

Capital Projects
&
Engineering
Report
March 2020

TABLE A TOWN PROJECTS

PROJECT NAME	DESCRIPTION	STATUS	NEXT STEPS
CONSTRUCTION AND CAPITAL PROJECTS		<p>NOTE THAT A QUARTERLY STATUS REPORT WILL BE PROVIDED TO TOWN COUNCIL SHOWING IN GENERAL THE CURRENT PHASE, AND CURRENT STATUS OF EACH OF THE PW CIP PROJECTS. THE NEXT QUARTERLY REPORT WILL BE IN JANUARY 2020 AND WILL COVER UP TO THE END OF DECEMBER</p>	
Hirst Farm Pond Retrofit Design	Retrofit Hirst Farm pond for water quality benefits. Stormwater Local Assistance Funding, 50-50 split with Town. Loudoun County has contributed \$150,000 to Town's funding commitment.	<p>Engineering design proposal has been reviewed. PO issued for initial survey work. Survey work complete, wetlands delineation complete and report received by Town. Met with Loudoun County to discuss possible funding assistance. County will provide \$\$ assistance to Town. MOU required (in attorney hands). Purchase Order issued to continue design work. Geotechnical investigation complete, 30% plan design is underway. Concept plan and geotechnical report received 6/15/2017. Concept plan sent to County for review. Purchase Order issued for final design 8/9/2017. Met with Engineer 8/24/17. Final design is underway. Met with Loudoun County 10/16/2017. 100% plans received; town is working on submissions for permits. Plans sent to DEQ for their review/approval; comments received and Engineer to address. Hirst Farm HOA meeting on 4/18/18; town updated HOA on progress and obtained signatures for zoning permit and grading permit. Town staff working on front end documents for the IFB. Engineer preparing technical specifications and required SWPPP for the VSMP permit. Received wetlands permit. Town submitted IFB document to DEQ for approval, and the Grading Permit application and the VSMP permit application to Loudoun County. VSMP comments received 5/30/18. Met with County on 6/13/18 to discuss comments. Submitted a waiver request to the VSMP Administrator on 7/12/18. Directed Engineer to revise plans and re-submitted to County and DEQ. Received Loudoun County VSMP comments. Reviewed comments with AECOM (engineer). Staff spoke with Loudoun County to request waiver for certain requirements. No change.</p> <p>May 3, 2019. staff met with Loudoun County VSMP staff.</p> <p>May 16, 2019 meeting with LC. Some redesign needed.</p> <p>June 21, 2019. Purchase Order for final design sent to Engineer.</p> <p>July, August, 2019. Design on-going.</p> <p>August 19, 2019. Revised plans and waiver request submitted to Loudoun County.</p>	See continued below

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PROJECT NAME	DESCRIPTION	STATUS	NEXT STEPS
<p>Hirst Farm Pond Retrofit Design (continued) UPDATE</p>	<p>Retrofit Hirst Farm pond for water quality benefits. Stormwater Local Assistance Funding, 50-50 split with Town. Loudoun County has contributed \$150,000 to Town's funding commitment.</p>	<p>June 21, 2019. Purchase Order for final design sent to Engineer. July, August, 2019. Design on-going. August 19, 2019. Revised plans and waiver request submitted to Loudoun County. September 19, 2019. Loudoun County review received. October 2. Revised plan sheets submitted to Loudoun County November 13, 2019. Submitted final waiver request to Loudoun County. Sent HOA concurrence to Loudoun County. December 2019. Received comments from Loudoun County B&D. Meeting to discuss is scheduled for January 2020. January 2020. Loudoun County continues to have concerns with proposed project. Engineer is preparing cost estimates for revisions (engineering, investigation and construction) to determine cost of addressing Loudoun County concerns. Received cost estimates. Project has a funding shortfall and can only continue if TC approves proposed cash allocation in FY21 budget.</p>	<p>review cost estimates for addressing Loudoun County concerns. Determine feasibility of continuing with project. ON HOLD</p>
<p>Main Street and Maple Avenue Safety Improvements Phase II UPC 112558 Request for Proposals</p>	<p>Sidewalk, curb & gutter along east side of S. Maple, upgrade pedestrian curb ramps, mid-block crossing, analysis of left turn signal phase, enclose drainage system along east side of S. Maple to carry storm to Main Street</p>	<p>October 24, 2017. Town Council voted to designate a phase II for Main Street and Maple Avenue Intersection Improvements project. May 25, 2018. RFP advertised. June 5, 2018 preproposal meeting. June 22, 2018. Proposal due. October 22, 2018. Clark Nexsen was recommended by staff and TC moved to award (contingent on VDOT approval). VDOT completed their audit and approved the award with some contingencies to be addressed. December 21, 2018. Design Contract signed with ClarkNexsen. January 22, 2019. Project design kickoff meeting.</p>	<p>RFP COMPLETE</p>

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<p>Main Street and Maple Avenue Safety Improvements Phase II UPC 112558 Design UPDATE</p>	<p>Sidewalk, curb & gutter along east side of S. Maple, upgrade pedestrian curb ramps, mid-block crossing, analysis of left turn signal phase, enclose drainage system along east side of S. Maple to carry storm to Main Street</p>	<p>March 15, 2019. 15% design plans received. April 23, 2019 Town comments sent to design engineer (Clark Nexsen) May 28, 2019 Walking Tour conducted. June 6, 2019 30% design plans received. August 23, 2019. Town comments sent to Engineer. August 28, 2019. VDOT comments sent to Engineer. September, 2019. Engineer's sub is working on environmental submissions October 24, 2019. 60% plans received. December 2019. Town comments and VDOT comments sent to design engineer. January 2020. Notice of Willingness posted. March 3, 2020. 90% plans received. Plans submitted to VDOT and request for ROW authorization</p>	<p>Continue review of 90% plans. Await VDOT comments and ROW authorization.</p>
<p>Nursery Avenue Sidewalk & Drainage Improvements UPC 105581 Design</p>	<p>sidewalk, curb and gutter, stormwater collection and conveyance from the "teardrop" (20th Street) to the stream approx. 370 feet south of J Street. Funding is Revenue Sharing, 50-50 split Town and VDOT.</p>	<p>ATCS approved by Town Council to move forward with 100% design plans. Received Contract and Certificate of Insurance (COI). Purchase order issued, kickoff meeting held. Traffic counts conducted week of 1/27-2/3/2017. VDOT comments on 30% plans received. Design waiver (for sidewalk buffer strip width) approved by VDOT. Planning for public meeting; Public informational meeting held 6/7/2017. Any comments were requested by July 7, 2017. Some comments were received and forwarded to engineer for review; discussion with Town Staff will occur July. Requisitions sent to VDOT and NVTA. Staff has been meeting with individual property owners to discuss impacts to their property, easements that the Town will be requesting--at least half are willing to donate. Plans have been revised after property owner discussions. 100% plans received 2/13/2018. Received the property appraisals and also a proposal from a ROW negotiation firm (sub to ATCS). Town instructed on-call PM/CM contractor to conduct a constructability review of the 100% plan set. Town comments, results of constructability review, and VDOT comments have been sent to Engineer. Changer order issued to ATCS contract to add ROW acquisition services, bid phase and construction phase support services. Received final plats and prepared draft deeds of easements. Title searches completed 5/17/18 and deeds finalized. Revised final plans received 6/1/18. Continue meeting with property owners and going over plans, plats, deed of easements, and appraisals as applicable. Applied for E&S and VSMP permits. Revisions to design underway to avoid impacts to certain properties. Revised design received 12/31/18. Under review by staff. December 31, 2018. Revised design received. January 28, 2019. Staff met with Tom Priscilla (200 S Nursery Ave) and Michael Weber (210 S Nursery Ave), along with VDOT representatives, to discuss the changes to the plans. Changes eliminated or minimized the need for easements. After discussion, additional changes to be made to the plans.</p>	

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PROJECT NAME	DESCRIPTION	STATUS	NEXT STEPS
<p>Nursery Avenue Sidewalk & Drainage Improvements UPC 105581 Design (cont'd) UPDATE</p>	<p>sidewalk , curb and gutter, stormwater collection and conveyance from the "teardrop" (20th Street) to the stream approx. 370 feet south of J Street. Funding is Revenue Sharing, 50-50 split Town and VDOT.</p>	<p>March 15, 2019 update. Awaiting final plan changes from Engineer. April 4, 2019 received revised plans from ATCS May 1, 2019 received revised plats from ATCS May 5, 2019 Town comments to ATCS May 6, 2019 received revised plats from ATCS May 20, 2019 met with T. Priscilla, Mike Weber re: easements June 4, 2019 received proposal from ERM for addit. ROW negotiations June 10, 2019 met with Hall Funeral Home re: easements July, August, 2019. Continued to correspond and to meet with property owners re: easements. re-appraisals are needed in some cases, plats revised as needed. Offer packages set. November update. All but 2 easements recorded. Will continue dialog wtih property owners. December 2019. No change. January 2020. two property owners have not signed for easements. Met with property owner in January 2020. no progress. February 2020: began dialogue about condemnation with outside legal counsel March 2022: with the assistance of outside legal counsel (Cherry) sent final offer packages to the two property owners</p>	<p>Property owners were given 30 days, or until April 10, to respond to final offers.</p>

