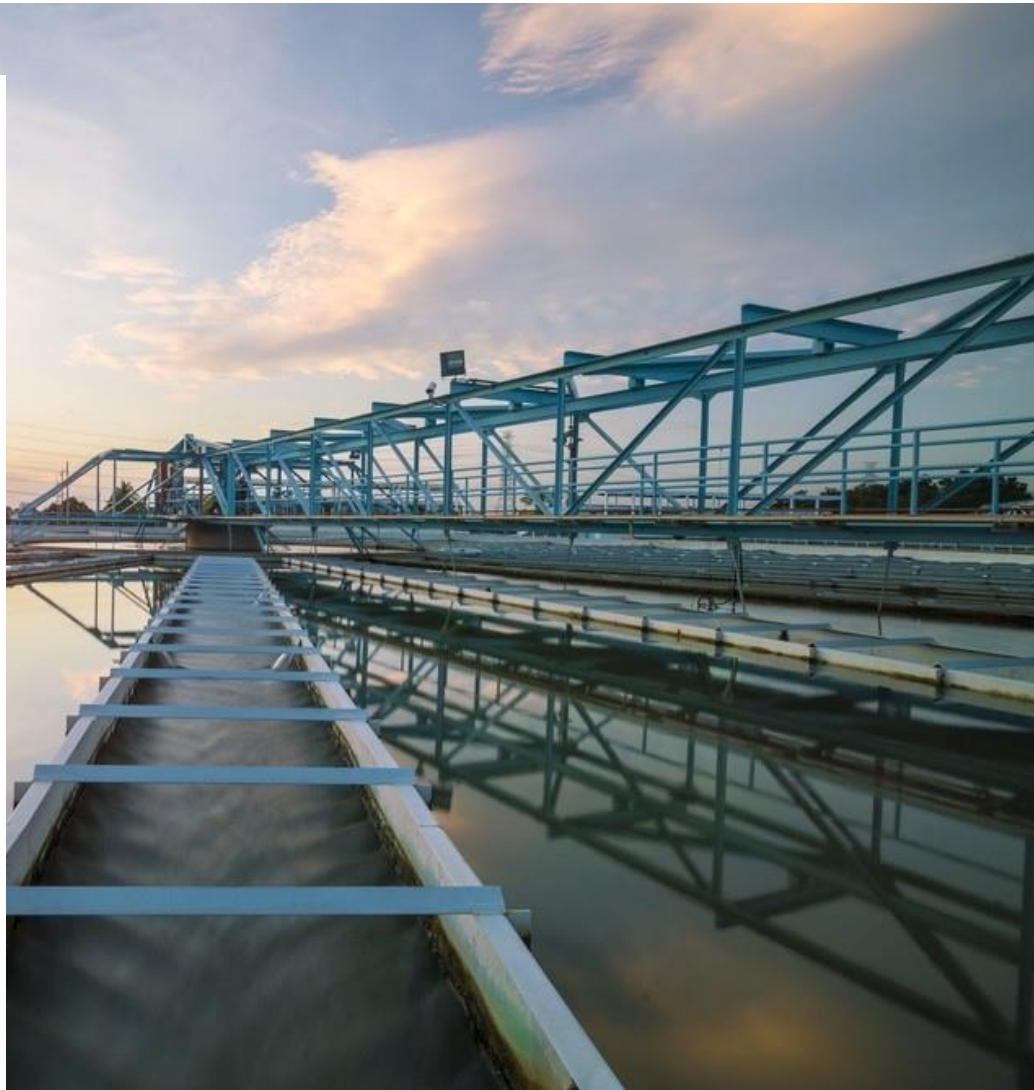


UTILITY REPORT



AUGUST 2024

**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:

- St Paul had a capacitor and starter replaced.
- All Lead and Copper sample kits have been distributed and IES is waiting on the samples to be collected by the customers of King George Service Authority.
- Monthly Bac Ts completed.
- IES staff noticed that the backwash process seemed less efficient, IES staff inspected inside media. Media had plugged the air scour valve, KG Maintenance replaced the valve and cleaned out media from the airline pipe.

Canterbury Subdivision – PWSID 6099085

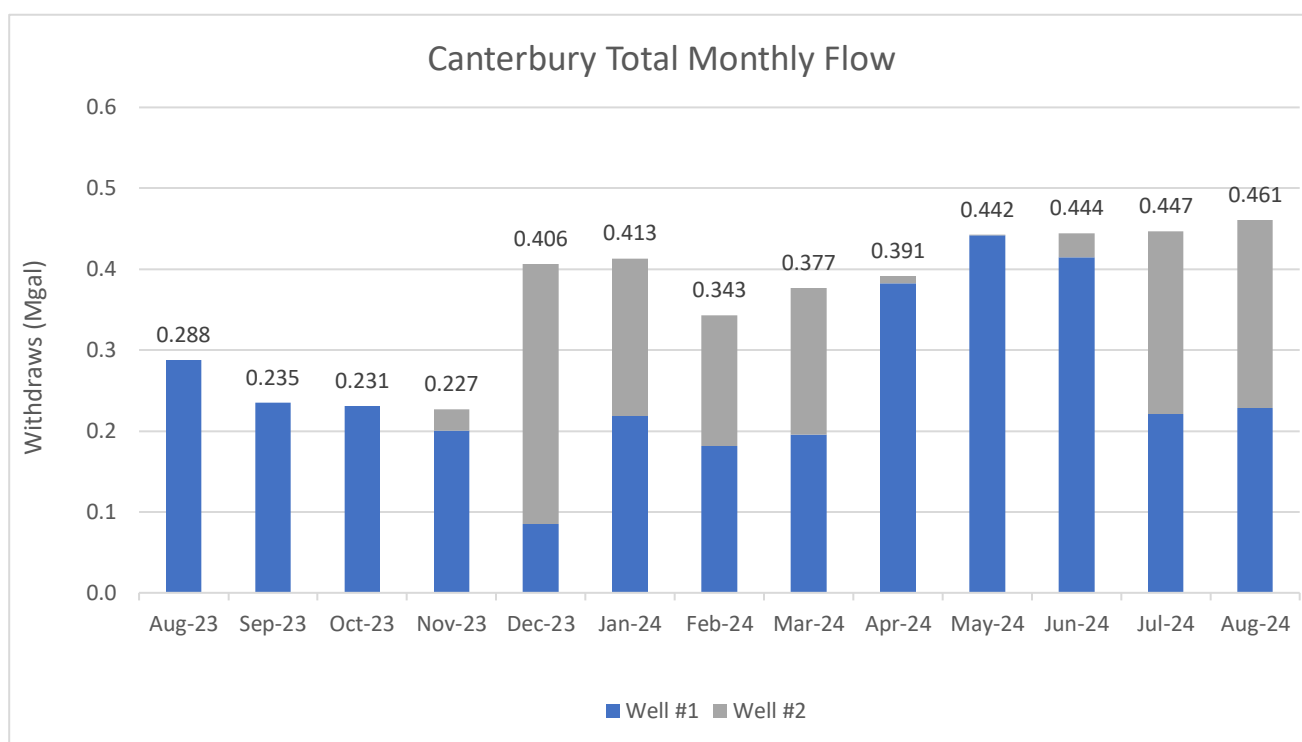
Water Quality:

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
03D	12140 Canterbury Ct.	8/3/2024	Absent

System Production:



