

**MAINTENANCE DEPARTMENT
MONTHLY OPERATIONS REPORT
FOR THE MONTH OF: SEPTEMBER 2020
PREPARED: OCTOBER 2020**

MEASURE	MONTH	UNITS	FY YTD	UNITS
WORK ORDERS (W.O.) PROCESSED	194		1168	#
STAFF HOURS REQUIRED FOR W.O.	447.75	HRS.	1358.5	HRS.
NON-CORE DUTIES HOURS	45.25	HRS.	367.5	HRS.
CD. MAN HOURS REQUIRED FOR WO	402.5	HRS.	588.5	HRS.
PM FIRE HYDRANTS	24		223	
FIRE HYDRANT REPAIR	0		2	
PM VALVE EXERCISED	0		0	
MANHOLE INSPECTIONS	0		167	
CCTV SEWER LINE	0	L. FT.	457	L. FT.
SEWER LINE CLEANED	0	L. FT.	388	L. FT.
SL RAT INSPECTIONS	5,315	L. FT.	34,834	L. FT.
VEHICLES SERVICED/REPAIRED	13		63	
# OF WATER BREAKS	1		2	
# OF SEWER BACKUPS	0		0	
# OF CLEANOUTS INSTALLED	0		0	
# OF MISS UTILITY TICKETS	145		439	
# OF METERS READ	34		112	
# OF METERS SHUT OFF	0		0	
# OF METERS TURNED ON	0		0	
# OF REPLACED METERS	0		0	
# OF REPLACED REGISTERS	0		0	
# OF NEW ACC. METER INSTALLS	5		8	
# OF LEAK CHECKS	55		157	
# OF REPLACED MIUs (Radios)	34		79	
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

Weekly mowing operations
 Right of way tree trimming along Hirst Road and Hatcher Ave.
 Fleet Maintenance
 Installed "NO OUTLET" signs for N. 21st Street
 Weekly cleaning and restocking of dog waste stations
 Weekly pickup of Public Trash cans on 21st St./Main St. and Chapman/DeMary Trail
 Weed control for various streets and town properties/facilities
 Assisted Parks and Rec with 9/11 Ceremony and Movie Nights at Dillon's woods
 Asset Inventory
 Removed dead limbs/trees at Fireman's Field complex/Dillon's Woods
 Repaired damaged chain link fence at Fireman's Field complex
 Cleaned/Swept 21st Street downtown area and parking lots
 Equipment Maintenance
 Community Sign Events
 Repaired/replaced damaged traffic signs as needed
 Performed snow equipment dry run (All items ready to go)
 Removed graffiti from signs on W&OD Trail
 Cleaned/Mulched landscape beds within Fireman's Field Complex
 Removed dead tree and cleared debris/overgrown areas at Elevated Water Tank
 Installed radar data signs on Hatcher Ave. and E. King James per PD
 Installed numbered markers for new valves on raw water line at Hirst Reservoir
 Installed two new pumps at the Wastewater Treatment Plant
 Cleaned wastewater treatment pump stations
 Installed three new MAG meters on filter tanks at Water Treatment Plant
 Cleaned Wastewater Treatment Plant recycle tank
 Moved two water meters on Nursery Ave. for construction
 Repaired sewer main and water service line that were hit by contractors on Nursery Ave.
 Began replacing manhole frames and covers in need based on smoke testing

