

**MAINTENANCE DEPARTMENT  
MONTHLY OPERATIONS REPORT  
FOR THE MONTH OF: JUNE 2020  
PREPARED: JULY 2020**

| MEASURE                            | MONTH  | UNITS   | FY YTD  | UNITS   |
|------------------------------------|--------|---------|---------|---------|
| WORK ORDERS (W.O.) PROCESSED       | 223    |         | 1531    | #       |
| STAFF HOURS REQUIRED FOR W.O.      | 428.5  | HRS.    | 4190.5  | HRS.    |
| NON-CORE DUTIES HOURS              | 115    | HRS.    | 479.25  | HRS.    |
| CD. MAN HOURS REQUIRED FOR WO      | 313.5  | HRS.    | 3358.25 | HRS.    |
| PM FIRE HYDRANTS                   | 83     |         | 147     |         |
| FIRE HYDRANT REPAIR                | 0      |         | 3       |         |
| PM VALVE EXERCISED                 | 0      |         | 178     |         |
| MANHOLE INSPECTIONS                | 0      |         | 11      |         |
| CCTV SEWER LINE                    | 300    | L. FT.  | 2,904   | L. FT.  |
| SEWER LINE CLEANED                 | 998    | L. FT.  | 3,664   | L. FT.  |
| SL RAT INSPECTIONS                 | 0      | L. FT.  | 11,911  | L. FT.  |
| VEHICLES SERVICED/REPAIRED         | 9      |         | 96      |         |
| # OF WATER BREAKS                  | 0      |         | 1       |         |
| # OF SEWER BACKUPS                 | 0      |         | 9       |         |
| # OF CLEANOUTS INSTALLED           | 0      |         | 4       |         |
| # OF MISS UTILITY TICKETS          | 182    |         | 1236    |         |
| # OF METERS READ                   | 24     |         | 236     |         |
| # OF METERS SHUT OFF               | 0      |         | 29      |         |
| # OF METERS TURNED ON              | 0      |         | 27      |         |
| # OF REPLACED METERS               | 0      |         | 0       |         |
| # OF REPLACED REGISTERS            | 0      |         | 0       |         |
| # OF NEW ACC. METER INSTALLS       | 3      |         | 12      |         |
| # OF LEAK CHECKS                   | 65     |         | 358     |         |
| # OF REPLACED MIUs (Radios)        | 55     |         | 380     |         |
| CUSTOMER COMPLAINTS                | 0      |         | 0       |         |
| WATER COMPLAINTS REC'D             | 0      |         | 0       |         |
| WATER COMPLAINTS RESOLVED          | 100    | %       | 100     | %       |
| WASTEWATER COMPLAINTS REC'D        | 0      |         | 0       |         |
| WASTEWATER COMPLAINTS RES'D        | 100    | %       | 100     | %       |
| BULK WATER GALLONS AT NEW RATE     | 0      | Gallons | 0       | Gallons |
| BULK WATER SALES-(rate \$15.18per) | \$0.00 |         | \$0.00  |         |
|                                    |        |         |         |         |
|                                    |        |         |         |         |

**ACCOMPLISHMENTS**

Cleared/Trimmed limbs along the Chapman/DeMary Trail  
 Weekly Mowing Operations  
 Weed control on numerous steets/parking lots  
 Fleet Maintenance  
 Assisted PD Dept with road closures for First Amendment Demonstration  
 Emptied public trash cans weekly  
 Cleaned and restocked dog waste stations weekly  
 Community event sign work orders  
 ROW tree trimming in Courtland Square, Kingsbridge, 287 walking trail and Stephens Ln.  
 Cleaned curb/gutter on WT Druhan Blvd, Ken Culbert and 26th St.  
 Drainage repairs on S. 26th St. and S. 18th St.  
 Relocated data radar signs to East E St.  
 Equipment Repairs  
 Sign Repairs and replacement  
 Brush hogged easements at Forbes Well locations  
 Removed fallen tree in Suzanne Kane Nature park  
 Assisted paving contractor with No Parking signs as needed  
 Mowed contractor's areas due to default in contract.

