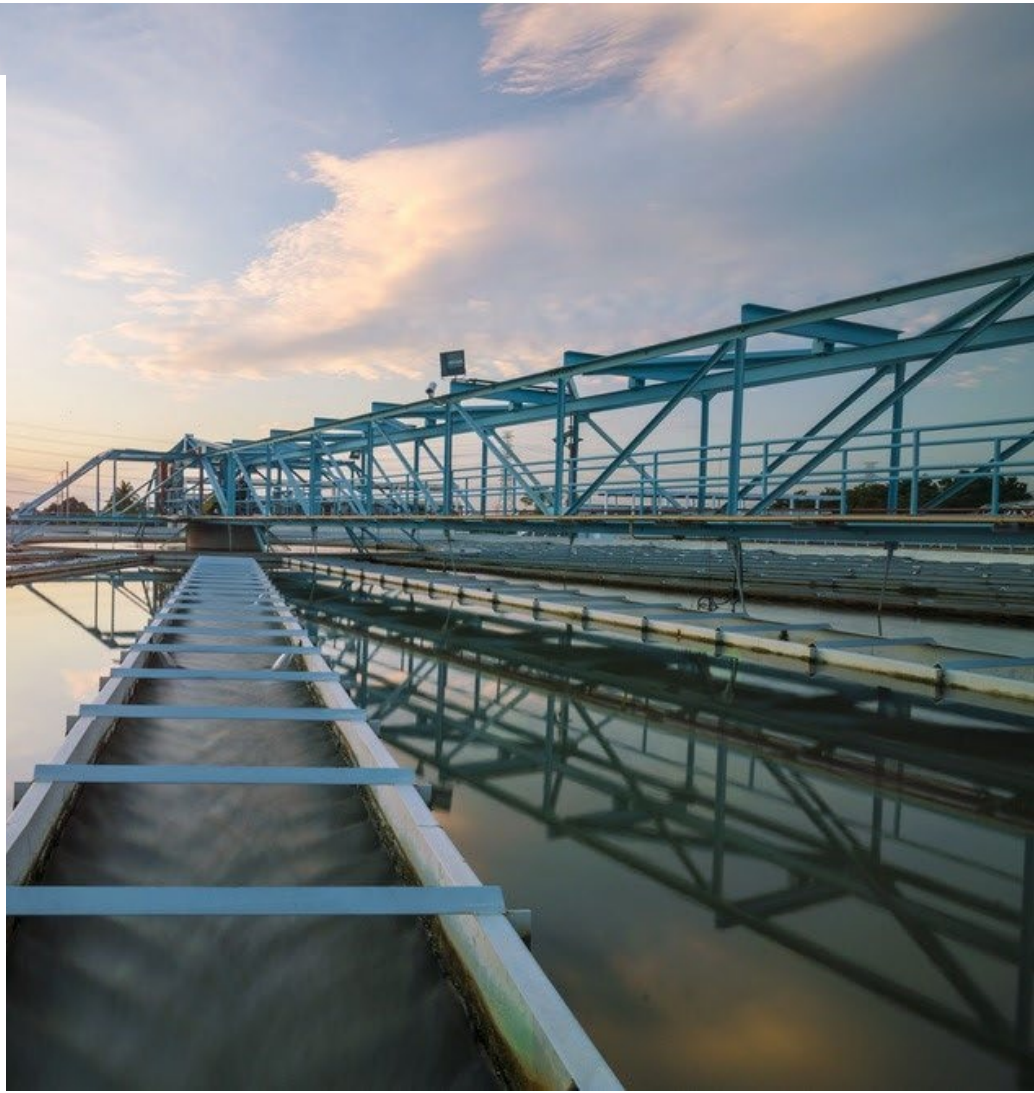


UTILITY REPORT



JULY 2025

**King George County
Service Authority**

**Authored by:
Inboden Environmental
Services, Inc.**



INTRODUCTION

This Utility Report provides information on operations, facility performance, equipment issues, and regulatory compliance for the month prior. Information includes items related to water facility productions and wastewater effluent discharge volumes, laboratory analytical data, operations notes, and compliance auditing.

WATER

Operational Notes:

- All regulatory samples were collected.
- Continuing to backwash all green sand filters.
- Hopyard WTP had a new meter installed due to the previous meter failing.
- Circle 1 had several leaky pipes that needed to be addressed by maintenance.

Canterbury Subdivision – PWSID 6099085

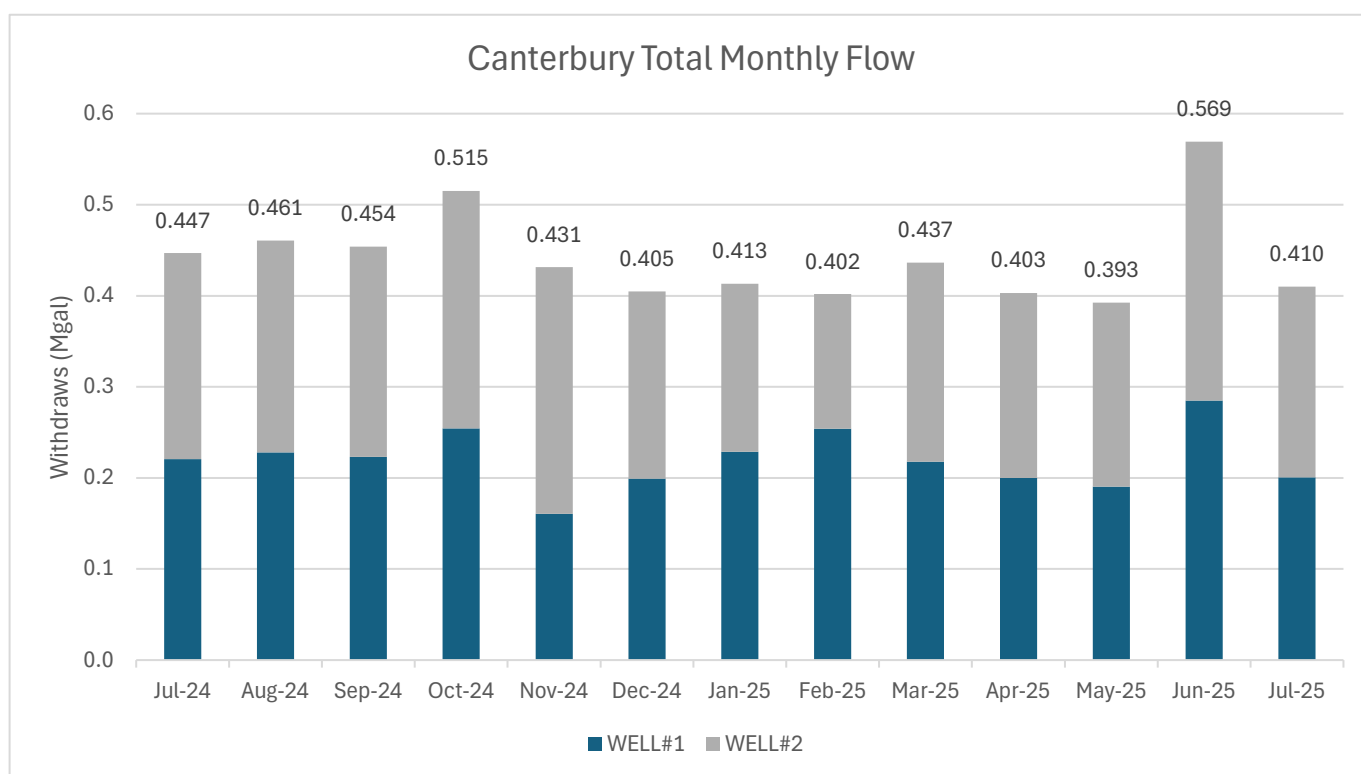
Water Quality:

The Water Treatment facility and distribution system maintained compliance with all required sampling. Routine bacteriological sample results are shown in the table below.

Bacteriological Analysis:

Location Code	Location Address	Date	Result
010	12466 Kent Road	7/8/2025	Absent

System Production:



Circle – PWSID 6099100

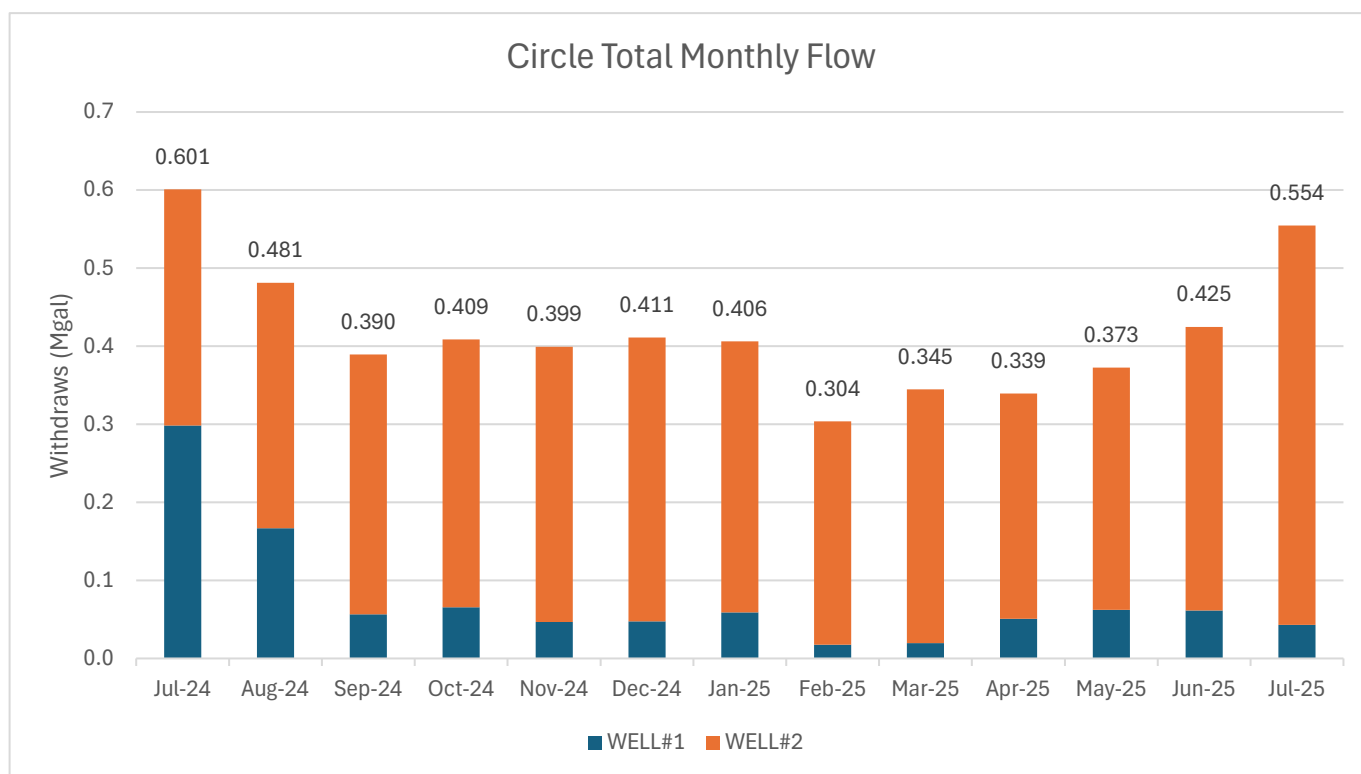
Water Quality:

The Water Treatment facility and distribution system maintained compliance with all required sampling. Routine bacteriological sample results are shown in the table below.