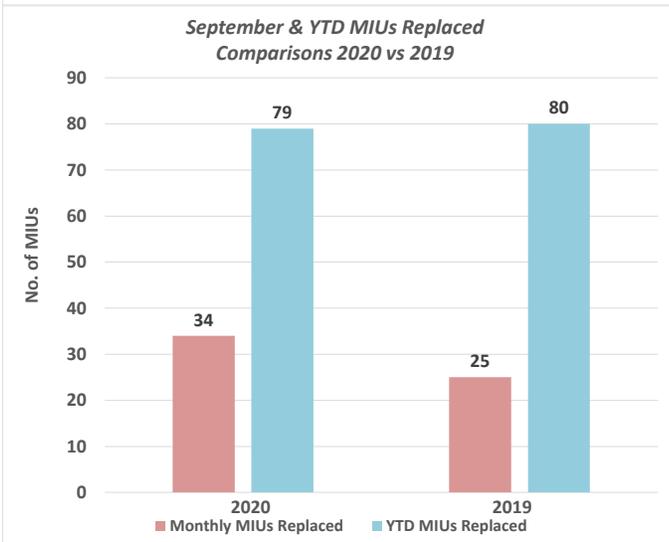
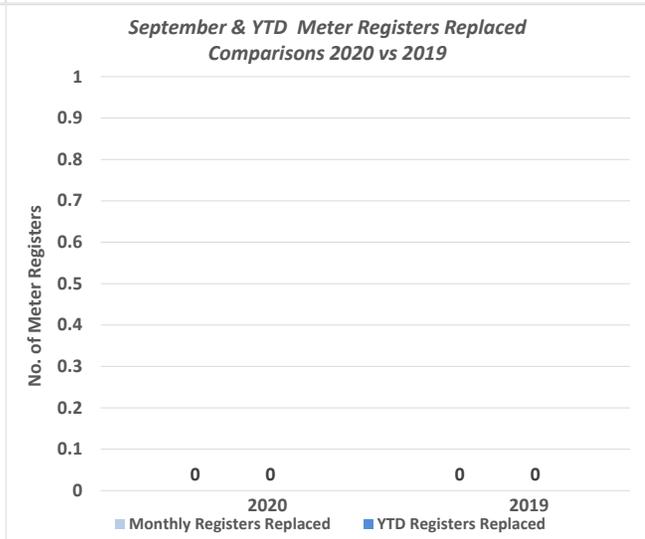
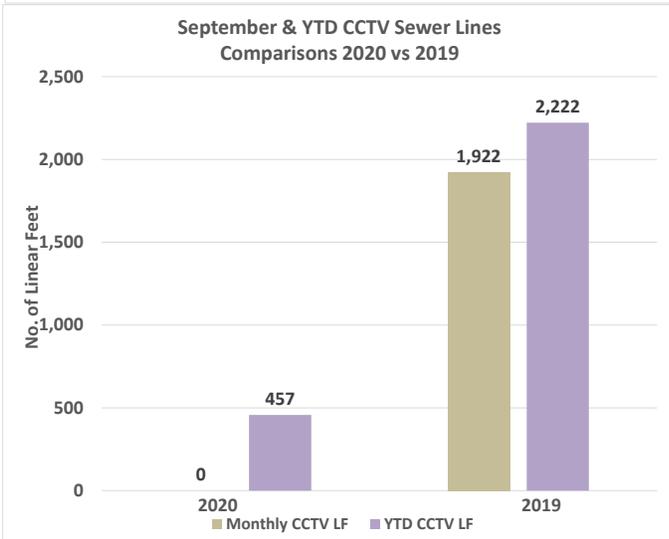
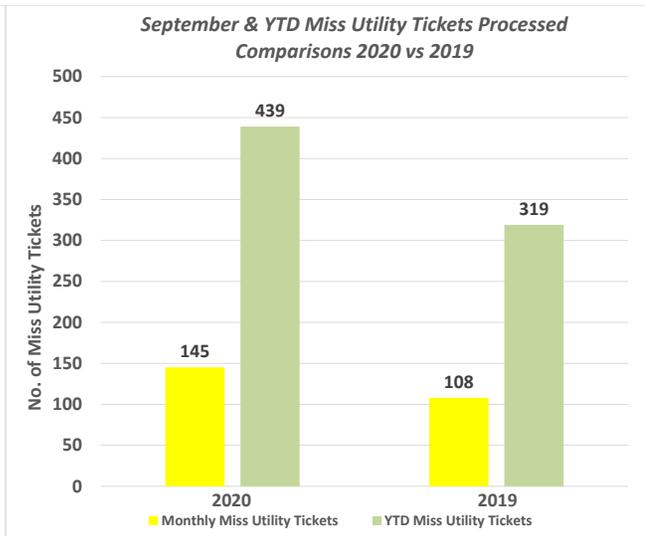
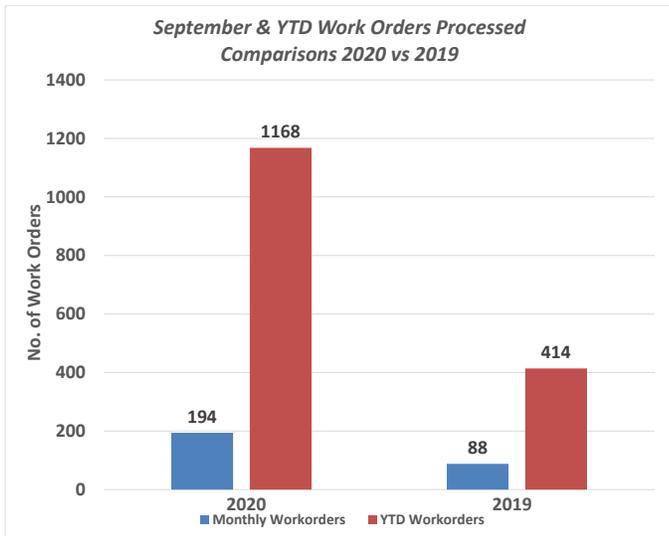
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MEASURE	MONTH	UNITS	FY YTD	UNITS
WORK ORDERS (W.O.) PROCESSED	88		414	#
STAFF HOURS REQUIRED FOR W.O.	310.5	HRS.	1078.5	HRS.
NON-CORE DUTIES HOURS	49.5	HRS.	133.5	HRS.
CD. MAN HOURS REQUIRED FOR WO	261	HRS.	945	HRS.
PM FIRE HYDRANTS	8		59	
FIRE HYDRANT REPAIR	1		2	
PM VALVE EXERCISED	0		1	
MANHOLE INSPECTIONS	2		11	
CCTV SEWER LINE	1,922	L. FT.	2,222	L. FT.
SEWER LINE CLEANED	0	L. FT.	2,366	L. FT.
SL RAT INSPECTIONS	0	L. FT.	10,229	L. FT.
VEHICLES SERVICED/REPAIRED	10		25	
# OF WATER BREAKS	0		0	
# OF SEWER BACKUPS	0		1	
# OF CLEANOUTS INSTALLED	1		1	
# OF MISS UTILITY TICKETS	108		319	
# OF METERS READ	32		115	
# OF METERS SHUT OFF	6		11	
# OF METERS TURNED ON	6		11	
# OF REPLACED METERS	0		0	
# OF REPLACED REGISTERS	0		0	
# OF NEW ACC. METER INSTALLS	1		3	
# OF LEAK CHECKS	3		92	
# OF REPLACED MIUs (Radios)	25		80	
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

