

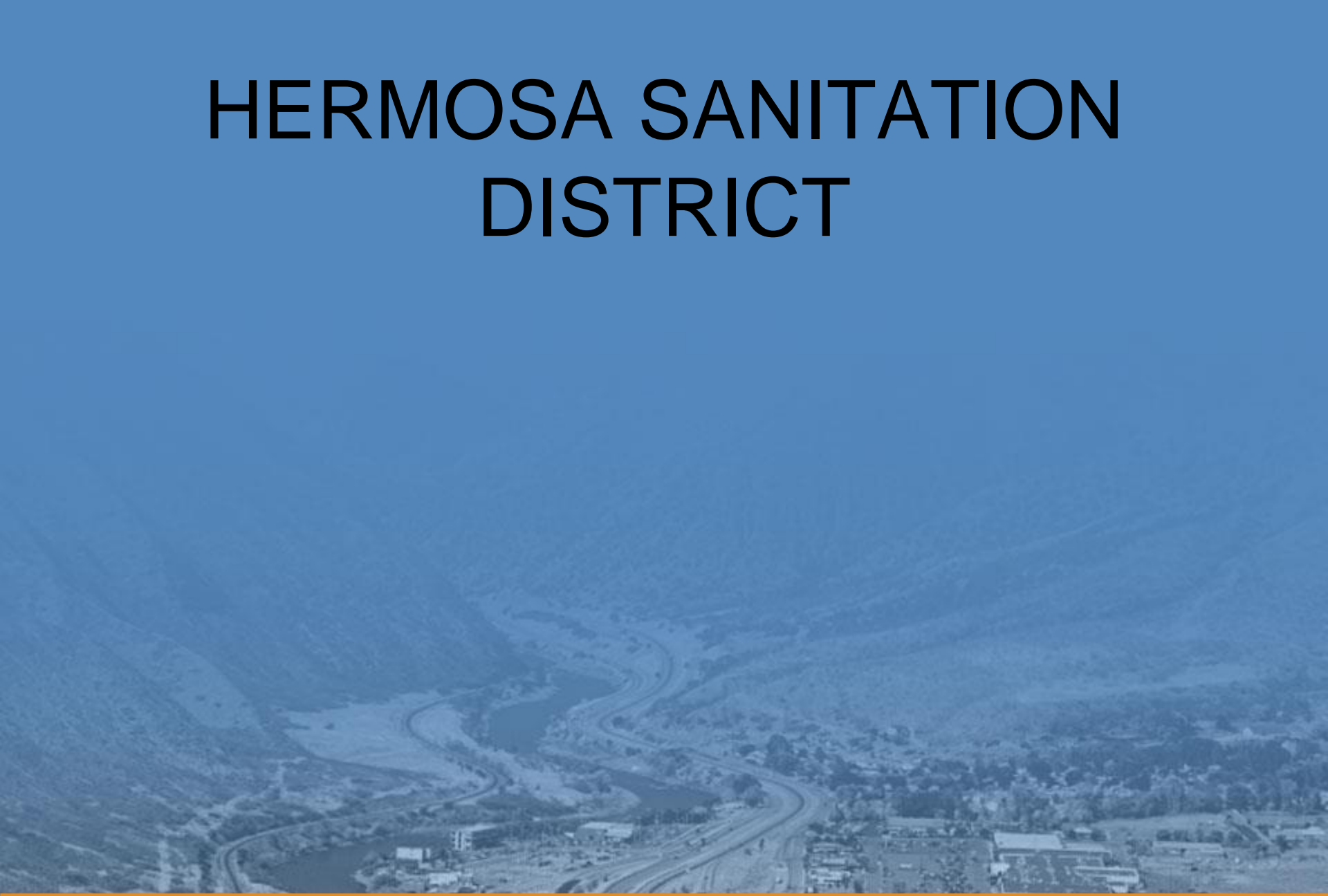
AVAC PRESENTATION ON HERMOSA SANITATION DISTRICT

LOUIS MEYER PE

SEPTEMBER 9TH

Institutional issues
Regulatory issues
Financial Issues
Water Quality issues
Timing issues