Bacteriological Analysis:

Location Code	Location Address	Date	Result
020	12013 Ridge Road	7/8/2025	Absent

System Production:



KGC Courthouse – PWSID 6099050

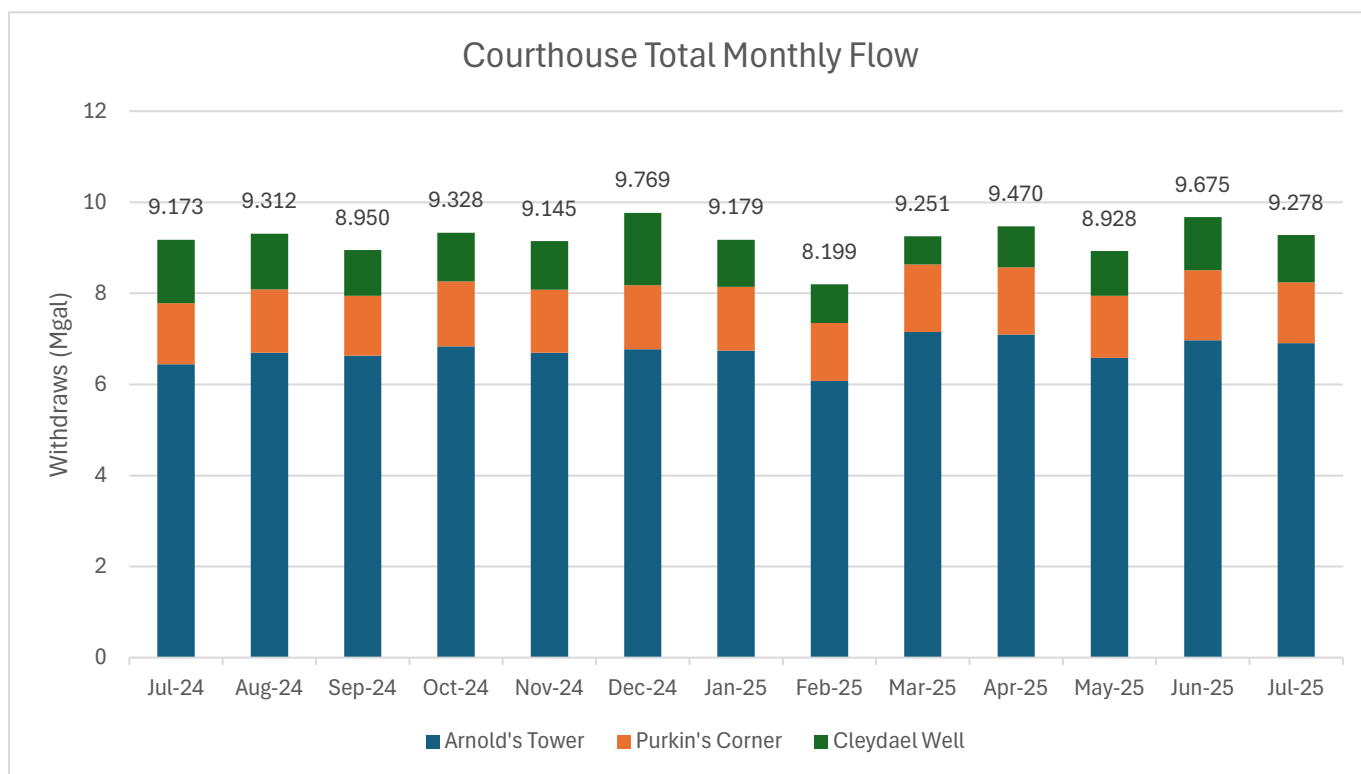
Water Quality:

The Water Treatment facility and distribution system maintained compliance with all required sampling. Routine bacteriological sample results are shown in the table below.

Bacteriological Analysis:

Location Code	Location Address	Date	Result
015	9207 King's Highway	7/8/2025	Absent
01	10459 Courthouse Drive	7/8/2025	Absent

System Production:



Dahlgren – PWSID 6099295

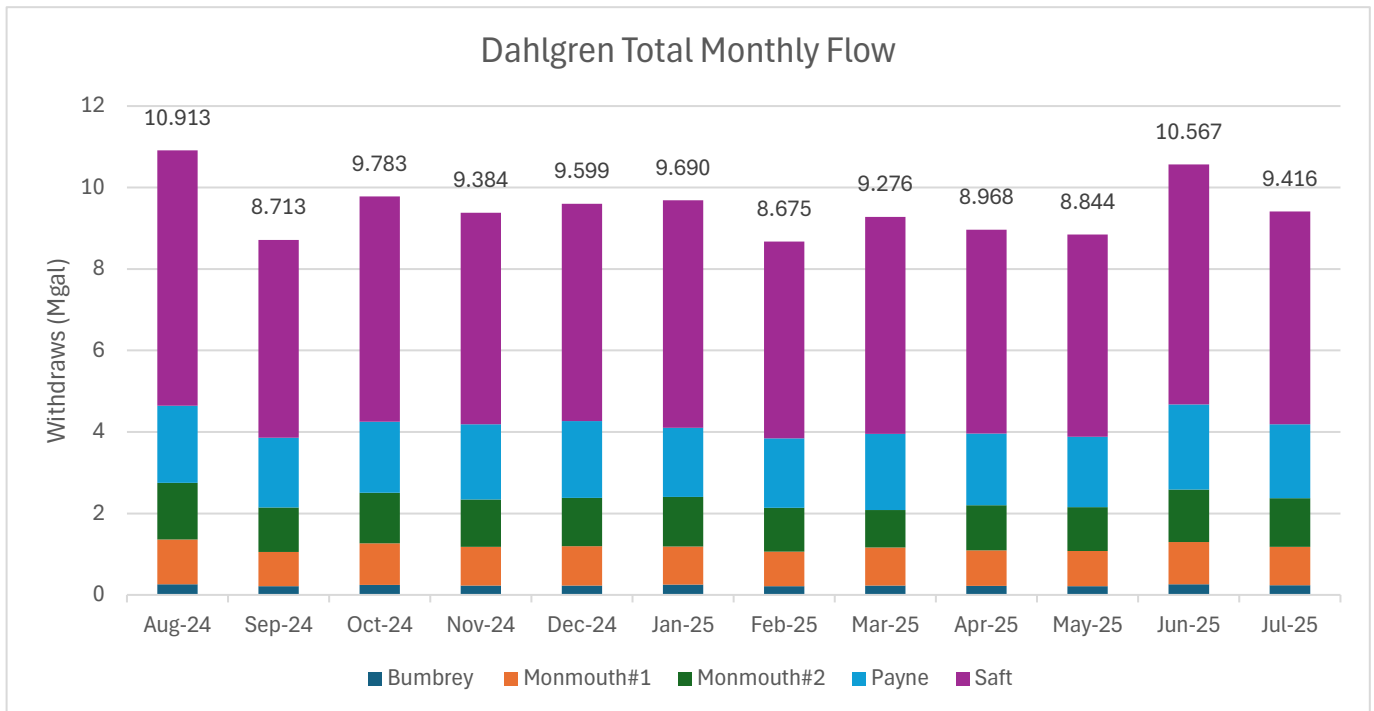
Water Quality:

The Water Treatment facility and distribution system maintained compliance with all required sampling. Routine bacteriological sample results are shown in the table below.

Bacteriological Analysis:

Location Code	Location Address	Date	Result
06	4417 Danube Drive	7/8/2025	Total Coliform- Present E.coli- Absent
07	4378 Savannah Street	7/8/2025	Absent
02	5134 Mallard's Landing Drive	7/8/2025	Absent
06R	4417 Danube Drive	7/10/2025	Absent
06U	4403 Danube Drive	7/10/2025	Absent
06D	4425 Danube Drive	7/10/2025	Absent
RW	Monmouth 2 Well	7/10/2025	Absent
RW	Monmouth 1 Well	7/11/2025	Absent
RW	Bumbrey Well	7/11/2025	Absent
RW	Saft Well	7/11/2025	Absent
RW	Payne Well	7/11/2025	Absent

System Production:



Fairview Beach – PWSID 6099250

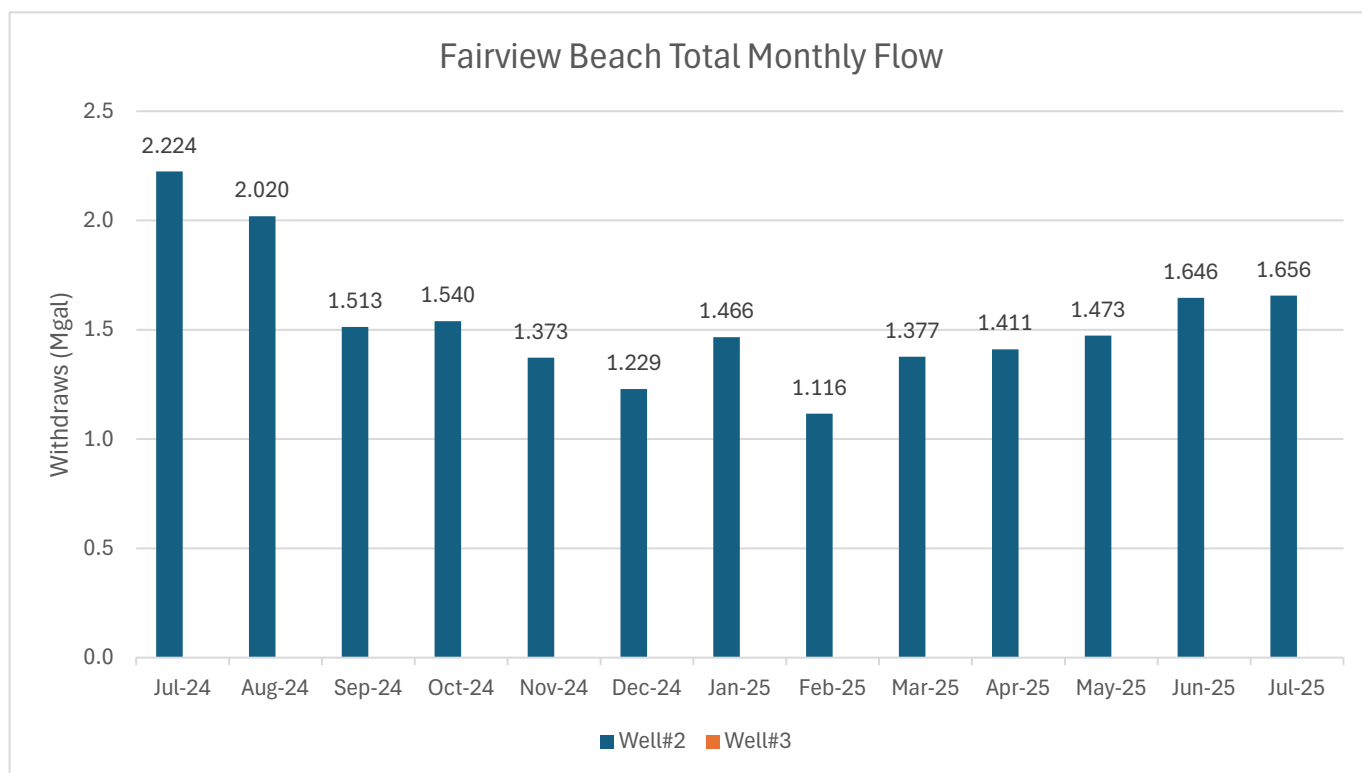
Water Quality:

The Water Treatment facility and distribution system maintained compliance with all required sampling. Routine bacteriological sample results are shown in the table below.