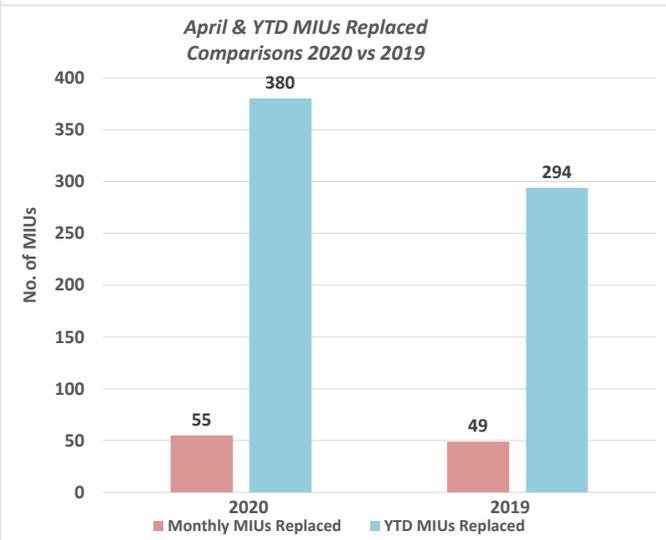
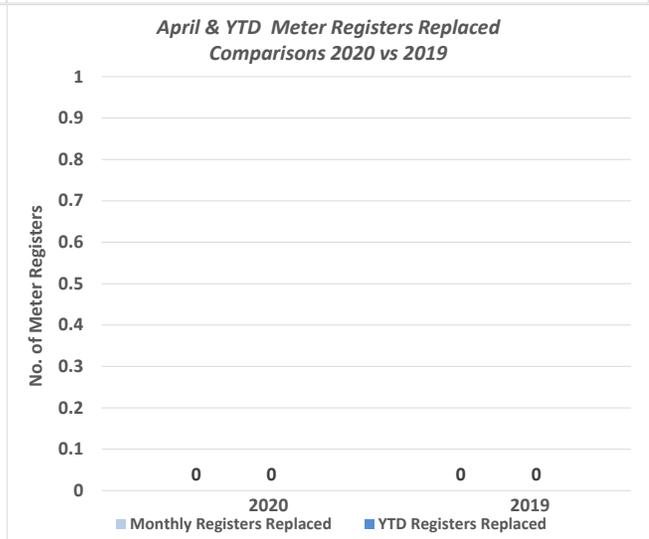
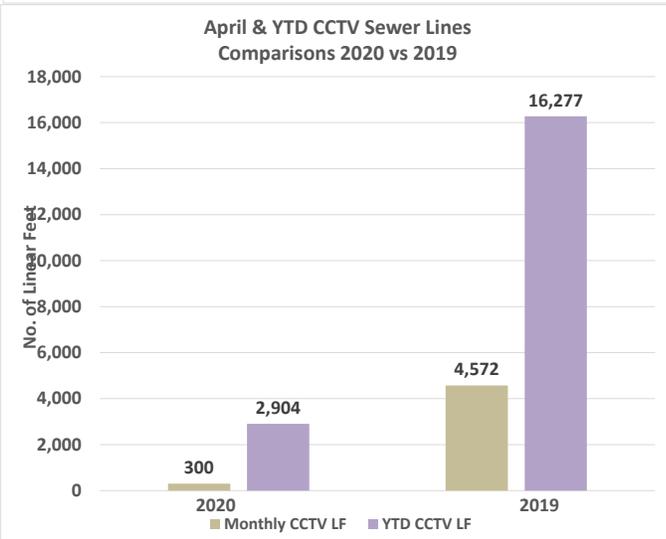
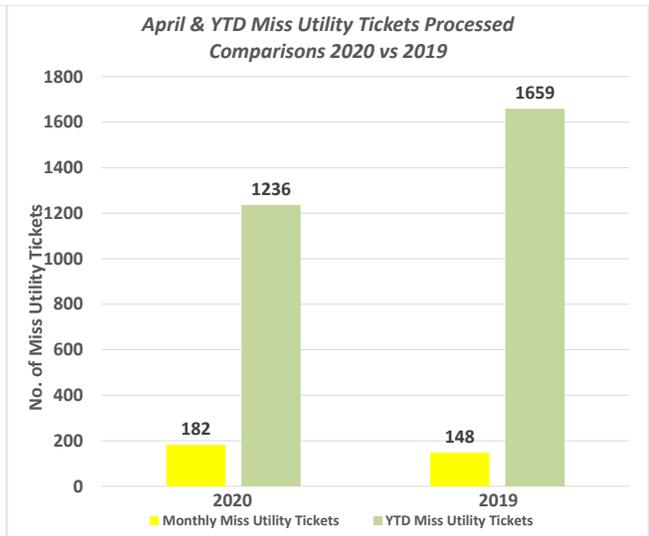
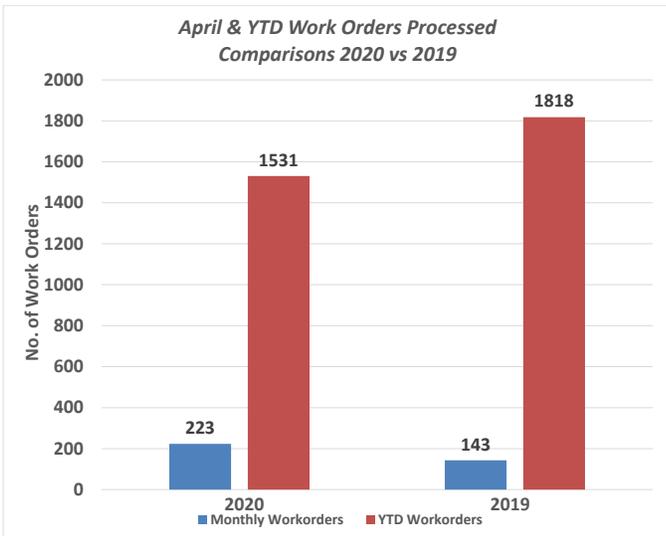
**MAINTENANCE DEPARTMENT  
MONTHLY OPERATIONS REPORT  
FOR THE MONTH OF: JUNE 2019  
PREPARED: JULY 2019**