Circle – PWSID 6099100

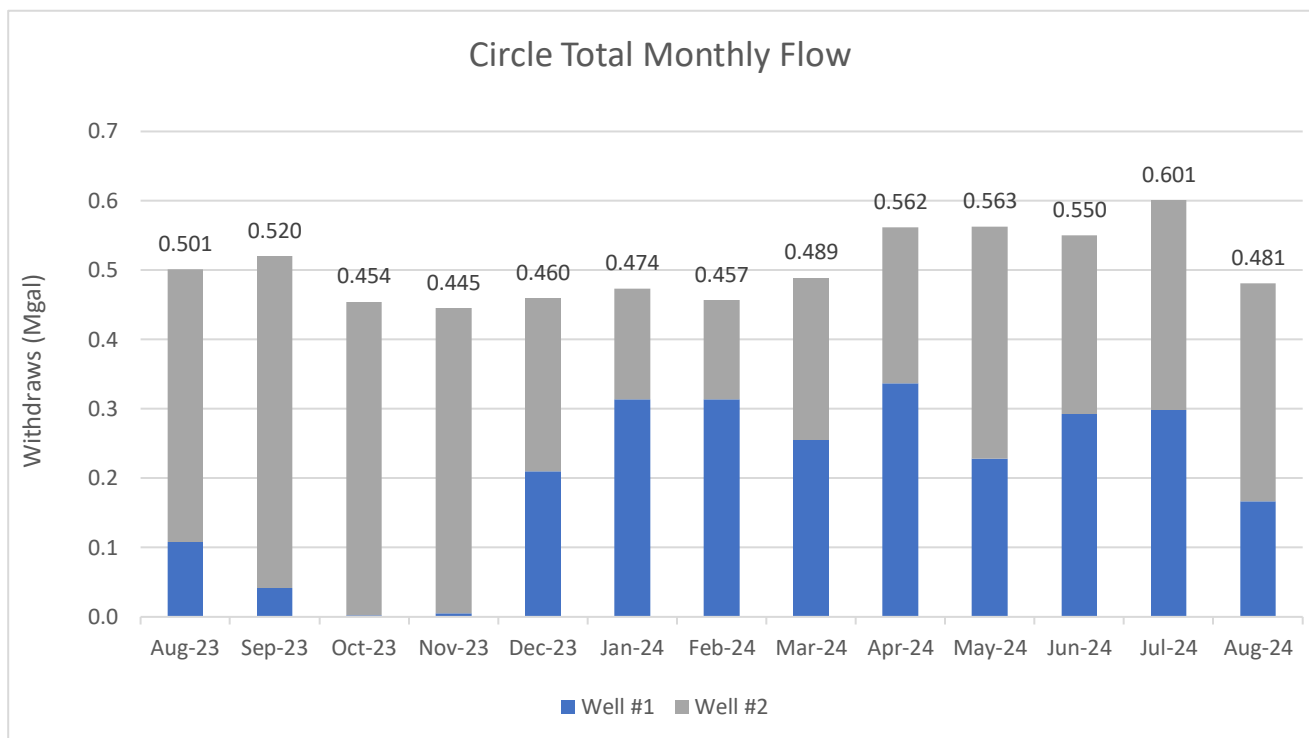
Water Quality:

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
010	11393 Ridge Road	8/15/2024	Absent

System Production:



KGC Courthouse – PWSID 6099050

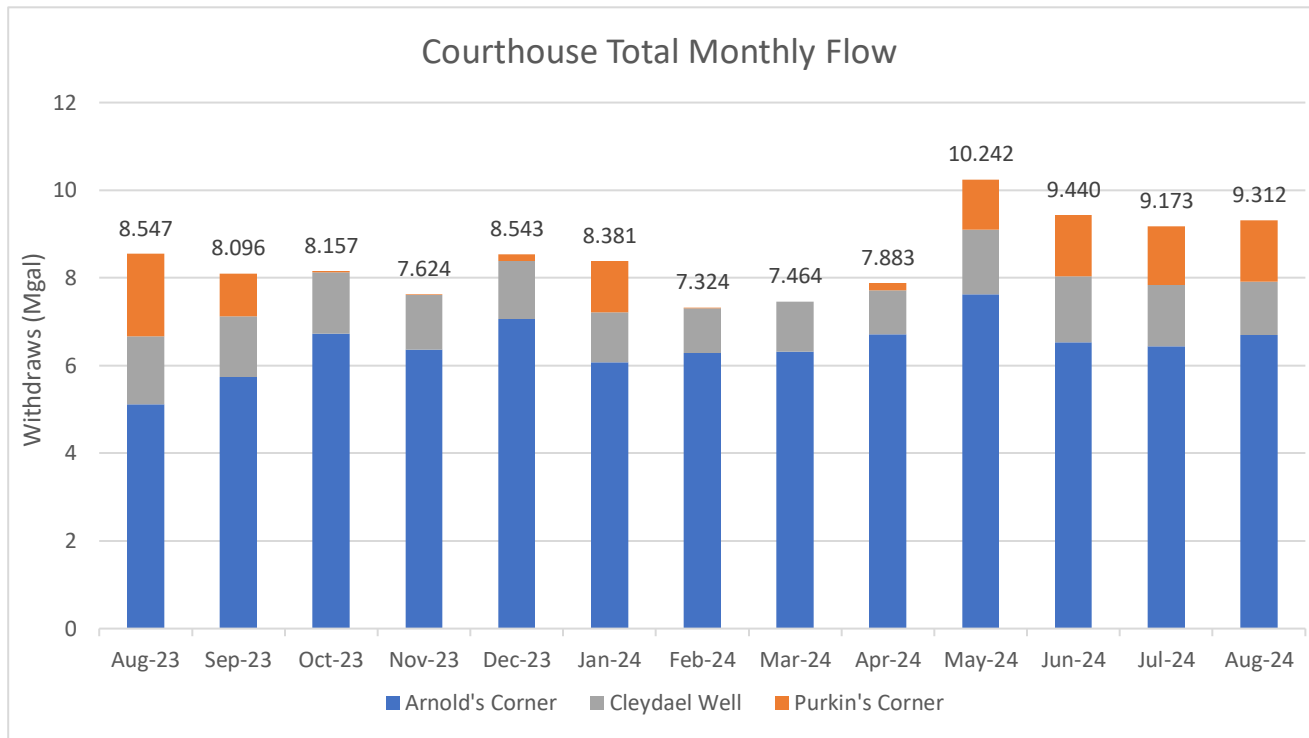
Water Quality:

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
01	10459 Courthouse Drive	8/8/2024	Absent
05	10111 King's Highway	8/13/2024	Absent
01U	12398 Richard's Ride	8/13/2024	Absent
04	8428 Eden Drive	8/13/2024	Absent
09	7323 Jackson Drive	8/13/2024	Absent

System Production:



Dahlgren – PWSID 6099295

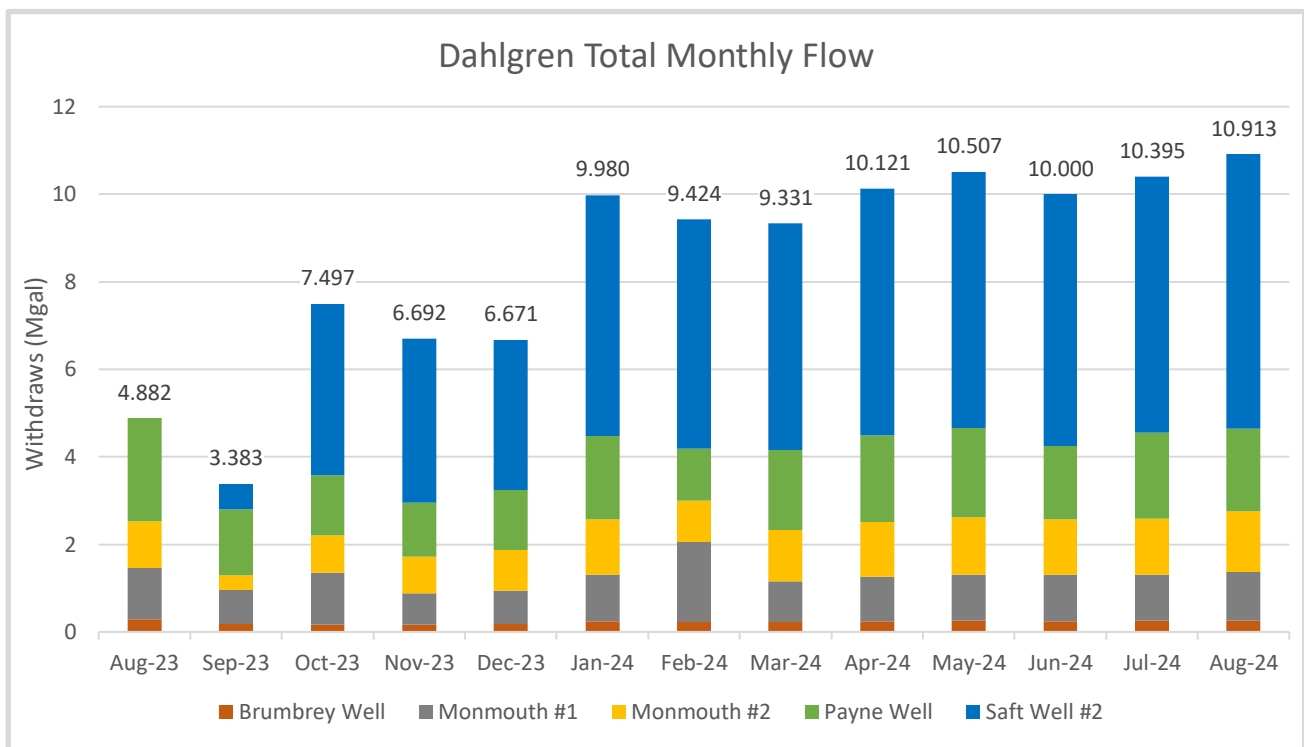
Water Quality:

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
05	5479 Payne Drive	8/15/2024	Absent
06	4417 Danube Drive	8/15/2024	Absent
07	4378 Savannah Street	8/15/2024	Absent

System Production:



