

MURFEE ENGINEERING COMPANY, INC.

Texas Registered Firm No. F-353
1101 Capital of Texas Hwy., South, Bldg, D
Austin, Texas 78746
(512) 327-9204

M E M O R A N D U M

DATE: July, 16, 2024
TO: BOARD OF DIRECTORS – REUNION RANCH WCID
FROM: MARK KESTNER PE
RE: ENGINEERS REPORT
CC: BILL FLICKINGER – WILLATT & FLICKINGER

a. Wastewater Collection and Treatment Plant

i. Wastewater Flows and Trends

- Attached is an updated figure tracking wastewater flows to the existing WWTP vs. projections and permit milestones.
- This figure includes calculated wastewater flow values produced per household.
- SCADA integration of the weir readings is underway as well as recapture of historical flows to allow for easy access to the most accurate data. This will eliminate anomalous readings caused by taking a reading of the total flow daily by removing error caused by reading the meter at different times daily.

ii. Improvements

- A Payment request to close out the conveyor construction project is anticipated – the retainage is the only outstanding item.

iii. Operational Issues

1. Effluent Quality has been in accordance with Plant Permits this year.
2. INFLOW AND INFILTRATION
 - The flows have been examined and it appears that the effluent weir readings are the source of the problem. MEC is coordinating with Inframark to recapture the data if possible.
3. Texas Land Application Permit (TLAP)
 - MEC is submitting an application with a 10-year renewal period rather than the current 5-year renewal period as the system has been completely built out permit processing is underway.

iv. Wastewater Plant Efficiency Plan

1. Details of the 210 irrigation system are being worked out with Malone Wheeler including ownership and maintenance demarcation and reliable flow measurement for both the drip fields and the irrigation system.

b. Water Supply and Distribution System

i) Water Flows and Trends

- Charts showing the historic and current water use, both total and per connection, by the community are attached.

ii) LCRA Contract – Current Reservation

1. HOA Request for Irrigation Variance. LCRA will accept an alternate plan for irrigation of the landscape that meets the spirit of the regulations. The irrigation of common areas can be spread across multiple days. Each individual area would need to meet the requirements and a plan would need to be submitted or an appendix to the Drought Contingency Plan Watering Schedule would need to be adopted.

iii) Lead and Copper Rule Revision (LCRR)

- 1) The inventory is complete, and the inventory will be submitted to TCEQ prior the deadline in Oct, 2024.

c. Long-Term Improvements and Asset Management Plan – 2024 Budget

- i) The 3rd Quarter updated engineer's estimates will be presented and coordinated with the finance committee for budgeting.

d. Emergency Management Plan(s)

- Wastewater System Emergency Response Plan

Detailed disaster responses are being developed incorporating input from the committee.

e. Stormwater and Water Quality System

- No ongoing projects or updates.

f. Approvals Related to Ongoing Construction Contracts

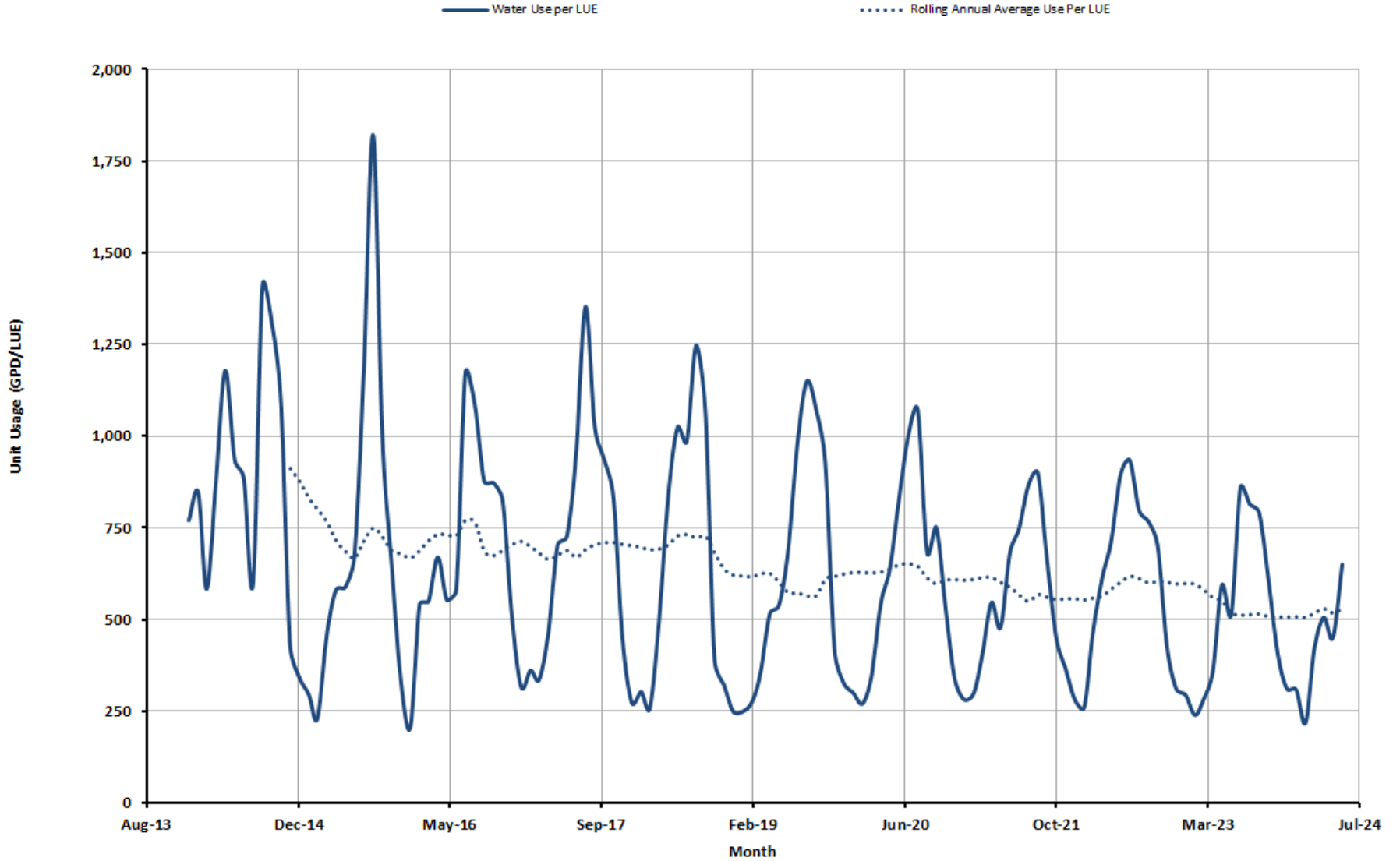
- Currently there are no approvals for Board Consideration