Weekly Mowing Operations
 Fire Lane curb painting town-wide
 Asphalt patch on Seville Lane
 Repaired/Replaced storm drain inlet lid on School/Nursery Avenue
 Prepared for and hosted 14th Annual Public Works Trade Show
 Assisted the Parks and Rec department with bike riding events
 Assisted with the 9/11 ceremony
 Removed several dead trees on town properties and at facilities
 Installed radar signs for the Police Department on Locust Grove Drive
 Conducted Asset inventory
 Weekly cleaning/restocking of dog waste stations
 Performed dry run of all snow removal equipment
 Cleaned Cooper Springs
 Constructed entrance at Jeffries property
 Conducted smoke test of sewer lines
 Dug and buried line and wire from the Jeffries property to the Water Plant

**Maintenance Department
2020 vs 2019 Comparisons**



**WATER TREATMENT PLANT
MONTHLY OPERATIONS REPORT
FOR THE MONTH OF: SEPTEMBER 2020
PREPARED: OCTOBER 2020**

**WATER TREATMENT PLANT
MONTHLY OPERATIONS REPORT
FOR THE MONTH OF: SEPTEMBER 2019
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WATER	MONTH	UNITS	AVG./DAY	UNITS
ALUMINUM SULFATE	1,380.1	lbs.	46.0	lbs.
POLYMER				
METAPHOSPHATE	154.0	lbs.	5.1	lbs.
SODA ASH	2,023.5	lbs.	67.4	lbs.
FLUORIDE (WTP & WELLS)	176.1	lbs.	5.9	lbs.
POTASSIUM PERMANGANATE	23.7	lbs.	0.8	lbs.
CHLORINE (HYPOCHLORITE @ WTP)	320.6	lbs.	10.7	lbs.
CHLORINE RESIDUAL (TANK)			1.9	mg/L
AVERAGE PH (FINISHED)			7.7	SU
BULK WATER SALES	0	gals.	0.0	gals.
INLINE METER, COOPER SPRINGS*	3,338,000	gals.	111,266.7	gals.
JEFFERIES WELL	1,054,800	gals.	35,160.0	gals.
WATER PLANT GALLONS	9,767,000	gals.	325,566.7	gals.
MARSH WELL	1,913,000	gals.	63,766.7	gals.
MOUNTAIN VIEW WELL	449,393	gals.	14,979.8	gals.
MAIN STREET VILLAGES WELLS (MS-1 & VC)	2,931,350	gals.	97,711.7	gals.
CORNWELL #2 WELL	1,667,325	gals.	55,577.5	gals.
FORBES WELL	1,140,619	gals.	38,020.6	gals.
HIRST #2 WELL	0	gals.	0.0	gals.
TOTAL WATER FLOW	17,868,687	gals.	595,622.9	gals.

RESERVOIR LEVELS:	1-Sep-2020	30-Sep-2020
FRONT LAKE:	5.54'	<3.0'
BACK LAKE	5.0'	3.35'
RAINFALL:	5.49"	