Fairview Beach – PWSID 6099250

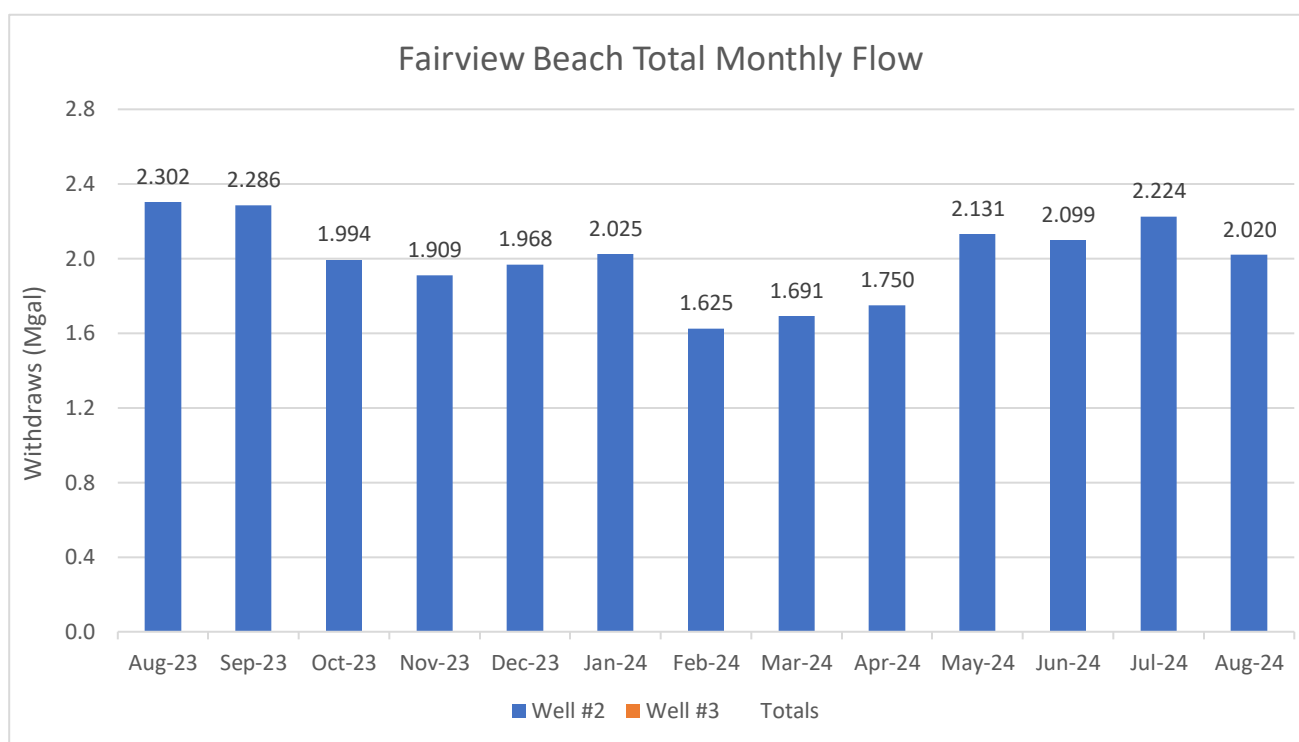
Water Quality:

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	8/8/2024	Absent

System Production:



Hopyard Farm – PWSID 6099283

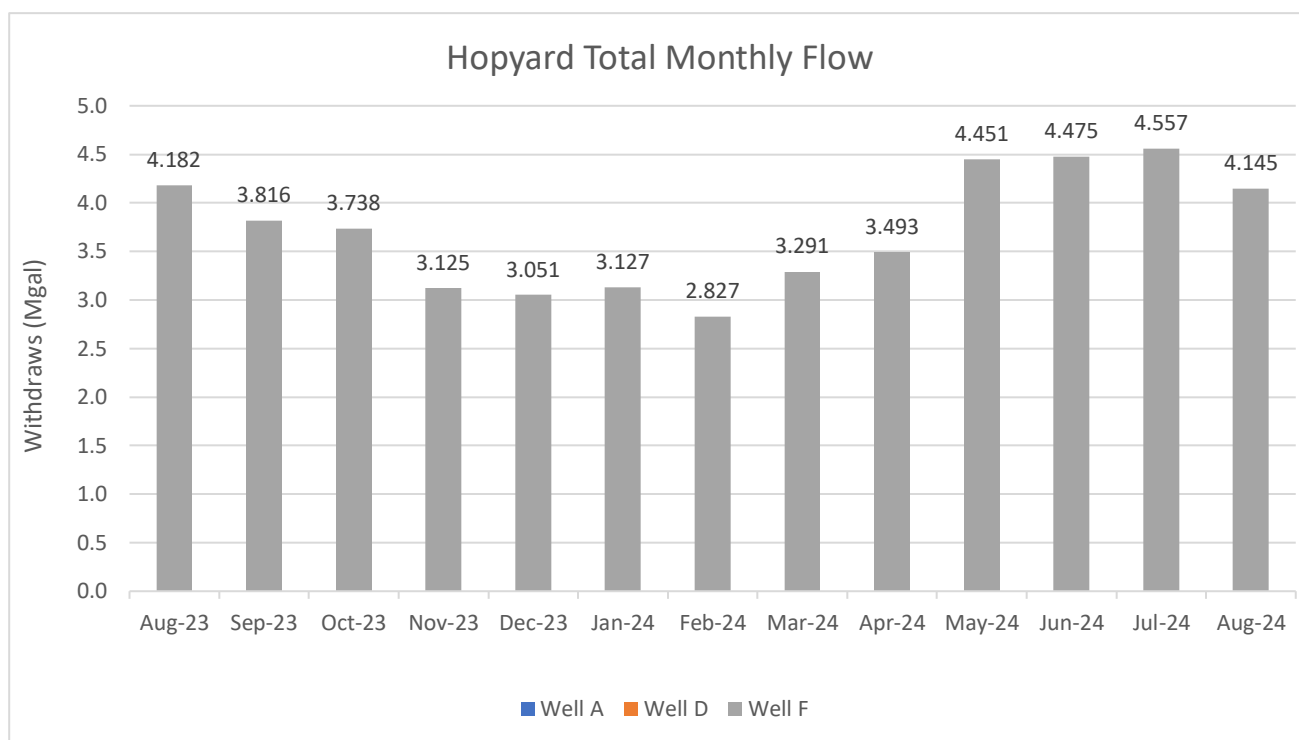
Water Quality:

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
060	5276 Longbow Rd.	8/8/2024	Absent
030	6190 McCarthy Dr.	8/8/2024	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	8/15/2024	Absent

System Production:

- Total well yield for August – 15,000 gallons

Ninde's Store – PWSID 6099300

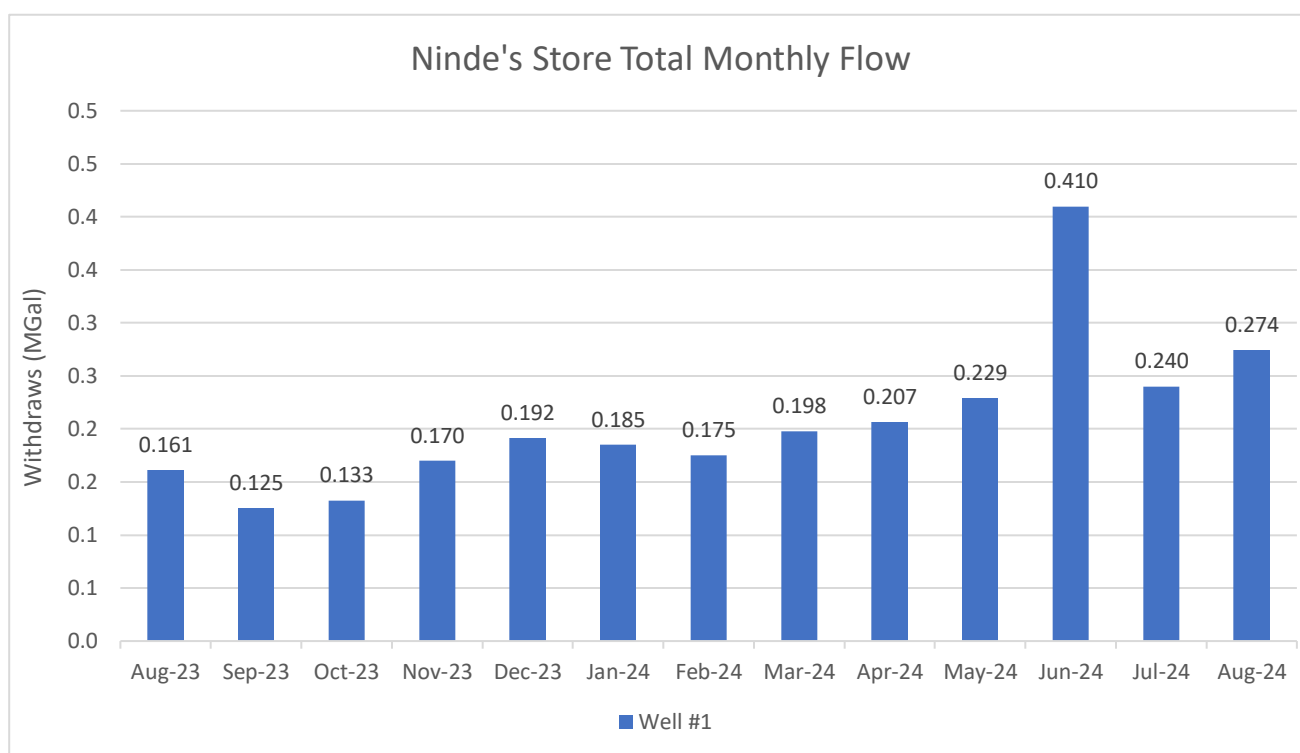
Water Quality:

