



UTILITIES DEPARTMENT UPDATES

City Council Meeting 2/1/2022

CITY OF ALPINE

2021 ANNUAL STATS

- ✚ Pumped 498,269,611 gallons of water from 11 wells currently in use.
- ✚ 33 major water leaks resulting in an estimated 21,390,526 gallons lost
- ✚ Took 96 Bacteriological Water Samples and 68 Raw Well Samples, along with 2,190 daily Chlorine Residual Samples
- ✚ Responded to 1,680 Work Orders in past *six months*, including:
 - ✚ 120 Leak Investigations
 - ✚ 95 Meter and Curb Stop Replacements
 - ✚ 49 Sewer Backups
 - ✚ 14 New Tap Installations
 - ✚ 78 Septic Hauler Dumps
 - ✚ 33 Bulk Water Sales

AGING INFRASTRUCTURE

- ✂ Old lines develop leaks and breaks due to age and ground upheaval
- ✂ Old line material fractures more easily than newer industry standard materials



BRICK



ORANGEBURG



CLAY



CAST IRON



PVC

- ✂ New Lead & Copper ruling made into Law requires identification and inventory of ALL lines that are Lead or have Lead connections ASAP and our REPLACEMENT plan and schedule submitted to TCEQ and EPA by 10/16/2024

EMPLOYEE RETENTION AND TRAINING

- ✍ Nation-wide challenge to recruit, hire, and retain qualified employees
- ✍ State Commission for Environmental Quality (TCEQ) requires different licensure levels for varying positions
- ✍ Competitive and creative compensation is needed to attract and retain employees in order to maintain compliance with TCEQ
- ✍ Training is key to any plan of action
- ✍ Suitable candidates must be identified and encouraged to continue their education and growth
- ✍ The more training, and higher levels of certification an employee receives, the greater the value to the City
- ✍ People are the most important asset within EVERY organization

UNAUTHORIZED MATERIALS IN SEWER

- ✂ Majority of sewer back-ups are directly related to blockages from unauthorized items being flushed

WIPES & TOWELS (baby, face, cleaning)	COTTON SWABS
	
CLEANSING PADS & COTTON BALLS	TOILET PAPER TUBES
	
MEDICINE & PILLS	CIGARETTES
	
BANDAGES	DIAPERS & PULL-UPS
	
SANITARY PRODUCTS	CONDOMS
	
GREASE & OIL	FLOSS & HAIR
	

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Recent
sewer back-
up on NE
side of Alpine



Typical pile of
unauthorized
items removed
daily from
wastewater
treatment
plants

- ✂ These items do not break down in wastewater systems and physical removal of these items is required

UNAUTHORIZED MATERIALS IN SEWER

- ✂ Covid 19 and toilet paper shortages exacerbated the problem because many different items were used in place of normal toilet paper which will have built up in layers along the sewer walls and will stay in there for years to come
- ✂ Fats, oils, and grease add to the layers and contribute to blockages.

DID YOU KNOW

FOG + non-flushables can create huge "fatbergs." One the weight of 11 double decker buses and as hard as concrete was discovered blocking a British sewer recently



UNAUTHORIZED MATERIALS IN SEWER

- ✂ When these items release, they work their way through to expensive pumping equipment, possibly clogging and burning them out.



Recent clog in an Alpine Lift Station Pump consisting of rags, underwear, and jeans which burned out the 2 month old pump

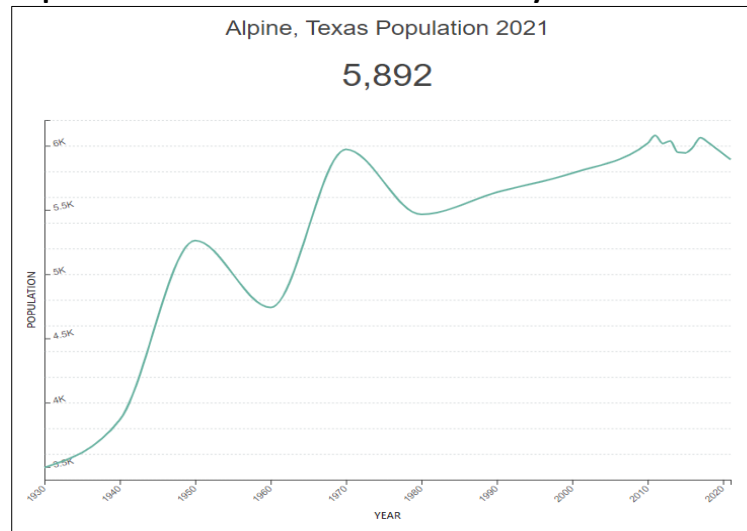


TCEQ

- ⚡ Previous violations with TCEQ have strained our relationship.
- ⚡ Goal is to repair relationship and re-build reputation to form a professional working relationship that's non-adversarial
- ⚡ Bolster consumer confidence in our water supply, processes, and performance.

POPULATION DECLINE

- ✍ 2021 US Census Data shows Alpine is currently declining at a rate of -0.76% annually and its population has decreased by -0.22% since the 2010 census.



- ✍ As residency declines, so does the tax base and use fees associated with the Utilities department, resulting in loss of revenue for daily operations and fixed costs.
- ✍ Currently, the department is favorable to budget, but if the downward trend continues, in the future, rates and fees need to be analyzed to ensure continued operation and repair.



SUMMARY

- ✂ Solutions to aforementioned problems will be costly, labor intensive, and require outside resources to accomplish
- ✂ We will do everything within our control to streamline operations, become more efficient, while still being effective, and proactive in meeting these challenges head on in order to protect the citizens of Alpine in the years ahead.