| MEASURE                            | MONTH  | UNITS   | FY YTD  | UNITS   |
|------------------------------------|--------|---------|---------|---------|
| WORK ORDERS (W.O.) PROCESSED       | 143    |         | 1818    | #       |
| STAFF HOURS REQUIRED FOR W.O.      | 386.48 | HRS.    | 4877.16 | HRS.    |
| NON-CORE DUTIES HOURS              | 109.75 | HRS.    | 1089.5  | HRS.    |
| CD. MAN HOURS REQUIRED FOR WO      | 276.73 | HRS.    | 3486.01 | HRS.    |
| PM FIRE HYDRANTS                   | 25     |         | 168     |         |
| FIRE HYDRANT REPAIR                | 0      |         | 1       |         |
| PM VALVE EXERCISED                 | 0      |         | 404     |         |
| MANHOLE INSPECTIONS                | 0      |         | 283     |         |
| CCTV SEWER LINE                    | 4,572  | L. FT.  | 16,277  | L. FT.  |
| SEWER LINE CLEANED                 | 4,239  | L. FT.  | 15,386  | L. FT.  |
| SL RAT INSPECTIONS                 | 1,461  |         | 54,347  | L. FT.  |
| VEHICLES SERVICED/REPAIRED         | 6      |         | 158     |         |
| # OF WATER BREAKS                  | 0      |         | 5       |         |
| # OF SEWER BACKUPS                 | 1      |         | 3       |         |
| # OF CLEANOUTS INSTALLED           | 0      |         | 0       |         |
| # OF MISS UTILITY TICKETS          | 148    |         | 1659    |         |
| # OF METERS READ                   | 44     |         | 335     |         |
| # OF METERS SHUT OFF               | 1      |         | 43      |         |
| # OF METERS TURNED ON              | 0      |         | 45      |         |
| # OF REPLACED METERS               | 0      |         | 21      |         |
| # OF REPLACED REGISTERS            | 0      |         | 0       |         |
| # OF NEW ACC. METER INSTALLS       | 9      |         | 77      |         |
| # OF LEAK CHECKS                   | 43     |         | 464     |         |
| # OF REPLACED MIUs (Radios)        | 49     |         | 294     |         |
| CUSTOMER COMPLAINTS                | 0      |         | 23      |         |
| WATER COMPLAINTS REC'D             | 0      |         | 0       |         |
| WATER COMPLAINTS RESOLVED          | 100    |         | 100     |         |
| WASTEWATER COMPLAINTS REC'D        | 0      |         | 7       |         |
| WASTEWATER COMPLAINTS RES'D        | 100    |         | 100     |         |
| BULK WATER GALLONS AT NEW RATE     | 0      | Gallons | 0       | Gallons |
| BULK WATER SALES-(rate \$15.18per) | \$0.00 |         | \$0.00  |         |
|                                    |        |         |         |         |
|                                    |        |         |         |         |

**ACCOMPLISHMENTS**

Staff weed eated and boom mowed all banks at Hirst Reservoir Property  
 TROW trimming for VDOT eligible streets  
 Assisted with Loudoun HS graduation ceremony  
 Replaced lights for flagpole at tear drop  
 Weekly mowing operations for town owned properties/facilities  
 Trimmed overhanging limbs from walk paths, sidewalks, etc. town-wide  
 Edged and prepared Fire Lane curb for painting operations on main arterial streets  
 Cleaned/restocked dog waste stations  
 Chapman/DeMary Trail maintenance  
 Picked up refuse missed by contractor/emptied overflowing trash cans in downtown business area  
 Assisted contractor with Browning Court striping plan and operations  
 Repaired influent pump base at WWTP

