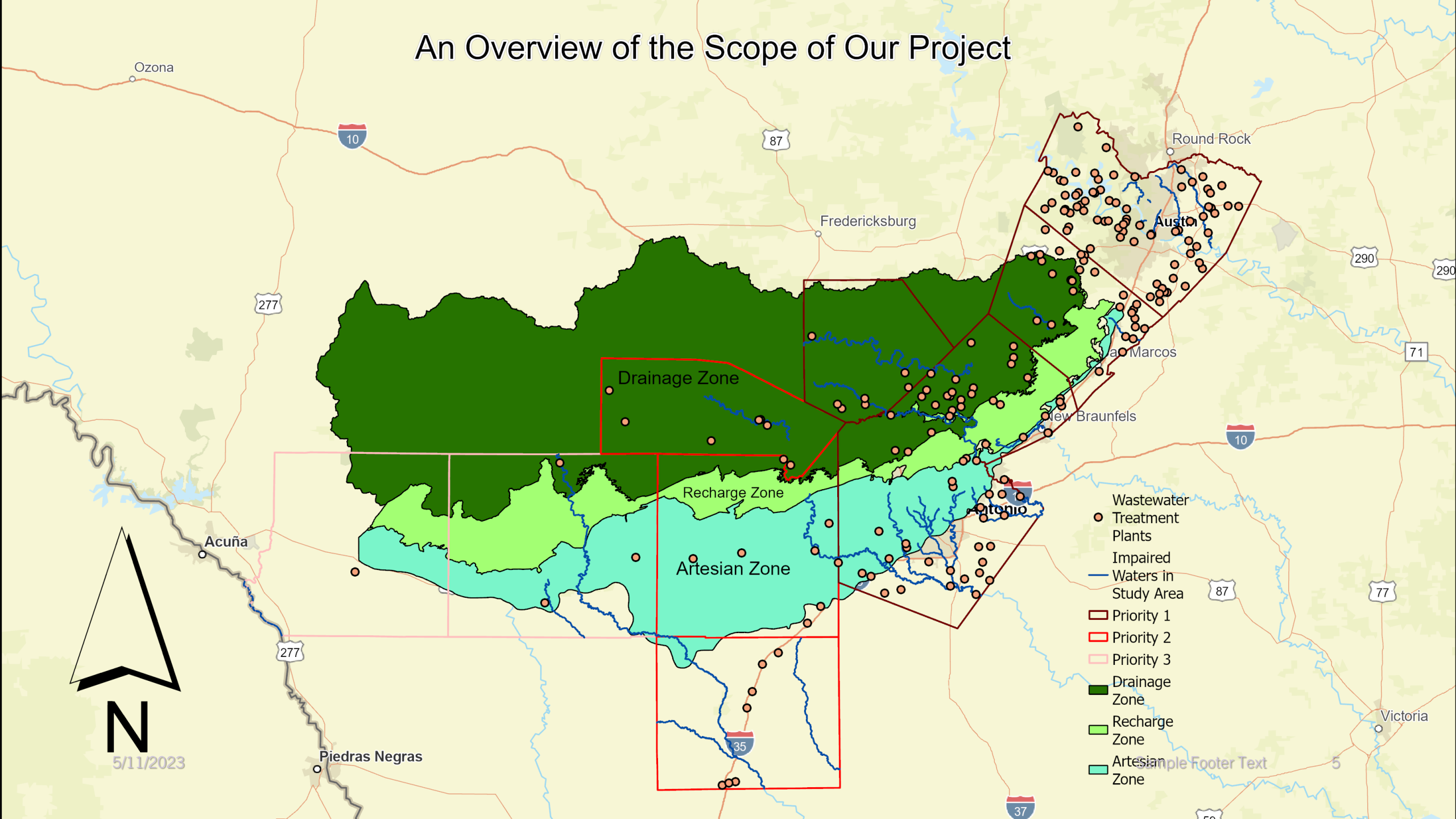
BRIEF SUMMARY

- Our AOI was the Edwards Aquifer with additional emphasis of interest being placed on ten counties that surround it, and each WWTP that operates in the area
- The Edwards Aquifer is made up of an abundance of karst limestone chambers, holes, and caves
- Downsides of its unique permeable structure

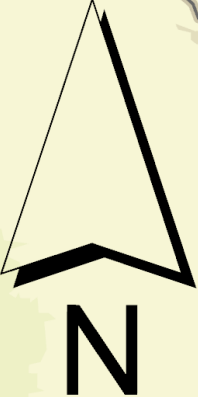
PROJECT'S PURPOSE

- Our goal was to identify areas of the aquifer that are at risk of contamination.
- With this info, we created an interactive web map that enabled tracking WWTP data with ease
- Highlight which WWTPs are most likely to cause issues for the aquifer
- Provide this information to the GEAA

An Overview of the Scope of Our Project



- Wastewater Treatment Plants
- Impaired Waters in Study Area
- Priority 1
- Priority 2
- Priority 3
- Drainage Zone
- Recharge Zone
- Artesian Zone



