

City of
Fitchburg



Department of
Public Works

**301 Broad Street
Fitchburg, MA 01420
Phone: 978-829-1900**

DPW Weekly Update June 1 - June 7, 2020

Dear Mayor, Councilors, and Colleagues;

Please be advised that on June 1, 2020 the third year of sewer rate increases took effect, and the increase will be seen in the July 2020 customer bills. The new rates are as follows:

Rate Charge Classification	Rate Charge
Minimum Monthly Sewer Use Charges (use of up to and including 300 cubic feet per month)	\$23.53 (Flat Charge) (\$1.54 increase)
Monthly Sewer Rate Charge (use in excess of 300 cubic feet per month)	\$9.11/100 Cubic Feet (\$0.60 increase)
Monthly 'Sewer-Only' Sewer Use Charges	\$75.92 (Flat Charge) (\$5.00 increase)

The 5-year sewer rates change was approved by City Council on April 17th, 2018, and was signed by the Mayor on April 18th, 2018. The rates were scheduled for small incremental rates increases for each year of the 5-year rates, with the first taking effect on June 1, 2018.

Operating costs have only small effects on sewer billing rates. What affects sewer billing rates the most, are the large cost "capital improvement" projects needed to be performed, which require loan borrowing to fund the project. Because the sewer billing rates are paying the loans repayment over 20-year repayment terms, this is why rates remain high after construction projects are completed. Each big construction project has its own big loan to repay.

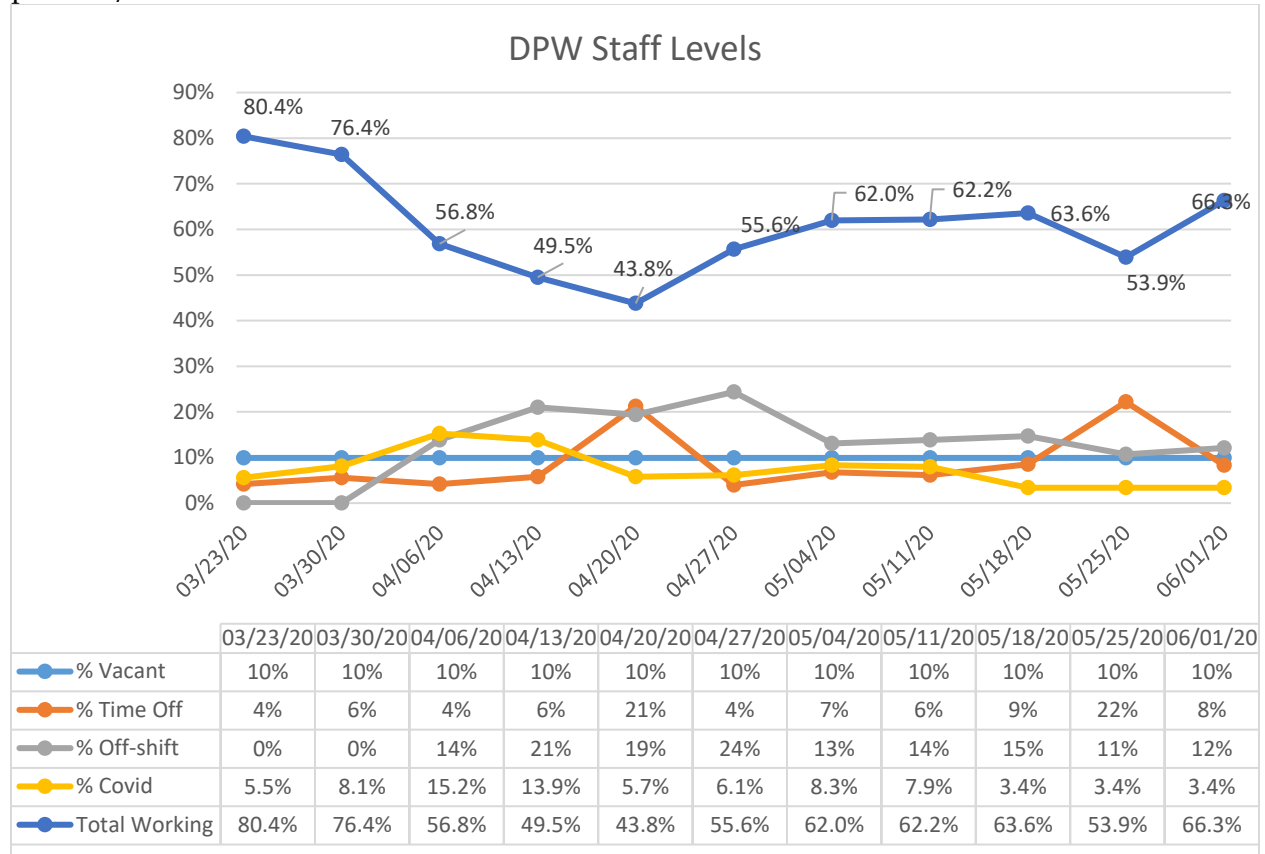
The projects have to be performed, because we have sections of our sewer system and treatment plant which is non-compliant with current environmental standards, rules and laws. Other projects have to be performed, because some areas of our sewer system are much older than 50-years service life, are in a state of failure, and require repairs, rehabilitation or replacement in order to sustainably continue sewer service to Fitchburg sewer customers into the future.