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
03D	16501 Ridge Road	8/20/2024	Absent

System Production:



Oakland Park – PWSID 6099350

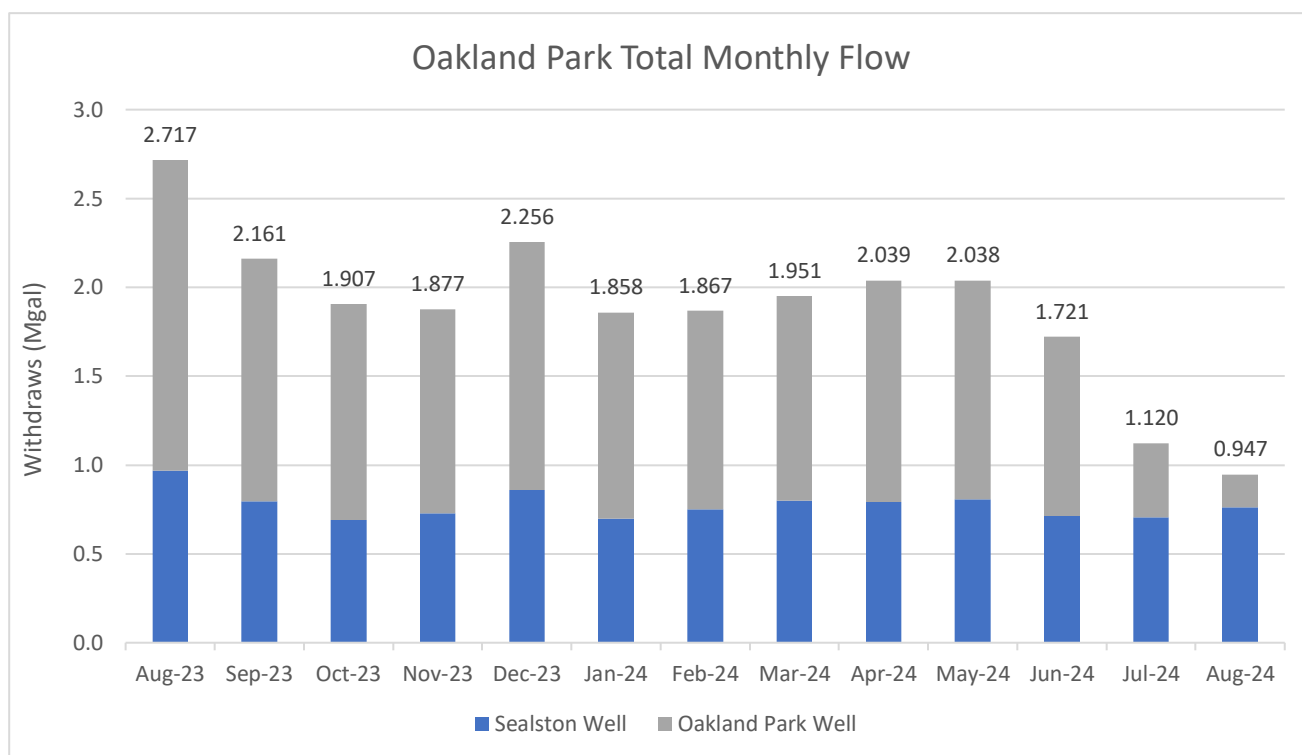
Water Quality:

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
05	10157 Fletcher's Chapel	8/8/2024	Absent
02	9124 Fletcher's Chapel	8/8/2024	Absent

System Production:



St. Paul's/Owens – PWSID 6099550

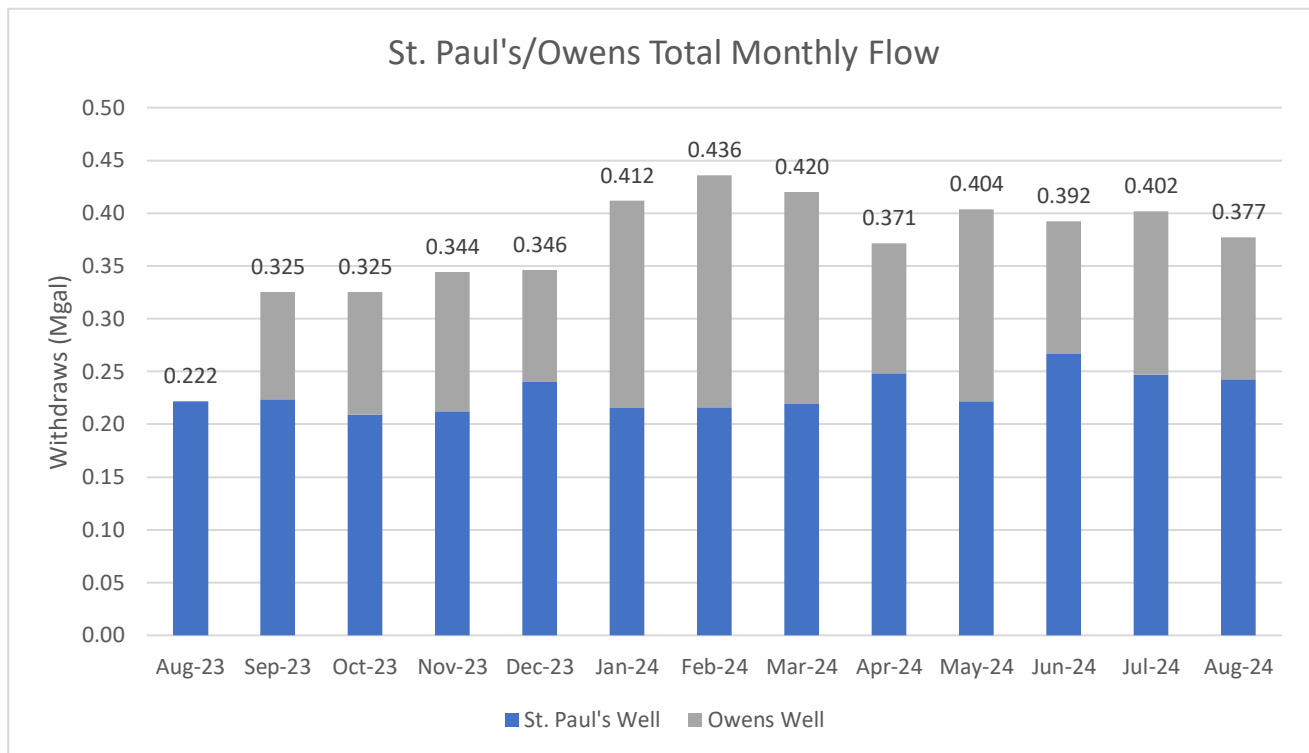
Water Quality:

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
03U	15160 Owen's Dr.	8/15/2024	Absent

System Production:



WASTEWATER

Dahlgren WWTP

Effluent Quality:

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

Wastewater Treatment:

