

2024- 2025 San Joaquin County Civil Grand Jury



Old System, New Costs: Confronting Wastewater Inefficiency in Linne Estates Case # 0124



Wastewater treatment plant for CSA 44, Zone G (Linne Estates) Taken Oct 2, 2024

Summary

The 2023-2024 San Joaquin County Civil Grand Jury (SJCCGJ) received a complaint from a homeowner in the Linne Estates County Service Area (CSA) 44, Zone G. The complaint arrived late in the 2023-2024 SJCCGJ term. The previous Civil Grand Jury forwarded the complaint to the current Civil Grand Jury. It is important to note that each Civil Grand Jury must conduct its own independent investigation. The information included in this report comes from the current Civil Grand Jury.

Linne Estates is a community in unincorporated San Joaquin County (SJC). It is situated outside the City of Tracy and is not serviced by the City's Wastewater Treatment Plant (WWTP). Therefore, an independent Wastewater Treatment Plant (WWTP) was constructed by the developer to service CSA 44 Zone G.

The complaint alleged that the San Joaquin County Department of Public Works (DPW) mismanaged the operation of the independent Wastewater Treatment Plant (WWTP) due to continued rate hikes. The 2024-2025 Civil Grand Jury did not find any evidence of mismanagement; rather, it determined that the rate hikes resulted from operational and design inefficiencies. Over the past 20 years, homeowners' sewer rates for maintaining and operating the WWTP have consistently increased. Despite these rising sewer rates, there remains a funding deficit from previous repairs, which homeowners attribute to the County approving a poorly designed WWTP.

In 2020, the homeowners received a letter from the county indicating that the CSA 44 Zone G fund had a deficit of \$411,000. The homeowners agreed to a significant rate increase to eliminate the deficit over five years. The homeowners agreed to the rate increase because the county stated it would reduce the deficit, but it continues to rise. They were in regular contact with the DPW but remained frustrated because the deficit continued to grow due to high maintenance and operational costs.

The homeowners are concerned about an impending sewer rate increase set to begin in fiscal year 2025-2026.

Glossary

SJC – *San Joaquin County is a county located in the U.S. state of California.*

BOS – *San Joaquin County Board of Supervisors the primary governing body of the county, acting as the county's legislature, executive, and quasi-judicial authority. It is a five-member elected body that makes decisions on various county matters. The Board establishes County policies, passes local ordinances, approves the budget, sets local tax rates, and supports community programs.*

CSA - *County Service Area- A County Service Area (CSA) can be established under California state law by county homeowners, the Department of Public Works (DPW), or the Board of Supervisors (BOS). The establishment of a CSA allows the County to provide homeowners in unincorporated areas with a wide range of public services, such as water, street lighting, and sewer. The County is responsible for billing for the services rendered. The revenues generated are deposited into a fund to support the maintenance and operations of the CSA.*

DPW - *Department of Public Works -The primary mission of the San Joaquin County Public Works Department is to enhance the community's quality of life by protecting its investment in the County's roadway, fleet, water, wastewater, flood control, utilities, drainage, and solid waste disposal systems.*

WWTP – *Wastewater Treatment Plant- A facility that treats wastewater, including sewage, to remove contaminants and pollutants before it is discharged back into the environment or reused.*

SJCCGJ – *San Joaquin County Civil Grand Jury - A group of 19 appointed citizens tasked with investigating and reporting on the operations of county government, including school and special districts. They examine whether government functions efficiently, lawfully, and whether public money is spent appropriately.*

SDS – *Special District Settlement - The San Joaquin County Board of Supervisors has a significant role in approving settlements, waiving loan repayments, and authorizing funding from the General Fund to cover special district needs.*

SCADA - *Supervisory Control and Data Acquisition- A SCADA system is an industrial control system used to monitor and control infrastructure and facility processes. SCADA consists of several components that work together to collect, process, and act on real-*

time data. This system allows workers to remotely monitor systems and processes to ensure the efficient operation of the facility. If the system detects a problem, corrective action could be taken remotely, reducing travel to the facility.