**Maintenance Department  
2019 vs 2018 Comparisons**



**WATER TREATMENT PLANT  
MONTHLY OPERATIONS REPORT  
FOR THE MONTH OF: JUNE 2020  
PREPARED: JULY 2020**

**WATER TREATMENT PLANT  
MONTHLY OPERATIONS REPORT  
FOR THE MONTH OF: JUNE 2019  
PREPARED: JULY 2019**

| WATER                                  | MONTH             | UNITS        | AVG./DAY         | UNITS        |
|--|-------------------|--------------|------------------|--------------|
| ALUMINUM SULFATE                       | 1,145.9           | lbs.         | 38.2             | lbs.         |
| POLYMER                                |                   |              |                  |              |
| METAPHOSPHATE                          | 151.8             | lbs.         | 5.1              | lbs.         |
| SODA ASH                               | 1,447.2           | lbs.         | 48.2             | lbs.         |
| FLUORIDE (WTP & WELLS)                 | 185.3             | lbs.         | 6.2              | lbs.         |
| POTASSIUM PERMANGANATE                 | 30.5              | lbs.         | 1.0              | lbs.         |
| CHLORINE (HYPOCHLORITE @ WTP)          | 316.9             | lbs.         | 10.6             | lbs.         |
| CHLORINE RESIDUAL (TANK)               |                   |              | 1.9              | mg/L         |
| AVERAGE PH (FINISHED)                  |                   |              | 7.4              | SU           |
| BULK WATER SALES                       | 0                 | gals.        | 0.0              | gals.        |
| INLINE METER, COOPER SPRINGS           | 3,998,182         | gals.        | 133,272.7        | gals.        |
| JEFFRIES WELL                          | 0                 | gals.        | 0.0              | gals.        |
| WATER PLANT GALLONS                    | 9,507,000         | gals.        | 316,900.0        | gals.        |
| MARSH WELL                             | 2,008,700         | gals.        | 66,956.7         | gals.        |
| MOUNTAIN VIEW WELL                     | 450,986           | gals.        | 15,032.9         | gals.        |
| MAIN STREET VILLAGES WELLS (MS-1 & VC) | 3,008,215         | gals.        | 100,273.8        | gals.        |
| CORNWELL #2 WELL                       | 1,536,414         | gals.        | 51,213.8         | gals.        |
| FORBES WELL                            | 1,147,369         | gals.        | 38,245.6         | gals.        |
| HIRST #2 WELL                          | 0                 | gals.        | 0.0              | gals.        |
| <b>TOTAL WATER FLOW</b>                | <b>17,658,684</b> | <b>gals.</b> | <b>588,622.8</b> | <b>gals.</b> |

| RESERVOIR LEVELS: | 1-Jun-2020 | 30-Jun-2020 |
|-------------------|------------|-------------|
| FRONT LAKE:       | 5.84'      | 5.86'       |
| BACK LAKE         | 4.97'      | 4.30'       |
| RAINFALL:         | 5.90"      |             |

| WATER                                  | MONTH             | UNITS        | AVG./DAY       | UNITS        |
|--|-------------------|--------------|----------------|--------------|
| ALUMINUM SULFATE                       | 1,020.8           | lbs.         | 34.0           | lbs.         |
| POLYMER                                |                   |              |                |              |
| METAPHOSPHATE                          | 413.9             | lbs.         | 13.8           | lbs.         |
| SODA ASH                               | 1,716.0           | lbs.         | 57.2           | lbs.         |
| FLUORIDE (WTP & WELLS)                 | 174.9             | lbs.         | 5.8            | lbs.         |
| POTASSIUM PERMANGANATE                 | 20.3              | lbs.         | 0.7            | lbs.         |
| CHLORINE (HYPOCHLORITE @ WTP)          | 272.5             | lbs.         | 9.1            | lbs.         |
| CHLORINE RESIDUAL (TANK)               |                   |              | 1.7            | mg/L         |
| AVERAGE PH (FINISHED)                  |                   |              | 7.6            | SU           |
| BULK WATER SALES                       | -                 | gals.        | 0              | gals.        |
| INLINE METER, COOPER SPRINGS           | 4,493,182         | gals.        | 149,773        | gals.        |
| JEFFRIES WELL                          | 0                 | gals.        | 0              | gals.        |
| WATER PLANT GALLONS                    | 9,313,900         | gals.        | 310,463        | gals.        |
| MARSH WELL                             | 1,810,400         | gals.        | 60,347         | gals.        |
| MOUNTAIN VIEW WELL                     | 540,300           | gals.        | 18,010         | gals.        |
| MAIN STREET VILLAGES WELLS (MS-1 & VC) | 3,143,728         | gals.        | 104,791        | gals.        |
| CORNWELL #2 WELL                       | 1,708,261         | gals.        | 56,942         | gals.        |
| FORBES WELL                            | 782,990           | gals.        | 26,100         | gals.        |
| HIRST #2 WELL                          | 0                 | gals.        | 0              | gals.        |
| <b>TOTAL WATER FLOW</b>                | <b>17,299,579</b> | <b>gals.</b> | <b>576,653</b> | <b>gals.</b> |

| RESERVOIR LEVELS: | 1-Jun-2019 | 30-Jun-2019 |
|-------------------|------------|-------------|
| FRONT LAKE:       | 5.76'      | 5.58'       |
| BACK LAKE         | 4.76'      | 4.90'       |
| RAINFALL:         | 3.84"      |             |