Bacteriological Analysis:

Location Code	Location Address	Date	Result
010	5435 Pavilion Drive	7/17/2025	Absent

System Production:



Hopyard Farm – PWSID 6099283

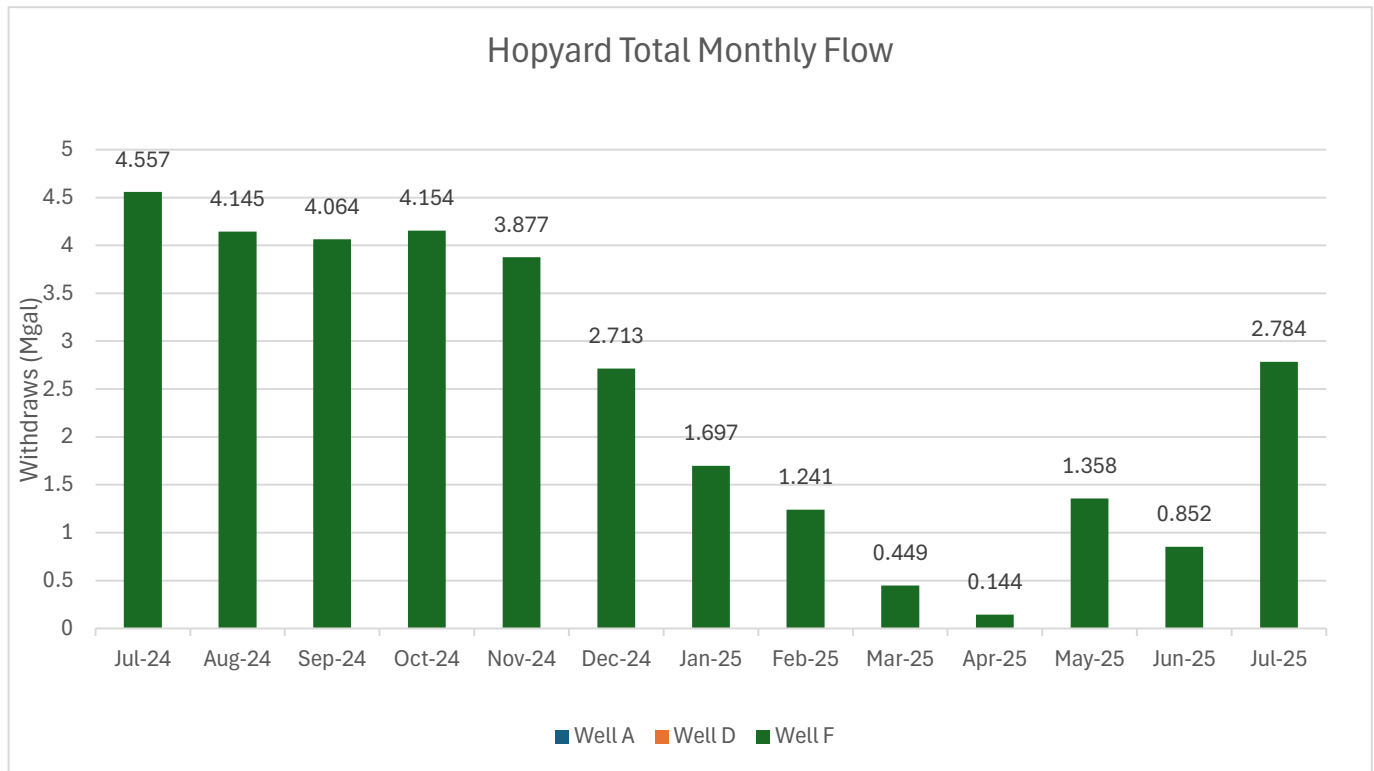
Water Quality:

The Water Treatment facility and distribution system maintained compliance with all required sampling. Routine bacteriological sample results are shown in the table below.

Bacteriological Analysis:

Location Code	Location Address	Date	Result
050	5217 Spinnaker Lane	7/8/2025	Absent
030	6190 McCarthy Drive	7/8/2025	Absent

System Production:



KGC School Board Office – PWSID 6099296

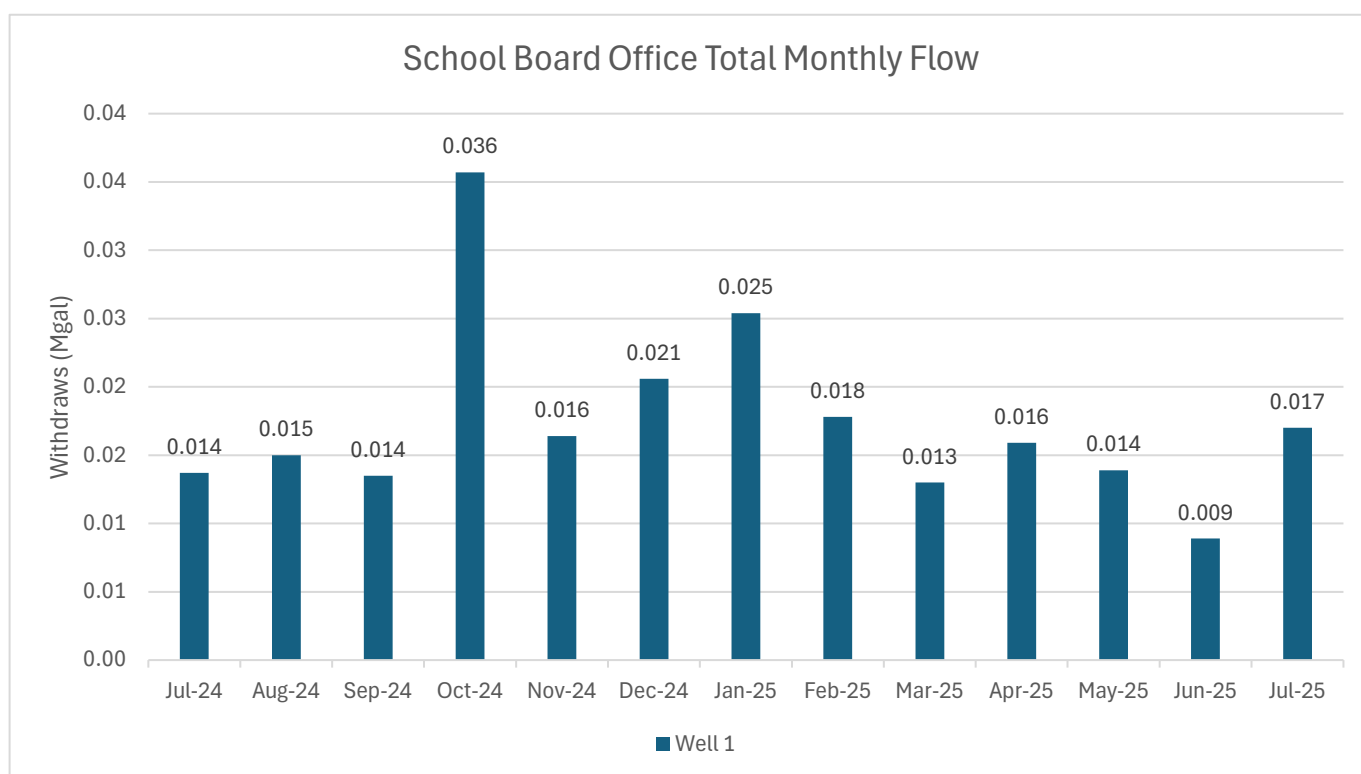
Water Quality:

The Water Treatment facility and distribution system maintained compliance with all required sampling. Routine bacteriological sample results are shown in the table below.

Bacteriological Analysis:

Location Code	Location Address	Date	Result
030	Old Art Room #10	7/8/2025	Absent

System Production:



Ninde's Store – PWSID 6099300

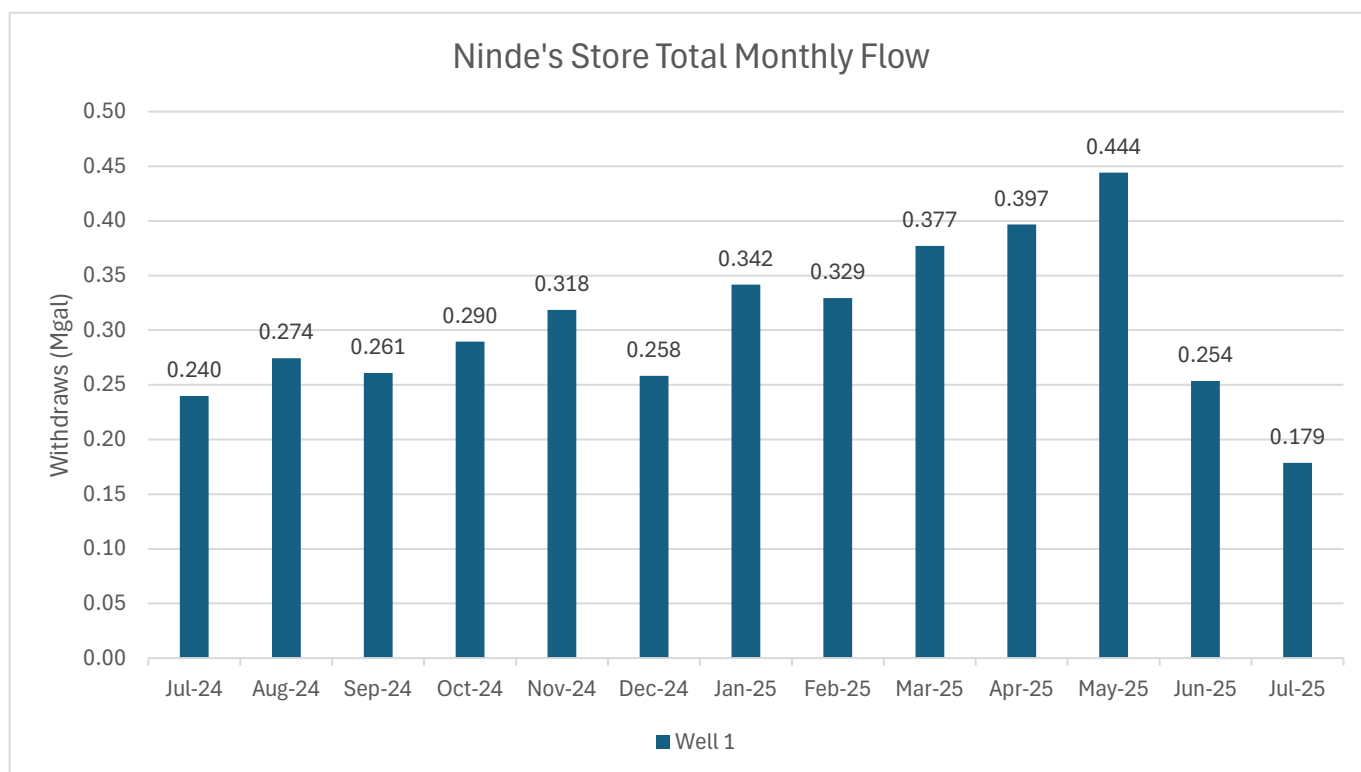
Water Quality:

The Water Treatment facility and distribution system maintained compliance with all required sampling. Routine bacteriological sample results are shown in the table below.