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Water Tank Renovation	repairs, stripping and painting; temporary relocation of cell carriers	<p>All of the cell carriers have been moved to a temporary tower by B&T Services. Structural analysis for tower with proposed cell carrier equipment is complete (performed by TEP, through USCI. Cost is directly to carriers through USCI). Structural modifications are needed with proposed new antennas. Cell service update: AT&T reoriented antennas and this seems to have improved service some; Verizon suggested Wi-Fi calling or C16 boosters but this requires internet service; Sprint is working directly with customer. Interior tank painting has begun. Anticipated completion date December 10 week (weather dependent). Exterior painting expected to begin in March 2019. Interior painting complete; cure time 10-14 days. Water Tower disinfected and back on line December 20.</p> <p>May 2019. Anticipate sand blasting and painting exterior of tank.</p> <p>May 7, 2019 Contractor visited site.</p> <p>May, 2019. Installed containment system. Painting to begin week of June 10, 2019.</p> <p>July, August, 2019. Exterior sandblasting and painting completed. Interior touchup as needed completed. Logos placed on tower for schools, Town.</p> <p>July, August, 2019. Analysis for railing and structure is underway, by MRA (consultant through the carriers).</p> <p>September, 2019. Water Tower filled, disinfected and in service.</p> <p>September, 2019. Town received structural analysis and proposed modification. Under review by Town's Engineer.</p> <p>October, November 2019. Requested bids for modification. Received one bid, but it included conditions that were not approved by design engineer. Currently requesting updated numbers from contractors.</p> <p>December 2019. Awaiting quotes from contractors for structural modifications.</p> <p>Remove from Report, and continue with Water Tank Cellular Carriers return to tank.</p>	<p>Continue dialogue with carriers regarding structural modifications.</p> <p>Awaiting bid costs from contractors for modifications.</p> <p>Remove from report, since the Water Tank Renovation work is complete, and the remaining work is associated with the return of cellular antennas to the Water Tower.</p>
Water Tank Cellular Carriers return to tank	Water tower painting and renovation is complete. Structural modifications are needed to accommodate cellular equipment on the tank	<p>January 2020. Agreement to move forward with structural modifications as proposed by MRA (design) and PT&T (contractor). Meetings continue to work out final logistics and schedule.</p> <p>February 2020. Contract to install brackets on catwalk approved. Catwalk work is scheduled to begin March 9. Continuing to work with other carriers & PTTG to provide PO to Pittsburg Tank & Tower Group for foundation modifications.</p> <p>March 2020. Welding for brackets on catwalk railing is complete. Anticipate start of foundation modifications June 1, 2020</p>	<p>March 9, 2020 catwalk bracket installation to begin.</p> <p>Anticipate foundation work to begin in June</p>

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PROJECT NAME	DESCRIPTION	STATUS	NEXT STEPS
<p>Pathway from LVHS to Sutton Place Design</p>	<p>Repair to an existing trail from Sutton Court to LVHS. This trail has continuing maintenance issues causing it to be impassable due to erosion causing mud to be on the trail. Serves multiple neighborhoods and town residents. Currently a privately owned and maintained trail, but will be Town owned & maintained after the project is complete. Funded through Loudoun County CIP funding, 2017 application</p>	<p>Engineering design to be done under traffic/transportation TOC. September 30, 2018. Engineer and staff met with HOA representatives January 2019. Staff is contacting property owners to discuss easements and cooperation for the work. February, 2019. All property owners agreed to cooperate with Town for easements. March 2019. 60% plans received. April 24, 2019 Town review sent to Clark Nexsen May 14, 2019. 100% plans received. week of May 27 met with engineer to discuss comments. May 30, 2019. Staff met with Purcellville Ridge HOA. June 5, 2019. Meeting with residents affected. June 12, 2019. Final revised drawings received. June 21, 2019. Pre-bid meeting held. July 9, 2019. Bids opened. Only one bid received, it was nearly double the budget and the engineer's estimate. Will consider some changes to the Plans and re-bid. September, 2019. Submitted request to Loudoun County for additional funding. October 2019. Contacted HOA to discuss change to plans. December 2019. No change. January 2020. No change February 2020. Loudoun County provided notice that funding would be in FY21 as requested. March 2020. Finalized bid documents and prepared final easement documents and plats. Project was advertised on 3/13/2020. Also sent updated project status letter to all residents affected by the project.</p>	<p>Obtain homeowner signatures for easement deed documents. All questions concerning plans and specifications are due NLT 4/9/2020. Bid closing date is scheduled for 4/17/2020.</p>
<p>Pedestrian Linkage 32nd Street Design</p>	<p>sidewalk across the Swan property. Sidewalk from the Ball property to Main Street to be incorporated into 32nd & Main Street Intersection Improvements.</p>	<p>October 11, 2018 met with Engineer to get proposal for survey and design. November 16, 2018. Notice to proceed issued. January 2019. Survey and design ongoing. April 16, 2019 Design plans received from Painter Lewis July 25, 2019. Met with engineer, Swans, Hazel Contracting on-site to discuss options for trail alignment. September, 2019. Received revised plans from Engineer. Under review by Town. January 2020. a part of project will be incorporated into Main Street and 32nd intersection improvements. Requesting estimate of cost from contractor for other portion. February 2020. Plat for Swan property received. Estimate for path construction received. March 2020. No change</p>	<p>Prepare deed document for Swan property.</p>

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PROJECT NAME	DESCRIPTION	STATUS	NEXT STEPS
<p>12th Street Roadway and Drainage Improvements Design UPDATE</p>	<p>Drainage and street improvements including storm sewer & inlets, curb & gutter, sidewalk and roadway improvements. Funding is VDOT Revenue sharing and NVTA.</p>	<p>August 13, 2018 Town/VDOT agreement executed. November 30, 2019 RFP advertised. Proposals due 1/11/2019. 11 proposals received. Currently under staff review. April 9, 2019 Award of Design to Clark Nexsen approved by TC May 8, 2019 Received approval from VDOT to move forward with Contract May 28, 2019 Kickoff meeting with ClarkNexsen, VDOT, Town staff. May - contract executed. July, August, 2019. Field survey. September 13, 2019. 30% plans received. Under review by Town Staff. October, 2019. Town review is underway. December 2019. Town comments on 30% plans sent to design engineer. Awaiting VDOT comments. January 2020. No change, awaiting VDOT comments. February 2020. VDOT comments sent to Engineer.</p>	<p>Address VDOT and Town comments. NO CHANGE</p>
<p>Hatcher Avenue Sidewalk Improvements Design UPDATE</p>	<p>Completes missing sidewalk segments on the east side of Hatcher Avenue from north of Catoctin Creek to the W&OD Trail.</p>	<p>August 13, 2018 Town/VDOT agreement executed. January 10, 2019 Received final proposal from TOC engineer, Kimley Horn & Associates. January 24, 2019 Notice to Proceed with design issued. February 26, 2019. Kick off meeting. April 2019. Survey completed, KHA working on design. May 10, 2019. Concept plans received. June 10, 2019 meeting with KHA to discuss design August 21, 2019. Met with KHA to go over draft 60% plans and discuss certain items. September 10, 2019. 60% plans and cost estimate received by Town. Uploaded to VDOT 9/25/2019. December 2019. Town comments sent to design engineer. January 2020. Met with design engineer, reviewed changes made to plans and next steps. February 20, 2020. 90% design plans submitted to VDOT March 2020: received plats, environmental permits and some VDOT comments</p>	<p>Await remaining VDOT comments then begin 100% design. Begin ROW activities (title searches, deeds, easement valuations)</p>

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PROJECT NAME	DESCRIPTION	STATUS	NEXT STEPS
<p>32nd & Main Street Intersection Improvements Design UPDATE</p>	<p>Design and construction of intersection improvements, potentially a traffic signal</p>	<p>August 13, 2018 Town/VDOT agreement executed. November 11, 2018 RFP advertised. December 14, 2018. Proposals due. January 2019. Proposals under review February 1, 2019. Review team meeting to discuss proposals and top three firms. February 21 & 22, 2019. Interviews. March 12, 2019. Recommendation to TC to award design to KHA; approved. April 26, 2019 Purchase Order and Notice to Proceed issued. May 8, 2019 kickoff meeting with KHA and VDOT June 2019 Traffic counts completed. July, August 2019. Survey completed. Town sent plans for Blue Ridge Estates to engineer to coordinate proposed options with plans. September 13, 2019. Concept plans and signal justification analysis received by Town. Under Town review. October 2019. Concept plans reviewed by Town, comments to engineer. SJR submitted to VDOT. November 11, 2019. Revised concepts received. Will be presented to the Town Council on December 10. December 2019. Concepts were presented to the Town Council on December 10. After hearing citizen comments, Council asked staff to further develop Option 1, to include sidewalk. Also to hold a public information meeting before the final option is chosen. January 2020. discussions with engineer for concept plans. February 27, 2020. Public Information meeting held. Survey monkey survey posted on 2/28. March 2020. Received results of survey - signal ranked first followed by mini-roundabout. Phone call with VDOT traffic engineering regarding the signal</p>	<p>Develop a 4th option to incorporate comments received at the public information meeting. Submit revised signal justification report to VDOT</p>

