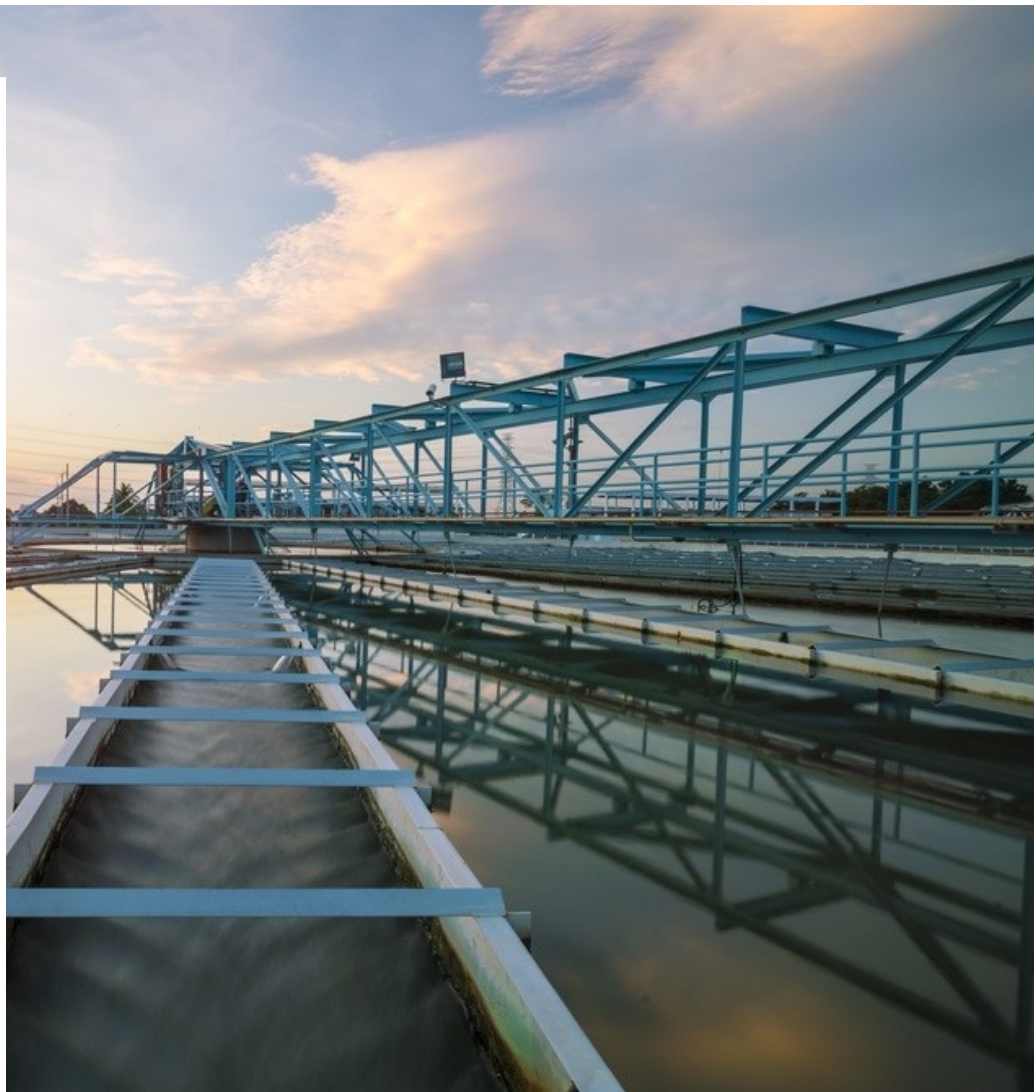


# UTILITY REPORT

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**OCTOBER 2023**

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**King George County  
Service Authority**

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

**Initial Summary Report**



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# 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.

## Abbreviated Utility Report

This report is an initial abbreviated report to summarize October operations for the King George County Service Authority's meeting on November 14, 2023. A full report will be provided for the next meeting in December 2023.

## WATER

### Monthly Operation Notes:

- KG maintenance drained water tower on Manmouth water system to prepare for tank cleaning and inspection.
- Replaced chemical dosing pump at Bumbrey due to reliability concerns and to standardize all chemical dosing pumps.
- IES met with KG and DEQ at Potomac, Cleydael, and Saft (proposed well corner of 218 and 301)
- Fully switched to Brenn Tag for chemical orders. Sodium Hypochlorite seems easy to acquire for now.
- Continuing to backwash greensand filters to maximize Iron and Manganese capture.
- IES operations staff noticed that Circle 1 flow was reducing and then stopped flowing and notified KG maintenance. A pressure switch was replaced, and hour meter installed by KG maintenance.

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# WASTEWATER

## Monthly Operation Notes:

### Dahlgren WWTP

- Performed WET testing as required by permit. All sample results were within range.
- Experienced issues with influent step screen tripping out. KG maintenance replaced bearings and motor to prevent electrical faulting.
- IES staff noticed that the bearings for rotor 2 were loose. KG maintenance performed the repair procedure. This required the rotors to be in the off position for an extended period of time, so IES operations staff stopped flow to allow them to work on the rotor units.
- KG maintenance sent a reuse pump off for repair. In the interim period, IES is utilizing reuse water sparingly due to importance of water use on belt press.

### Fairview Beach WWTP

- KG maintenance disassembled decant valve for SBR 2 to check inners for wear and tear. Unfortunately, valve was not able to be repaired as is. KG maintenance ordered a new valve. Will install later when it arrives.
- IES staff set flow rate by using hand-valves to allow more effective disinfection of effluent flow through UV channel.
- Power blip caused automation to fail, KG maintenance noticed the UPS was not connected correctly, and acquired a cord to hook back up, which should keep from losing program in the future.

### Purkins Corner WWTP

- Overflow caused by nitrate recycle pump line splitting apart through the night and was discovered by IES staff next morning. Area was limed and cleaned as per DEQ requirements. KG Maintenance repaired and replaced piping and other hardware to help prevent future events from ever occurring. Incident was reported to DEQ and County Administration.
- IES and KG maintenance met to discuss alarms and levels of tanks to receive proper notification and to respond to high level situations. KG maintenance to order proper equipment.
- Disc filter waste/backwash motor repaired/replaced by KG maintenance.
- KG maintenance replaced level transducer in surge tank to help effective operation of surge tank. Old transducer was unresponsive.

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## Oakland Park WWTP

- KG Maintenance ordered new impeller for Plant B EQ pump. This new pump should help achieve a more consistent flow rate to Plant B.
- Mixer contactor was discovered to be burnt out completely. Maintenance wired up for temporary operation, after a few days the mixer stopped working. No evidence of physical damage. Warranty investigation has been started.
- Directing more Influent flow to "B" plant while "A" plant is without optimum operation due to no mixer in operation.
- IES and KG maintenance met up to discuss alarms and levels of tanks to receive proper notification to respond to high level situations. KG maintenance to order proper equipment.

## Hopyard WWTP

- PLC was upgraded with a new version of software that provides trending for parameters in the past 12 hours that will help dial the wastewater plant operations in. During the upgrade equipment was energized and allowed some operational anomalies to occur. This provided challenges for both IES and KGS Maintenance.
- Air compressor for UV wiping failed, KG Maintenance replaced.
- Operations altered due to error caused by Aqua Aerobics causing more blowers to run more frequently for the current time.

## All Facilities

- Chemical supplier change has proven to be very difficult due to supplier not have having stock ready for King George. IES staff remained diligent in communicating the needs of the County to remain in compliance. Communication is improving, hopefully so will chemical supply stock.

