

Engineer's Report

MEMORANDUM

DATE: December 16, 2025
TO: Reunion Ranch WCID Board of Directors
FROM: Christopher Rosales, P.E., Nishan Thapa, EIT
RE: December 16, 2025, Board of Directors Meeting

Project No. W002122TX.00

- a.) Operational – Water, Wastewater, Water Quality, and Drainage
- i. Texas Land Application Permit (TLAP) – *No Update*
Permit was issued by the TCEQ, effective July 31, 2025. Soil Water Monitoring Plans, Spring/Seeps Monitoring Plans, and Irrigation System Management Plan were submitted to the TCEQ for approval. Comments from the TCEQ for the Spring/Seeps Monitoring Plans were received and addressed by staff of the District Engineer.
 - ii. Combination Air Valve Installation – District Engineer staff is coordinating with MOC and provided preliminary drawings for review and coordination. A copy of the preliminary drawings will be available for review at the meeting.
- b.) 2025 Wastewater Collection System Cleaning & CCTV Inspection – *No Update*
Consor is coordinating with the MOC on the remaining items.
- c.) Utility Data Trend Analysis
- i. Charts of the monthly water and wastewater parameters are provided in *Attachment A*, for your reference – including a comparison of WWTP Flow based on SCADA data provided by MOC showing Effluent Meter and Reuse Meter reading locations.
 - A. Water Usage – water usage is 443 GPD/LUE for November 2025, representing a 21.0 % decrease from the previous month.
 - B. Wastewater Flow – The Wastewater Treatment Plant (WWTP) recorded a flow of 127 GPD/LUE (0.0657 MGD at Outfall 001), representing a 1.6% increase from the previous month. This value is well above the average (107 GPD/LUE). The three-month moving average decreased to 0.066 MGD, which is 82.1% of the permitted capacity.
 - C. WWTP Effluent Parameters – BOD and Turbidity remain consistent and below permit limits, at 2.43 mg/L and 1.00 NTU, respectively. E. Coli and TSS are also consistent and below permit limits, at 2.26 MPN/100mL and 2.50 mg/L, respectively.