HERMOSA SANITATION DISTRICT



HERMOSA SANITATION DISTRICT

- Special District as organized under the State of CO Special District Act, Title 32, Article 1 CRS.
- Board Members (Directors) are typically appointed/acclimation, unless there is a contested seat which then requires an election.
- Customers own a multi million dollar asset of infrastructure, equipment, land, easements and utilities
- You are in charge so take charge
- Elections take place every two year, Starting May 2023: On the first Tuesday after the first Monday in May of odd-numbered
- Staggered terms i.e. Two or three years usually 5 directors.

LOCATION OF HERMOSA SANITATION WWTF















STATISTICS OF WWTF

Key Facts

- FACILITY CONSTRUCTED IN 1983
- 40 YEARS OLD
- FACULATIVE AERATED LAGOON
- OUTDATED TECHNOLOGY
- MEETS PARAMETERS OF NPDES PERMIT
- FACILITY IS RATED FOR 300,000 GALLONS PER DAY
- INFLUENT FLOW ARE APPROACHING 80% OF CAPACITY

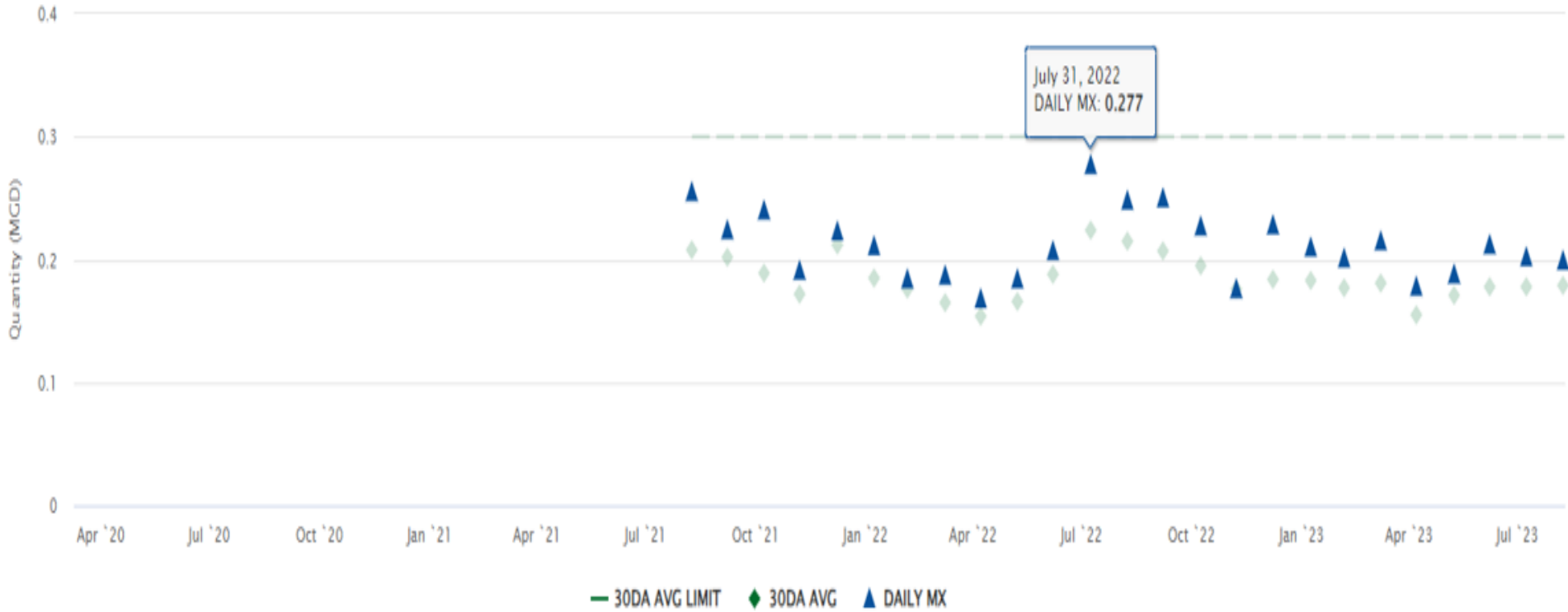
ISSUES

- PROBLEMS WITH AERATED LAGOONS
- LAND AREA FOR EXPANSION
- UPSET CONDITIONS AND ODORS
- WILL NOT MEET FUTURE REGULATORY ISSUES FOR NUTRIENTS WITHOUT SIGNIFICANT UPGRADES
- SET BACK ISSUES