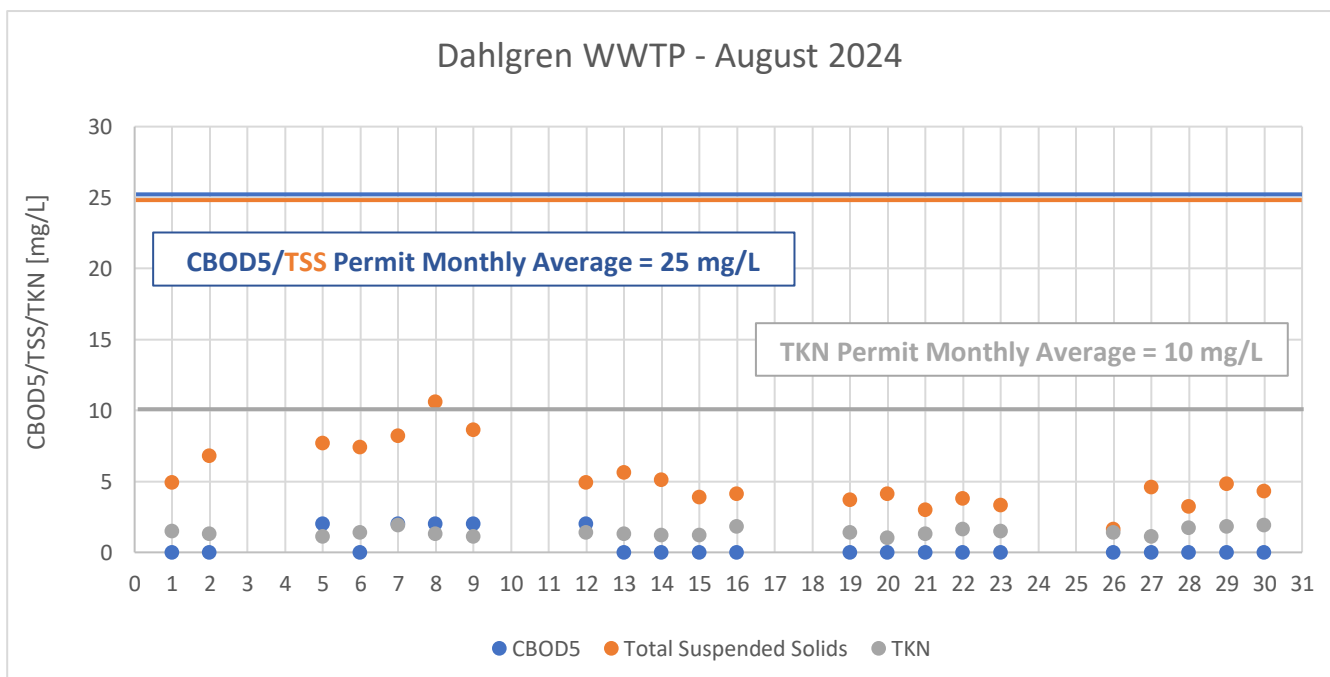
The Dahlgren WWTP met the sewer service area's sanitation demand with an average daily discharge of 0.375 MGD for a total monthly discharge of 11.617 MG.

Operational Notes:

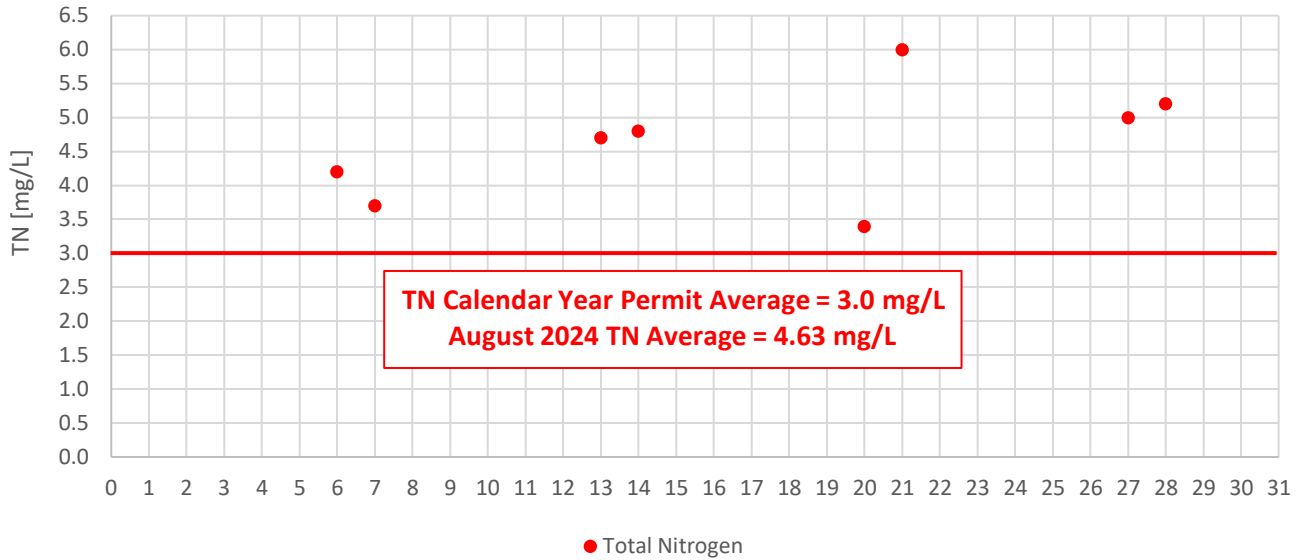
- KG Maintenance and IES staff inspected headworks step screen unit, determined that the rubber sealing up the step screen is compromised and is allowing rags to evade the step screen and enter the wastewater plant.
- KG Maintenance replaced the belts on the belt press; the belts now have fewer problems in processing sludge through the press.
- KG Maintenance replaced the drive chain on rotor #4 which was slipping due to wear and age.
- KG Maintenance replaced mixer #4.
- KG Maintenance replaced an air valve to pre-EQ basin.

Data Trending:

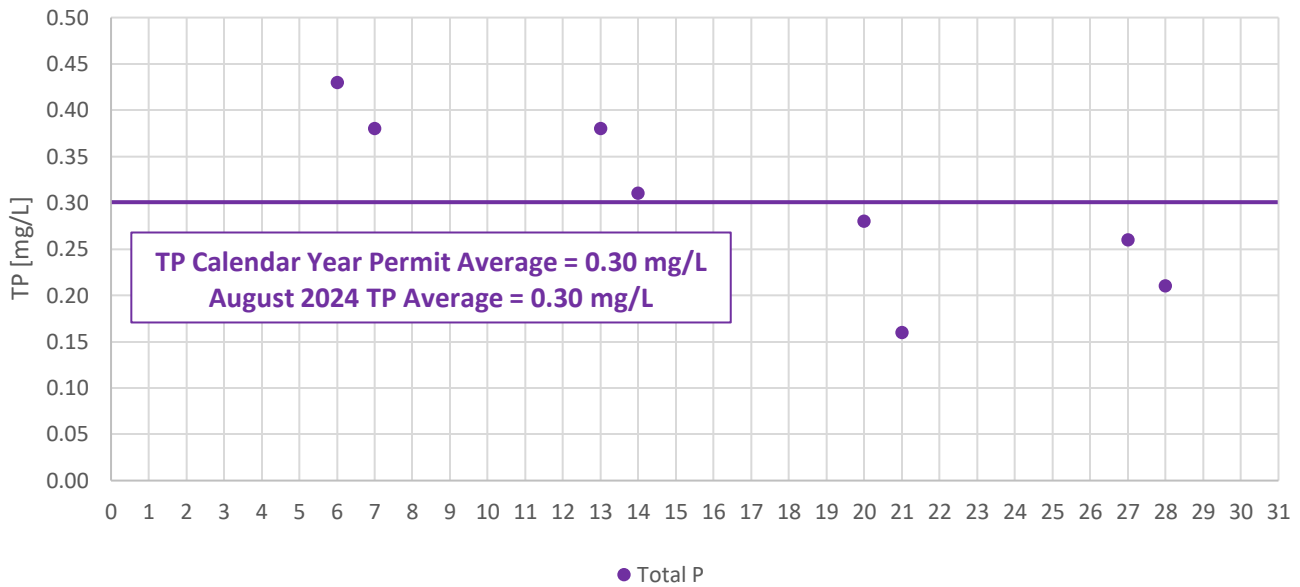
The following charts depict a graphical analysis of effluent quality monitoring and treatment plant daily and total monthly flows.