Intertie Connection – A connection between two systems. (In this case, two sewage systems)

Background

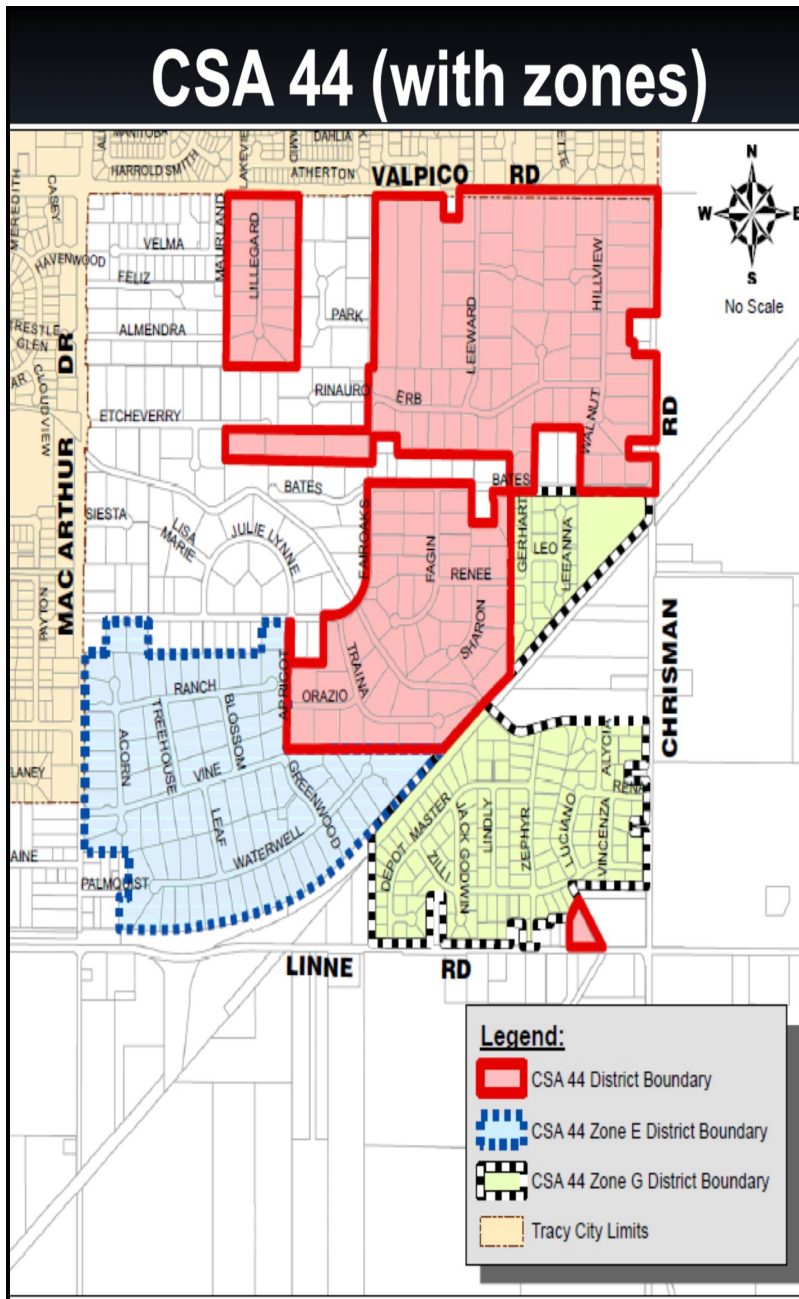
In 1989, San Joaquin County (SJC) established CSA 44 to provide drinking water to the southeastern unincorporated area of Tracy. This area is bordered by Linne Road to the south, South Chrisman Road to the east, and MacArthur Drive to the west. (See map below.)

The CSA 44 Zone E and Zone G districts were established in 2004 to provide additional public services:

- Zone E: Castello Estates – Water, sewage, storm drainage
- Zone G: Linne Estates -- Water, sewage, storm drainage, street lighting

These two small WWTPs were designed and constructed by 7H Technical Services Group, under contract with the developers, utilizing a proprietary WWTP. The developers were required to operate the two separate WWTPs until a sufficient number of homes were occupied to demonstrate that the normal operation of the plants was satisfactory.