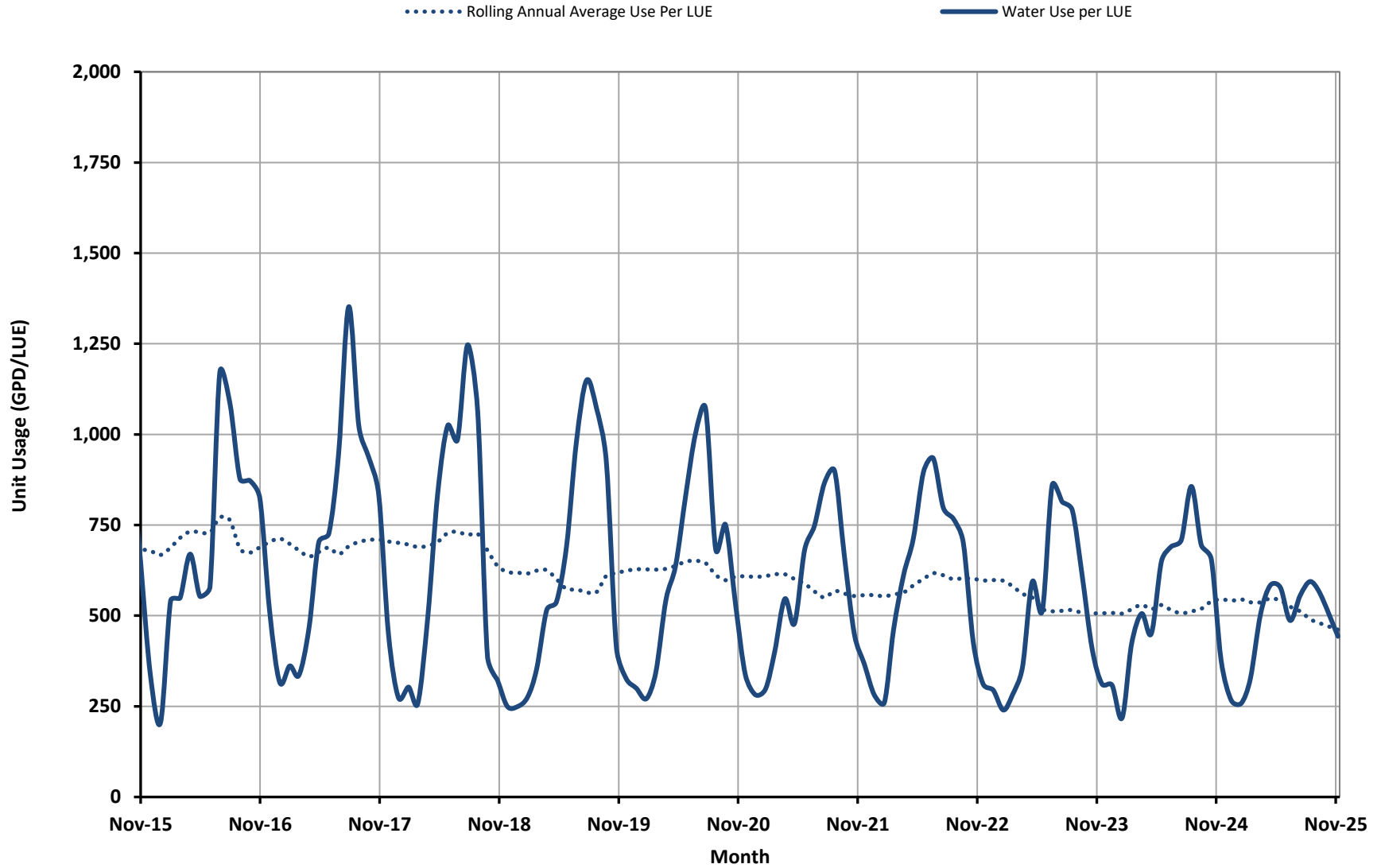


d.) Long-Term Improvements and Asset Management Plan

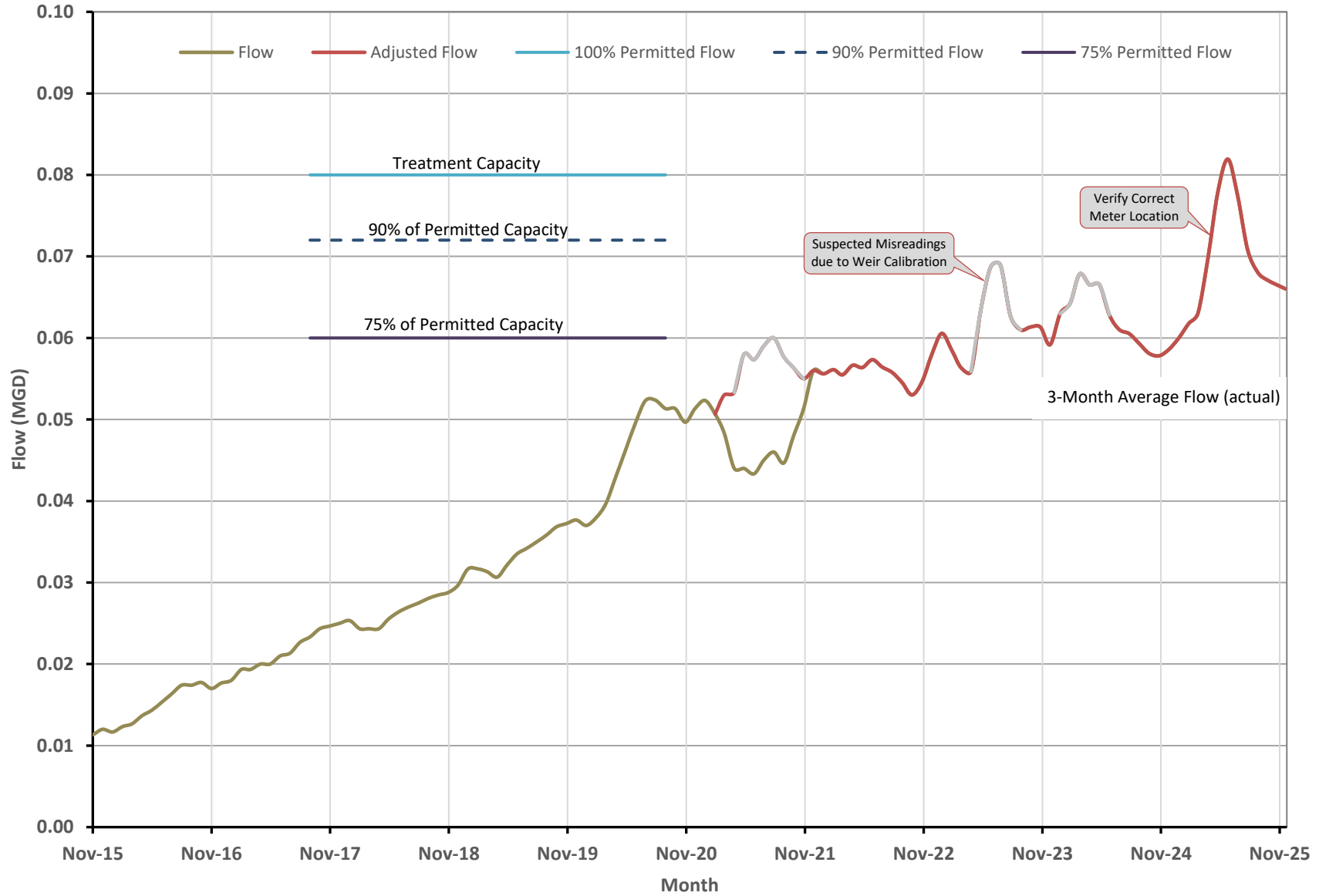
- i. The Capital Improvement Program Log (CIP Log) is provided, for your reference, as *Attachment B*.
 - A. Reserve Analysis – Production is underway on the reserve analysis for Reunion Ranch WCID.
 - ii. Wastewater Treatment Plant Efficiency Plan (WWTP-EP), See *Attachment C* for an updated project schedule.
 - A. Phase I(a): Irrigation Pump Skid Installation – This project is complete.
 - B. Phase I(b): Makeup Waterline Installation – This project includes valves and piping to supplement effluent available for irrigation. This project is scheduled for fiscal year 2025-2026, before peak summer months.
 - C. Phase II: Irrigation Line Installation – This project is complete.
 - D. Phase III: Drip Field Connection – This project includes valves and piping to allow use of the irrigation skid as an alternative to the current SADDs pump skid. This project is scheduled for fiscal year 2025-2026.
 - E. Phase IV: SCADA integration for Irrigation Pump Skid, including automated valving. Quotes from General Control Systems, Inc. have been reviewed. Coordination with MOC underway to evaluate alternatives, finetune the scope of work, and determine the appropriate course of action.
 - F. Phase V: Decommissioning of the SADDs field pumps. This project is scheduled for fiscal year 2025-2026.
- e.) Approvals Related to Ongoing Construction Contracts – *No Update*.
- f.) Approvals to Upcoming Construction Contracts – *No Update*.