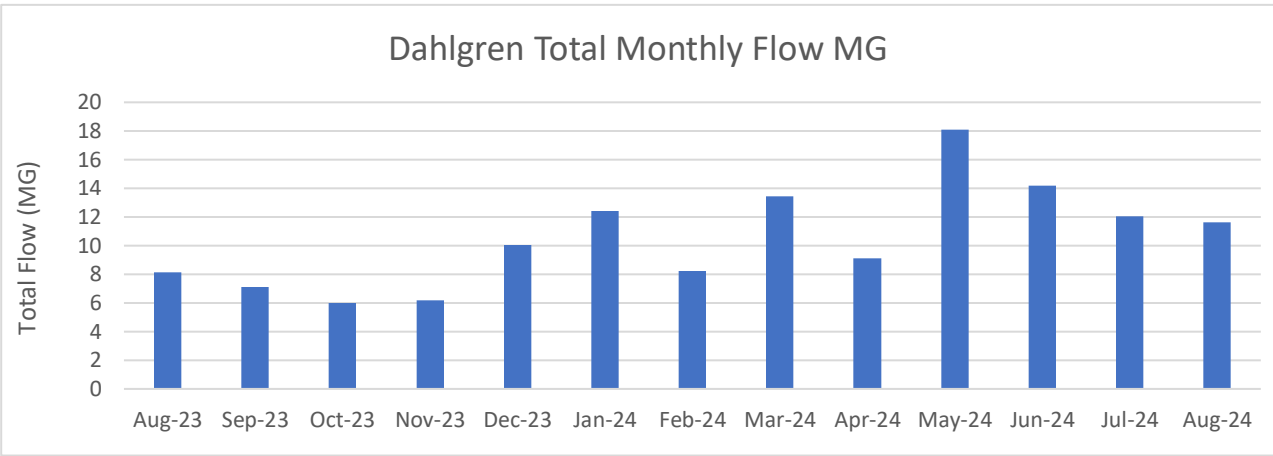
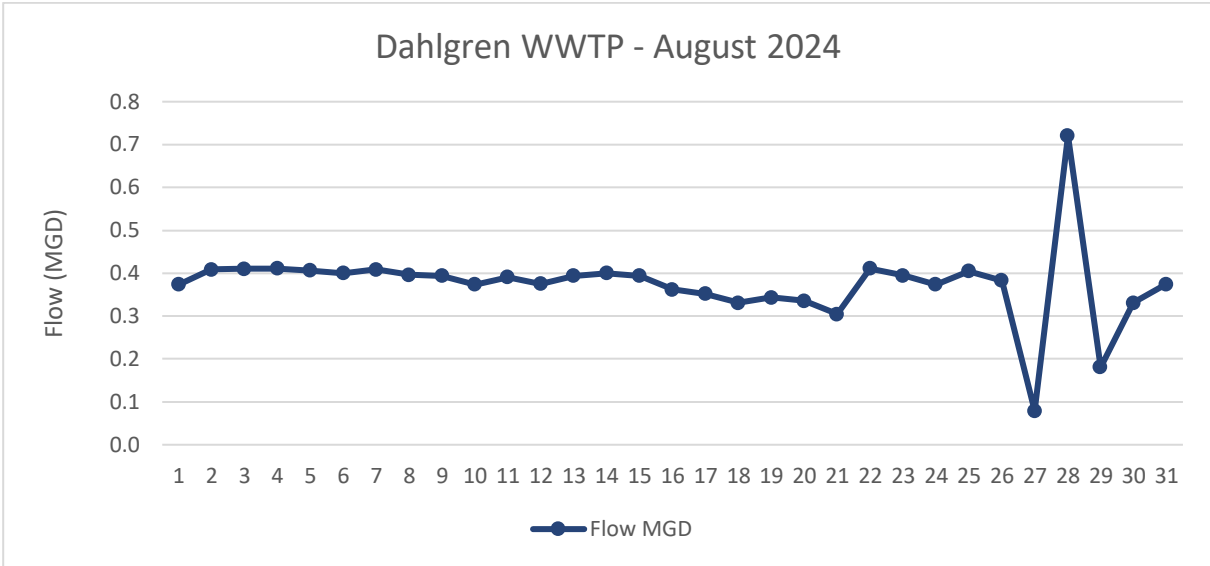


Dahlgren WWTP - August 2024



Dahlgren WWTP - August 2024





Hopyard Farms WWTP

Effluent Quality:

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

Wastewater Treatment:

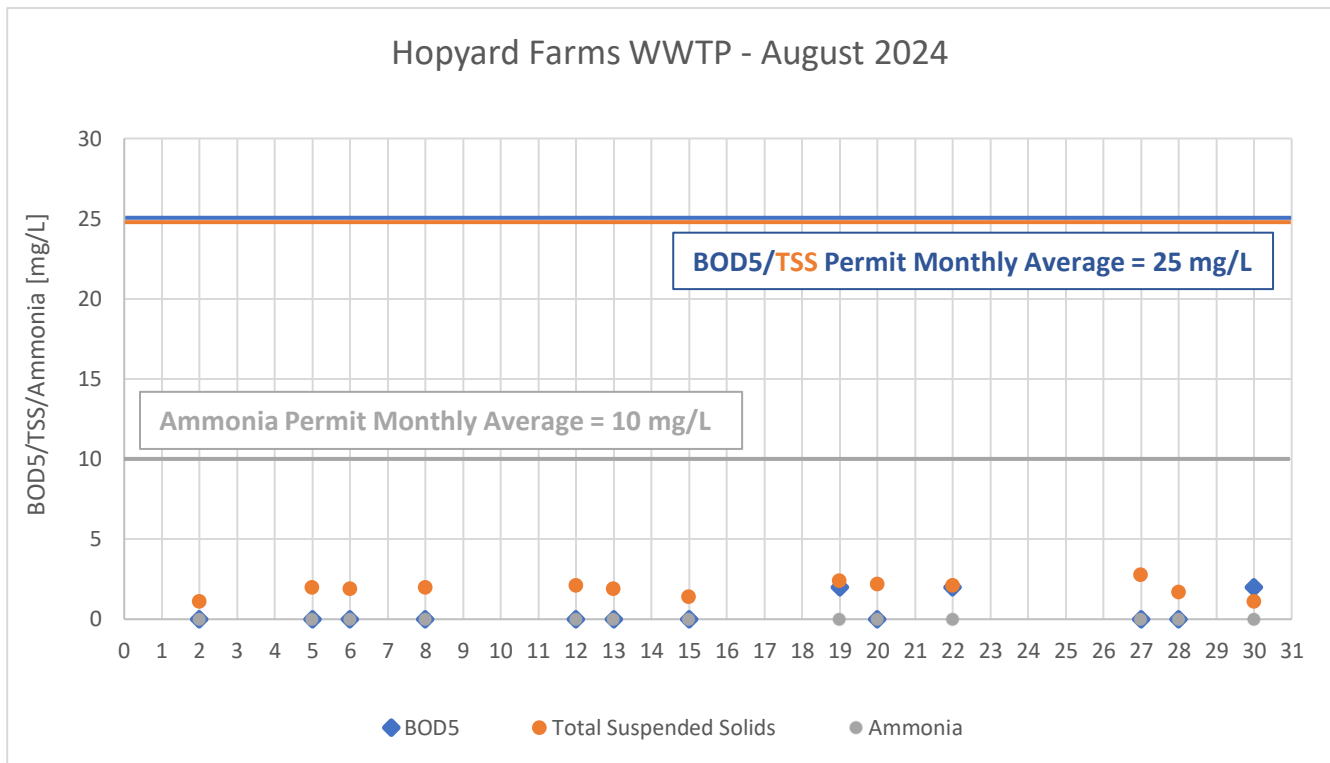
The Hopyard Farms WWTP met the sewer service area's sanitation demand with an average daily discharge of 0.103 MGD for a total monthly discharge of 2.578 MG (25 days with flow).