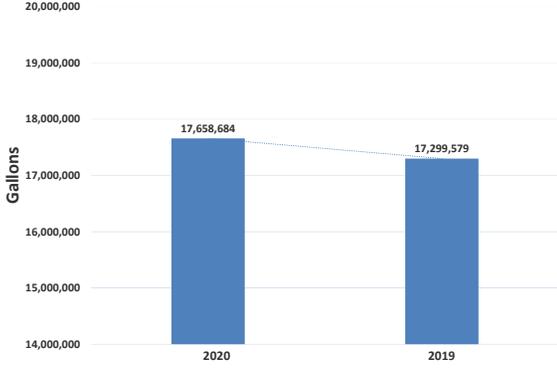
**ACCOMPLISHMENTS**

Quarterly DMR due on 07/10 submitted to VDEQ on 07/06/2020  
 VDH ODW Monthly Operating Report due 07/10 was submitted electronically on 07/09/2020.  
 Four Weekly Water Production Reports were completed.

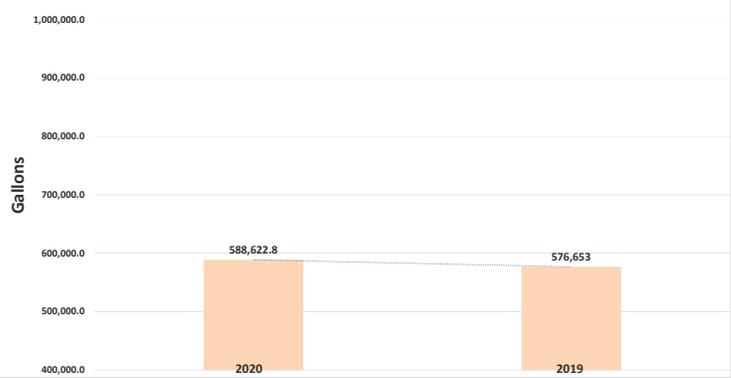
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**Water Well Production Facilities  
June 2020 vs 2019 Comparisons**

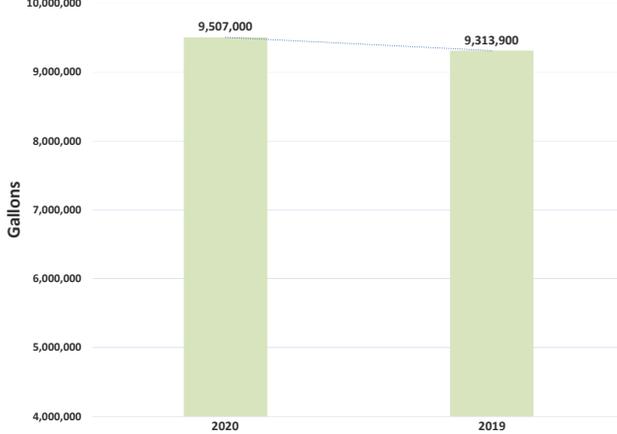
**June Total Monthly Water Production 2020 vs 2019**



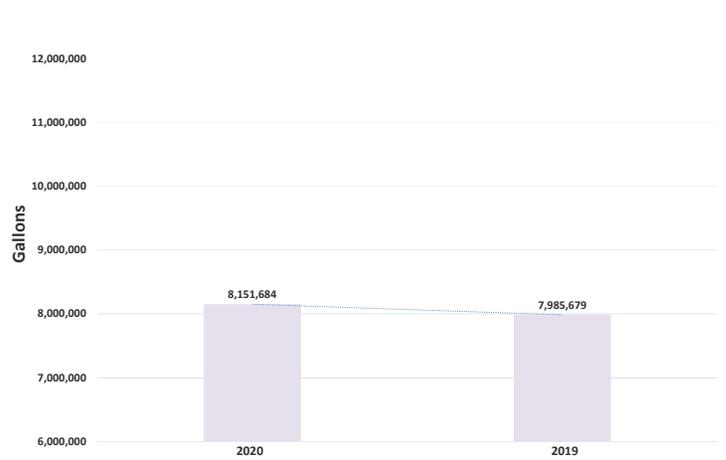
**June Total Average Daily Water Production 2020 vs 2019**