History of hydraulic flows

- Plant capacity based upon 30 day average flow
- July 2022 flow of 277,000 peak daily flow reached or 92%
- July 2022 30 day average flow reached 224,000 gpd or 75% of capacity reached
- 3 days in July 2023 flows exceeded 80% capacity

Non-Numeric Value Timeline



CDPHE REGULATIONS 85 AND 31 NUTRIENT STANDARDS

- CDPHE has adopted standards for nutrients P and TIN
- TIN limit will be between 6-9 mg/l
- High nutrient concentrations increase aquatic plants, filamentous algae blooms which deprive oxygen to fish also called Eutrophication. Ammonia is toxic to fish and other aquatic life.
- Phosphorous limit will be less than 0.5 mg/l
- Once the water temperatures are below 10 degrees C nitrification stops and effluent ammonia starts to increase
- HSD exemption goes away in 2027
- NPDES Discharge Permit renewal is in 2026
- Aerated lagoons will not meet new standards with out significant upgrades
- Most medium size and small size WWTF are expanding with mechanical facilities

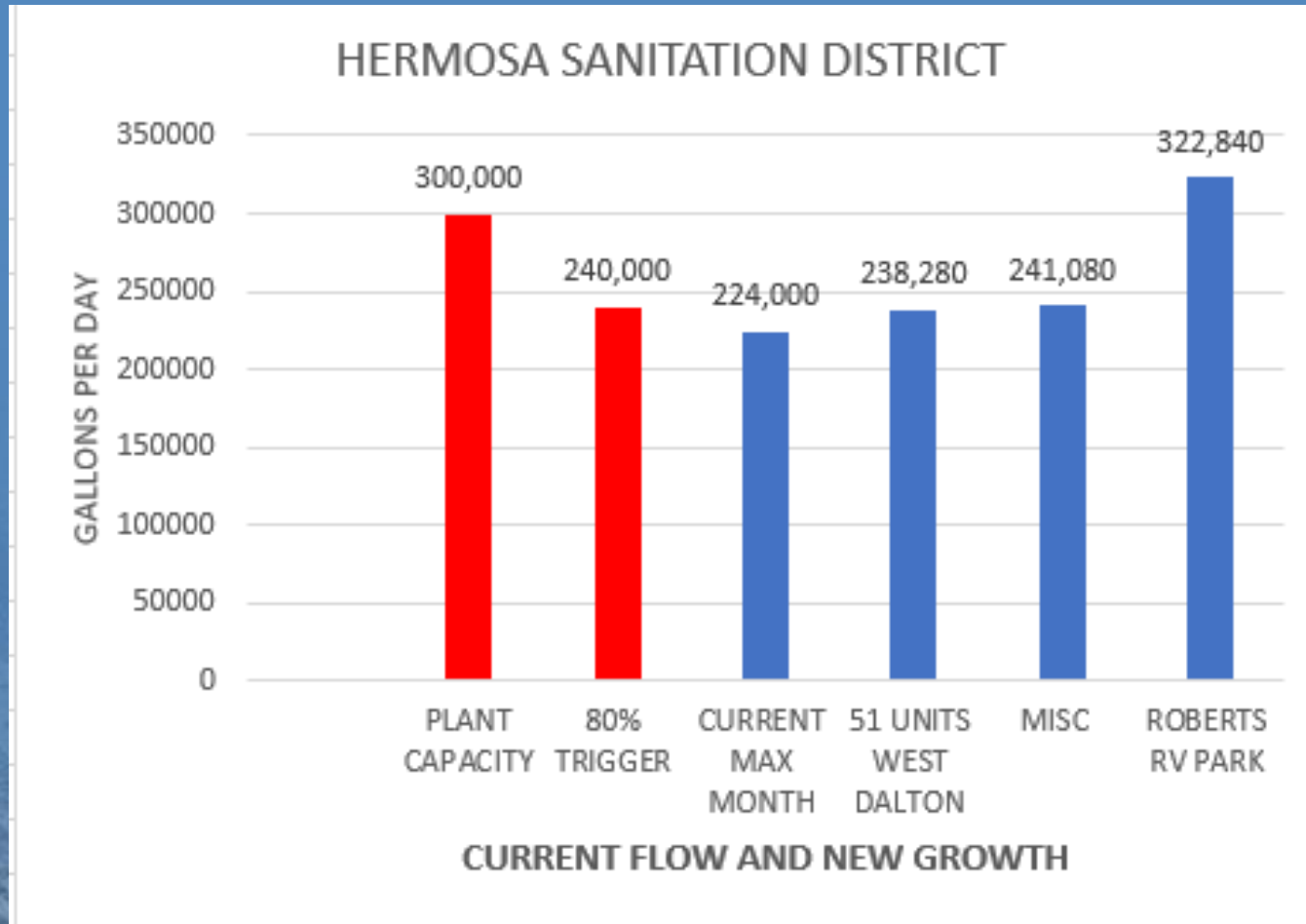
TIMELINES

- IT TAKES 2 YEARS TO GO THROUGH PLANNING, PERMITTING, ENGINEERING, FINANCING TO BRING ON A NEW WWTF OR EXPAND EXISTING FACILITY