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PROJECT NAME	DESCRIPTION	STATUS	NEXT STEPS
West End Pump Station Design UPDATE	The abandonment of the West End Pump Station (WEPS), and the connection of the sewer to the new Pumps Station on Blue Ridge Estates is included in the FY2019 budget.	<p>November 19, 2018. Design work to be completed under the TOC for Engineering services. CHA provided proposal.</p> <p>December 12, 2019. Purchase order received and Notice to Proceed sent to CHA.</p> <p>January 2019. Survey work was scheduled but unable to occur due to snow.</p> <p>March 2019. Survey work completed.</p> <p>March 29, 2019 Staff met with design engineer to discuss project alternatives.</p> <p>May 9, 2019 Received revised layout for sanitary sewer from design engineer CHA.</p> <p>June 2019 met with property owners re: right of entry for soil borings</p> <p>September, 2019. Sent multiple communications to property owner to request right of entry to perform soil borings.</p> <p>October 2019. Obtained final ROE to allow work on properties.</p> <p>November 2019. Soil borings completed.</p> <p>December 2019. Geotech report received. Design engineer is reviewing the information .</p> <p>January , 2020. Staff met with design engineer to discuss geotech report and finalize location of proposed sewer main. Staff also met with property owner of Anthony's to discuss project.</p> <p>February 2020. Received plats from desing engineer. Town provided comments on plats.</p> <p>March 2020. No change.</p>	Await final design and plats. Meet with property owners to discuss easements, project, ways to minimize impacts, etc.
RECURRING PROJECTS AND TASKS			
GIS updates - water layer	As needed, updates to GIS for water main, water meters, hydrants. Based on as-built drawings for new construction, but also staff obtained points for existing features.	<p>Staff is collecting water meter location points, engineering is adding to GIS layer. Downloaded features, points from GPS information collected by Town Staff. To date, Town has added 1158 meter locations. Updates to GIS are being prepared by Town consultant CHA to add Mayfair residential and commercial subdivisions, Catoctin Corner, N. Maple Avenue watermain, and Allder School watermain. Reviewing updates received from CHA.</p> <p>January 25, 2019 Town review comments sent to CHA.</p> <p>January 28, 2019. Town staff requested and approved task order proposal for updates to GIS to include water and sewer easements for new development.</p> <p>May 9, 2019 Town review of easement layer sent</p> <p>June 17, 2019 Town received updated easement layer</p> <p>December 2019. S 20th Street water main shown as an 8-inch is actually a 6-inch. GIS to be revised for water modeling.</p> <p>February 2020. provided plan updates and PO to consultant to update GIS.</p> <p>March 2020. Consultant working on GIS updates.</p> <p>Collected water meter points in Old Dominion Valley Subdivision.</p>	Updates as needed. Review consultants updates.

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PROJECT NAME	DESCRIPTION	STATUS	NEXT STEPS
GIS updates - sanitary sewer layer	As needed, updates to GIS for sanitary sewer main, laterals, cleanouts. Based on as-built drawings for new construction, but also staff obtained points for existing features.	<p>Staff is collecting cleanout location points, engineering is adding to GIS layer. Investigated areas where the mapping is possibly incorrect (areas noted when creating flow direction mapping). To date, Town has added 605 cleanouts. Updates to GIS are being prepared by Town consultant CHA to add Mayfair residential and commercial subdivisions, Catoctin Corner. Reviewing updates received from CHA.</p> <p>January 25, 2019 Town review comments sent to CHA.</p> <p>January 28, 2019. Town staff requested and approved task order proposal for updates to GIS to include water and sewer easements for new development.</p> <p>April 15, 2019 Town comments to CHA</p> <p>May 9, 2019 Town review of easement layer sent</p> <p>June 17, 2019 Town received updated easement layer</p> <p>February 2020. provided plan updates and PO to consultant to update GIS</p> <p>February 2020. provided plan updates and PO to consultant to update GIS</p> <p>March 2020. Consultant working on GIS updates.</p> <p>Collected clean-out points in Old Dominion Valley Subdivision.</p>	<p>Updates as needed.</p> <p>Review consultants updates.</p>
GIS updates - storm sewer layer	As needed, updates to GIS for storm sewer main, inlets, culverts. Based on as-built drawings for new construction.	<p>J Street drainage improvements needs to be added to GIS. Updates to GIS are being prepared by Town consultant CHA to add Mayfair residential and commercial subdivisions, Catoctin Corner. Reviewing updates received from CHA.</p> <p>January 25, 2019 Town review comments sent to CHA.</p> <p>January 28, 2019. Town staff requested and approved task order proposal for updates to GIS to include water and sewer easements for new development.</p> <p>May 9, 2019 Town review of easement layer sent</p> <p>June 17, 2017 Town received updated storm sewer layer</p>	<p>Updates as needed.</p>
GIS updates - signs layer	As needed, updates to GIS for sign layer.	<p>Created new sign layer. Downloaded features, points from GPS information collected by Town Staff. To date, 269 sign points added. No change.</p> <p>February 2019. Staff worked with VDOT and Contractor that is doing roadway evaluation (FUGRO). They will also provide a sign layer - anticipated for April 2019.</p> <p>April 2019. received a complete sign layer through pavement management contract with VDOT/FUGRO.</p> <p>May 2019. Sign layer added to GIS</p>	

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GPS unit	As needed, updates to mapping or software.	Maintenance is collecting water meter and sewer cleanout locations in Old Dominion Valley using the GPS unit. Coordination effort between Engineering and Maintenance to collect additional GIS features. Engineering uploading and downloading software, allowing Maintenance to capture the feature points in the file.	Updates as needed.
Map creation as requested	Create maps for presentations, web postings, reports, permit applications, etc. as needed	Assisted Community Development for GIS data and maps associated with Plan Purcellville. Provided Plan Purcellville's consultant with the Town's updated Plan Purcellville GIS database. Also provided additional maps for identifying additional map features required for the updates. Updated the Town's ArcReader utility map and deployed to all staff in preparation for COVID19.	Maps as needed
Title/easement research as requested	Research easements and title information.	Easement research associated with WEPS project Easement research regarding maintenance responsibility for drainage at 550 S Nursery Ave. Researched 300 Orchard Ave for parcel plat information for Planning. Researched 411 Davis Drive for stormwater easement for new homeowner. Researched 148 E. Main St for sanitary sewer easement for partial blockage. Researched 16th Street for right-of-way boundary. Reviewed multiple deck, fence and patio zoning permits for conflicts with Town utility easements	Research as needed
Unidirectional Flushing (UDF) Program	The unidirectional flushing program serves to flush the water main. This program is generally implemented every other year.	The flushing commenced in March/April 2016, but the full program was not completed. Town staff met with MBI to request minor revisions to UDF for this year, and to request other revisions for future years. Reviewed, updated and printed UDF mapping documents. Inspections staff is assisted with valve exercising in advance of UDF. UDF began April 2, 2017. Met with CHA to discuss updates to UDF; proposal requested. CHA is updating the water model, which will be used for the flushing mapping update. Contacted previous consultant to get previous flushing files for updating. March 2020. Received UDF updates from consultant. Currently reviewing updates.	Flushing program was going to commence at the end of March. Due to current staffing obstacles a new flushing date will be identified in the future.

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Backflow and Cross Connection Control Program	State regulations require the Town to collect inspection reports on testable backflow prevention devices. This is done annually. In 2019, letters were mailed to those with testable devices, requiring the inspection reports. A courtesy letter was mailed to those with non-testable devices that were more than 5 years old.	May 1, 2019. First letter requesting backflow testing reports was sent to 143 locations. Of these, 103 letters were for testable devices, 40 were courtesy letters reminding owners that their non-testable devices may be 5 years or older and should be considered for replacement. May 16, 2019 2nd letter sent to 60-65 locations for testable devices June 5 40-45 letters to be sent June 2019. Courtesy calls and visits to customers with outstanding reports July, August, 2019. Missing reports received. 100% of responses received.	Complete until 2020.
Grease Trap Inspection Program	Grease in the sanitary sewer system can cause backups in the mains. Grease traps need to be maintained so that grease does not enter the Town system. The Town requests businesses to submit forms to show that the grease trap has been serviced periodically.	January 2020. Letter requesting service records sent to businesses with grease/grit traps. Met with several property owners to discuss grease/grit policy records request, etc.	Follow up with businesses that fail to respond.
Monthly Manhole Inspection - select manholes	Several manholes in the Town's system are known to have issues with solids build-up. These manholes are inspected monthly, and if issues are noted, the maintenance dept. is notified to clean the manholes	5 manhole inspections completed monthly.	Monthly inspections.
Business Utility Forms	Review business utility forms for new or remodeled businesses	3 business utility forms approved 0 business utility forms	Review and approve as submitted
Right-of-way Permits	Review and issue permits for work in the ROW. Collect bonds, inspect work, release as applicable	1 right of way permits submitted. 7 right of way permits issued in March	
Meter or occupancy inspections		2 meter inspections, 1 occupancy inspection 0 meter requests, 3 occupancy inspections	