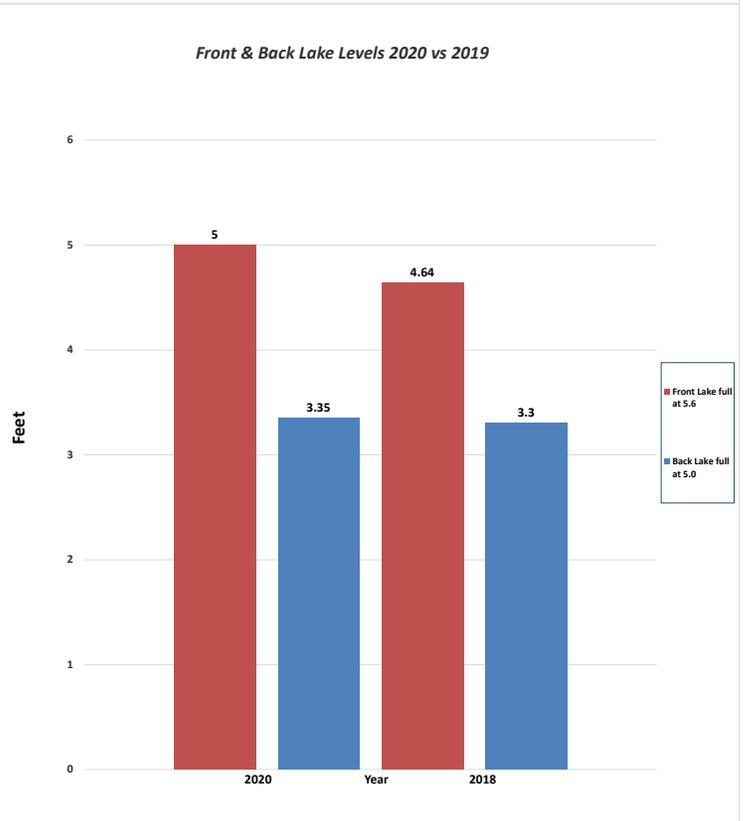
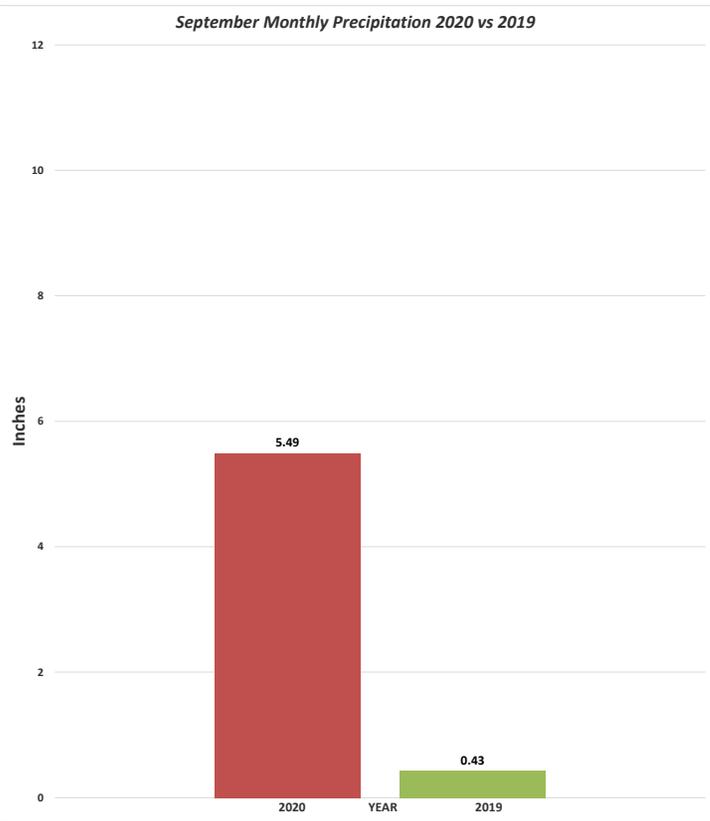
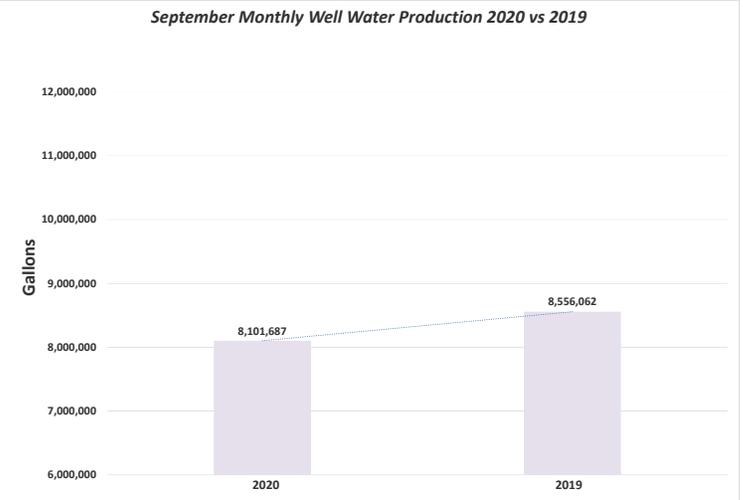
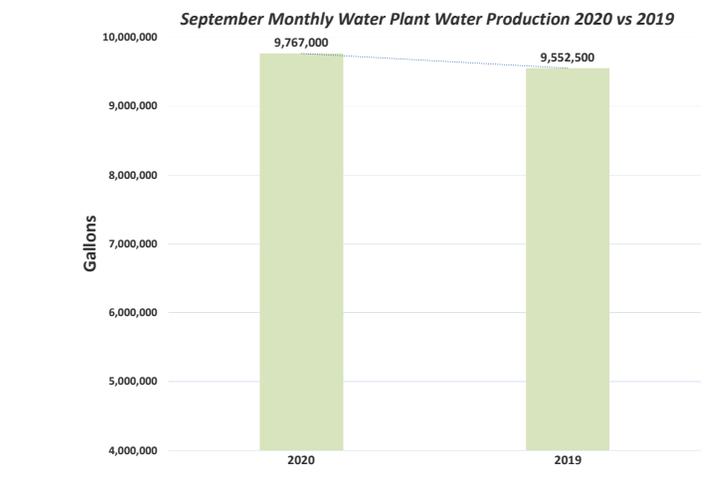
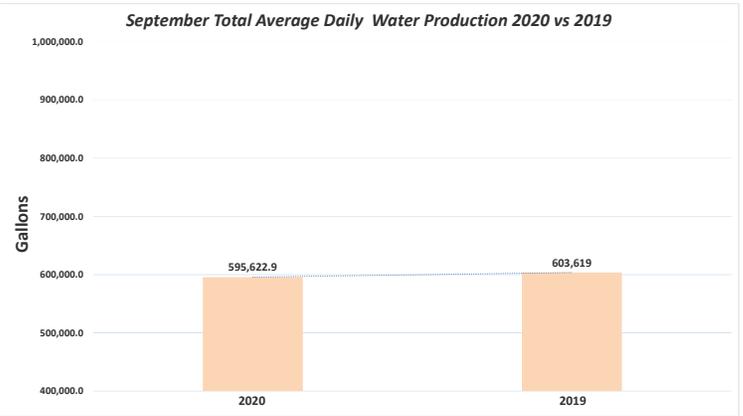
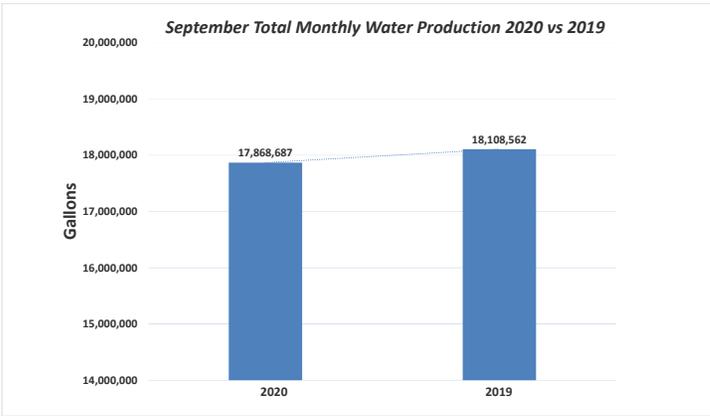
WATER	MONTH	UNITS	AVG./DAY	UNITS
ALUMINUM SULFATE	1,296.0	lbs.	43.2	lbs.
POLYMER				
METAPHOSPHATE	251.0	lbs.	8.4	lbs.
SODA ASH	2,010.1	lbs.	67.0	lbs.
FLUORIDE (WTP & WELLS)	176.0	lbs.	5.9	lbs.
POTASSIUM PERMANGANATE	24.8	lbs.	0.8	lbs.
CHLORINE (HYPOCHLORITE @ WTP)	345.0	lbs.	11.5	lbs.
CHLORINE RESIDUAL (TANK)			1.8	mg/L
AVERAGE PH (FINISHED)			7.6	SU
BULK WATER SALES		gals.	0	gals.
INLINE METER, COOPER SPRINGS	3,631,875	gals.	121,063	gals.
JEFFERIES WELL	0	gals.	0	gals.
WATER PLANT GALLONS	9,552,500	gals.	318,417	gals.
MARSH WELL	1,941,300	gals.	64,710	gals.
MOUNTAIN VIEW WELL	562,087	gals.	18,736	gals.
MAIN STREET VILLAGES WELLS (MS-1 & VC)	3,065,635	gals.	102,188	gals.
CORNWELL #2 WELL	1,614,067	gals.	53,802	gals.
FORBES WELL	1,372,973	gals.	45,766	gals.
HIRST #2 WELL	0	gals.	0	gals.
TOTAL WATER FLOW	18,108,562	gals.	603,619	gals.