Attachment A

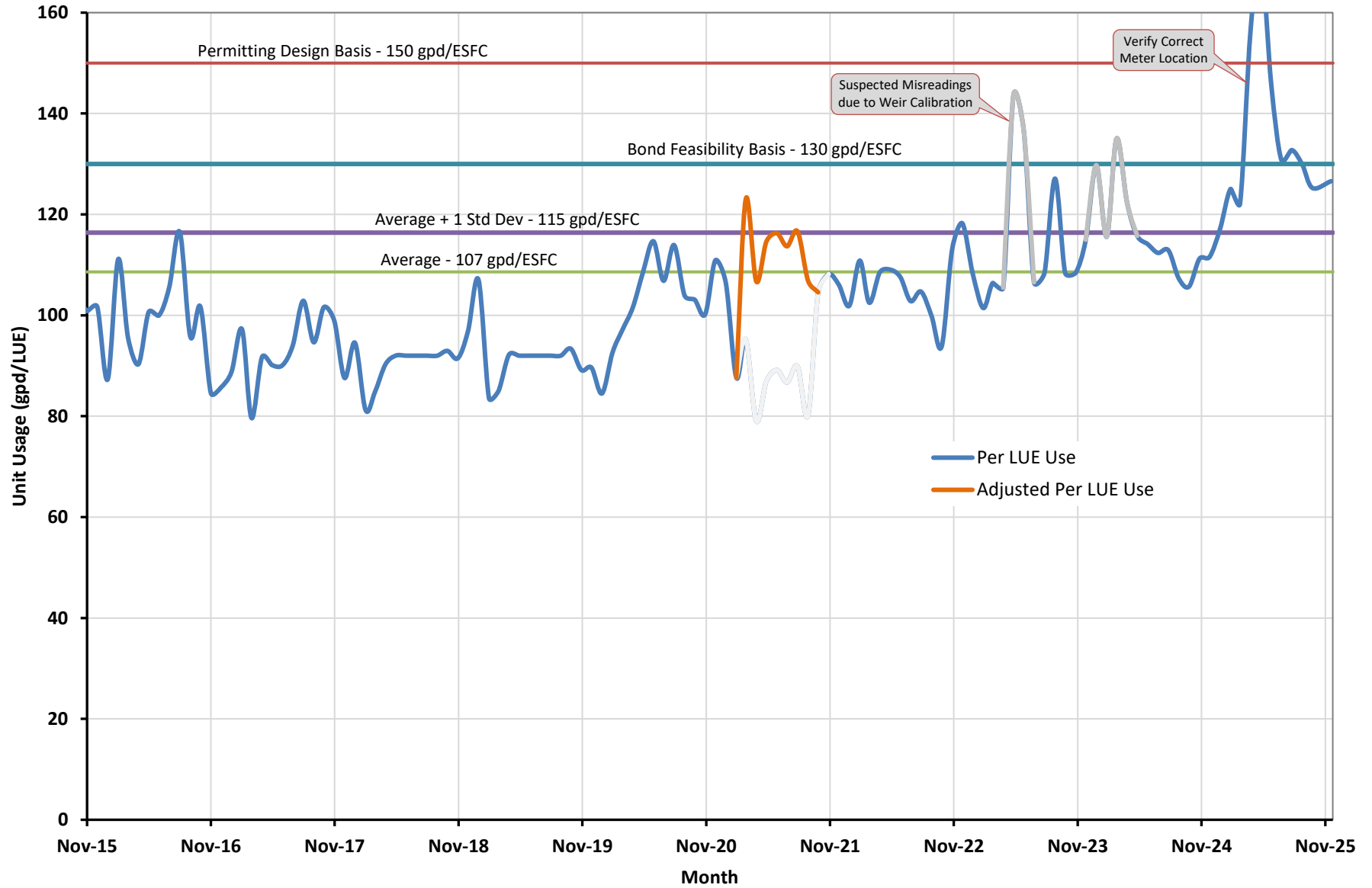
Reunion Ranch WCID Per LUE Water Use Trends