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Fire Flow test requests	Process applications and assist applicants with completion of applications for fire flow test requests	0 fire flow test requested 0 fire flow tests	Return results to applicant after fire flow tests completed by maintenance
Miscellaneous		<p>Provided asset information (water, sewer, storm, roads) to Maintenance division</p> <p>Worked with Town Team and consultant regarding nutrient credits on Aberdeen property</p> <p>March 2020. Researched old availability for 37489 A street for a new water and sewer connection.</p> <p>Completed Round About and 32nd Street VDOT audit.</p> <p>Performing VDOT audit for Hirst Trail project.</p>	
OTHER TASKS			
Application for Revenue Sharing Funding for FY2021 & 2022	Pre-application is due to VDOT by July 1, 2019.	<p>April 3, 2019 letter from VDOT notes the following dates for the process:</p> <p>May 15, 2015 application cycle for Revenue Sharing Program opens.</p> <p>July 1, 2019 Pre-applications are due to VDOT - Town submitted applications for additional funding for Nursery Avenue Improvements and 32nd & Main Street Improvements on June 17, 2019.</p> <p>August 15, 2019. Pre-application was approved for both projects.</p> <p>September 10, 2019. Resolution to approve VDOT applications presented and passed by Town Council.</p> <p>September 30, 2019. Two applications were submitted as follows:</p> <p>32nd & Main Street additional funding \$206,000</p> <p>Nursery Avenue additional funding \$212,500</p>	Await VDOT decision.
Application for funding through Loudoun County CIP	<p>Applied for three grants as follows:</p> <p>Pedestrian Walkway from Sutton Drive to Loudoun Valley High School Property, additional funding request of \$91,100;</p> <p>Pedestrian Linkage along G Street from East E Street to 560 East G Street, \$2,460,363;</p> <p>SR 690/ N 21st Street Multiuse Trail, Phase 1, additional funding of \$1,010,000</p>	September 30, 2019. Applications hand-delivered to Loudoun County government Department of Management and Budget	Await Loudoun County budget decisions

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PROJECT NAME	DESCRIPTION	STATUS	NEXT STEPS
Water Resource Study update 2019	A study to determine the future demands for water on the Town's system, our current capacity for water and a plan to meet future needs	<p>April 2019. Staff met with Jacobs Engineering to go over the progress and to refine the information needed to predict future demands. Jacobs Engineering was chosen to provide the Town with the Water Resources Update. A summary of the anticipated demands was presented at the May 28, 2019 Town Council work session.</p> <p>July 2019. updated water demand report submitted. Town staff met with engineer to go over comments. Also received project ranking spreadsheet tool.</p> <p>September 16, 2019. Met with Jacobs Engineering. Received revised demand projection memo, also discussed Capital Project analysis. Under review by Town staff.</p> <p>December 2019. final draft of portions of study received. Under review by Town Staff.</p> <p>January 2020, staff reviews sent to engineer.</p>	provide review comments to Jacobs
Nutrient Banking Application	Application to include the Aberdeen property in a possible nutrient bank in order to sell or use nutrient credits	<p>Town staff worked with consultants Timmons * WSSI to submit a nutrient banking application to VA Department of Environmental Quality. Application was submitted 3/3/2020. DEQ has not yet completed the technical review of the Town's application. DEQ has stated the Town will be grandfathered under the previous land conversion rate.</p>	

TABLE B PRIVATE PROJECTS

PROJECT NAME	DESCRIPTION	STATUS	NEXT STEPS
TP13-02 Catoclin Corner Frontage Improvements	Water main extensions along Berlin Turnpike and East Main Street, Sewer main extension along East Main Street, traffic signal modifications (VDOT oversight)	Utilities are complete. LEO construction is currently trenching for street lighting being completed by Dominion Power. Lighting installation completed. Dominion returned to plumb two leaning lights. Contractor is installing turn lanes and signal in VDOT ROW along Rt. 287. Base Paving of turn lanes at chick-fil-a and PHC completed. Traffic signal is complete and operational. Building development continues.	Final inspections and bond release; schedule is dependent on developer. No Change.
TP15-08 Catoclin Corner Site Plan	Commercial development. Site work including water, sanitary sewer, storm sewer, other grading and site work.	On-site water main is complete and tested. Sanitary sewer is complete, tested and CCTV'd. Site is complete. Occupancies are being issued for phase I. Storm sewer videos have been reviewed and comments sent to contractor. January 2019 update. Building 5 construction almost complete. Added 1 service for this building several months ago. Signal light at 287 complete and open.	Building construction. No Change.
TP14-06 Mayfair Residential Subdivision	262 dwelling units consisting of a mix of single family detached and single family attached dwelling units.	Single family and townhomes under construction. Phase 1 beneficial use approved; phase 2 beneficial use requested. Beneficial use inspection of Phase 2 water and sanitary sewer completed. Beneficial use inspection for sanitary sewer and water of partial Phase 3 (Upper Heyford Place only), approved 7/11/17. Water and sanitary sewer in Phase 3 is complete. All water has been tested and passed. Sanitary sewer in phase 3 has been partially tested and partially televised Upper Heyford only). Utilities are complete in all phases. Street lighting installation is complete. Bond reduction request approved by PW. January, 2019 update. All single family homes are complete. Only 9 townhomes are not under any phase of construction currently. 1 section of 5 and 1 section of 4. All others are under some phase of construction or are complete. March 15, 2019 update. All permits for residential construction have been issued. April 2019. Builder requested 10 meter crock inspections and meters. May 2019. 6 occupancy inspections September, 2019. All occupancy permits have been issued. Developer is installing road surface asphalt.	Final inspections and bond release; schedule is dependent on developer. No Change.
TP14-13 Vineyard Square site plan	Demolition of buildings and new construction on N. 21st Street	Easements recorded, bonds approved and site plan has been signed.	Construction at initiative of developer. No change
TP17-07 Morgan Meadow Subdivision	Construction plans for a 5 lot subdivision on N. Hall Ave.	PW comments completed 1/4/2018	Awaiting resubmission. No change

TABLE B PRIVATE PROJECTS

PROJECT NAME	DESCRIPTION	STATUS	NEXT STEPS
<p>TP15-10 Lot 6F - 37231 Richardson Lane, mini warehouse</p>	<p>site plan for mini warehouse. Includes storm drainage for off site lots in Valley Industrial Park.</p>	<p>Reviewed 9/19/2016. Meeting with applicant scheduled for 11/10/16. Town Council determination regarding drainage design requirements; applicant to resubmit. Revised plans submitted 3/31/2017. Plans reviewed, comments sent to applicant. 3/7/18 town staff met with developers engineer; engineer introduced proposed concept for development. Staff gathered data and organized it into a spreadsheet/timeline of events for the Interim Town Attorney. Staff met to determine a way forward; communication will be through the Town Attorney. Comments from all agencies have been submitted and are in the hands of the applicant. Met with developer's engineer 12/26/18; went over comments. 2/22/2019 submission. Town PW comments sent 3/22/2019 May 23, 2019 revised plans submitted. September, 2019. Test pitting over water utility in rear of lot. Revised plan submitted. October/November 2019. Town review of plans, plat and deed. November 11, 2019. Held meeting for property owners; developer, his engineer and attorney attended, plus Town Staff. January 2020. Public hearing held for plat change. March 2020 update. Attorney for developer should be working with attorney for landowner (commented at the public meeting).</p>	<p>Public Hearing comments will need to be addressed before vote by TC</p>

TABLE B PRIVATE PROJECTS

PROJECT NAME	DESCRIPTION	STATUS	NEXT STEPS
TP17-03 Ball Property (Blue Ridge Estates)	Proposed single family development, located on S. 32nd Street	<p>Plans received, and reviewed for completeness 4/26/2017. Revised plans received 5/30/2017. PW review sent 7/31/2017. Meeting between developer and neighboring properties scheduled for 8/22/2017. Revised plans submitted 10/6/2017; under review. 2/28/2018 Working with developer for possible oversizing agreement for pump station. Plats and deeds under review.</p> <p>Staff worked with interim Town attorney on Oversizing Agreement. Agreement approved by Town Council. Pre-construction Meetings (both Town and County ESC) held. Started Phase I E&S controls and clearing along S. 32nd Street. Contractor sent out pre-blast surveys to surrounding homes. Blasting permit issued and blasting for sanitary sewer installation is underway. Sanitary sewer, storm sewer and water main installation is underway.</p> <p>January 2019 update. Watermain tap and sewer main tap at W K Street completed.</p> <p>April update. Water and sanitary sewer partially installed and tested.</p> <p>May update. Infrastructure installation continues.</p> <p>June 2019. Tested wet well for pump station, tested all equipment, training and town staff involvement in anticipation of working pump station.</p> <p>September, 2019. Pump station complete. Residential building is on-going.</p> <p>October, November 2019. Bond reduction request submitted, Town review. Additional information submitted, Town review. Bond amount reduced.</p>	Inspections as needed for homes, remaining infrastructure items.
O'Toole Property rezone	Rezoning, and comp plan amendment	PW review 8/8/2016. Revised application received 3/3/2017. Engr. Review completed 4/11/2017. 9/6/17 new submission; review completed 11/8/2017. no change	
TP17-02 Mayfair Industrial Lot 4 (McKim)	Site plan for office/vehicle maintenance building and associated outdoor storage lot and parking	<p>PW review 7/25/2017. E&S measures installed. ROW permit issued by Town.</p> <p>January 2019 update. Building construction is underway.</p> <p>September, 2019. Fire line installed, pressure tested. Project completed all items installed. Reomve from report</p>	Remove from report
TP17-05 Mayfair Industrial Lot 3 Truckin' America	Site plan for building and associated parking.	<p>PW review 8/11/2017.</p> <p>January 2019 update.</p> <p>May 6, 2019. Preconstruction conference</p> <p>September 2019. Building is under construction. Project completed and business occupied.</p>	Remove from report