Following acceptance by the County in July 2005, the County retained 7H Technical Services Group to operate and maintain the plants while providing training to County staff.



After the County assumed daily operation of the WWTPs in July 2008, it encountered operational deficiencies that led to permit compliance issues. In 2009, the County contracted a consultant through a competitive selection process to evaluate the WWTP and develop a corrective action plan, which was finalized in January 2010. In February 2010, the Board of Supervisors determined that emergency conditions existed and authorized \$1.65 million in short-term bridge loans from the County General Fund to

facilitate immediate corrective actions. Later that year, the County proposed rate increases to finance the repayment of the loans. However, homeowners successfully protested the proposed rate increases, and service charges remained unchanged. Consequently, the districts lacked the financial capacity to repay the loans.

The primary reason given by homeowners for protesting the proposed rate increases was the loan repayment. Homeowners contended that, since the loans stemmed from design flaws acknowledged by the County, homeowners should not bear the responsibility of repayment. They argued that the proposed increases in sewer rates, meant to cover the loans, would place a significant financial burden on homeowners. Homeowners within CSA 44 are currently paying some of the highest sewer rates for CSAs in SJC (Table A).

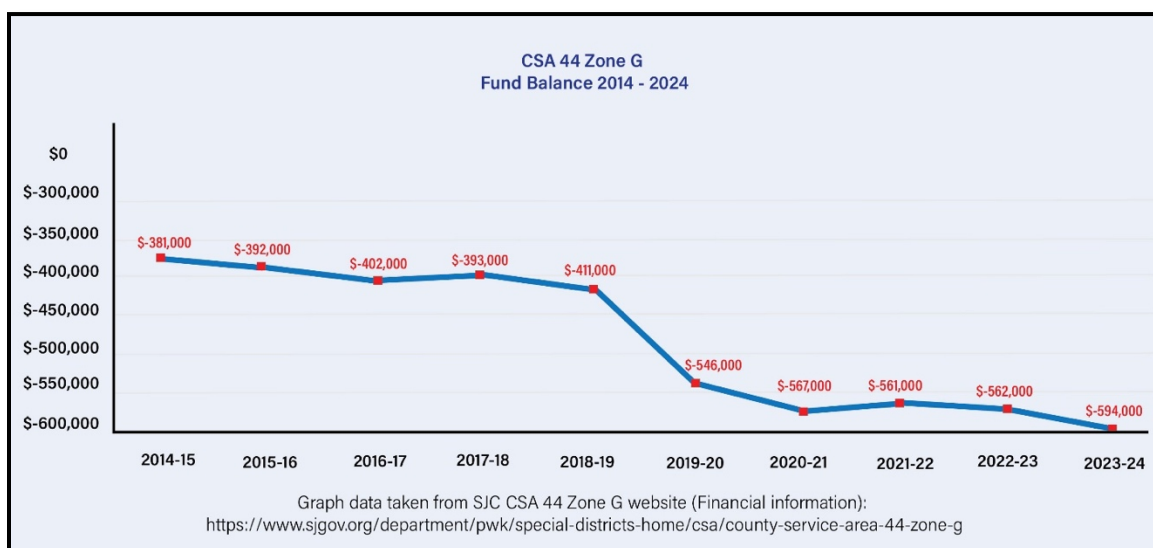
Table A

Sewer Rate Comparison - 2025		
Location	Annual Cost	Service Type
Linne Estates CSA 44 (Zone G)	\$2,675.00	Standalone WWTP
Castello CSA 44 (Zone E)	\$3,314.00	Standalone WWTP
Lincoln Village (Unincorporated Stockton)	\$885.00	Intertie connection within Stockton WWTP
Tierra del Sol (Unincorporated Stockton)	\$400.00	Intertie connection within Stockton WWTP
Fair Oaks (Unincorporated Redwood City)	\$1,055.00	Intertie connection within Redwood City WWTP
Empire (Unincorporated Modesto)	\$510.00	Intertie connection with Modesto WWTP
City of Tracy	\$588.00	Residential Rate
City of Stockton	\$660.00	Residential Rate