Sincerely,

Jeff Murawski
Deputy Commissioner of Wastewater

DPW STAFFING

DPW Staffing levels for the past week were at 66.3% due to vacancies, time off, and on-going COVID-19 issues. We are also without the inmates or seasonal hires that help to augment our workforce and aid in the landscaping work. The wastewater treatment plant operators continued to work on a 1-week on/2-weeks off rotation where operators take turn living at the plant 24/7 in an effort to reduce COVID-19 risks.



DPW continues to have a high vacancy rate (10%) with 10 open positions across multiple divisions and one Workers Comp extended absence:

Position	Division	Last Date Worked	Working Days Lost
Assistant City Engineer	Engineering	1/6/20**	111
DPW Clerk	Streets	3/13/20	62
Dispatcher	Streets	10/26/19	161
Working Foreman	Streets	7/7/19	241
HSMEO	Streets	9/7/18**	457
Mechanic	Streets	9/7/18*	457
Laborer	Parks	1/6/20	111
General Foreman - Collections	Wastewater	3/8/18	588
Head Water Meter Reader	Water	2/18/20	80
Water Distribution HSMEO	Water	7/19/16*	1015
Water Distribution LMEO	Water	12/20/19	122
		Total Man-days lost	3405

STREETS DIVISION
Gary Withington - Superintendent

DPW continued to respond to service requests in a timely manner through the [SeeClickFix](#) program. In the past two weeks DPW received 71 new requests and closed 54 requests. The total outstanding requests backlog is now 351, an decrease of 17 from the previous reporting period. This is pothole season and over half of new requests are for potholes with stormdrains coming in second.

<u>Reporting Period</u> 5/25/20 – 6/7/20		<u>Previous Period</u>	<u>Change</u>
Previous Request Backlog	334		
New Requests	71	83	-12
Completed Requests	54	86	-32
Total Request Backlog	351	334	17
Potholes	147	148	-1
Storm Drains	72	70	2
Tree & Brush Pruning	17	12	5
Traffic, Signals, Signs	3	3	0
Berm Repairs	20	19	1
All other categories	92	82	10
New Requests	71	83	-12
Acknowledged	55	60	-5
Completed & Closed	19	15	4
Open	52	68	-16

The weather last week was warm and dry.

	Saturday 5/30	Sunday 5/31	Monday 6/1	Tuesday 6/2	Wednesday 6/3	Thursday 6/4	Friday 6/5
Rain (in)	0.2	0.0	0.0	0.0	0.04	0.01	0.07
Hi/Lo Temp (F)	61/75	45/63	39/61	45/66	54/75	61/82	61/82

Sources: <https://www.cocorahs.org/ViewData/ListDailyPrecipReports.aspx> (STA MA-WR-22)
<https://www.timeanddate.com/weather/@4936825/historic>

Traffic

Repaired mirror at end of Franklin Road at 5th Mass Turnpike.

Berms

Prepared berm installation on Newtonville Avenue, North Street, and Mt. Elam Road.

Potholes

Pothole patching efforts continued during the week at various locations, including the following:

- Ashburnham Hill Road,
- Birch Street,
- Goodwin Street,
- Heywood Street,
- Vernon Street,
- Water Street,
- Highland Ave,
- Marshall Street,
- Otis Street,
- Pratt Street

Stormwater

Continued rebuilding catch basin Walton Street.

Cleaned culvert on Princeton Road.

Miscellaneous

Assisted FPD in preparation for protest march in downtown. Barriers were installed in front of the police station. Trash barrels and any other loose items on Main Street and Boulder Drive were removed. DPW headquarters closed early to prevent conflicts with demonstrators on Broad Street. Commissioner stationed at command center to help coordinate with FFD and FPD.