TABLE B PRIVATE PROJECTS

PROJECT NAME	DESCRIPTION	STATUS	NEXT STEPS
TP17-06 Mayfair Industrial Lots 5&6	Site plan for storage unit buildings.	PW review re: request for ESC work. PW email sent 2/25/2018. Pre-construction meeting held 4/10/18. Contractor installed E&S controls and began grading work. January 2019 update. No further work has occurred. No change September, 2019. Fire flow test request submitted. Fire Flow test never performed. Information was provided however the request and fee were never re-submitted. No new work underway however there was some soil excavated and a new construction entrance installed. Their right of way permit is expired so we will be reaching out to them to acquire a new one.	
Fields Farm Park Road	Loudoun County project to extend Mayfair Crown Drive to Hillsboro Road and widen school access road	Town staff has met with County and their design engineer to discuss conflicts with Town utilities. Received updated plans with proposed water and sanitary relocations. Town sent final comments to County on 1/28/18 and additional comments to Engineer's response on 3/29/18. Final comment responses and revised plan sheets received from Engineer on 5/7/18. Town notified that all its comments have been satisfactorily addressed 5/8/18. existing water services abandoned to property line; ball valve installed and covered with meter cock. December 17, 2018. Public informational meeting held at Town Hall; Loudoun County staff presented. January 2019. Process for boundary line adjustment approved at TC meeting. No change November 2019. Loudoun County presented at TC meeting for public hearing for boundary line adjustment. December 2019. BLA approved by Town Council. February 2020. recd plat and deeds for review	
TP18-03 Freemont Industrial LLC Mayfair Industrial Lot 2	Site Plan	1st Submission received 10/9/2018. PW review 11/15/18. January 3, 2019 2nd submission received. January 27, 2019 submissions. June 27, 2019. Easement documents and plat reviewed. September 2019. Plan approved. ROW permit approved but not picked up by applicant. No new information or movement with this project	
Village Case Sec 2 parcel & Sec 8	Residential homes development	Under Construction. Sewer and water installation underway. Sewer and water mains installed and tested. Service installation underway 50% complete. Curb installation and street grading underway.	Inspections as needed. No change

**MAINTENANCE DEPARTMENT
MONTHLY OPERATIONS REPORT
FOR THE MONTH OF: MARCH 2020
PREPARED: APRIL 2020**

MEASURE	MONTH	UNITS	FY YTD	UNITS
WORK ORDERS (W.O.) PROCESSED	97		1081	#
STAFF HOURS REQUIRED FOR W.O.	261.25	HRS.	3077.75	HRS.
NON-CORE DUTIES HOURS	11	HRS.	304.25	HRS.
CD. MAN HOURS REQUIRED FOR WO	250.25	HRS.	2420.5	HRS.
PM FIRE HYDRANTS	0		63	
FIRE HYDRANT REPAIR	0		3	
PM VALVE EXERCISED	169		178	
MANHOLE INSPECTIONS	0		11	
CCTV SEWER LINE	0	L. FT.	2,604	L. FT.
SEWER LINE CLEANED	0	L. FT.	2,666	L. FT.
SL RAT INSPECTIONS	200	L. FT.	11,911	L. FT.
VEHICLES SERVICED/REPAIRED	0		84	
# OF WATER BREAKS	0		1	
# OF SEWER BACKUPS	2		5	
# OF CLEANOUTS INSTALLED	0		3	
# OF MISS UTILITY TICKETS	80		771	
# OF METERS READ	9		169	
# OF METERS SHUT OFF	1		29	
# OF METERS TURNED ON	0		27	
# OF REPLACED METERS	0		0	
# OF REPLACED REGISTERS	0		0	
# OF NEW ACC. METER INSTALLS	2		7	
# OF LEAK CHECKS	27		220	
# OF REPLACED MIUs (Radios)	15		263	
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

Installed culvert at 141 S. 26th Street
 Loudoun Grown Expo work orders
 Repaired damaged wayfinding sign
 Replaced leaf guard on split rail fence along 20th Street
 Serviced all lawn maintenance equipment
 Installed permanent barricades on Springbury Dr.
 Sign installs/upgrades
 Tree trimming
 Cleaned 21st Street and downtown parking lots
 Prepared community garden
 Mulched landscape beds at Fireman's Field complex and Maintenance facility
 Boom mowing along right of ways
 Fleet maintenance
 Equipment repairs
 Moved a shed at the WTP.
 Miss Utility tickets
 Painted the Maintenance facility lobby area
 Mowing at Town Hall
 Maintenance facility cleanup and preventative maintenance.
 Repaired collapsed sewer line at Suntrust Bank
 Weekly pump station cleaning
 Assisted Town of Berryville with sewer line repair
 Multiple repairs at the WTP
 Installed water hook up for contract welders at the elevated water tank.

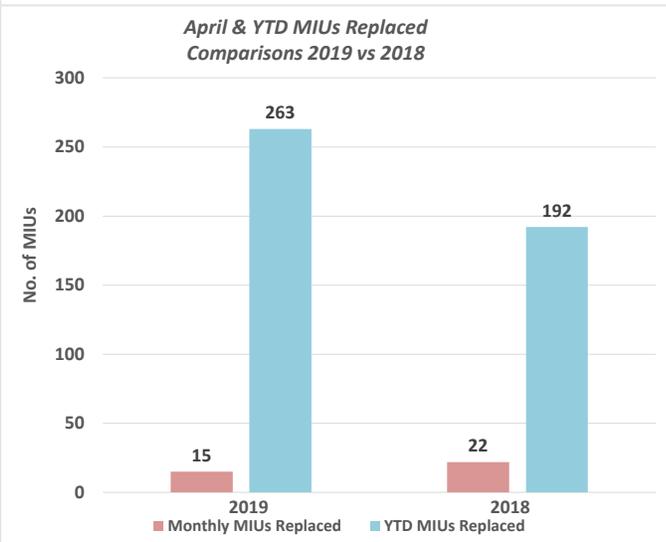
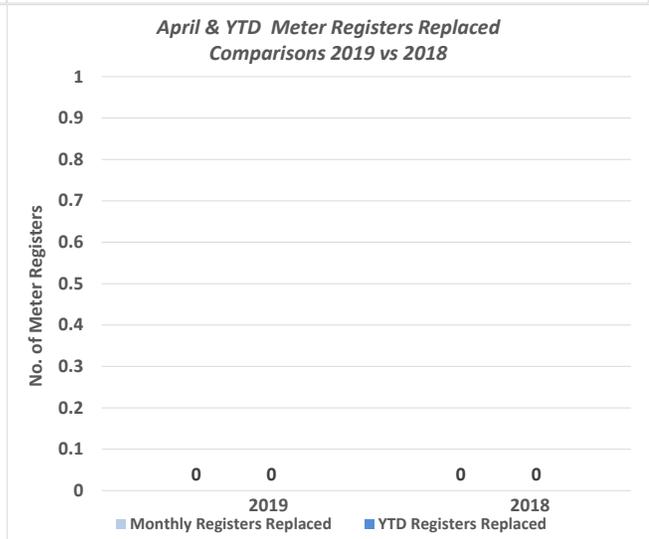
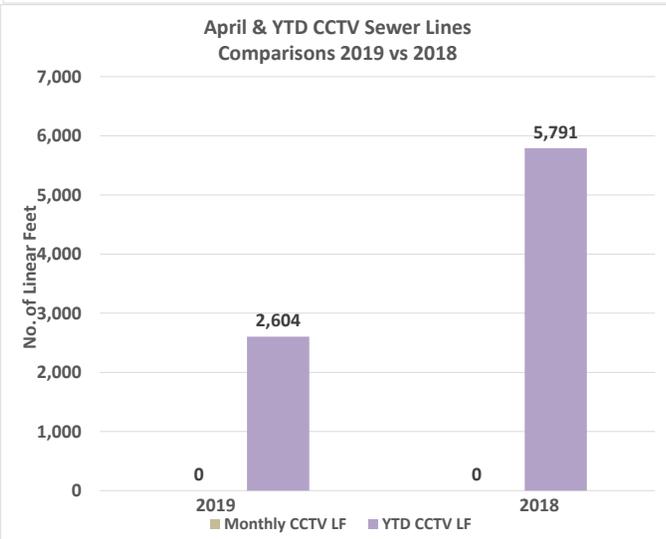
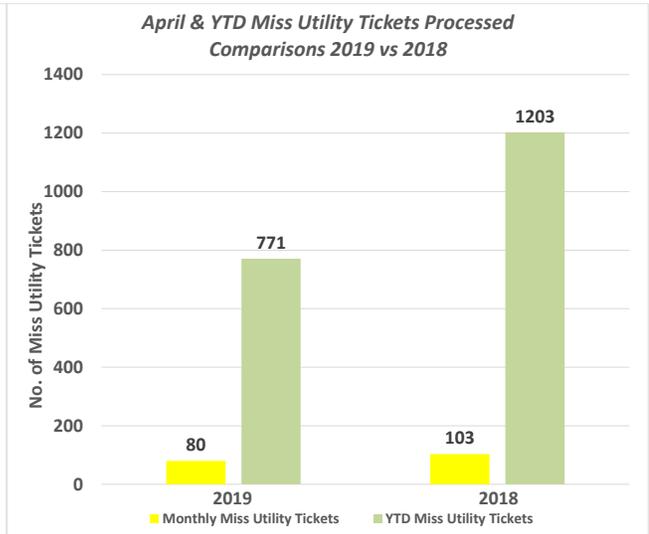
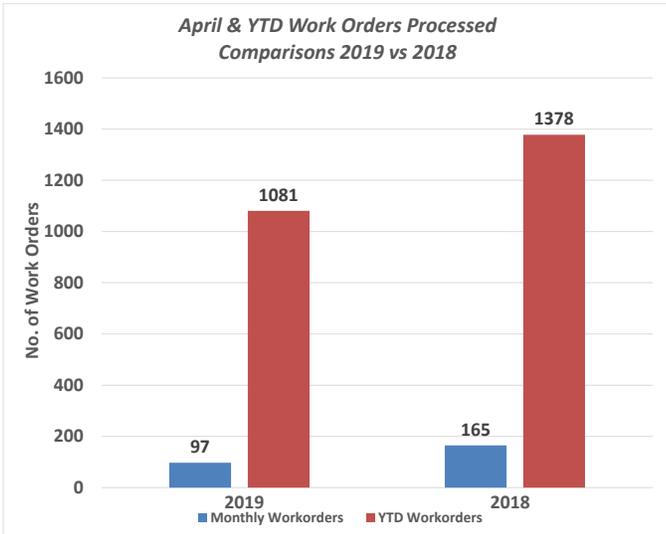
**MAINTENANCE DEPARTMENT
MONTHLY OPERATIONS REPORT
FOR THE MONTH OF: MARCH 2019
PREPARED: APRIL 2019**