RESERVOIR LEVELS:	1-Sep-2019	30-Sep-2019
FRONT LAKE:	5.62'	4.64'
BACK LAKE	4.52'	3.30'
RAINFALL:	0.43"	

ACCOMPLISHMENTS

NPDES Discharge Monitoring Report due 10/10 was submitted on 10/02/20.
VDH ODW Monthly Operating Report due 10/10 was submitted electronically on 10/09/2020.
Four Weekly Water Production Reports were completed.

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



**WATER RECLAMATION FACILITY
MONTHLY OPERATIONS REPORT
FOR THE MONTH OF: September 2020
PREPARED: October 2020**

**WATER RECLAMATION FACILITY
MONTHLY OPERATIONS REPORT
FOR THE MONTH OF: September 2019
PREPARED: October 2019**

MEASURE	MONTH	AVG./DAY
INFLUENT FLOW	16,058,300 GAL	535,300 GAL
EFFLUENT FLOW	16,982,300 GAL	566,100 GAL
MAXIMUM DAY INFLUENT	869,300 GAL	
FERRIC CHLORIDE	3,071 GAL	102 GAL
CITRIC ACID	146 GAL	73 GAL
SODIUM HYPOCHLORITE	166 GAL	24 GAL
METHANOL	972 GAL	32 GAL
RAIN	2.90 IN.	0.10 IN.