Bacteriological Analysis:

Location Code	Location Address	Date	Result
010	16195 Ridge Road	7/8/2025	Absent

System Production:



Oakland Park – PWSID 6099350

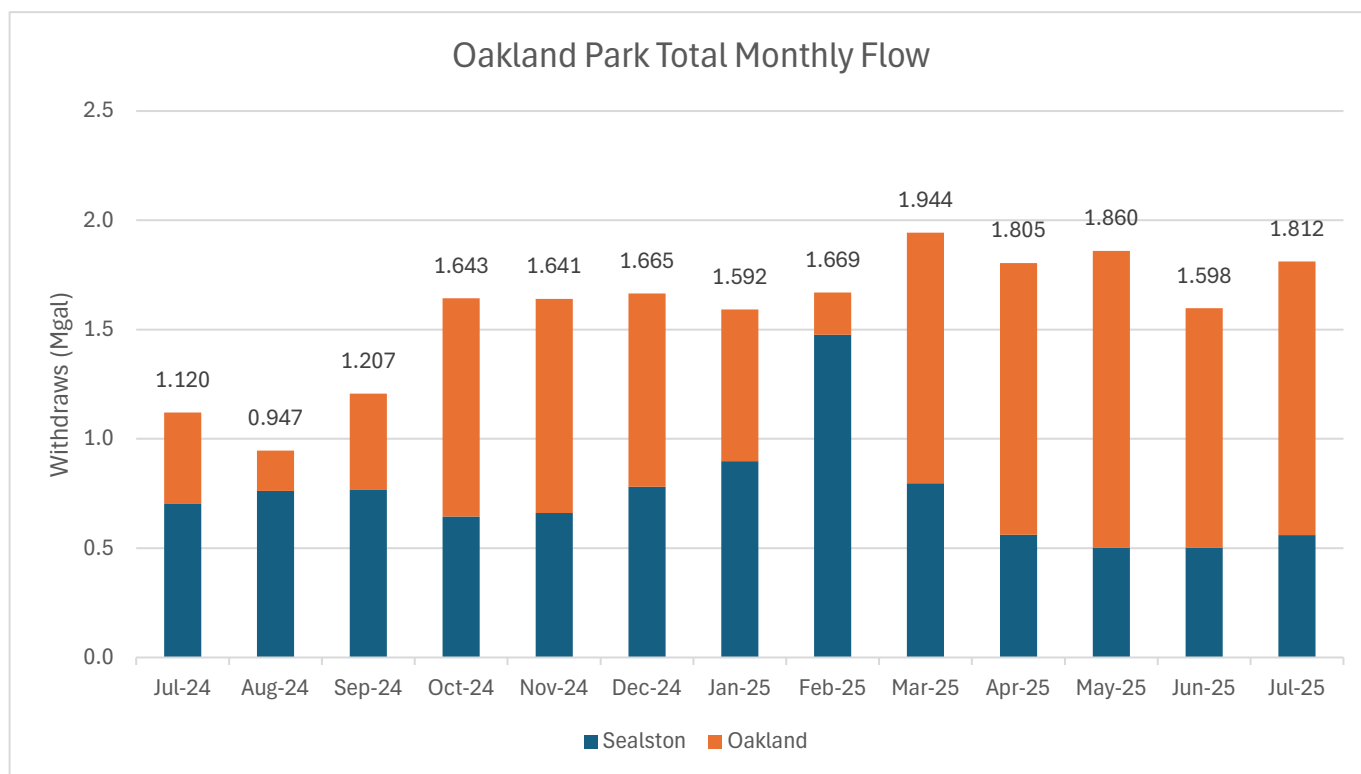
Water Quality:

The Water Treatment facility and distribution system maintained compliance with all required sampling. Routine bacteriological sample results are shown in the table below.

Bacteriological Analysis:

Location Code	Location Address	Date	Result
020	9124 Fletcher's Chapel Road	7/8/2025	Absent
050	10157 Fletcher's Chapel Road	7/8/2025	Absent

System Production:



St. Paul's/Owens – PWSID 6099550

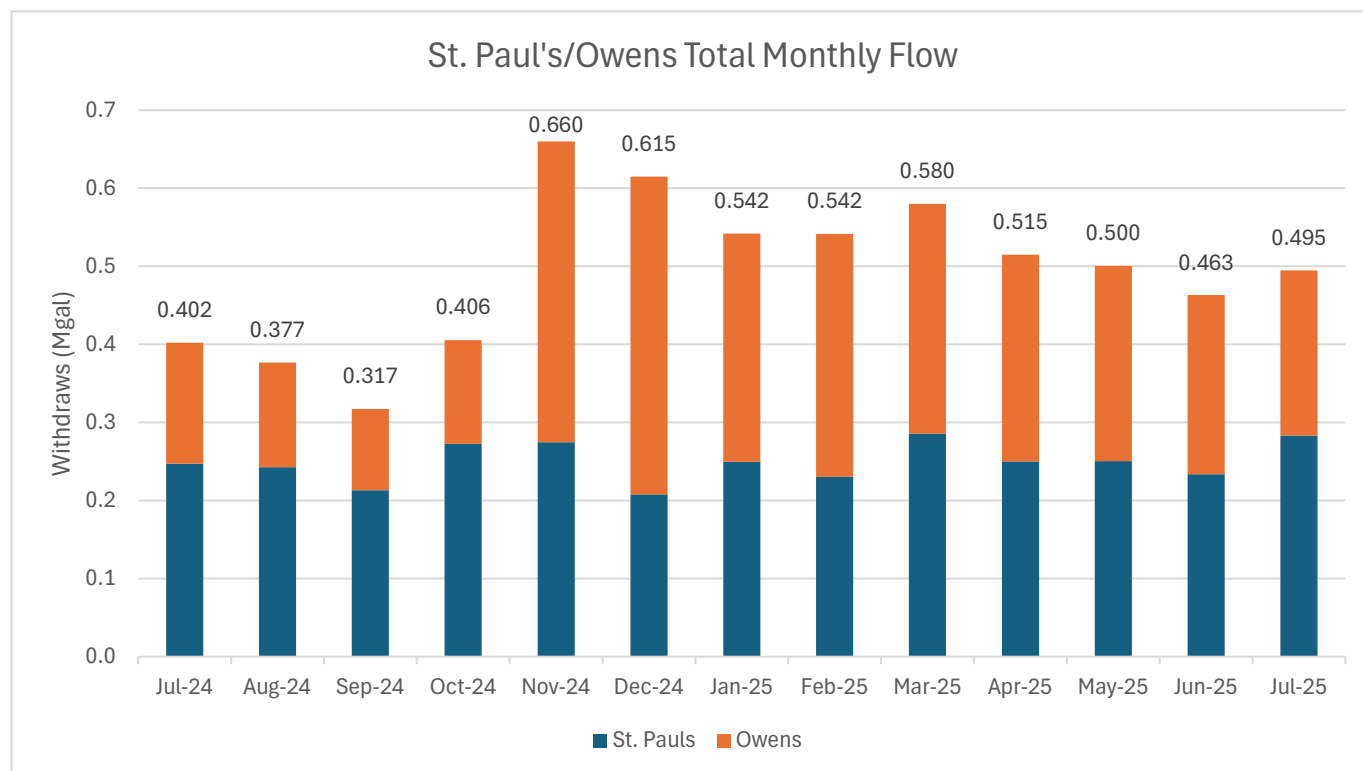
Water Quality:

The Water Treatment facility and distribution system maintained compliance with all required sampling. Routine bacteriological sample results are shown in the table below.

Bacteriological Analysis:

Location Code	Location Address	Date	Result
010	5486 St. Paul's Road	7/8/2025	Total Coliform- Present E.coli- Absent
01R	5486 St. Paul's Road	7/10/2025	Total Coliform- Present E.coli- Absent
02D	5280 Thompson Hill	7/10/2025	Absent
02U	14306 Dahlgren Road	7/10/2025	Absent
RW (Source)	Owen's Well	7/10/2025	Absent

System Production:



WASTEWATER

Dahlgren WWTP

Effluent Quality:

The wastewater treatment facility maintained compliance with all permit-required sampling.