MEASURE	MONTH	UNITS	FY YTD	UNITS
WORK ORDERS (W.O.) PROCESSED	165		1378	#
STAFF HOURS REQUIRED FOR W.O.	513	HRS.	3838.43	HRS.
NON-CORE DUTIES HOURS	124	HRS.	847.5	HRS.
CD. MAN HOURS REQUIRED FOR WO	389	HRS.	2689.28	HRS.
PM FIRE HYDRANTS	0		128	
FIRE HYDRANT REPAIR	1		1	
PM VALVE EXERCISED	0		404	
MANHOLE INSPECTIONS	82		219	
CCTV SEWER LINE	0	L. FT.	5,791	L. FT.
SEWER LINE CLEANED	0	L. FT.	1,189	L. FT.
SL RAT INSPECTIONS	5,646		36,491	L. FT.
VEHICLES SERVICED/REPAIRED	1		122	
# OF WATER BREAKS	0		3	
# OF SEWER BACKUPS	0		0	
# OF CLEANOUTS INSTALLED	0		0	
# OF MISS UTILITY TICKETS	103		1203	
# OF METERS READ	24		231	
# OF METERS SHUT OFF	7		31	
# OF METERS TURNED ON	7		32	
# OF REPLACED METERS	0		15	
# OF REPLACED REGISTERS	0		0	
# OF NEW ACC. METER INSTALLS	5		54	
# OF LEAK CHECKS	25		318	
# OF REPLACED MIUs (Radios)	22		192	
CUSTOMER COMPLAINTS	0		23	
WATER COMPLAINTS REC'D	0		0	
WATER COMPLAINTS RESOLVED	100		100	
WASTEWATER COMPLAINTS REC'D	1		4	
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

CPR/First Aid Certification
 Emergency Fire Hydrant Repair at 12th Street after being hit by a vehicle.
 Repaired drain valve and flocculator paddles on filter #3 at Water Treatment plant
 Assisted Town of Lovettsville with a sewer backup
 Repaired West End 7-11 sewer lateral
 Installed new flow monitors in the G Street basin to start collecting data
 Removed grease from sewer main on 21st Street
 Snow removal operations for one weather event
 Replaced window blinds in Town Hall
 Pothole repairs
 Replaced/Repaired damaged street signs
 Installed first aid cabinet at the Wastewater Treatment plant
 Leaf removal at Tabernacle and Dillon's woods
 Police Department facility Maintenance work orders
 Weekly cleaning of dog stations and bus shelters
 Cleaning and storage of snow removal equipment.
 Installed new gated entrance to Hirst well property
 Town Hall work orders/Council Chambers set up
 Built road access to wells 1A and 2A for testing purposes
 Road/Easement Maintenance for Aberdeen property and Marsh well
 Installed radar signs on Devonshire Circle and J Street
 Community garden cleanup and season opening preparation
 Chapman DeMary Trail Maintenance
 Storm drain repairs on Strathallen Ct.
 Began mowing locations cleanup/limb removal
 Cleared debris/mud from walking trail from Kingsbridge to Loudoun Valley HS
 Built replacement shutters for Tabernacle
 Moved furniture and patched and painted walls for (3) office spaces at Town Hall
 Began prep of mowing equipment for the upcoming season
 Assisted with pavement patch on S. 26th Street
 Assisted contractor with transplanting of (8) Oak trees in Dillon's woods/Fireman's Field

**Maintenance Department
2019 vs 2018 Comparisons**



**WATER TREATMENT PLANT
MONTHLY OPERATIONS REPORT
FOR THE MONTH OF: MARCH 2020
PREPARED: APRIL 2020**

**WATER TREATMENT PLANT
MONTHLY OPERATIONS REPORT
FOR THE MONTH OF: MARCH 2019
PREPARED: APRIL 2019**

WATER	MONTH	UNITS	AVG./DAY	UNITS
ALUMINUM SULFATE	962.0	lbs.	31.0	lbs.
POLYMER				
METAPHOSPHATE	169.3	lbs.	5.5	lbs.
SODA ASH	998.1	lbs.	32.2	lbs.
FLUORIDE (WTP & WELLS)	163.0	lbs.	5.3	lbs.
POTASSIUM PERMANGANATE	28.4	lbs.	0.9	lbs.
CHLORINE (HYPOCHLORITE @ WTP)	241.9	lbs.	7.8	lbs.
CHLORINE RESIDUAL (TANK)			2.0	mg/L
AVERAGE PH (FINISHED)			7.6	SU
BULK WATER SALES	0	gals.	0.0	gals.
INLINE METER, COOPER SPRINGS	4,478,091	gals.	144,455	gals.
JEFFERIES WELL	0	gals.	0.0	gals.
WATER PLANT GALLONS	8,382,000	gals.	270,387	gals.
MARSH WELL	1,905,700	gals.	61,474	gals.
MOUNTAIN VIEW WELL	501,370	gals.	16,173	gals.
MAIN STREET VILLAGES WELLS (MS-1 & VC)	3,180,719	gals.	102,604	gals.
CORNWELL #2 WELL	1,599,075	gals.	51,583	gals.
FORBES WELL	1,225,329	gals.	39,527	gals.
HIRST #2 WELL	0	gals.	0.0	gals.
TOTAL WATER FLOW	16,794,193	gals.	541,748	gals.

RESERVOIR LEVELS:	1-Mar-2020	31-Mar-2020
FRONT LAKE:	6.16'	6.18'
BACK LAKE	5.04'	5.0'

RAINFALL: 2.51"

ACCOMPLISHMENTS

NPDES Discharge Monitoring Report due 04/10 was submitted on 04/03/20.
VDH ODW Monthly Operating Report due 04/10 was submitted electronically on 04/10/2020.
Four Weekly Water Production Reports were completed.
VDH issued a Construction Permit for the Nature Park Filter Bldg. Project.
Updated Emergency Response Plan to include Pandemic Continuity of Operations Plan.