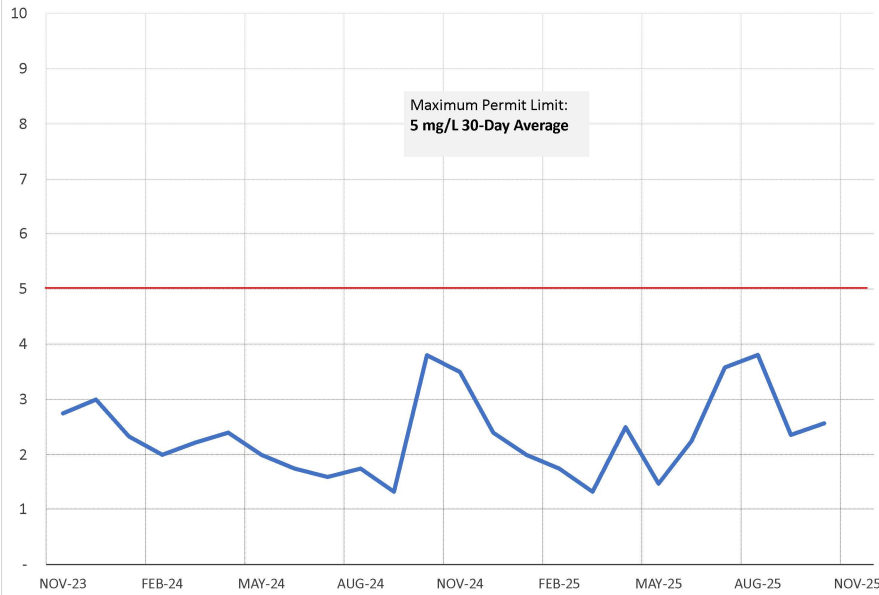
Reunion Ranch WCID Wastewater Flow



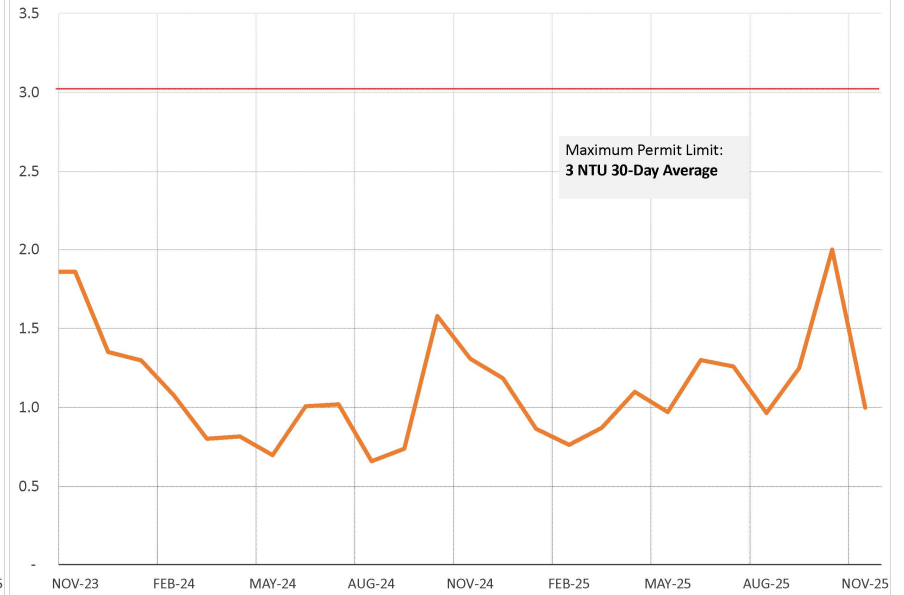
Reunion Ranch WCID WWTP Unit Usage Analysis