Wastewater Treatment:

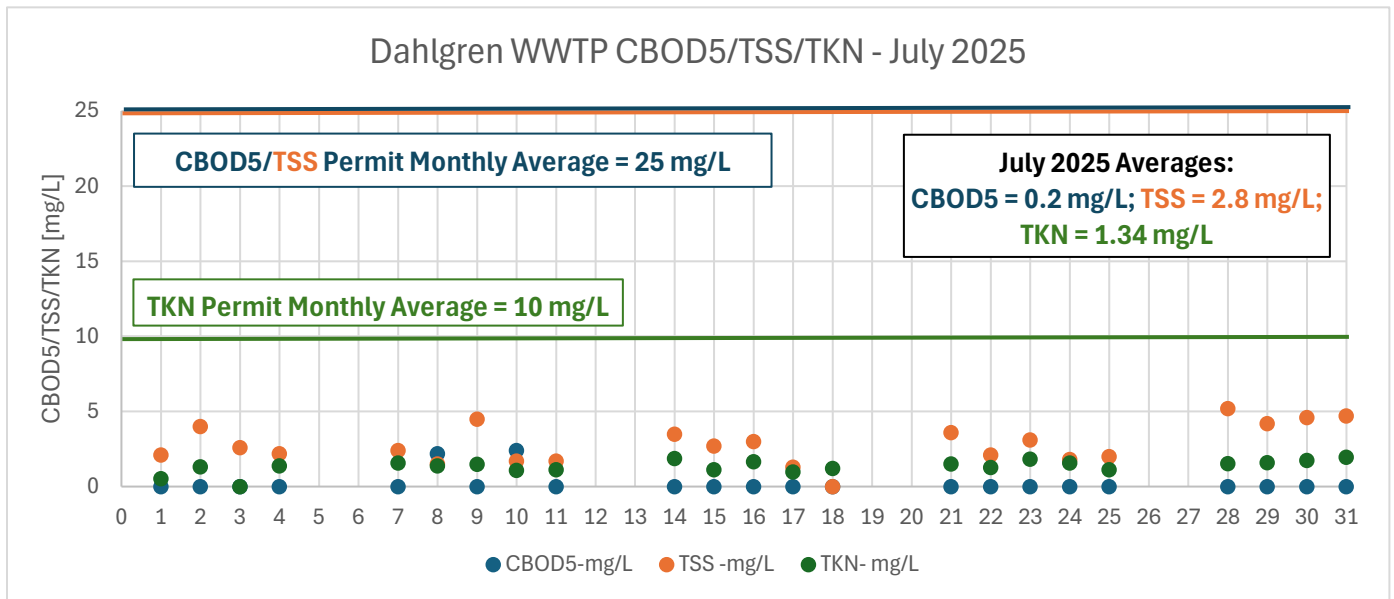
The Dahlgren WWTP met the sewer service area's sanitation demand with an average daily discharge of 0.260 MGD for a total monthly discharge of 8.056 MG.

Operational Notes:

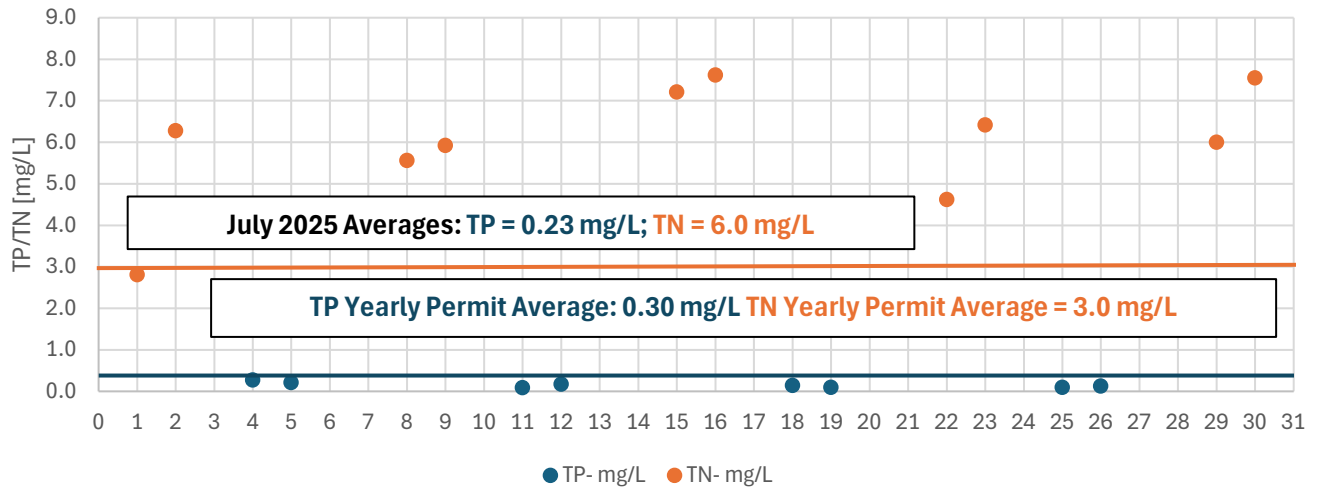
- Sciphyn performed all scheduled robotic cleaning.
- IES noticed that the reuse pumps were inefficient and alerted KGCSA Maintenance.
- Old aeration parts from the ditch were removed and taken off-site.

Data Trending:

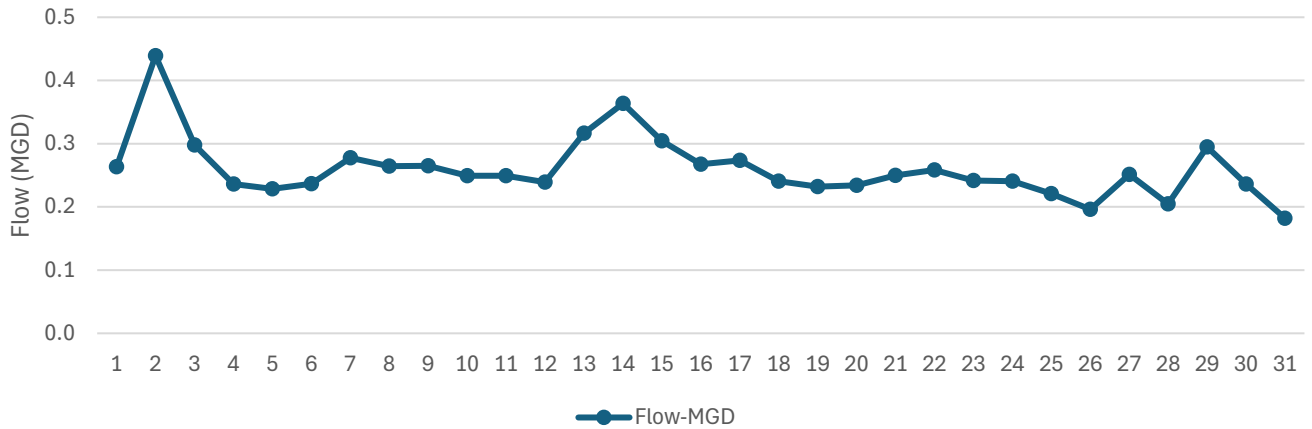
The following charts depict a graphical analysis of effluent quality monitoring and treatment plant daily and total monthly flows.



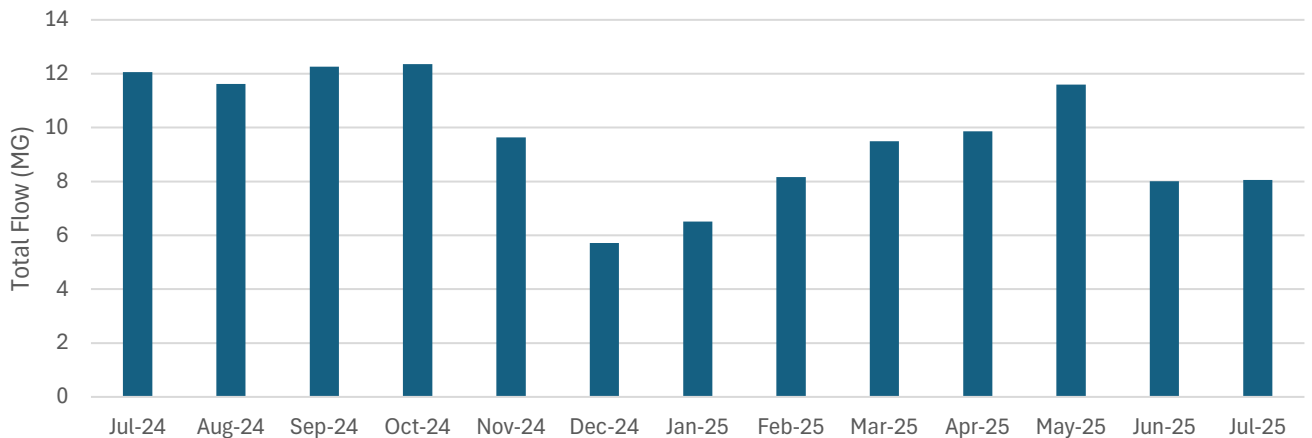
Dahlgren WWTP TP/TN - July 2025



Dahlgren WWTP Flow - July 2025



Dahlgren Total Monthly Flow MG



Hopyard Farms WWTP

Effluent Quality:

The wastewater treatment facility maintained compliance with all permit-required sampling.

Wastewater Treatment:

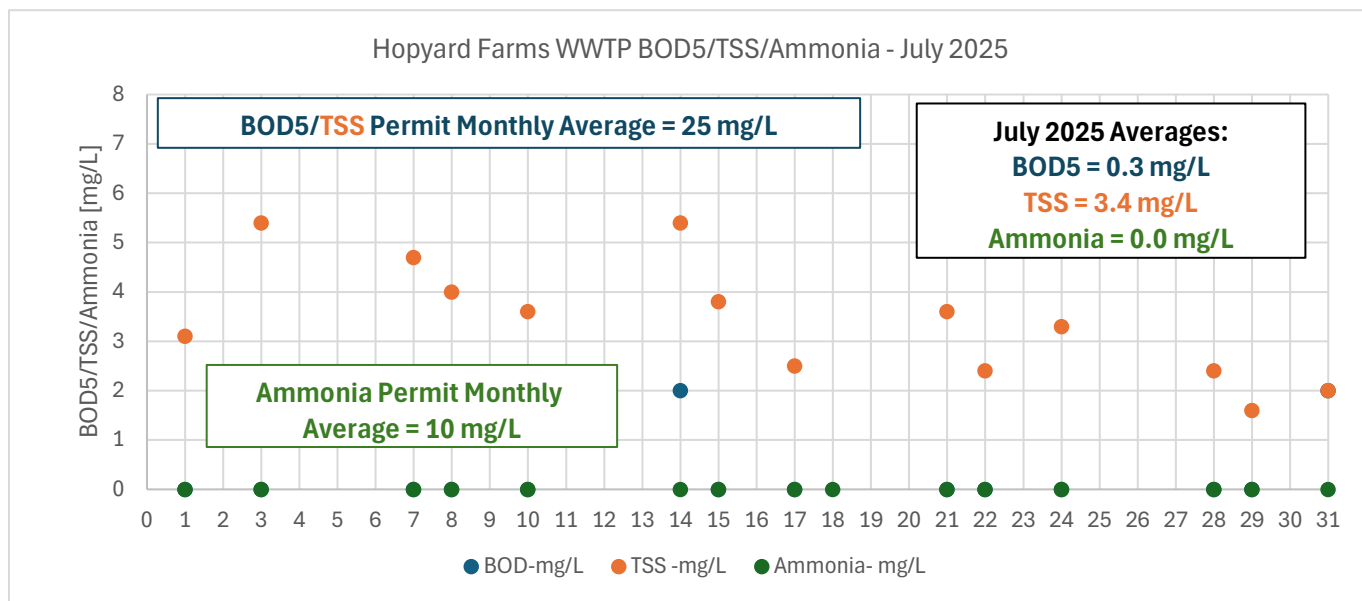
The Hopyard Farms WWTP met the sewer service area's sanitation demand with an average daily discharge of 0.090 MGD for a total monthly discharge of 2.421 MG (27 days with flow).