- IT TAKES AN AVERAGE OF 2 YEARS TO GO THROUGH THE BIDDING/CONTRACTOR QUALIFICATION/CONSTRUCTION/STARTUP AND COMMISSIONING PROCESS
- TOTAL TIME FRAME IS 4 YEARS MINIMUM
- BECAUSE OF DISCHARGE PERMIT RENEWAL IN 26 AND COMPLIANCE WITH REG 85 AND 31, PLANNING SHOULD START TODAY
- ALL OF THE ABOVE DOES NOT EVEN CONSIDER THE ROBERTS RV PROJECT OR ANY OTHER PROJECTS IN THE PLANNING STAGES

EQR RATING FOR ROBERTS RV PROJECT

CLASSIFICATION	EQR	FLOW PER EQR (GPD)	TOTAL FLOW (GPD)
RV SPACES	137	280	38,360
CABINS	140	280	39,200
CLUBHOUSE	4	280	1,120
POOL	4	280	1,120
MANAGERS UNIT	1	280	280
CAMPERS DUMP STATION	2	280	560
CENTRAL LAUNDRY FACILITY	4	280	1,120
TOTAL EQR'S	292		81,760

CUMULATIVE FLOW CURRNT FLOW AND PROPOSED FLOW FROM NEW GROWTH



Financial Issues

Debt Service for new mechanical Plant

Debt service	
Interest rate	4 %
Term	30 yrs ▼
Total loan	17,000,000 \$
Loan payment	81,160.60 \$/mo ▼

Impact of new mechanical Plant

- Existing rates \$35/month
- Debt Service on \$17,000,000 plant will be
- \$81,160/month or additional \$125 per month per customer for total of \$160/customer
- Roberts RV project would generate \$2.5 million based upon tap fee of \$8,500 per tap and 292 EQR's