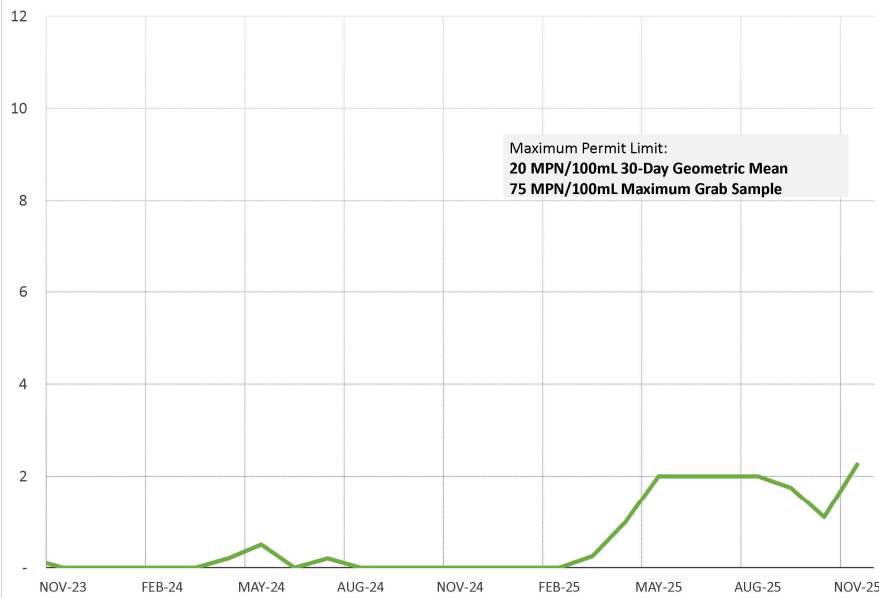
Biological Oxygen Demand



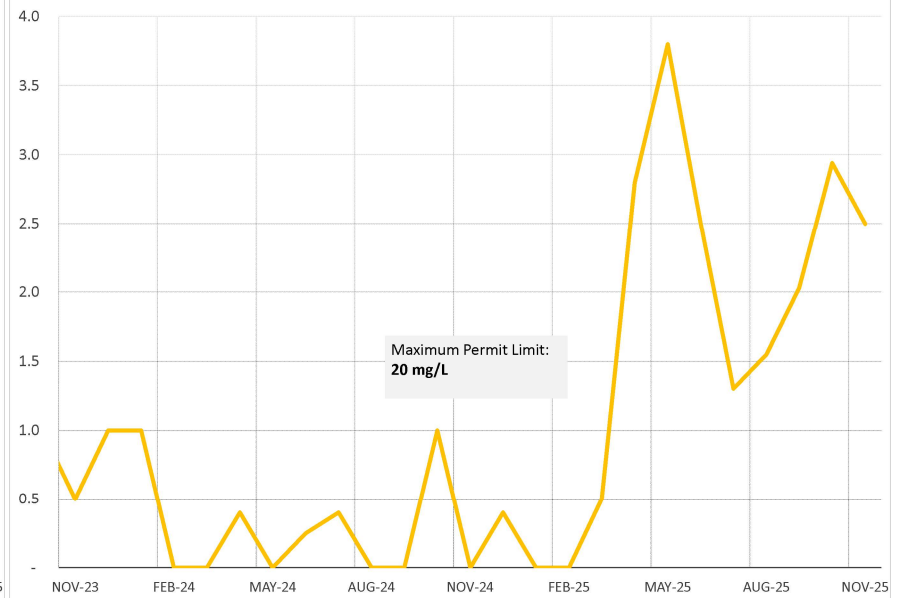
Turbidity

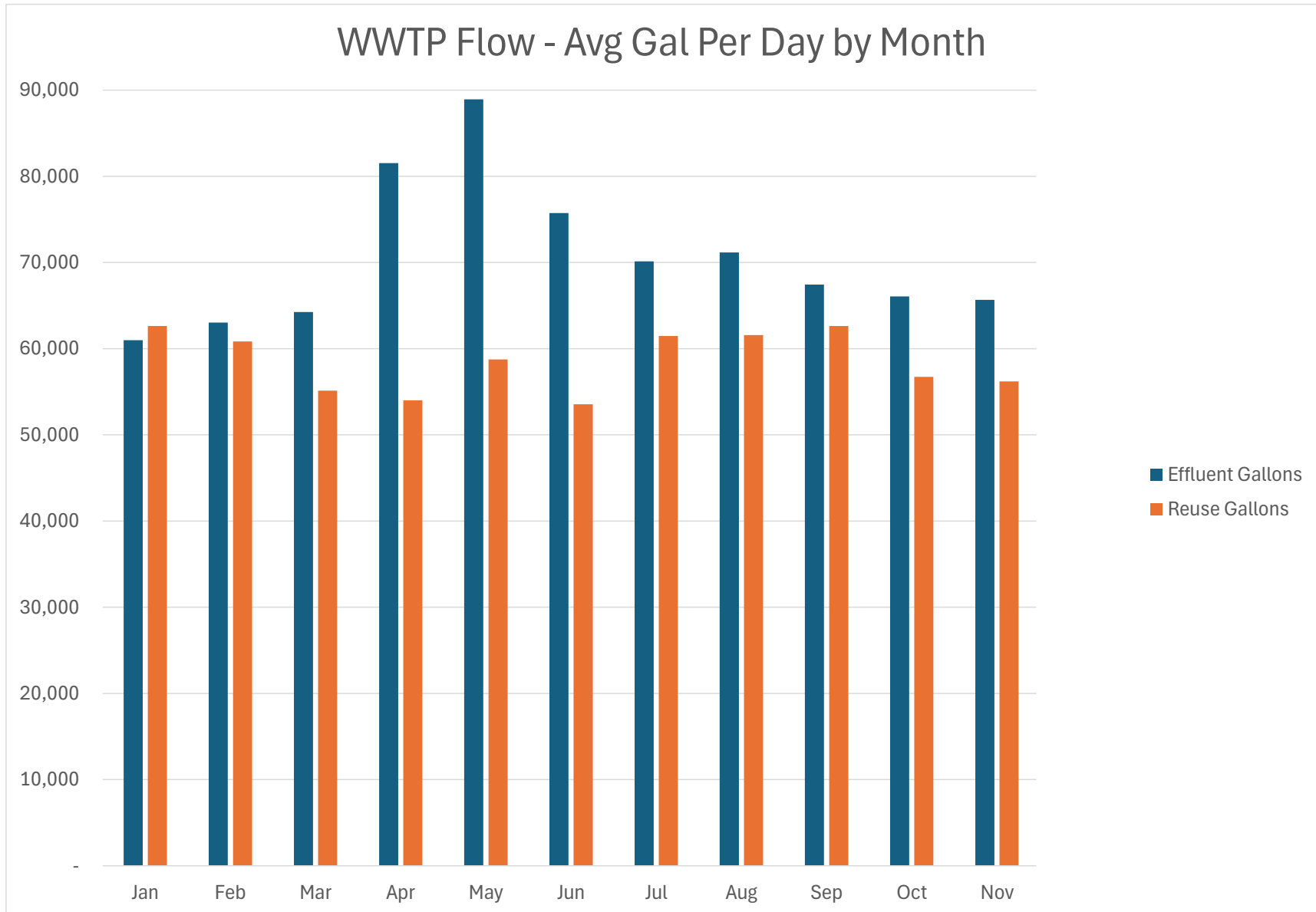


E. Coli



Total Suspended Solids





Attachment B

Project	Description	Original Budget	Revised Budget	Contract Cost	Cost to Date	Final Cost	Estimated Start	Estimated Completion	Final Completion	Additional Notes
Main Line Valve Maintenance	Locate and clean/exercise valves	\$2,000								20% of valve annually
Effluent Lift Station (Filter Feed Pumps) Pump Replacement	Replace the submersible pumps that are not operating according to their design point	\$50,000								Note, potential additional upgrades in the future, \$50K;
Wastewater Treatment Plant Efficiency Upgrades Phase 0	Purchase of Irrigation Pump Skid	\$105,000	\$125,000	\$105,890.00	\$105,890.00	\$105,890.00	Jan-25	Feb-25	Feb-25	This Phase will allow the Board to Shorten the equipment lead time for the irrigation of common areas within the HOA.
Wastewater Treatment Plant Efficiency Upgrades Phase 1a	Irrigation Pump Skid Installation (Electrical, Piping, Appurtenances)	\$0	\$75,000	\$29,028.00	\$28,479.43	\$28,479.43	May-25	Jul-25	Jun-25	Irrigation Pump Skid Installation (Electrical, Piping, Appurtenances)
Wastewater Treatment Plant Efficiency Upgrades Phase 1b	Makeup Waterline Installation	\$0	\$25,000	TBD	TBD		Sep-25	Oct-25		Waterline to supplement effluent during peak irrigation demand season
Wastewater Treatment Plant Efficiency Upgrades Phase 2	Install piping and valving to allow use of irrigation pump for HOA irrigation uses	\$105,000	\$150,000	\$56,730.00	\$56,730.00	\$56,730.00	Dec-24	Apr-25	Apr-25	This Phase will allow for the irrigation of common areas within the HOA.