In March 2011, the Board authorized a loan of \$664,000 from the Special District Settlement (SDS) Fund. The loan financed \$120,000 in additional improvements in Zone G and repaid \$544,000 of the outstanding General Fund loan. This Board action stipulated that the districts would repay the SDS Fund loan with interest at the prevailing rate for

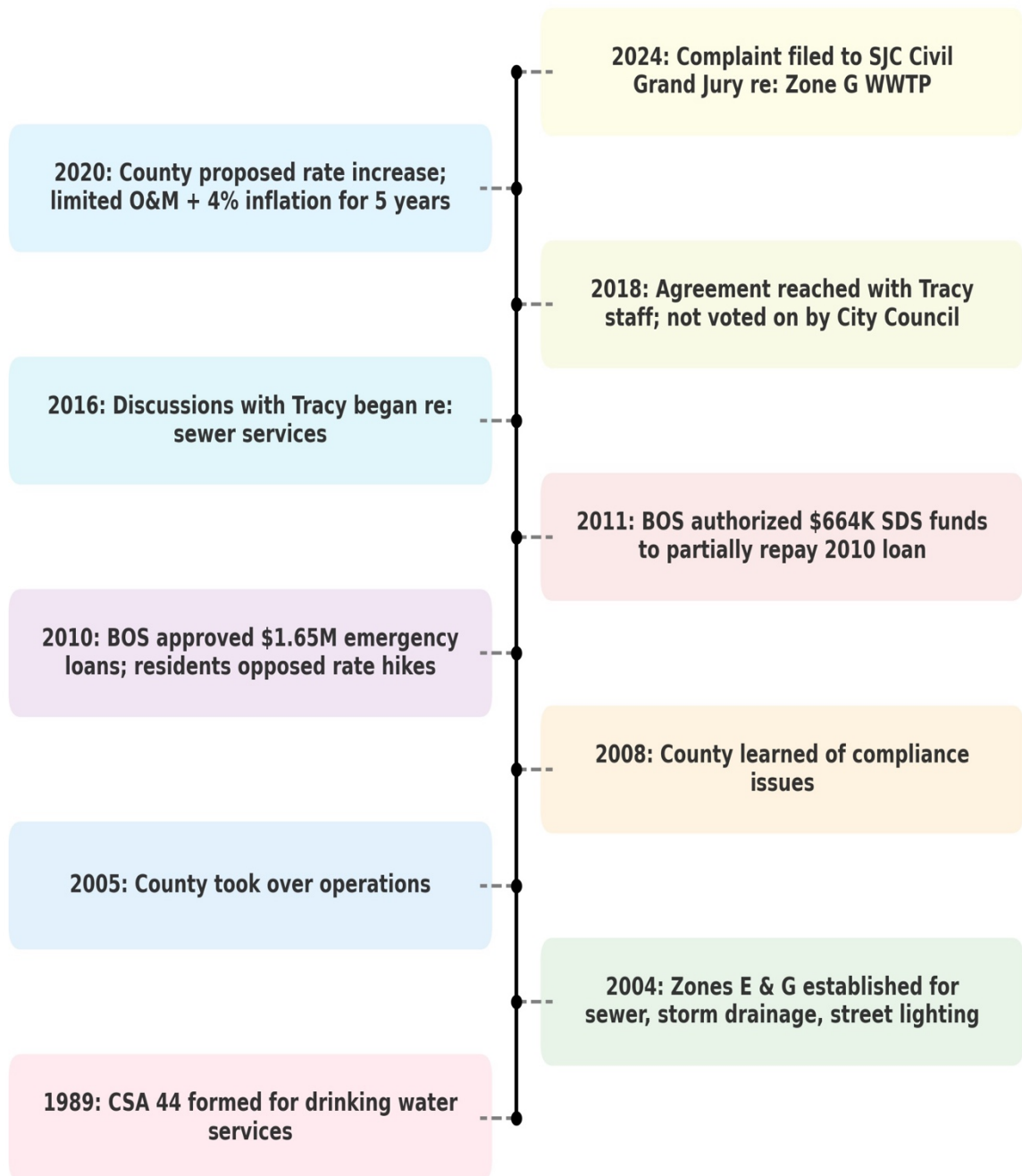
County Treasury funds, and that no further interest would accrue on the General Fund loan balances.