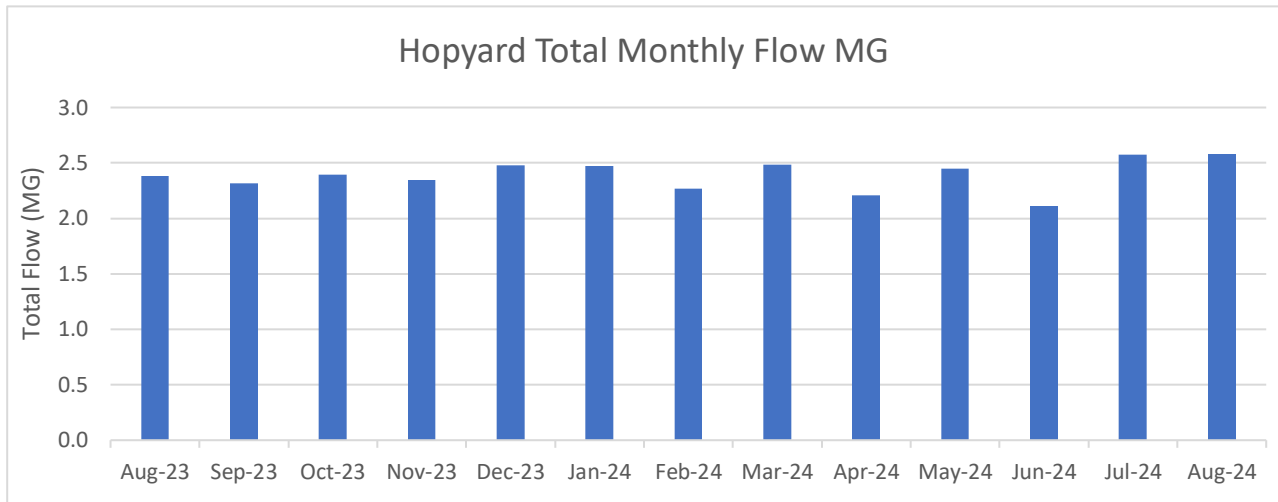
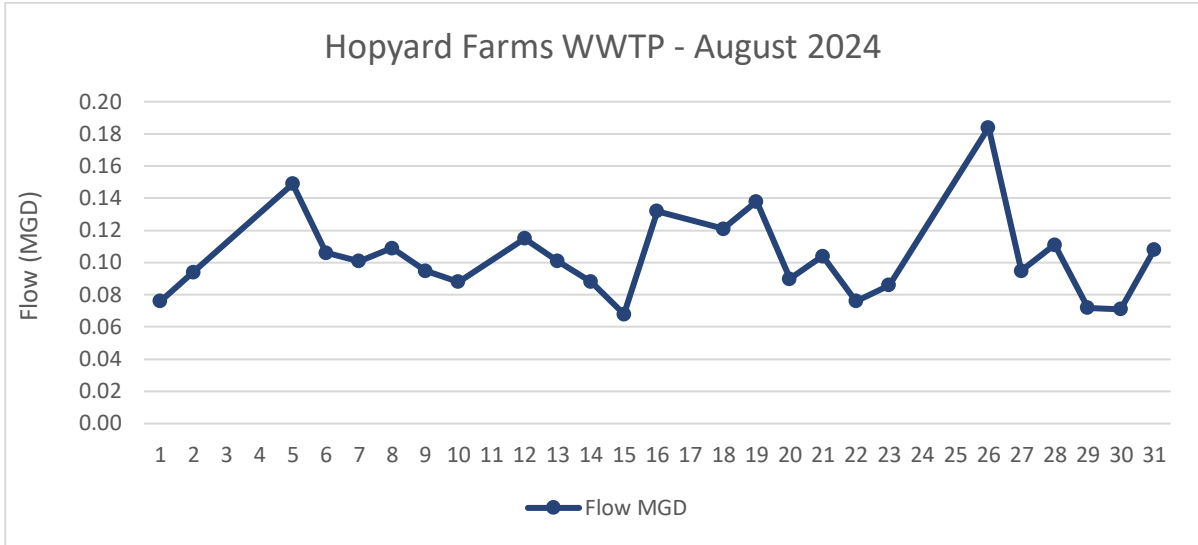
Operational Notes:

- IES staff noted that after cables were replaced and put back to O & M spec the level could not be pulled down as low as it was able, KGM lengthened the cables to a more suitable length.

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 permit-required sampling except for TSS. The TSS exceeded the weekly average during the week of August 18-24 with an average of 15.1 mg/L, and exceeded the monthly permit limit with a concentration of 12.2 mg/L. It was determined that the elevated TSS concentrations were due to the failed anoxic mixer.

Wastewater Treatment:

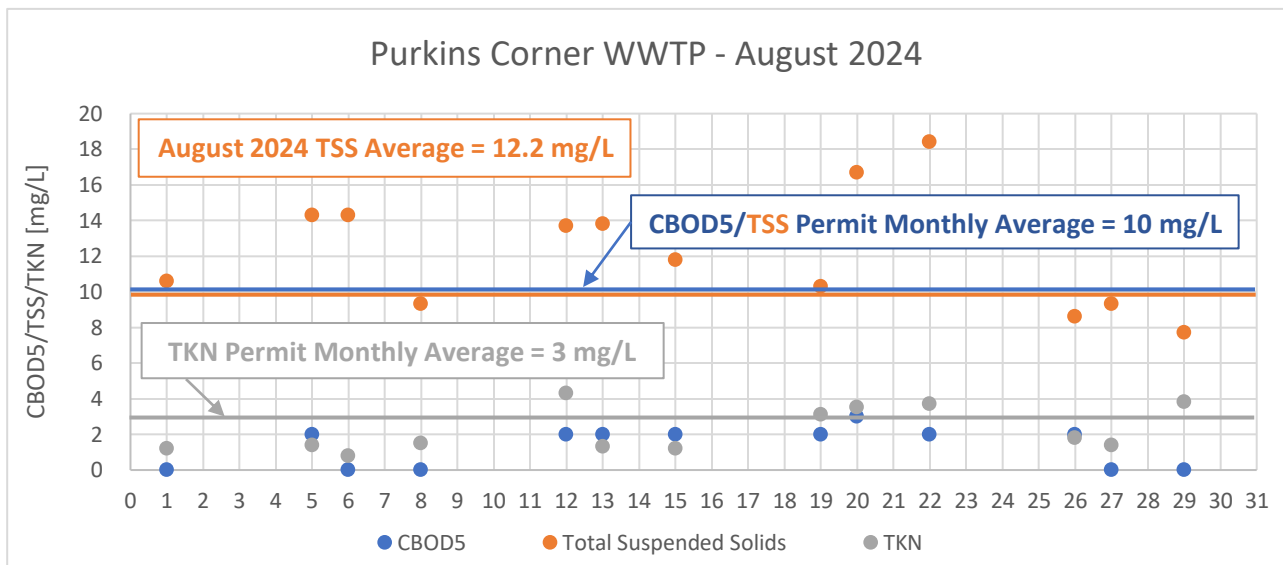
The Purkins Corner WWTP met the sewer service area's sanitation demand with an average daily discharge of 0.062 MGD for a total monthly discharge of 1.915 MG.

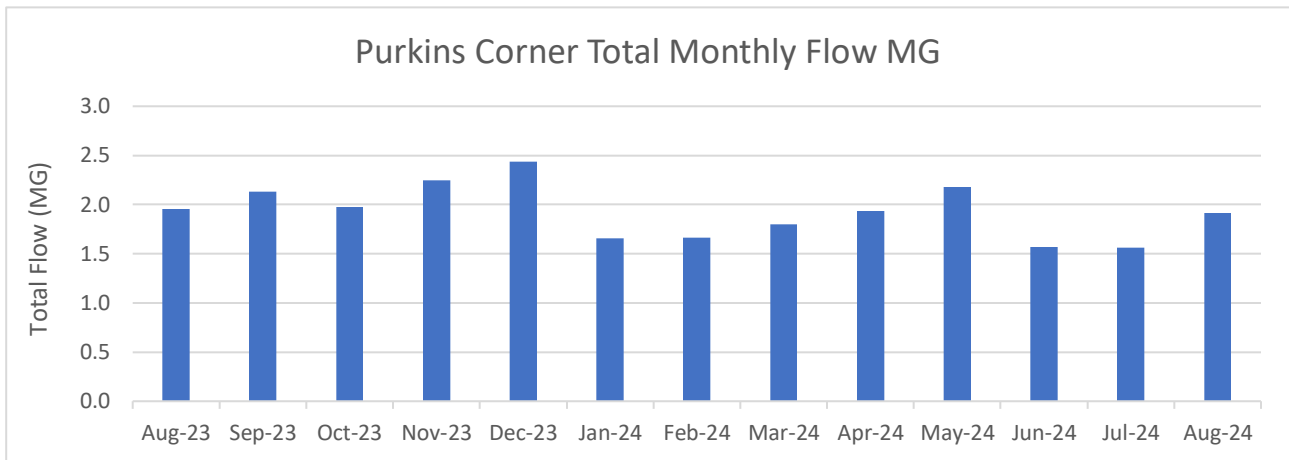
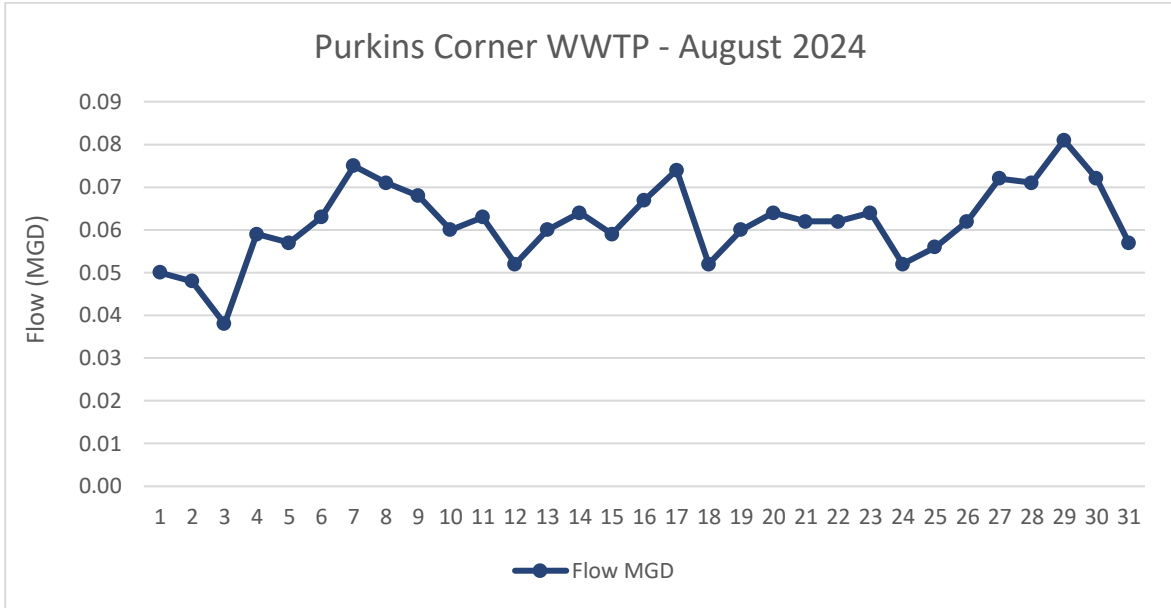
Operational Notes:

- KGM blew out the WAS line from B plant with compressed air.
- IES staff noted that the effluent flow meter seemed to be faulty. KGM repaired it.
- IES staff noted that conditions in the anoxic zone were deteriorating due to a mixer failure. KGM initiated draining the anoxic zone. IES staff temporarily rerouted influent flow to the aeration basin until a mixer can be reinstalled. A spare mixer is recommended.