g. Approvals Related to Upcoming Construction Contracts

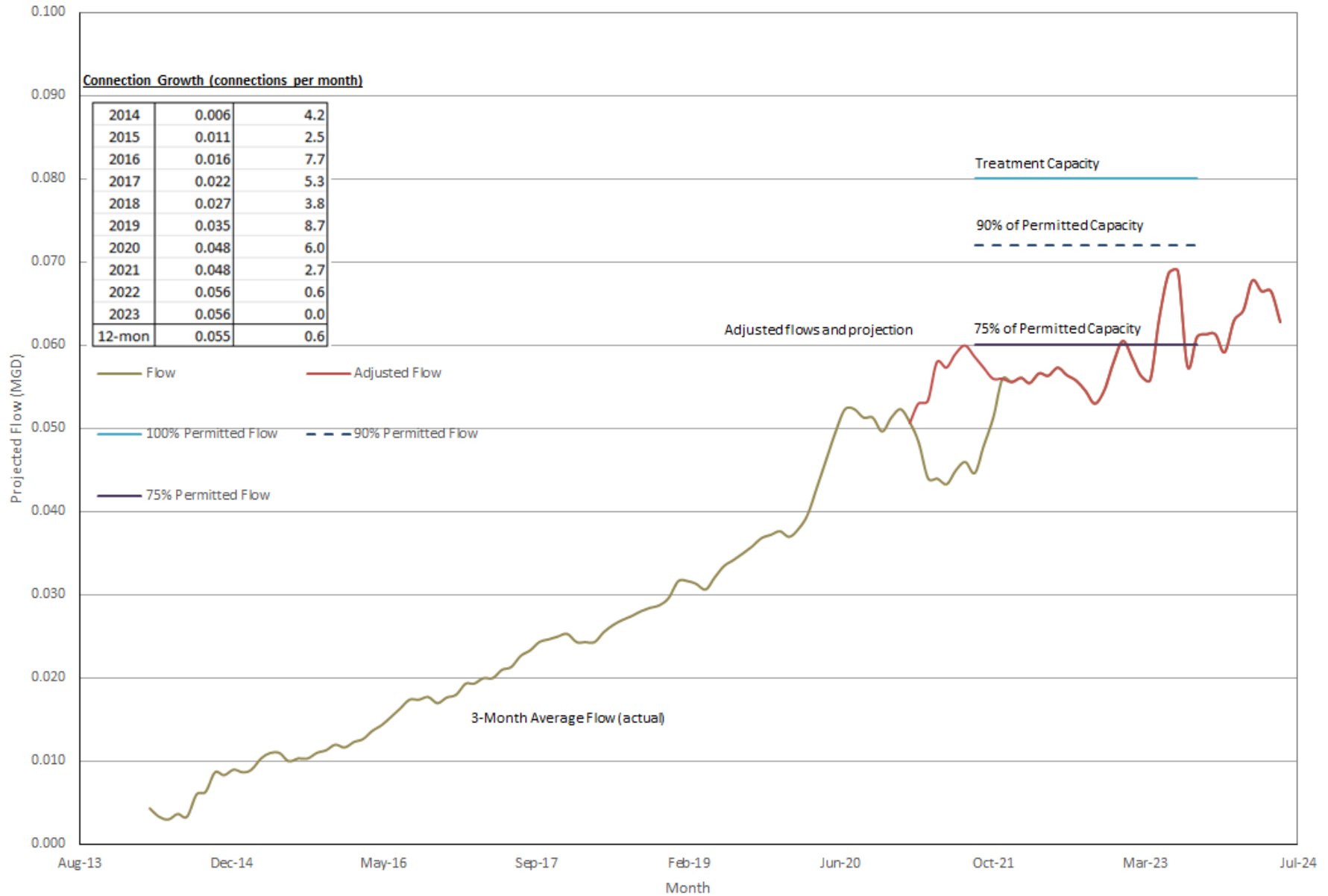
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Reunion Ranch WCID