Subsequently, the WWTPs have operated without any significant complications; however, the financial condition of the zone has continued to deteriorate since the last service charge adjustment in 2007. Revenues have not kept pace with the gradually increasing costs. Consequently, both zones currently maintain negative fund balances. As of June 30, 2019, the fund balance for Zone E was a deficit of \$505,760, while the fund balance for Zone G was a deficit of \$411,196 (see graph below).



Over the past few years, department staff have attempted to reach an agreement with the City of Tracy to process this sewer waste, which could result in significant cost savings for homeowners. The City's agreement for such an arrangement has not yet been obtained.

CSA 44, Zone E and Zone G



Methodology

The San Joaquin County Civil Grand Jury conducted a comprehensive investigation into the matter by researching public documents and interviewing homeowners, employees from DPW, staff from the City of Tracy, and elected officials from SJC. Additionally, Civil Grand Jury members toured the WWTPs.

Materials Reviewed

- Proposition 218
- County Service Area 44 Zones E & G Community Meeting State of District's Finances date February 3, 2020 https://www.sjgov.org/docs/default-source/public-works-documents/special-districts/csa-44-zone-e-and-g---community-meeting-february3.pdf?sfvrsn=9a44953a_7
- County Service Area 44 Zones E & G Community Meeting State of District Finances dated March 5, 2020. https://www.sjgov.org/docs/default-source/public-works-documents/special-districts/csa-44-zone-e-and-g---community-meeting-march5.pdf?sfvrsn=84ae85fb_12
- San Joaquin County CSA 44 Zones E & G Sewer Service Timeline https://www.sjgov.org/docs/default-source/public-works-documents/special-districts/csa-44-zone-e-and-g---sewer-service-timeline.pdf?sfvrsn=5b456950_3
- Engineer's Report on Service Charge Adjustments for Fiscal Year 2020-21 through 2024-25 dated April 10, 2020 https://www.sjgov.org/docs/default-source/public-works-documents/special-districts/engineer-reports/csa-44-zone-e-and-g---engineer-report.pdf?sfvrsn=416d7723_5
- County Service Area 44 Zone E Notice of Proposed Service Charge Increase and Public Hearing dated May 5, 2020 https://www.sjgov.org/docs/default-source/public-works-documents/special-districts/notice-of-public-hearing/2021/notice-of-public-hearing---csa-44-zone-e.pdf?sfvrsn=ddf22e89_3
- CSA 44 Notice of Public Hearing CSA 44 Zone G Letter dated April 5, 2022 https://www.sjgov.org/docs/default-source/public-works-documents/special-districts/notice-of-public-hearing/2022/noticeofpublichearing-csa_44_zoneg.pdf?sfvrsn=ddb02a6e_7
- County Service Area 44 Community Meeting Proposed Water Rate Increases PowerPoint dated November 8, 2021 https://www.sjgov.org/docs/default-source/public-works-documents/special-districts/csa-44-public-meeting.pdf?Status=Master&sfvrsn=2e5cf2c3_3
- San Joaquin County CSA E and G Letter to homeowners dated June 11, 2011 [https://sjgov.org/docs/default-source/public-works-documents/special-districts/csa-44-e-g-sewer-\(letter-to-owners\).pdf](https://sjgov.org/docs/default-source/public-works-documents/special-districts/csa-44-e-g-sewer-(letter-to-owners).pdf)

- San Joaquin County Special Districts Report May 10, 2024
<https://sjgov.org/docs/default-source/public-works-documents/special-districts/engineer-reports/2024/2024-2025-engineer's-report.pdf>
- San Joaquin County CSA 44 Zone E - Castello Estates website.
<https://www.sjgov.org/departments/pwk/special-districts-home/csa/county-service-area-44-zone-e>
- San Joaquin County CSA 44 Zone G Linne Estates website.
<https://www.sjgov.org/departments/pwk/special-districts-home/csa/county-service-area-44-zone-g>
- California Tax Data-What is a County Service Area
<http://www.californiataxdata.com/pdf/countyservicearea.pdf>
- What's so Special about Special Districts? https://www.ca-ilg.org/sites/main/files/file-attachments/resources__2010WSSASD4edition.pdf

Discussion

The Civil Grand Jury received a complaint from a homeowner of Linne Estates (CSA 44 Zone G). Both Linne (Zone G) and Castello Estates (Zone E) have independent Wastewater Treatment Plants (WWTPs). These WWTPs, built underground, require two maintenance workers to be on-site every weekday. Daily tasks include cleaning screens and pump impellers. (See bar screen below.)