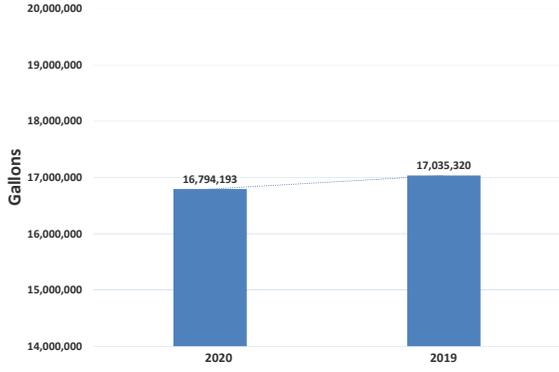
WATER	MONTH	UNITS	AVG./DAY	UNITS
ALUMINUM SULFATE	705.6	lbs.	22.8	lbs.
POLYMER				
METAPHOSPHATE	730.5	lbs.	23.6	lbs.
SODA ASH	717.9	lbs.	23.2	lbs.
FLUORIDE (WTP & WELLS)	184.6	lbs.	6.0	lbs.
POTASSIUM PERMANGANATE	29.3	lbs.	0.9	lbs.
CHLORINE (HYPOCHLORITE @ WTP)	242.5	lbs.	7.8	lbs.
CHLORINE RESIDUAL (TANK)			1.9	mg/L
AVERAGE PH (FINISHED)			7.8	SU
BULK WATER SALES	0	gals.	0	gals.
INLINE METER, COOPER SPRINGS	4,579,545	gals.	147,727	gals.
JEFFERIES WELL	0	gals.	0	gals.
WATER PLANT GALLONS	8,689,000	gals.	280,290	gals.
MARSH WELL	1,930,700	gals.	62,281	gals.
MOUNTAIN VIEW WELL	465,500	gals.	15,016	gals.
MAIN STREET VILLAGES WELLS (MS-1 & VC)	3,202,486	gals.	103,306	gals.
CORNWELL #2 WELL	1,933,169	gals.	62,360	gals.
FORBES WELL	814,465	gals.	26,273	gals.
HIRST #2 WELL	0	gals.	0	gals.
TOTAL WATER FLOW	17,035,320	gals.	549,526	gals.

RESERVOIR LEVELS:	1-Mar-2019	31-Mar-2019
FRONT LAKE:	5.6'	5.75'
BACK LAKE	5.0'	5.1'

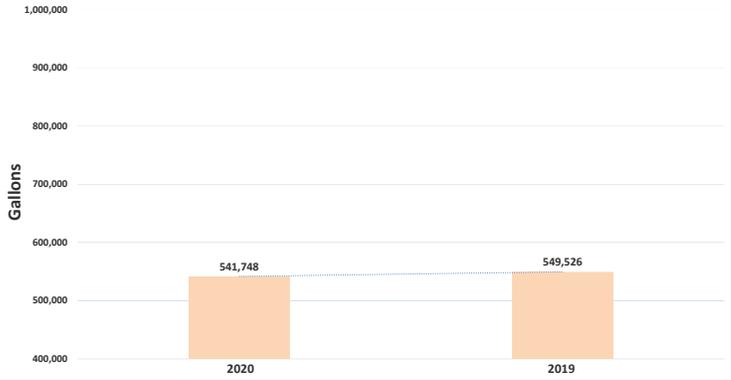
RAINFALL: 5.69"

Water Well Production Facilities
March 2020 vs 2019 Comparisons

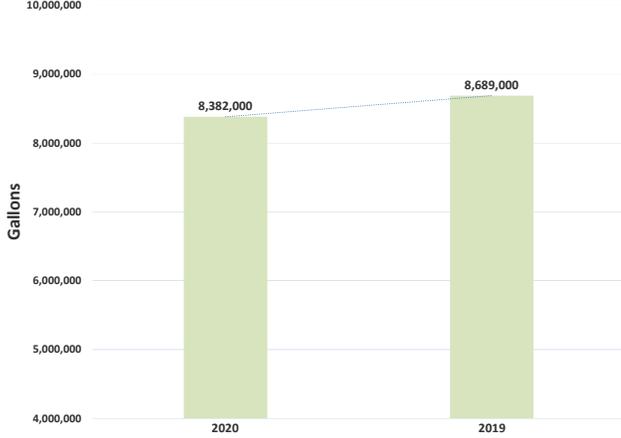
March Total Monthly Water Production 2020 vs 2019



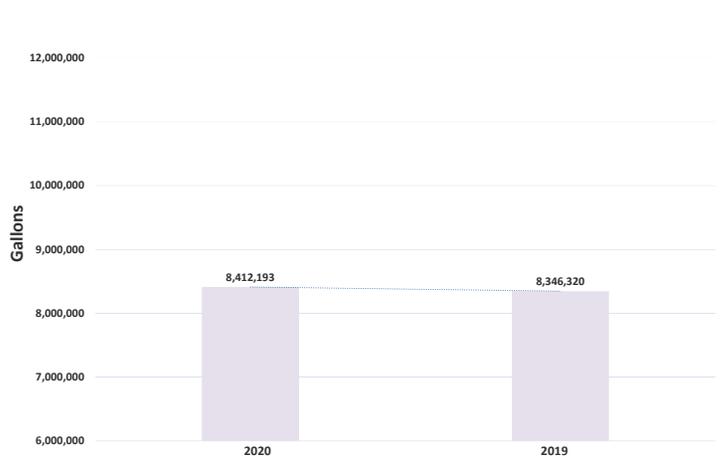
March Total Average Daily Water Production 2020 vs 2019



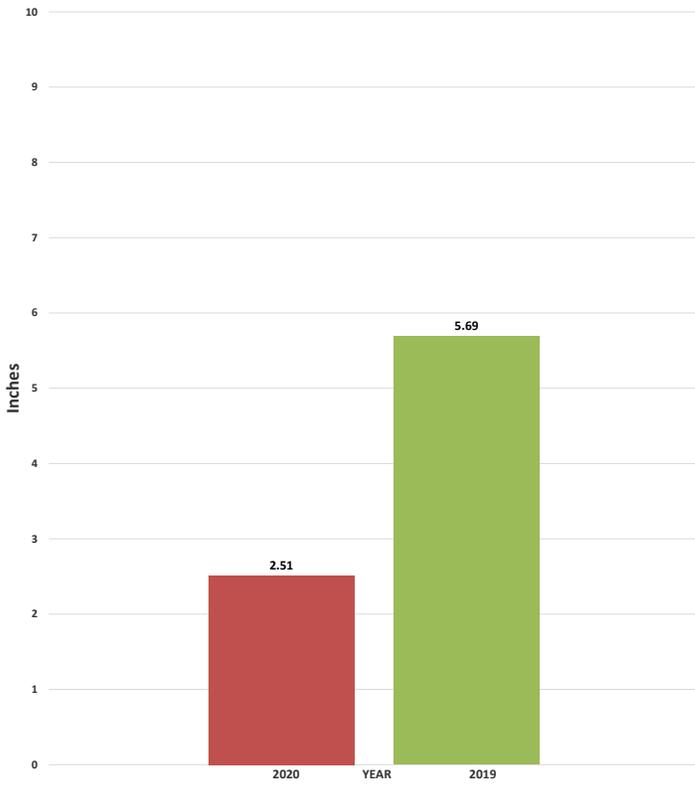
March Monthly Water Plant Water Production 2020 vs 2019



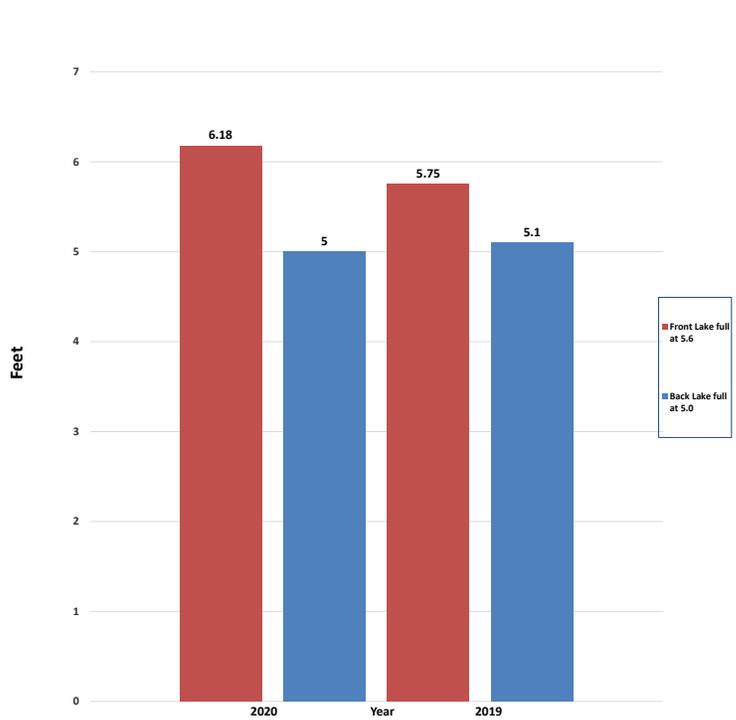
March Monthly Well Water Production 2020 vs 2019



March Monthly Precipitation 2020 vs 2019



Front & Back Lake Levels 2020 vs 2019



**WATER RECLAMATION FACILITY
MONTHLY OPERATIONS REPORT
FOR March 2020
Prepared: April 2020**

MEASURE	MONTH	AVG./DAY
INFLUENT FLOW	19,201,000 GAL	619,400 GAL
EFFLUENT FLOW	19,806,200 GAL	638,900 GAL
MAXIMUM DAY INFLUENT	701,300 GAL	
FERRIC CHLORIDE	2,449 GAL	79 GAL
CITRIC ACID	- GAL	GAL
SODIUM HYPOCHLORITE	317 GAL	40 GAL
METHANOL	1,139 GAL	37 GAL
RAIN	2.94 IN.	0.90 IN.