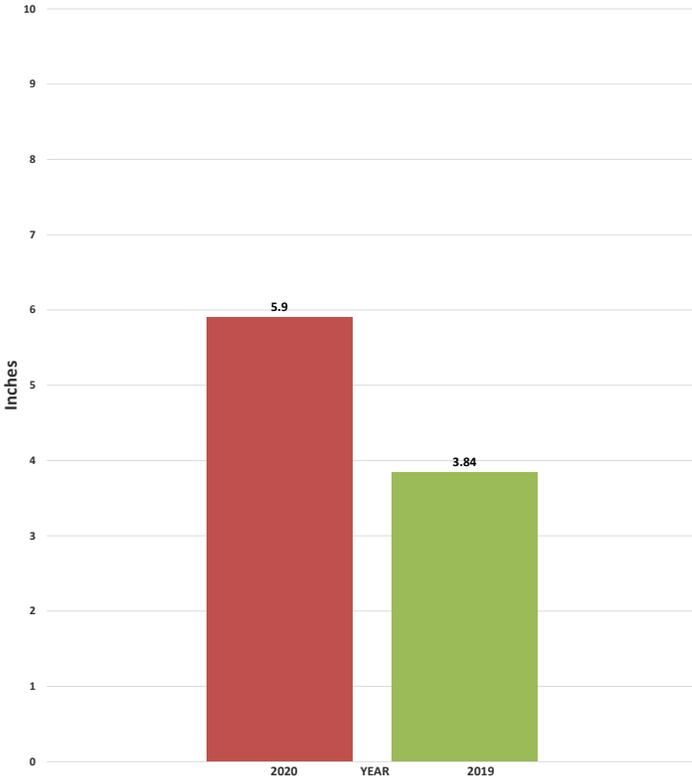
**June Monthly Water Plant Water Production 2020 vs 2019**



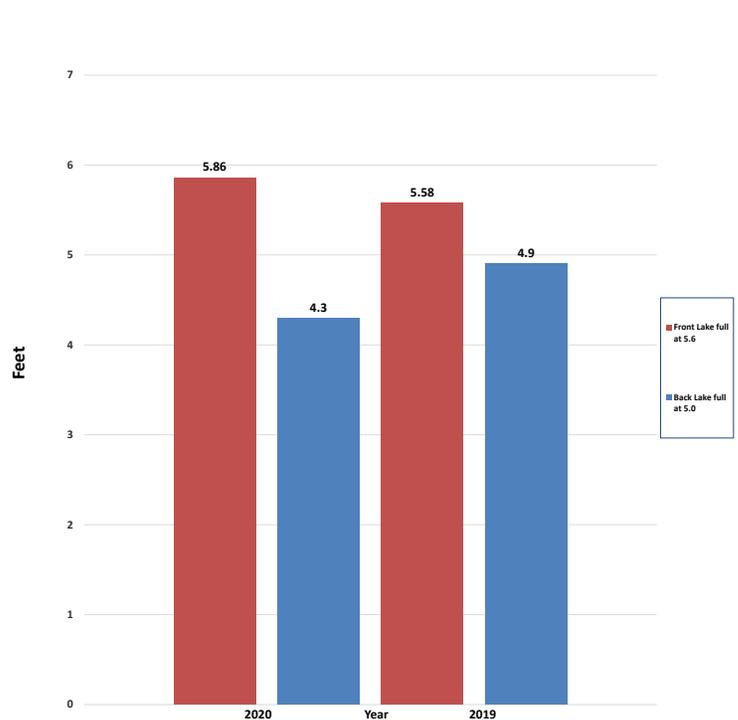
**June Monthly Well Water Production 2020 vs 2019**



**June Monthly Precipitation 2020 vs 2019**



**Front & Back Lake Levels 2020 vs 2019**



**WATER RECLAMATION FACILITY  
MONTHLY OPERATIONS REPORT  
FOR June 2020  
Prepared: July 2020**

**WATER RECLAMATION FACILITY  
MONTHLY OPERATIONS REPORT  
FOR June 2019  
Prepared: July 2019**

| MEASURE              | MONTH          | AVG./DAY    |
|----------------------|----------------|-------------|
| INFLUENT FLOW        | 15,903,900 GAL | 530,100 GAL |
| EFFLUENT FLOW        | 19,462,900 GAL | 648,800 GAL |
| MAXIMUM DAY INFLUENT | 679,100 GAL    |             |
| FERRIC CHLORIDE      | 2,618 GAL      | 87 GAL      |
| CITRIC ACID          | - GAL          | - GAL       |
| SODIUM HYPOCHLORITE  | 203 GAL        | 23 GAL      |
| METHANOL             | 864 GAL        | 29 GAL      |

RAIN 3.67 IN. 0.12 IN.