Taken February 21, 2025, bar screen held together with straps and ties

This report focuses on Zone G; however, the Findings and Recommendations also apply to Zone E and Zone G. The WWTPs for Zone E and G are located within a half mile of each other. Research has indicated that if a new WWTP is required, consolidating the equipment into a single facility may be more cost-effective than replacing the two existing WWTPs with new ones.

Active WWTP equipment, such as pumps, must be replaced more often because they operate 24 hours a day, 7 days a week. Non-active equipment, like tanks and piping infrastructure, has a life expectancy of 20 years under optimal conditions. While some active equipment has been replaced, the WWTPs are approaching the end of their life expectancy.

From 2016 to 2023, the County attempted to negotiate with the City of Tracy to connect (intertie) the area (CSA 44) to the city's WWTP. An informal agreement was reached in 2023, but final approval was never formalized. Connecting to the City of Tracy's WWTP could lead to a significant reduction in the County's operational expenses. These reduced expenses could decrease the likelihood of rate increases for homeowners.

Agreements between a city (in San Joaquin County) and an unincorporated area of San Joaquin County have previously been negotiated and implemented. For example, one neighborhood in unincorporated Stockton is connected to the City of Stockton WWTP. The County has an agreement with the City of Stockton to process the wastewater from these neighborhoods. Homeowners in these neighborhoods pay WWTP rates through their property tax bills, and the County pays Stockton for this service.

In a CSA, when a new development requires infrastructure in unincorporated county areas, the developer is responsible for installing the necessary infrastructure. Once the development is complete, the County assumes responsibility for maintaining it by establishing a new CSA. In response to these issues, the County adopted a new policy in

2018 stating it will not create any new County Service Areas (CSAs) unless approved by the Director of Public Works.

Under the Right to Vote Tax Act of 1996 (Proposition 218), increases in sewer rates require consent through a protest process. Homeowners must be notified of the public hearing where proposed rate increases will be considered. If the majority of affected homeowners do not protest the proposed rate increase, higher rate adjustments may be adopted. In February 2020, at the Linne Estates homeowners' request, a meeting was held with the County Department of Public Works (DPW) to express concerns about rising sewer rates. This sewer rate increase was intended to cover operational and maintenance costs and eliminate the ongoing deficit. In response to homeowner opposition, the DPW limited the rate increase to 4% annually for the next five years, covering only actual costs and inflation, which would not be sufficient to eliminate the deficit.

BOS and DPW have held both public and private meetings with the homeowners, primarily when it was necessary to raise rates. They have also responded to multiple emails, maintaining open communication with the homeowners. Additionally, DPW has a website for all CSAs in the county: <https://www.sjgov.org/departments/pwk/special-districts-home/csa>.

Maintenance and operation costs of Zone E and G WWTFs have consistently risen, partly due to plant worker salaries, consultants, aging infrastructure, equipment upgrades, and management overhead. For safety reasons, two employees must work together since some tasks are conducted underground. (See underground access pictures below.) Workers are based in Stockton, and the daily travel to and from the facility is included in the labor cost to maintain the WWTP (see Table B below).

Table B

Cost of Travel to and from Stockton					
Time each way	Stockton-Tracy Round Trip (HR)	Trip hours per year	Days traveling	One Employee	Two Employees
45 minutes	1.5	390	48.75	\$46,800.00	\$93,600.00
1 Hour	2.0	520	65.00	\$62,400.00	\$124,800.00
1 Hour and 15 minutes	2.5	650	81.25	\$78,000.00	\$156,000.00
Charged at \$120/hr. per County Employee (includes salary, overhead, benefits)					



Taken February 21, 2025, underground tank



Taken February 21, 2025, underground tank access

The facilities and systems require frequent inspection to ensure it is operational and functioning properly. Staff are required to manually clean screens daily to remove larger solids, such as flushable wipes, rags, and golf balls—objects that reduce flow within the system. Workers must clean filters and bag smaller solids for drying and disposal. (See bagging station photo below.) The staff is also responsible for loading the dried waste into a dumpster for disposal at the landfill. (See bags of drying bio-solids below.)