MONTHLY TOTAL NUTRIENT DISCHARGE

TOTAL NITROGEN	110 LBS.
TOTAL NITROGEN YTD	282 LBS.
AVG. DAILY NITROGEN	0.67 MG/L
VPDES NITROGEN LIMIT	4.0 MG/L
TOTAL PHOSPHORUS	31 LBS.
TOTAL PHOSPHORUS YTD	71 LBS.
AVG. PHOSPHORUS DAILY	0.19 MG/L
VPDES PHOSPHORUS LIMIT	0.3 MG/L

NIA No information available at this time.

ACCOMPLISHMENTS

All Staff received training on (Plant Process) Flow Equalization and Methanol Delivery SOP, (Safety)Working Alone Policy an Laboratory Safety Guide (Lab) D.O. Meter Cap Maintenance.
Planned WWTF Preventive Maintenance No Information Available at this time

100 Tons of Bio-solids hauled for land application.
Submitted VDEQ discharge monitoring report, Virginia's nutrient report

**WATER RECLAMATION FACILITY
MONTHLY OPERATIONS REPORT
FOR March 2019
Prepared: April 2019**

MEASURE	MONTH	AVG./DAY
INFLUENT FLOW	24,966,400 GAL	805,400 GAL
EFFLUENT FLOW	25,182,100 GAL	812,300 GAL
MAXIMUM DAY INFLUENT	2,040,800 GAL	
FERRIC CHLORIDE	2,493 GAL	80 GAL
CITRIC ACID	521 GAL	104 GAL
SODIUM HYPOCHLORITE	384 GAL	96 GAL
METHANOL	1,255 GAL	40 GAL
RAIN	5.10 IN.	0.16 IN.

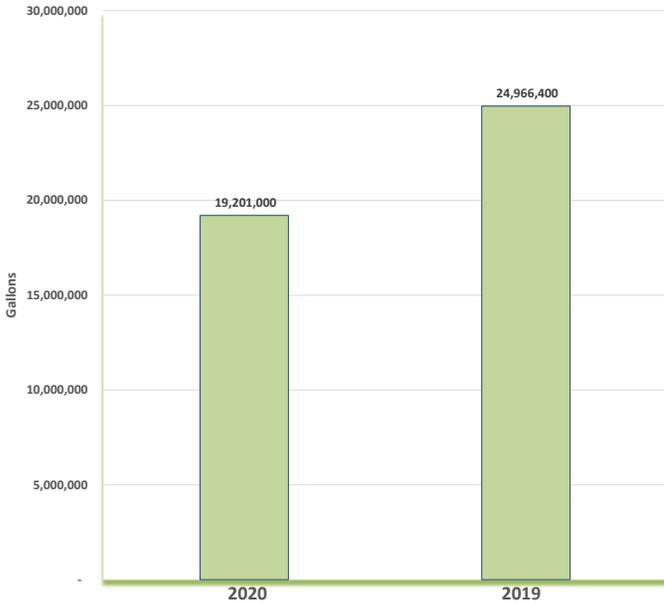
MONTHLY TOTAL NUTRIENT DISCHARGE

TOTAL NITROGEN	92 LBS.
TOTAL NITROGEN YTD	229 LBS.
AVG. DAILY NITROGEN	0.49 MG/L
VPDES NITROGEN LIMIT	4.0 MG/L
TOTAL PHOSPHORUS	38 LBS.
TOTAL PHOSPHORUS YTD	92 LBS.
AVG. PHOSPHORUS DAILY	0.20 MG/L
VPDES PHOSPHORUS LIMIT	0.3 MG/L

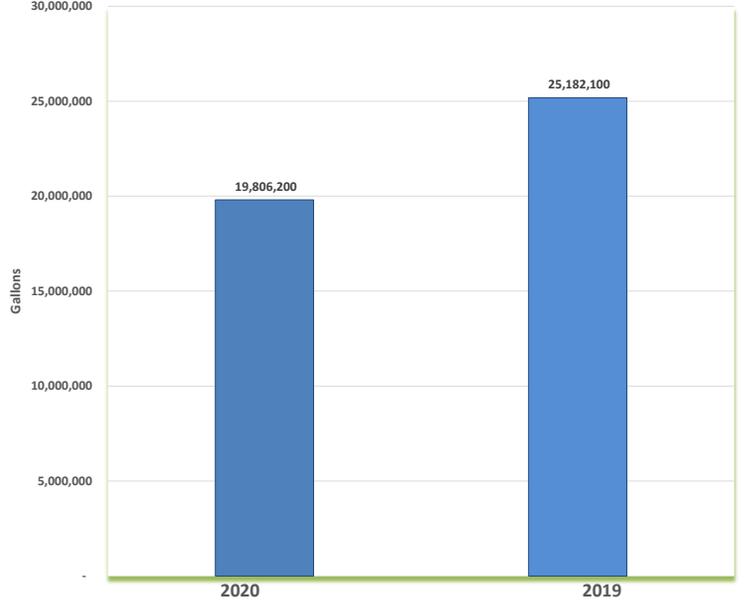
NIA No information available at this time.

Basham Simms WWTF Historical Comparison 2020 vs 2019

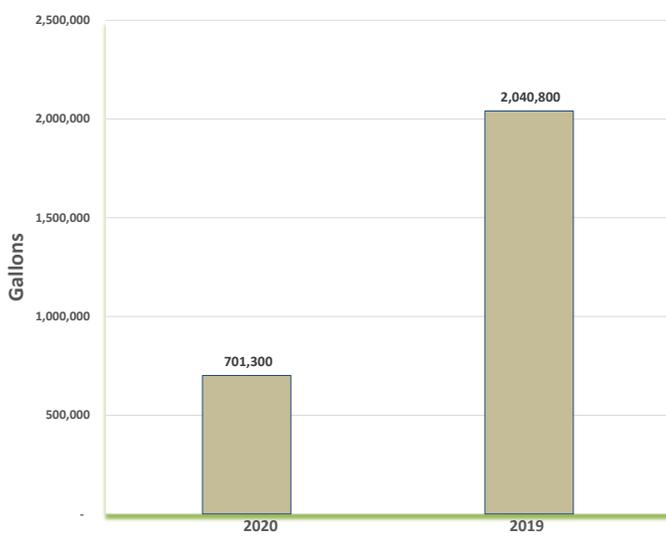
Influent Flows Comparisons 2020 vs 2019



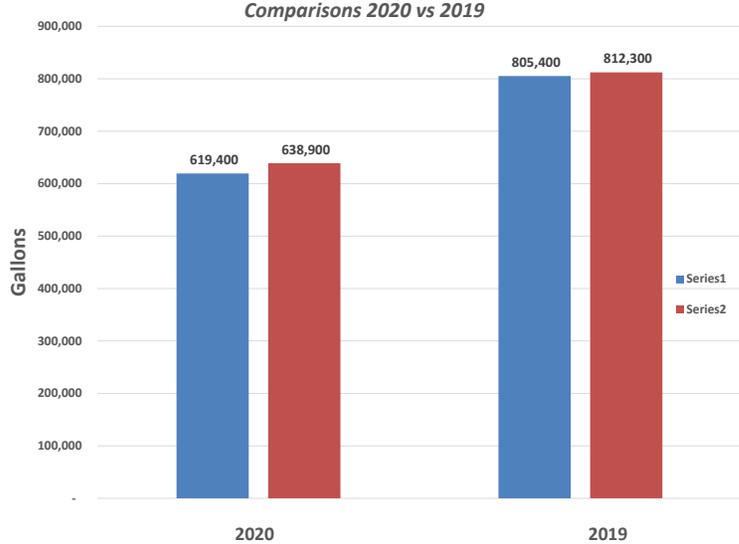
Effluent Flows Comparisons 2020 vs 2019



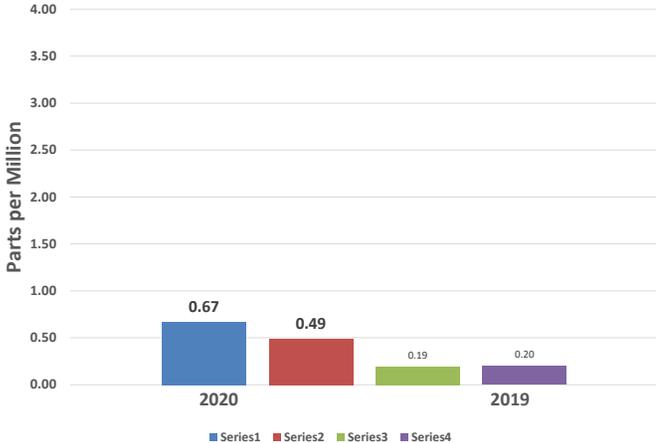
Max. Daily Flows Comparisons 2020 vs 2019



Average Day Influent & Effluent Flows Comparisons 2020 vs 2019



Average Daily Nitrogen & Phosphorus 2020 vs 2019



Monthly Precipitation 2020 vs 2019