MEASURE	MONTH	AVG./DAY
INFLUENT FLOW	12,696,900 GAL	423,200 GAL
EFFLUENT FLOW	15,153,200 GAL	505,100 GAL
MAXIMUM DAY INFLUENT	487,600 GAL	
FERRIC CHLORIDE	3,961 GAL	132 GAL
CITRIC ACID	141 GAL	71 GAL
SODIUM HYPOCHLORITE	398 GAL	66 GAL
METHANOL	811 GAL	27 GAL
RAIN	1.20 IN.	0.04 IN.

MONTHLY TOTAL NUTRIENT DISCHARGE

TOTAL NITROGEN	64 LBS.
TOTAL NITROGEN YTD	769 LBS.
AVG. DAILY NITROGEN	0.45 MG/L
VPDES NITROGEN LIMIT	4.0 MG/L
TOTAL PHOSPHORUS	31 LBS.
TOTAL PHOSPHORUS YTD	294 LBS.
AVG. PHOSPHORUS DAILY	0.23 MG/L
VPDES PHOSPHORUS LIMIT	0.3 MG/L

MONTHLY TOTAL NUTRIENT DISCHARGE

TOTAL NITROGEN	NIA LBS.
TOTAL NITROGEN YTD	NIA LBS.
AVG. DAILY NITROGEN	NIA MG/L
VPDES NITROGEN LIMIT	4.0 MG/L
TOTAL PHOSPHORUS	NIA LBS.
TOTAL PHOSPHORUS YTD	NIA LBS.
AVG. PHOSPHORUS DAILY	NIA MG/L
VPDES PHOSPHORUS LIMIT	0.3 MG/L

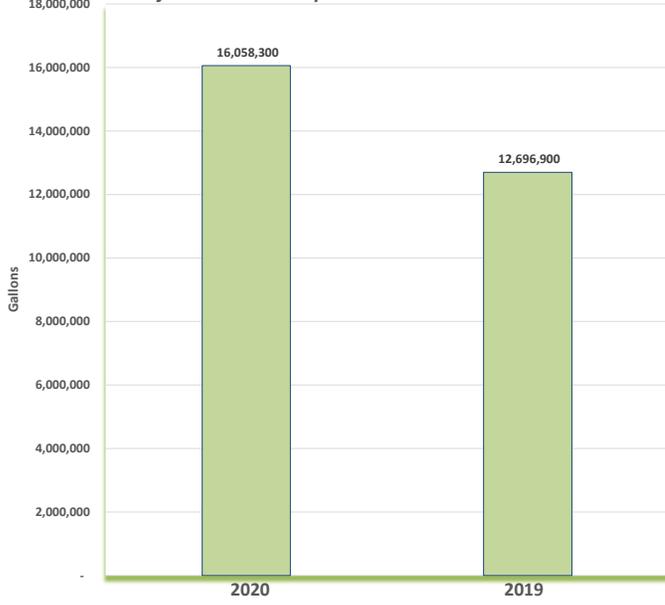
ACCOMPLISHMENTS

All Staff received training on (EMS) Hazardous Material Receipt & Storage,
(Plant Process) Primary Clarification, (Safety) Confined Space Safety, (LAB) Chain of Custody Refresher
Hauled 0 wet tons of bio-solids for land application.
Submitted VDEQ discharge monitoring report, Virginia's nutrient report .

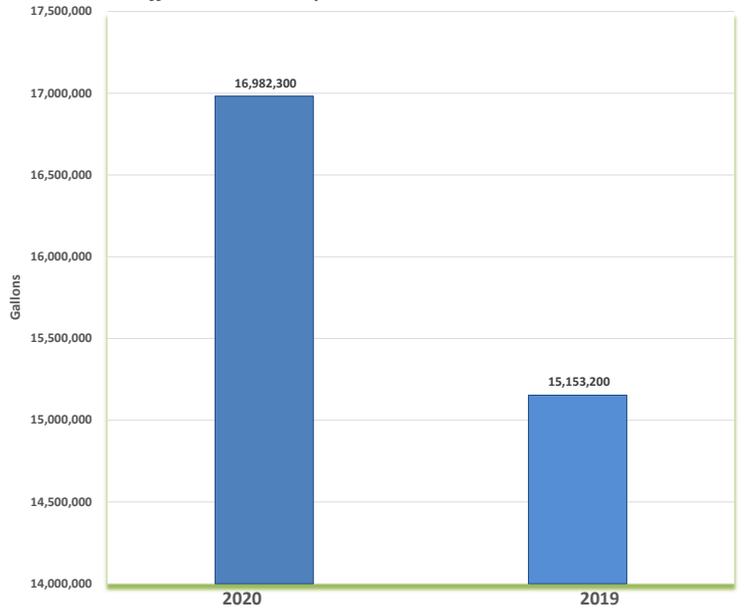
NIA No information available at this time.