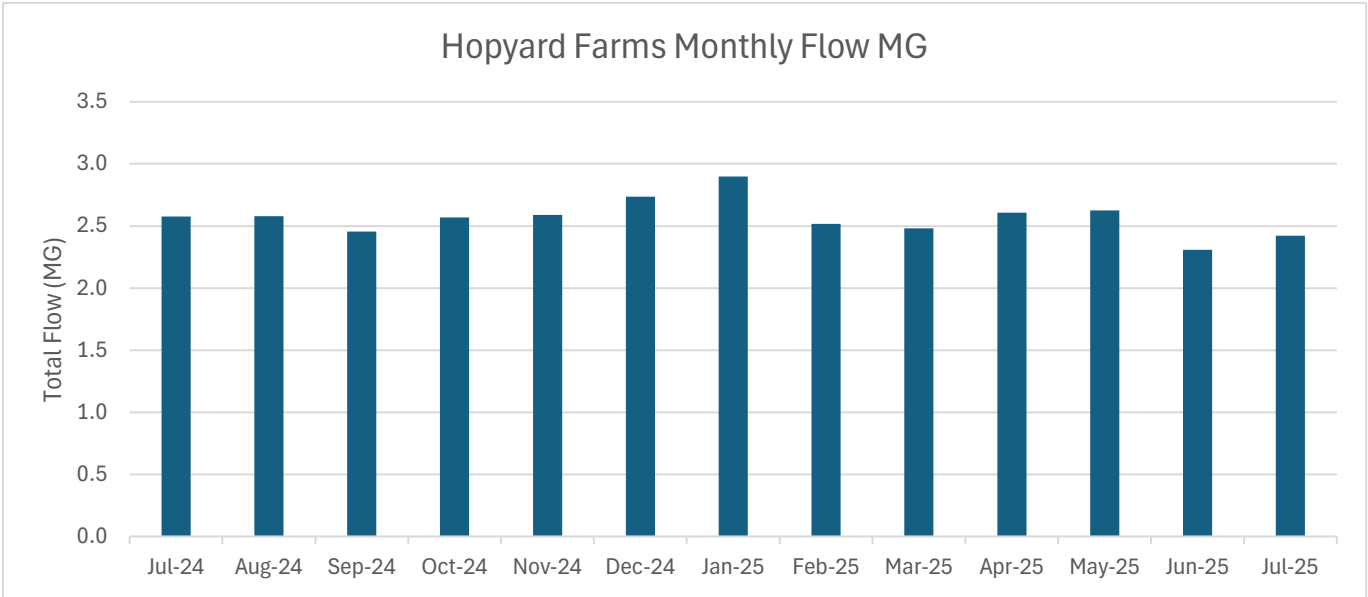
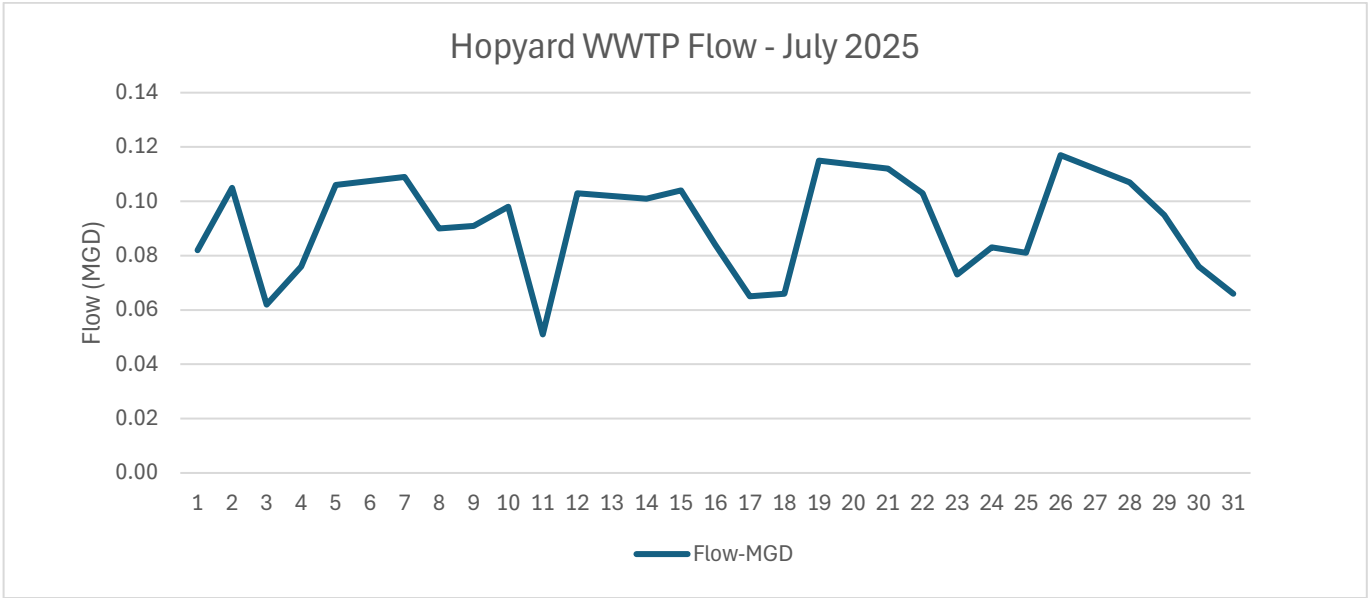
Operational Notes:

- IES, KGCSA, and ACE had a meeting to discuss some operational workarounds while upgrading and replacing some equipment. Construction has not interfered with operations,

Data Trending:

The following charts depict a graphical analysis of effluent quality monitoring and treatment plant daily and total monthly flows.





Purkins Corner WWTP

Effluent Quality:

The wastewater treatment facility maintained compliance with all permit-required sampling.

Wastewater Treatment:

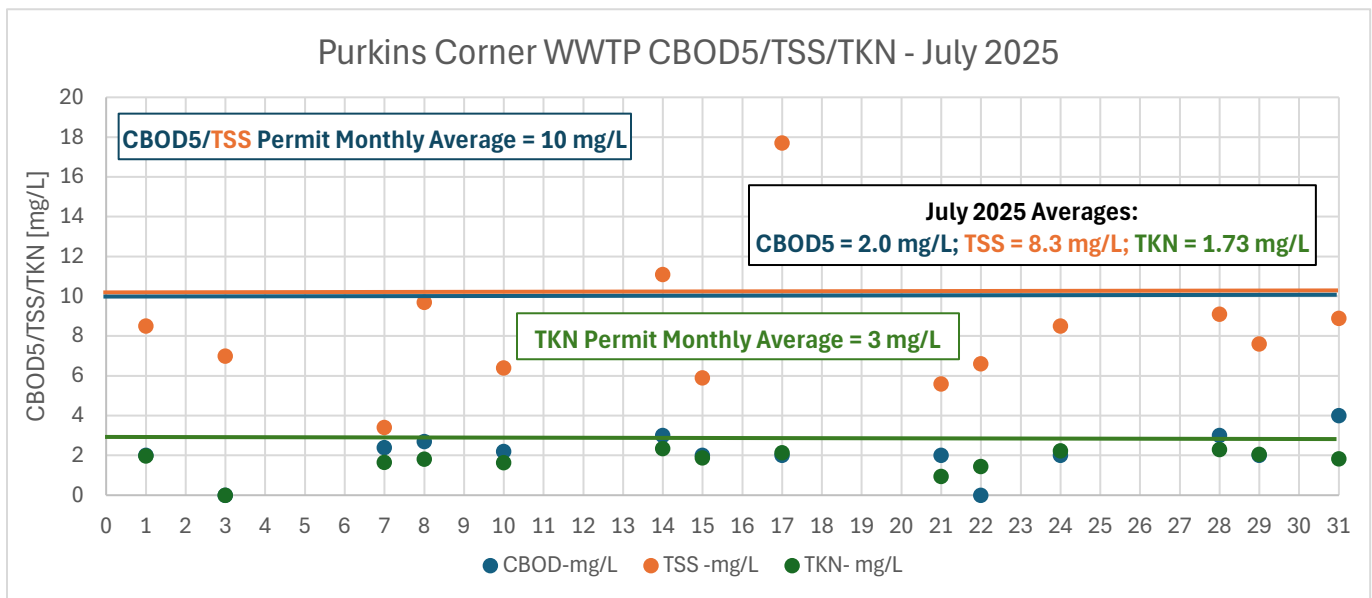
The Purkins Corner WWTP met the sewer service area's sanitation demand with an average daily discharge of 0.056 MGD for a total monthly discharge of 1.732 MG.