**MONTHLY TOTAL NUTRIENT DISCHARGE**

|                        |           |
|------------------------|-----------|
| TOTAL NITROGEN         | 134 LBS.  |
| TOTAL NITROGEN YTD     | 566 LBS.  |
| AVG. DAILY NITROGEN    | 0.83 MG/L |
| VPDES NITROGEN LIMIT   | 4.0 MG/L  |
| TOTAL PHOSPHORUS       | 44 LBS.   |
| TOTAL PHOSPHORUS YTD   | 182 LBS.  |
| AVG. PHOSPHORUS DAILY  | 0.27 MG/L |
| VPDES PHOSPHORUS LIMIT | 0.3 MG/L  |

NIA No information available at this time.

**ACCOMPLISHMENTS**

Any Training

EMS (Hazardous Spill response Procedures), Lab ( D.O. Probe Storage Procedures, cBOD procedure if blank is > 0.2.), Plant ( Non Potable Water System, Safety ( Construction and Grounds Maintenance Safety procedures).  
Repaired broken flange for Influent Pump One.

Inspection

Equipment Maintenance

NIA

Reports Submitted

Submitted VDEQ monthly discharge monitoring report and Virginia's nutrient monthly report

| MEASURE              | MONTH          | AVG./DAY    | GAL |
|----------------------|----------------|-------------|-----|
| INFLUENT FLOW        | 13,767,900 GAL | 458,900 GAL | GAL |
| EFFLUENT FLOW        | 18,969,900 GAL | 632,300 GAL | GAL |
| MAXIMUM DAY INFLUENT | 581,000 GAL    |             |     |
| FERRIC CHLORIDE      | 3,215 GAL      | 107 GAL     | GAL |
| CITRIC ACID          | 73 GAL         | 73 GAL      | GAL |
| SODIUM HYPOCHLORITE  | 397 GAL        | 57 GAL      | GAL |
| METHANOL             | 910 GAL        | 30 GAL      | GAL |

RAIN 4.35 IN. 0.15 IN.

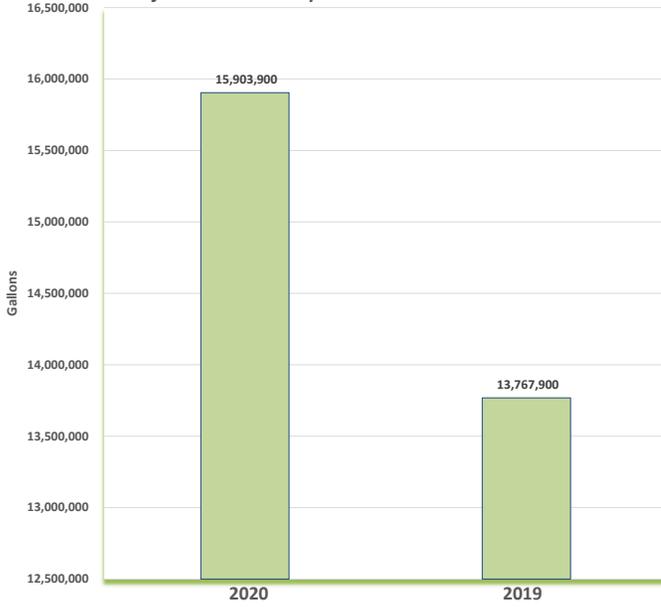
**MONTHLY TOTAL NUTRIENT DISCHARGE**

|                        |           |
|------------------------|-----------|
| TOTAL NITROGEN         | 76 LBS.   |
| TOTAL NITROGEN YTD     | 439 LBS.  |
| AVG. DAILY NITROGEN    | 0.39 MG/L |
| VPDES NITROGEN LIMIT   | 4.0 MG/L  |
| TOTAL PHOSPHORUS       | 25 LBS.   |
| TOTAL PHOSPHORUS YTD   | 200 LBS.  |
| AVG. PHOSPHORUS DAILY  | 0.16 MG/L |
| VPDES PHOSPHORUS LIMIT | 0.3 MG/L  |

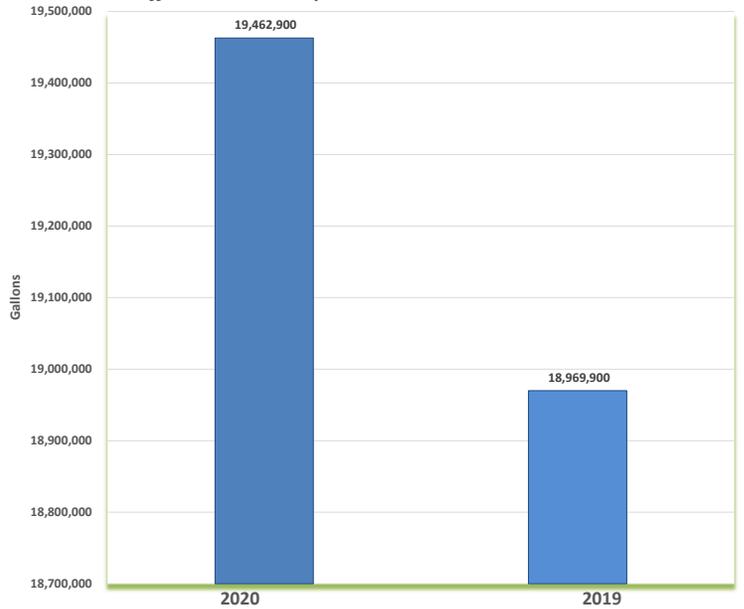
NIA No information available at this time.