Basham Simms Water Reclamation Facility 2020 vs 2019 Comparisons

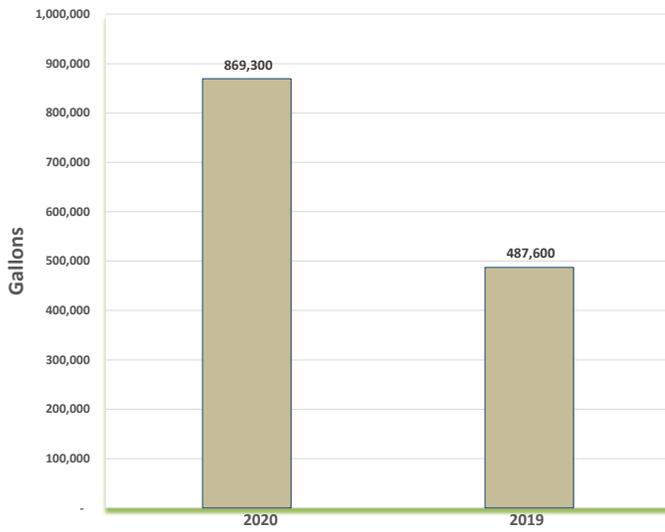
Influent Flows Comparisons 2020 vs 2019



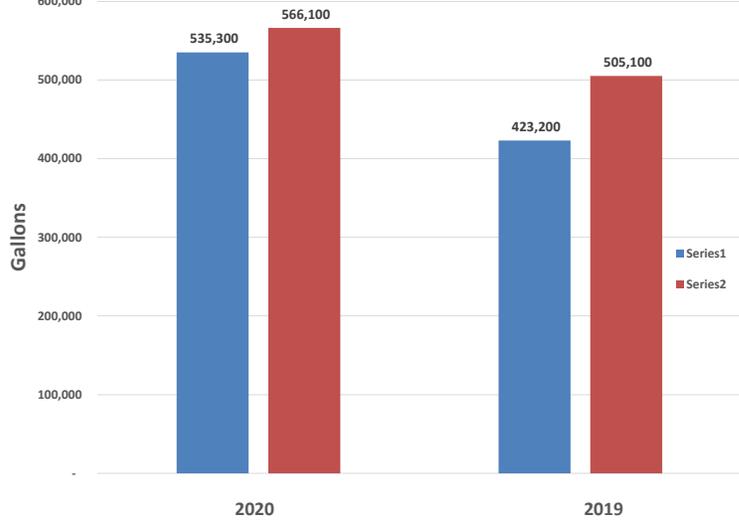
Effluent Flows Comparisons 2020 vs 2019



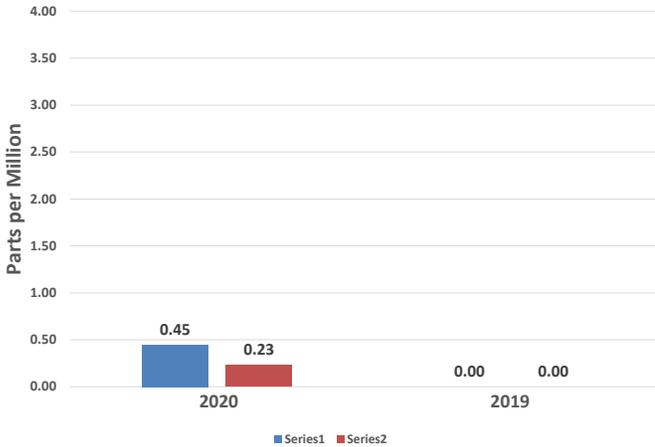
Max. Daily Flows Comparisons 2020 vs 2019



Average Day Influent & Effluent Flows Comparisons 2020 vs 2019



Average Daily Nitrogen & Phosphorus 2020 vs 2019



Monthly Precipitation 2020 vs 2019