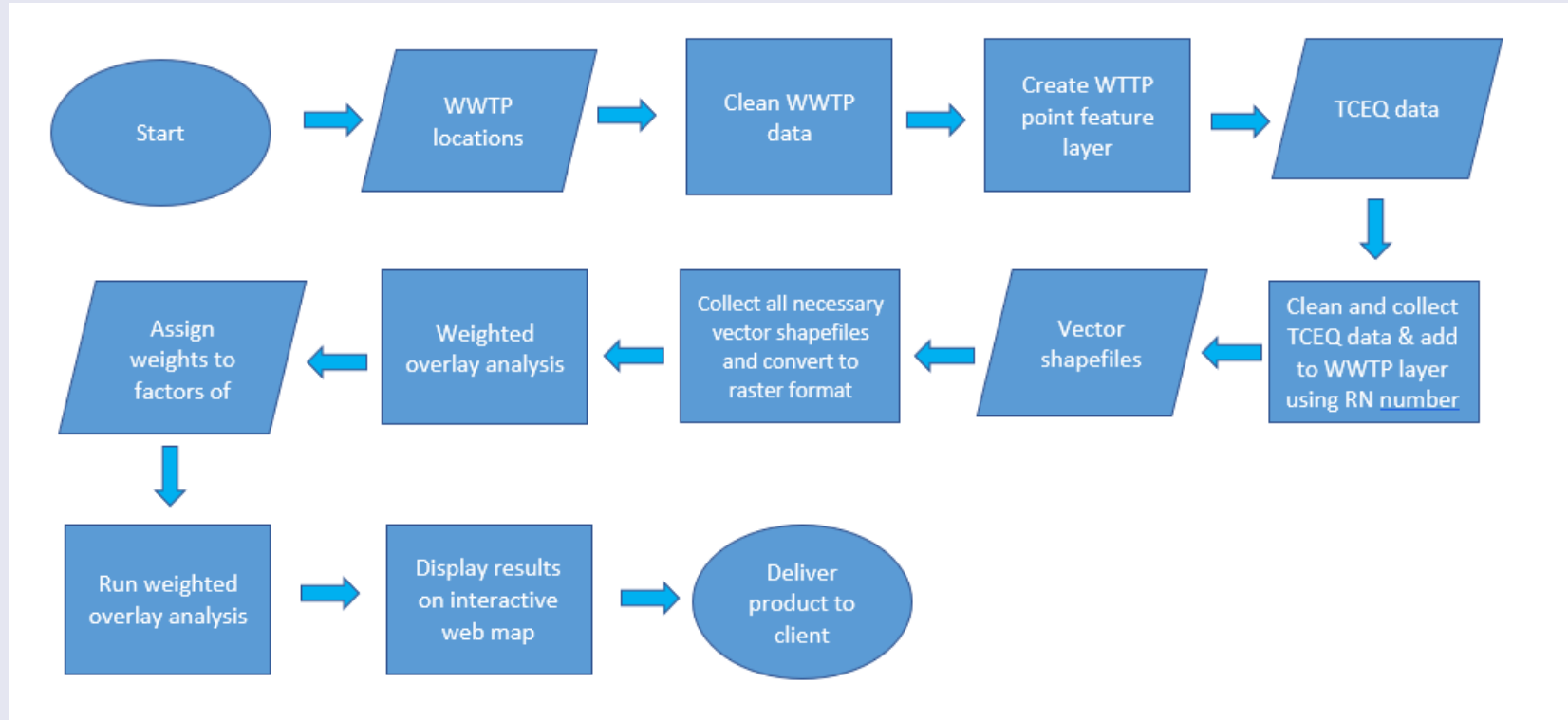
5/11/2023

Sample Footer Text

DATA

- Start and permit renewal date of TPDES and TLAP permits
- Address / Description of location
- Volume of Treatment
- Method of Treatment
- Phosphorus and Nitrogen discharges permitted
- Discharge rate
- Carbonaceous biological oxygen demand
- Total suspended solids
- Past notices of violation (NOV)
- Past Notices of enforcement (NOE)
- Ammonia nitrogen
- Beneficial Reuse (if any)
- Additional Conditions of Permit (if any)
- County maps, shapefiles, and quantitative data, which depict locations and vulnerability rankings for wastewater lines
- Edwards Aquifer Zones and Regulatory Boundary
- Surface water shapefiles
- Surface water quality criteria, such as TCEQ/EPA stream impairment status
- Available wastewater spills data

METHODOLOGY

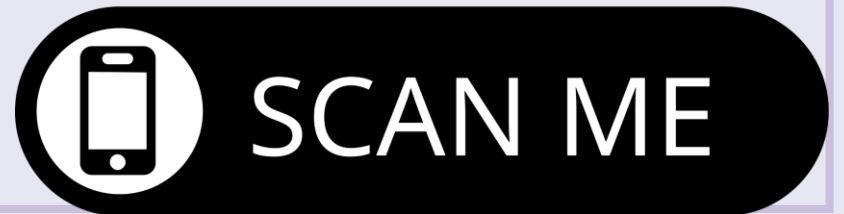


FINAL DELIVERABLES

- Map Layers
- River Buffers
- Weighted Overlay
- Rasterized Buffers
- Rasterized Study Area
- Reclassified Rasters

CONCLUSIONS

<https://txst.maps.arcgis.com/apps/mapviewer/index.html?wemap=1136af6f185746b6b2a46ba68ec74d6b>



PARTICIPATION

- Tyler Heck: Summary, Purpose, Scope, and AOI
- Haley Busse: Data and Methodology
- Tay Floyd: Final Deliverables and Conclusion