## Basham Simms Water Reclamation Facility 2020 vs 2019 Comparisons

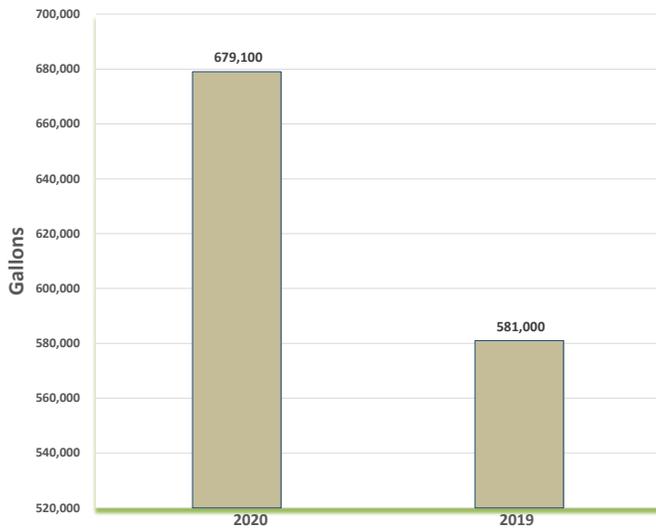
*Influent Flows Comparisons 2020 vs 2019*



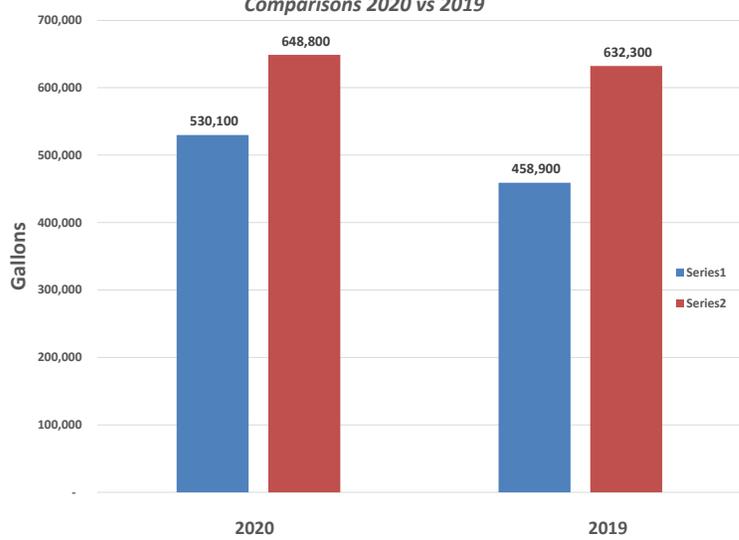
*Effluent Flows Comparisons 2020 vs 2019*



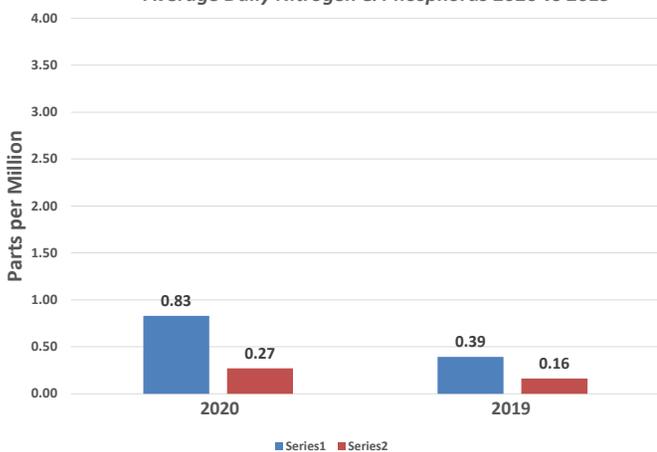
*Max. Daily Flows Comparisons 2020 vs 2019*



*Average Day Influent & Effluent Flows Comparisons 2020 vs 2019*



*Average Daily Nitrogen & Phosphorus 2020 vs 2019*



*Monthly Precipitation 2020 vs 2019*