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:

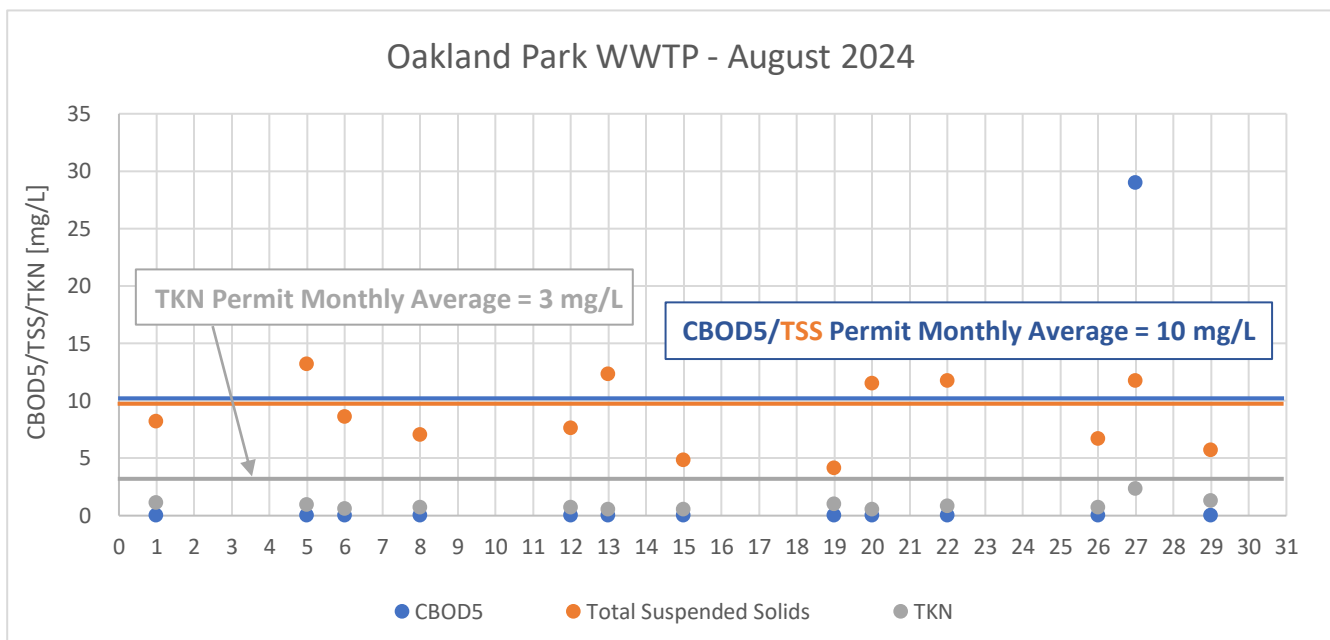
The Oakland Park WWTP met the sewer service area's sanitation demand with an average daily discharge of 0.047 MGD for a total monthly discharge of 1.449 MG.

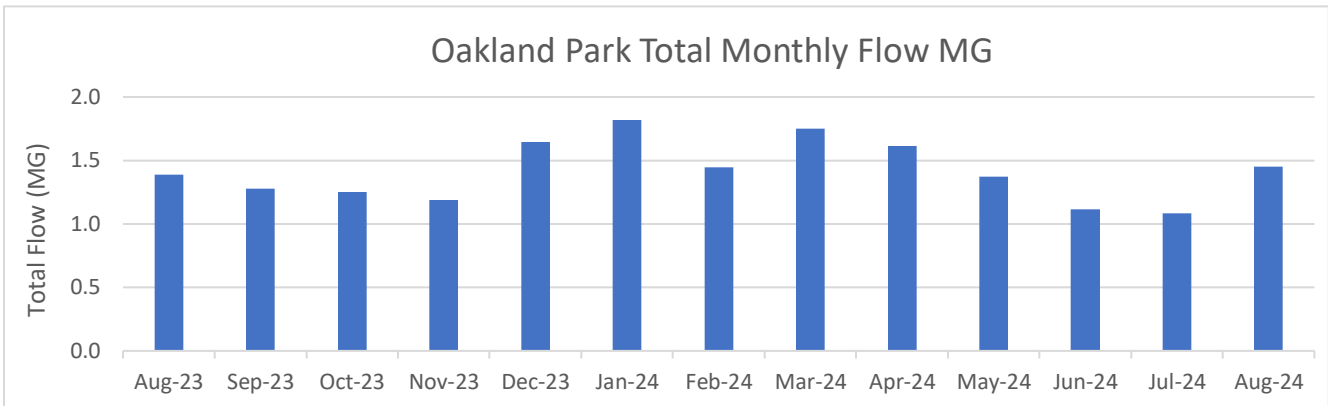
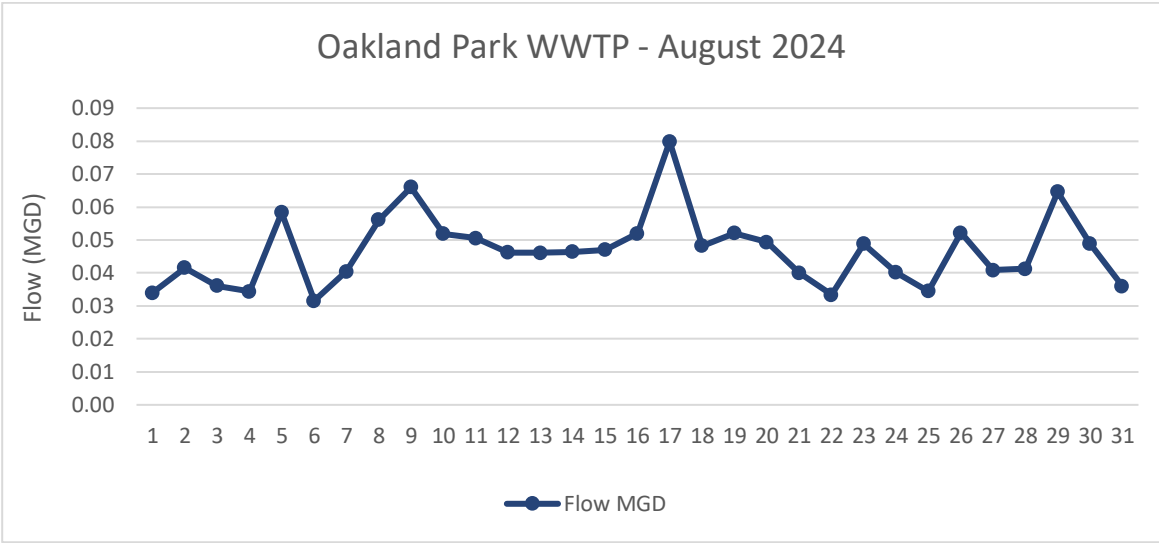
Operational Notes:

- A Kaeser service technician completed maintenance on the blowers. A faulty temperature sensor was found which was replaced during a follow-up visit.
- KGM replaced a septic pumping hose on the digester suction line.
- Kaeser rep on site. IES staff spoke with rep about proper operation of the blower system and what would be needed to operate the aeration system more effectively.
- Preventative maintenance was performed on the generator.
- The sand filter on Plant B is still offline; needs the media to be replaced and the airline fixed. This is causing treatment issues in removing TSS and some colloidal solids which is inherently affecting phosphorous removal as well.

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 0.069 MGD for a total monthly discharge of 1.864 MG (27 days with flow).

Operational Notes:

- KGM set overload on blower #1 due to it tripping out.
- IES staff drained and cleaned the Post EQ (removed the algae).
- IES staff replaced faulty components in the UV system that was only affecting one module.
- KGM replaced a level transducer in the plant site pump station.

Data Trending:

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