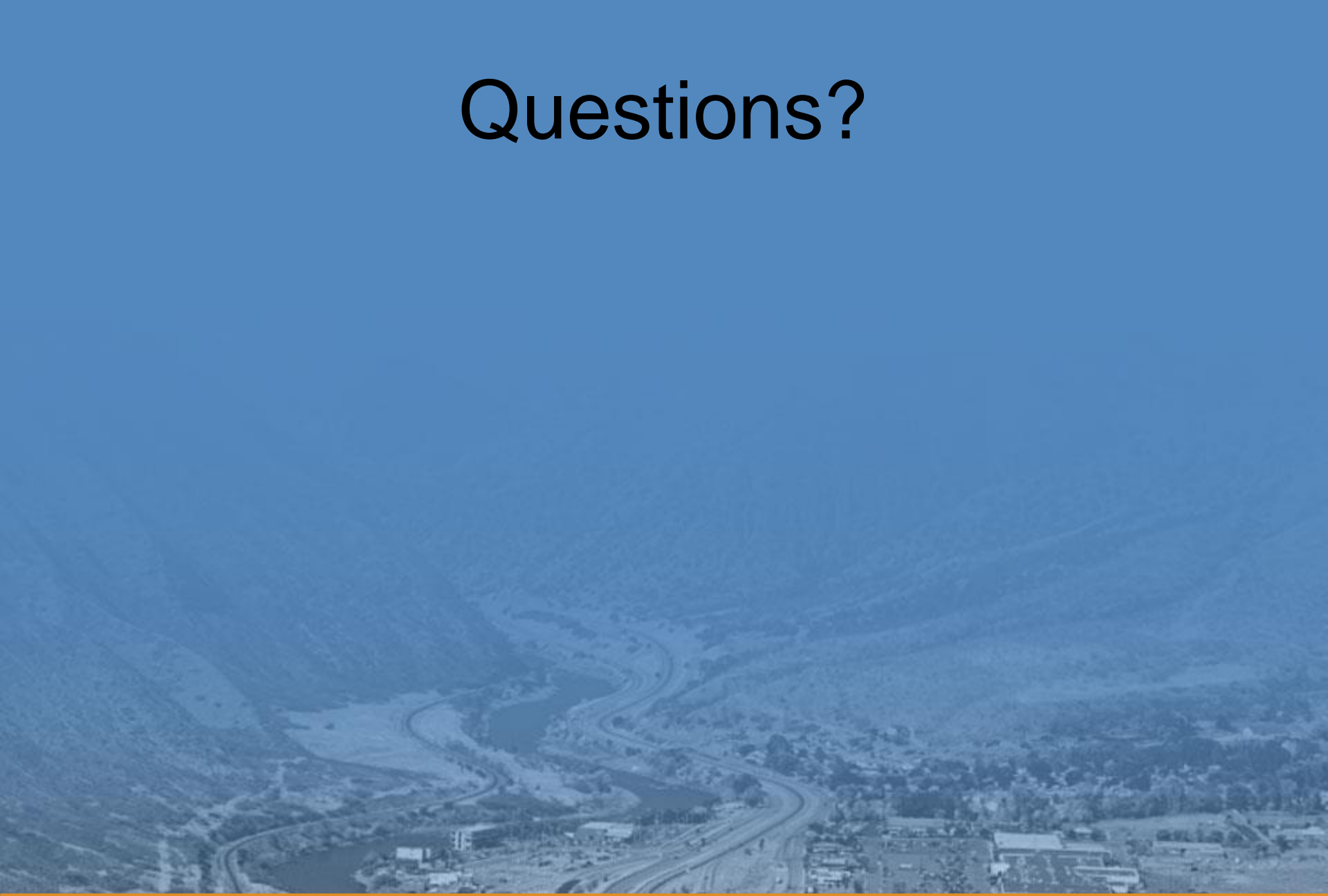
Conclusions for new facility

- Three options
 - Mechanical plant
 - Continue with lagoon/mechanical plant hybrid
 - Research Sewer line interconnect with City of Durango, and abandon current plant.
 - Order of magnitude cost estimate is less than half of cost of new mechanical plant

OVERAL Conclusions

- Begin planning for Plant expansion, 2026 discharge permit and compliance with Regulation 85 and 31 immediately
- Begin discussions with Durango for Sewer interconnection
- Until all answers are known and clear direction for the future plant....hit the pause button.
- Any project with 292 EQR's will use up remaining current capacity in WWTF

Questions?







CAUTION
CHLORINE
AREA

CHLORINATION DANGER

CAT