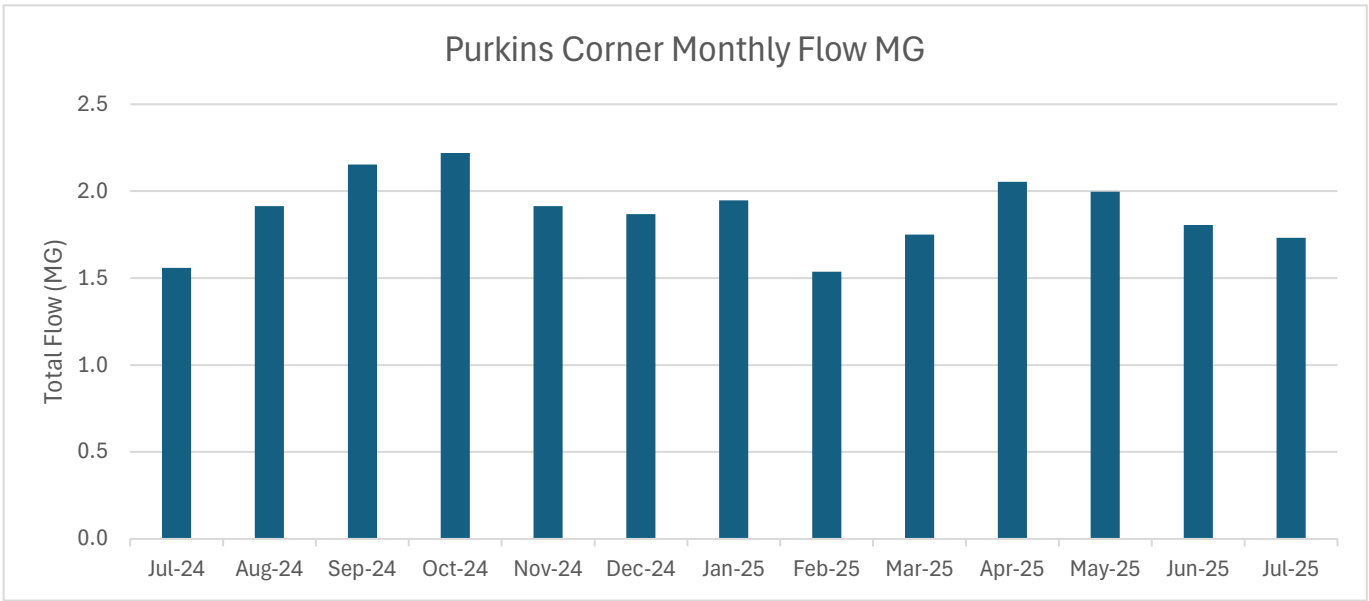
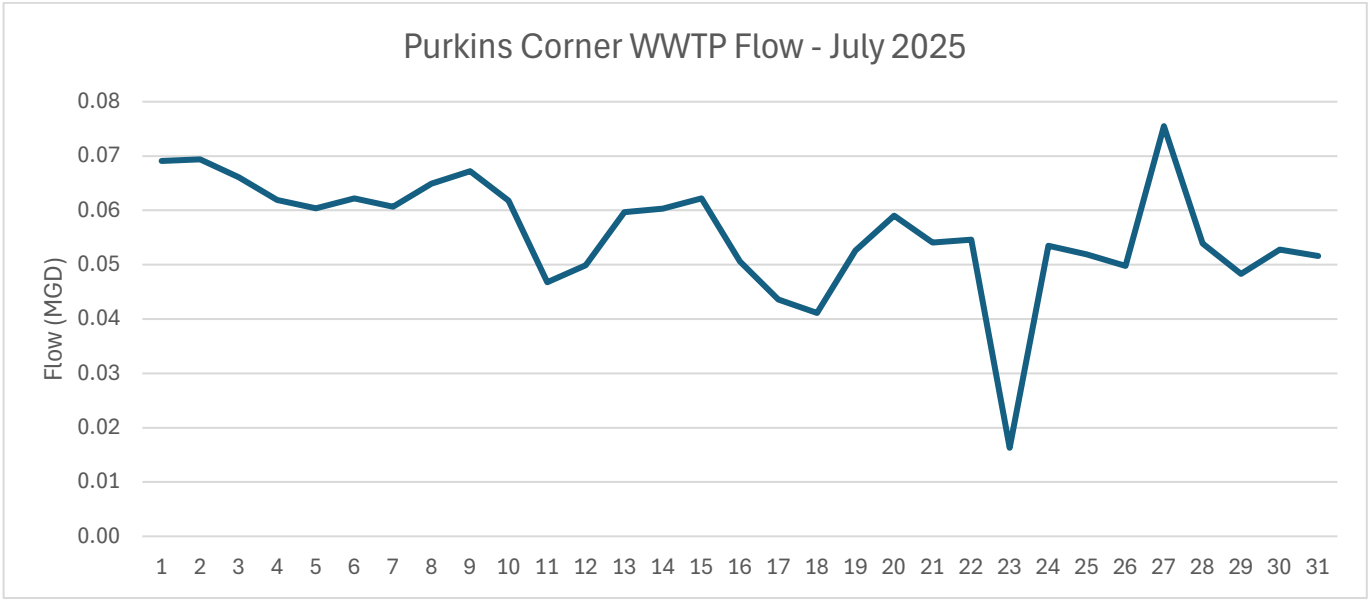
Operational Notes:

- Since all diffusers have been replaced, operations have become more resilient and have been dialed in.

Data Trending:

The following charts depict a graphical analysis of effluent quality monitoring and treatment plant daily and total monthly flows.





Oakland Park WWTP

Effluent Quality:

The wastewater treatment facility maintained compliance with all permit-required sampling.

Wastewater Treatment:

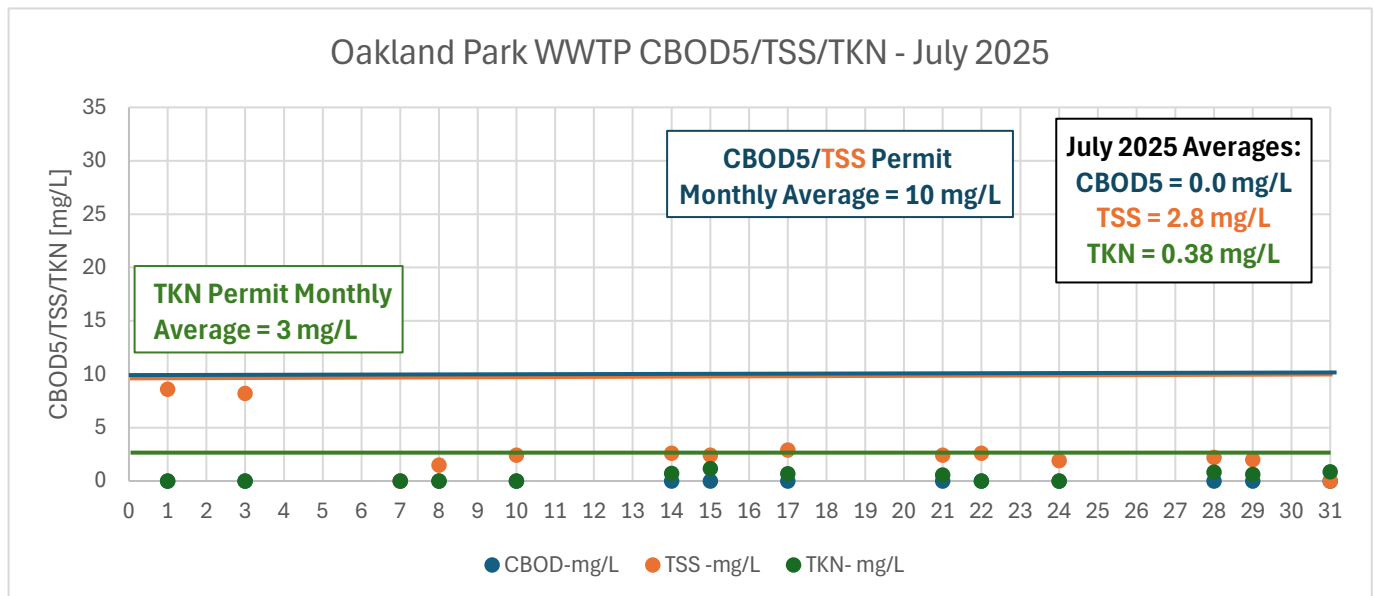
The Oakland Park WWTP met the sewer service area's sanitation demand with an average daily discharge of 0.042 MGD for a total monthly discharge of 1.311 MG.

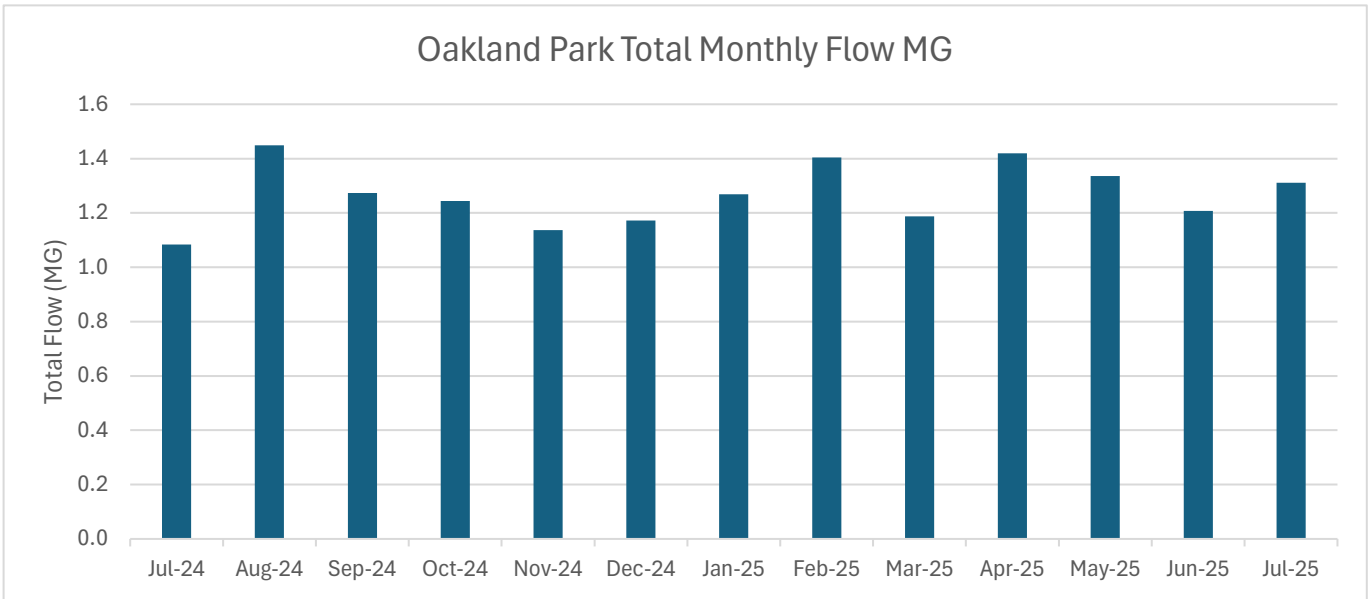
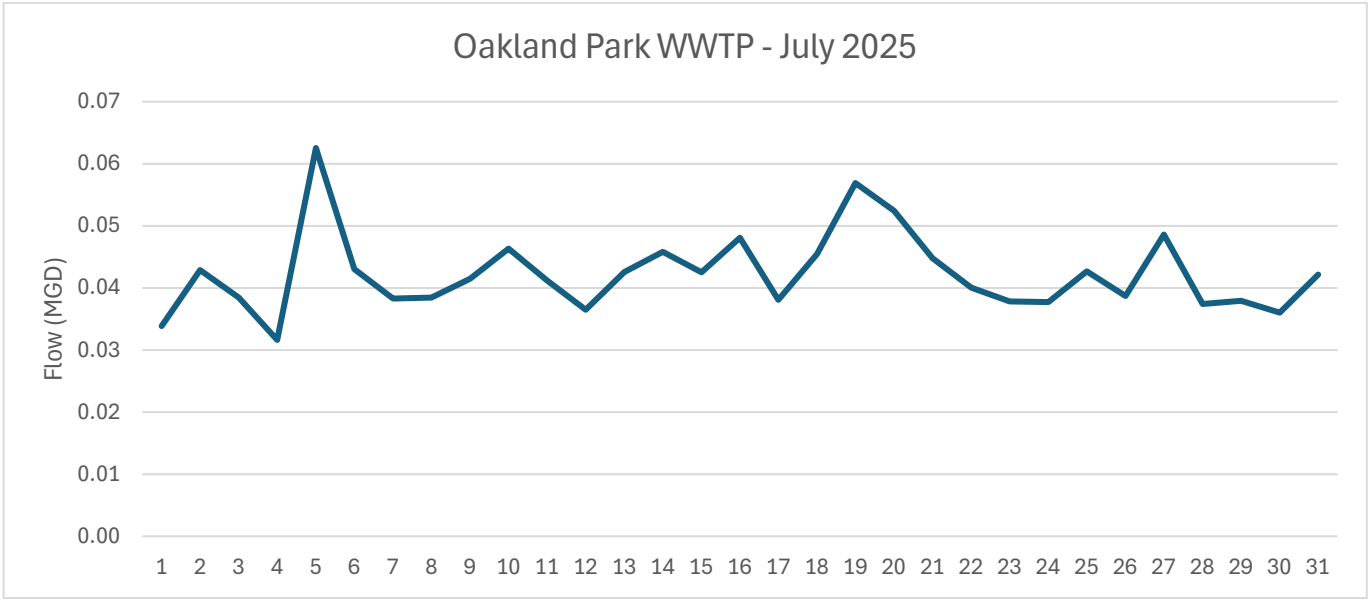
Operational Notes:

- There is still evidence of septic conditions being introduced into the wastewater plant through the collections system, although it is not as frequent.
- All diffusers were replaced. Plant performance has become more resilient.