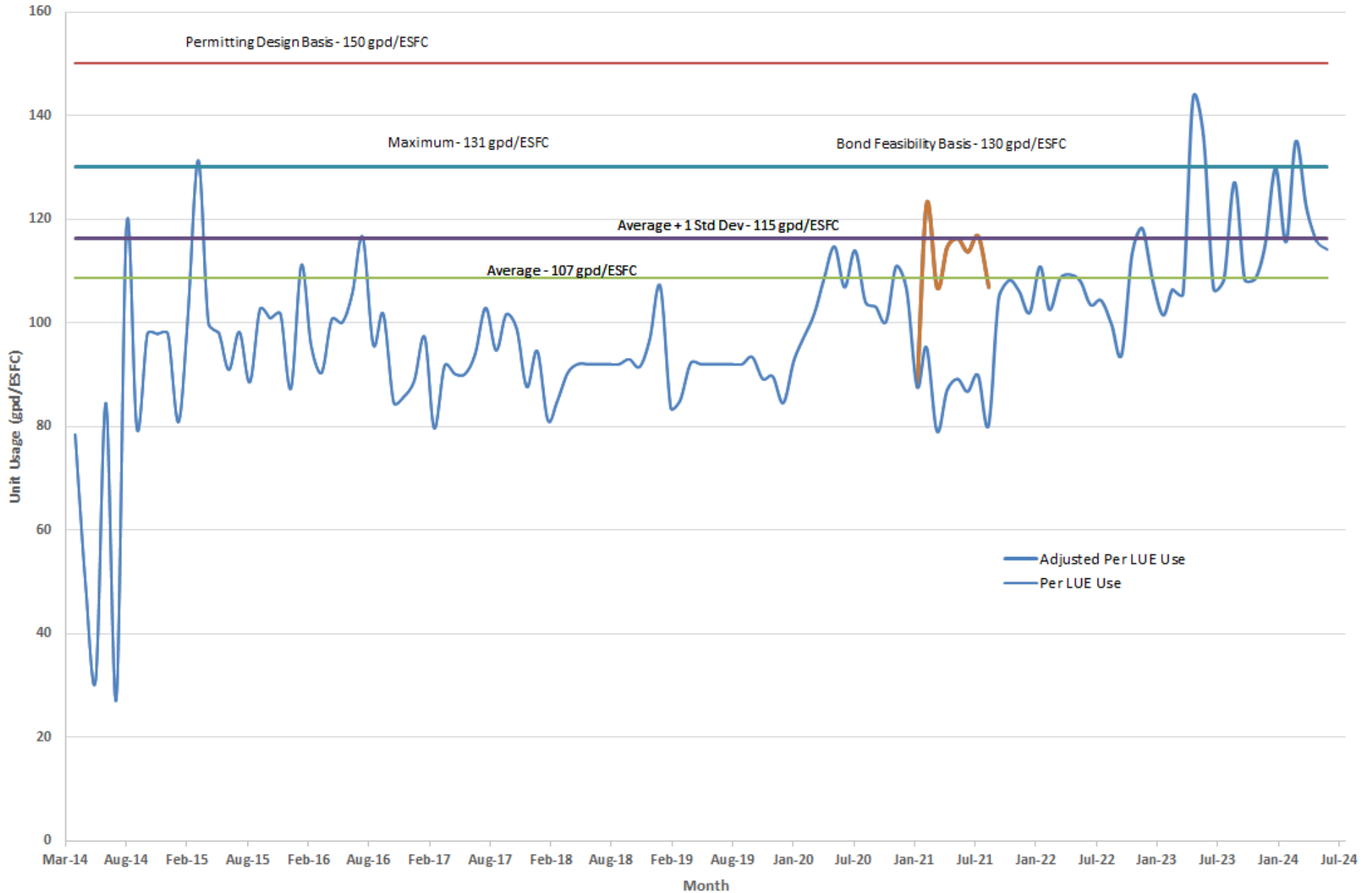
Reunion Ranch WCID Per LUE Water Use Trends



Reunion Ranch WCID Wastewater Flow Projections



Reunion Ranch WCID WWTP Unit Usage Analysis



EFFLUENT COMPOSITE CHART

Maximum Permit Limits
 Turbidity 3 NTU 30 Day Average
 BOD5 5 mg/l 30 day Average
 E.Coli 20 MPN 30 day Geometric Mean
 75 MPN Maximim Grab Sample