Taken February 21, 2025, bagging stations for bio-solids draining



Taken on February 21, 2025, bags of biosolids drying

A tour of the WWTP by members of the SJCCGJ revealed that much of the equipment is rusted, corroded, and requires frequent repair or replacement. Photos document temporary and improvised measures used to keep the systems operational. During the visit, Civil Grand Jury members observed the ongoing maintenance required to support equipment such as the bar screen, underground access points, and tank systems, as previously described and pictured.

When the homeowners agreed to the rate increase in 2020, the county planned to install a SCADA (Supervisory Control and Data Acquisition) system that would significantly reduce the labor hours needed. Although \$45,000 was authorized, it is unclear why a less expensive monitoring system was purchased. The installed system can monitor and alert the operators but cannot control anything remotely; maintenance and operation costs did not decrease. Our research determined a true SCADA system would partially automate the operations, resulting in decreased maintenance and operational costs.

Findings

F1: If the City of Tracy agrees to an intertie connection, the County could reduce long-term costs for CSA 44 Zones E and G.

F2: A single WWTP would function more efficiently than two. Maintenance and operational costs could decrease.

F3: Both WWTPs are nearing the end of their service lives and require replacement.

F4: The SCADA system that was installed was not a true SCADA system and did not reduce maintenance labor costs.

F5: Maintenance costs have exceeded projections.

F6: Employees must first drive to the DPW facility in Stockton before starting work and then return to Stockton. Facilities near the WWTP work site could benefit the southern County sites by reducing labor costs.

F7: The County has been transparent with homeowners.

F8: In 2018, the County adopted a policy that prohibits the formation of CSAs without the approval of the Director of Public Works.

Recommendations

R1: By October 1, 2025, the Board of Supervisors should begin negotiations with the City of Tracy to explore the feasibility of an intertie connection to the City of Tracy WWTP.

R2: By October 1, 2025, if the intertie is not feasible, the Board of Supervisors should consider consolidating the two smaller WWTPs into a single, more efficient facility.

R3: By October 1, 2025, the Board of Supervisors should create a plan to replace or upgrade the facilities.

R4: By October 1, 2025, the Board of Supervisors should create a plan to install a true SCADA system to reduce maintenance labor costs.

R5: By October 1, 2025, the Board of Supervisors should create a plan with current and projected discharge requirements to reduce operating costs.

R6: By October 1, 2025, the Board of Supervisors should assess the feasibility of establishing a satellite office to serve the south county.

Disclaimer

Civil Grand Jury reports are based on documentary evidence and the testimony of sworn or admonished witnesses, not on conjecture or opinion. However, the Civil Grand Jury is precluded by law from disclosing such evidence except upon the specific approval of the Presiding Judge of the Superior Court or another judge appointed by the Presiding Judge (Penal Code Section 911. 924.1 (a) and 929). Similarly, the Civil Grand Jury is precluded by law from disclosing the identity of witnesses except upon an order of the court for narrowly defined purposes (Penal Code Sections 924.2 and 929).

Request for Responses

California Penal Code Sections 933 and 933.05 require that specific responses to all findings and recommendations contained in this report be submitted to the Presiding Judge of the San Joaquin County Superior Court within 90 days of receipt of the report.

Note: If the responder is an elected official, the response must be sent within 60 days of receipt.

The San Joaquin County Board of Supervisors shall respond to all findings and recommendations.

Mail or hand deliver a hard copy of the response to:

Honorable Gus C. Barrera II, Presiding Judge
San Joaquin County Superior Court
180 E Weber Ave, Suite 1306J
Stockton, California 95202

Also, please email a copy of the response to Mr. Irving Jimenez, Staff Secretary to the Civil Grand Jury, at civilgrandjury@sjcourts.org.