Data Trending:

The following charts depict a graphical analysis of effluent quality monitoring and treatment plant daily and total monthly flows.





Fairview Beach WWTP

Effluent Quality:

The wastewater treatment facility maintained compliance with all permit-required sampling.

Wastewater Treatment:

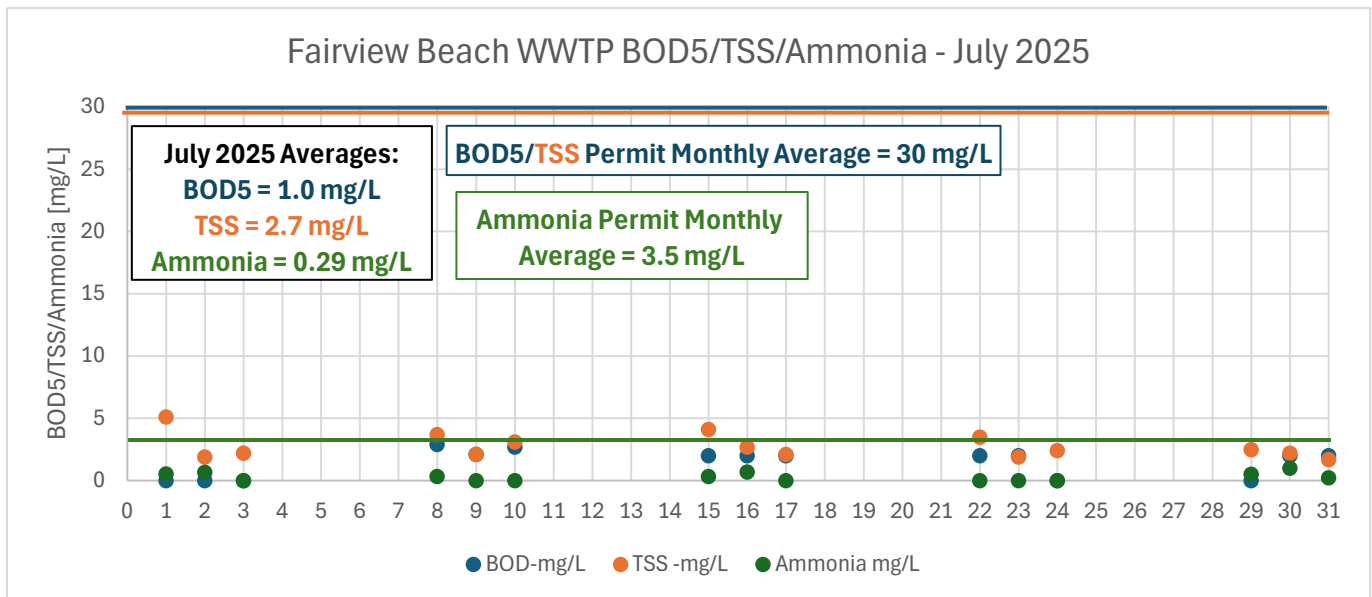
The Fairview Beach WWTP met the sewer service area's sanitation demand with an average daily discharge of 0.067 MGD for a total monthly discharge of 1.803 MG (27 days with flow).

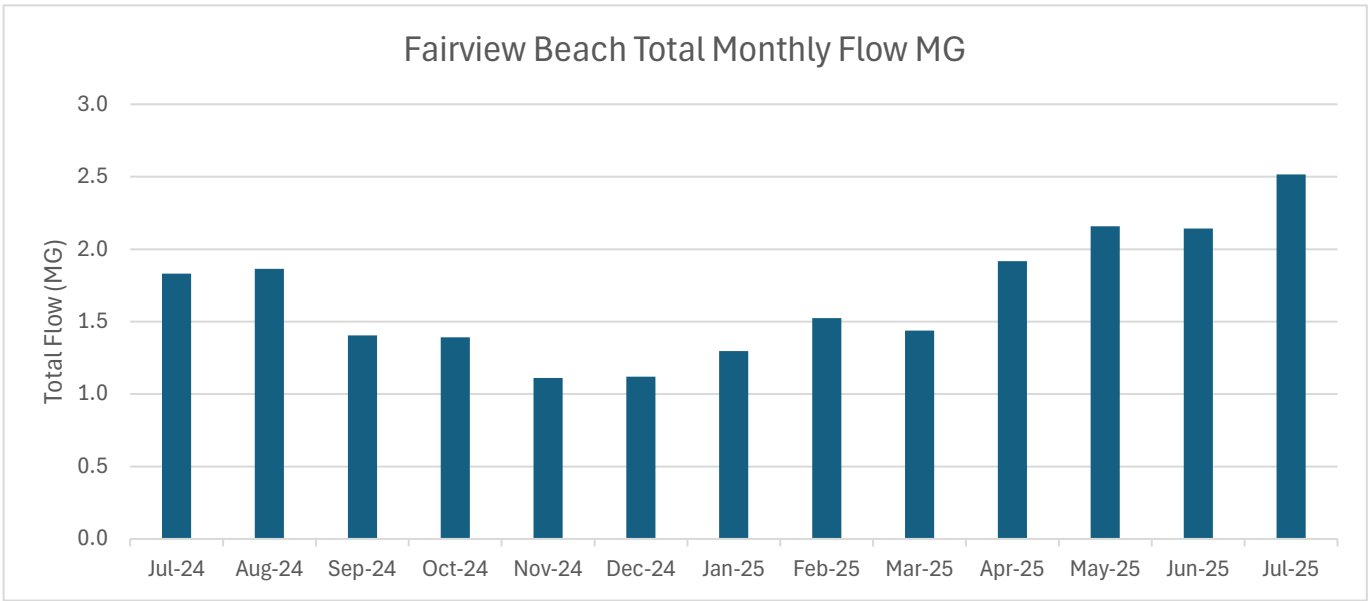
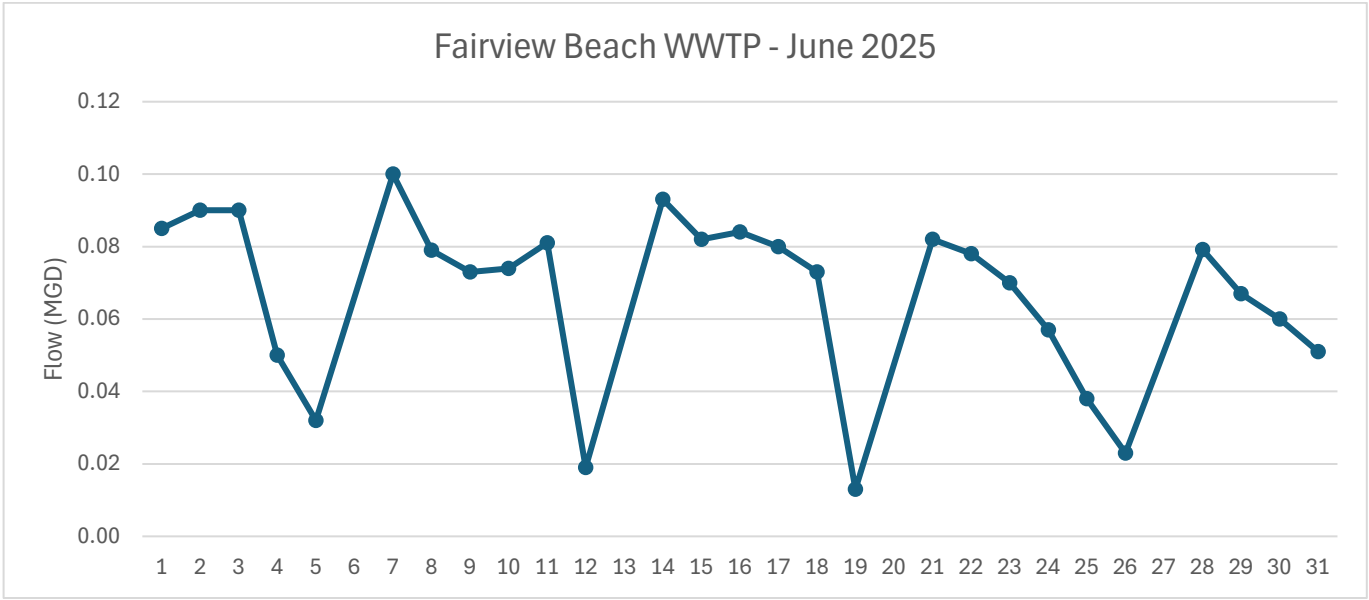
Operational Notes:

- The flow meter has not been calibrated yet due to failed display. Parts were ordered by KGCSA Maintenance.
- Preventative maintenance parts were requested from KGCSA Maintenance.

Data Trending:

The following charts depict a graphical analysis of effluent quality monitoring and treatment plant daily and total monthly flows.





Glossary

Bacteria	E.coli and/or Total Coliform
BOD5	5-day Biochemical Oxygen Demand
CBOD	Carbonaceous Biochemical Oxygen Demand
cfu	colony forming unit
CIP	Capital Improvement Plan or Cast/cleaned-in-place
Cl	Chloride Ion
Cl2	Chlorine
CMF	Continuous Membrane Filtration?
D.O.	Dissolved Oxygen
F/M ratio	Food to Microorganism ratio
FOG	Fats, Oil and Grease
GST	Ground Storage Tank
HWTP	Harmony Water Treatment Plant
I&I	Infiltration and Inflow
Inorganic Nitrogen	Nitrate + Nitrite
LS	Lift Station
mg/L	Milligrams per Liter
MGD	Million Gallons Per Day
mL	Milliliters
MLSS	Mixed Liquor Suspended Solids
MLVSS	Mixed Liquor Volatile Suspended Solids
MPN	Most Probable Number -bacteriological well sample
MW	Monitoring Well
N/N	Nitrate/Nitrite
Organic Nitrogen	TKN
P/A	Presence/Absence- bacteriological samples for drinking water
PFAS	polyfluoroalkyl substances
PLC	Programmable Logic Controller
POE	Point of Entry
RAS	Return Activated Sludge
SCADA	Supervisory Control and Data Acquisition
STEP	Septic Tank Effluent Pump
TKN	Total Kjeldahl Nitrogen
TN	Total Nitrogen
TP	Total Phosphorous
TR-6	Copper sequestering chemical for wastewater
TSS	Total Suspended Solids
UV	Ultraviolet Light
WTP	Water Treatment Plant
WWTP	Wastewater Treatment Plant