Wastewater Treatment Plant Efficiency Upgrades Phase 3	Install piping and valving to allow use of irrigation pump for drip field use	\$0	\$35,000	\$46,780.55	TBD		Sep-25	Nov-25		This stage of the plan will allow for redundancy in the effluent disposal system and the effluent tank filling processes within the plant.
Wastewater Treatment Plant Efficiency Upgrades Phase 4	SCADA integration of pump skid and appertenances	\$20,000	\$35,000	TBD	TBD		Nov-25	Nov-25		This stage of the plan will allow automated use of the irrigation and drip fields and remote sensing of conditions and errors.
Wastewater Treatment Plant Efficiency Upgrades Phase 5	Decommision Drip Field Pump Skid	\$0	\$10,000	TBD	TBD		Nov-25	Dec-25		This Phase of the plan allows for the removal of the maintainance and power costs associated with this equipment
Smart Meters	District-wide Meter Conversion	\$500,000					Jun-29	Feb-30		Cellular Telecommunication
TOTALS		\$782,000	\$455,000	\$ 238,428.55	\$191,099.43	\$191,099.43				

Attachment C

ID	Task Name	Start	Qtr 4, 2025			Qtr 1, 2026			Qtr 2, 2026
			Oct	Nov	Dec	Jan	Feb	Mar	
1	WWTP GST Rehab	Sun 10/26/25							
2	Phase 1b - Makeup Waterline Installation	Mon 12/1/25							
3	Phase 3 - Drip Field Connection	Mon 12/1/25							
4	Phase 4 - SCADA Integration	Wed 10/29/25							
5	Phase 5 - Decommission Existing Pump Skid	Mon 12/1/25							
6									
7									
8									
9									

Project: WWTP Efficiency Plan Date: Wed 11/12/25	Task		Inactive Summary		External Tasks	
	Split		Manual Task		External Milestone	
	Milestone		Duration-only		Deadline	
	Summary		Manual Summary Rollup		Progress	
	Project Summary		Manual Summary		Manual Progress	
	Inactive Task		Start-only			
	Inactive Milestone		Finish-only			