Figure 1 - Installing Barriers at FPD

Trash

Picked up illegal dumping on Rollstone Road and Mt. Elam Road.

Sidewalks & Crosswalks

Crews continued working on the crosswalks along Franklin Road across Shadow Drive, Reingold Avenue, and the exit driveway from the school. Old sidewalks were demolished, granite curbing was set and ADA ramps were formed.

Painted crosswalks and stop lines on River Street and Westminster Street.

<u>PARKS DIVISION AND RECREATION DEPARTMENT</u> Nate LaRose – Recreation Director

Park Crews continued cleaning up trash from parks and Main Street.

Spread and graded 200 cy of loam at Goodrich Playground.

Continued mowing grass on various parks and islands.

Started preparing Parkhill and Crocker splash parks for the summer season.

Started removing graffiti from Parkhill Park.

Charged irrigation system at Moran Field.

All City playgrounds, dog parks, and public bathrooms in parks are closed to the public until the COVID-19 state of emergency is lifted.

Per order of the Health Director, basketball courts are closed and rims have been boarded over.

<u>CEMETERIES DIVISION</u> Jaquelyn Poirier - Superintendent
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The Cemetery crew continued to clean, mow, and maintain the cemetery grounds. In addition to routine maintenance and administration tasks, the following were completed:

Full Interments	0
Inurnments.....	3
Up righted monuments.....	0
Uncovered/cleaned flat monuments	0
Foundation marking for monuments.....	7
Catch basin repair	0
Trimmed Trees	0
Trimmed shrubs.....	0
Meeting with Families.....	7
Payments - invoiced/processed.....	10
Family Genealogy	12

ENGINEERING DIVISION
Nicholas Erickson – Civil Engineer

Administrative

- Participated in a Levy Safety Program webinar hosted by the US Army Corps. Of Engineers.
- Held conference call with Arcadis to discuss scope, budget, and schedule for design of the Phase 2 of the Supervisory Control and Data Acquisition (SCADA) Upgrade Project being undertaken by the Water Division. This project will upgrade the control and telemetry systems at the City’s water treatment facilities and remote stations, including reservoirs, water tanks, pumping stations, and a pressure reducing station.
- Conducted training session with IT on the City’s new permitting software.
- Worked on two Municipal Vulnerability Preparedness (MVP) Action Grant applications. One grant application focuses on stormwater improvements that are part of a combined sewer separation project in the Water Street/Walnut Street and Clarendon Street neighborhoods. The other focuses on green infrastructure improvements along John Fitch Highway to improve flooding and water quality issues in Baker Brook. Both grant applications are possible because the City has recently gone through the MVP Planning Grant process to become an MVP-certified community, which unlocks access to a dedicated pool of funding to implement projects identified as priorities during the MVP Planning Grant process.
- Performed records and plan search for 3 McIntosh Lane per request of property owner.
- Took photos of the salt shed and sent to the designer Bayside Engineering per request.
- Provided property owner of 35 Otis Street with a list of land surveyors to survey her property boundaries.
- Conducted review of utility site plan and records for development of 579 South Street, the proposed location for a 20 unit apartment building and separate business offices. This project was approved a number of years ago and appears to be moving forward.
- Investigated permit history for 579 South St., and it was determined that their sewer connection fees were not paid. Sewer connection fees must be paid before DPW Engineering will sign off on additional permits.
- Conducted plans and records search per request from Coneco for the old landfill near Blueberry Lane.
- Performed review of survey edits for Main Street/Boulder Drive survey by WSP.
- Discussed sewer connection options with a contractor for a proposed connection at 215 Crawford Street. This location is currently on a septic system.
- Provided city solicitor with lightpole specifications for lightpoles on River Street that were damaged in automobile accidents.
- Participated in conference call with Councilor Van Hazinga and Health Department regarding illegal dumping and possible solutions to mitigate.
- Participated in Crocker Elementary School building committee meeting.
- Reviewed plans for Water Street bridge project over Nashua River and RR/Boulder Drive. Preparing comments for submission to MassDOT.

Road Construction

- Performed two days of construction oversight for road reconstruction on Berkley, Lenox, Garfield, and Richmond Streets. Over the past two months the City’s contractor (PJ Albert) has performed various drain and sewer upgrades, lowered frames and covers/grates, pulverized the existing pavement, applied calcium to firm up the subgrade, graded and compacted the roadway, paved a 2” binder course of pavement, installed berm and curbing, raised frames and covers/grates, made sidewalk improvements, paved the top wearing course, installed driveway aprons, and paved two small sections of sidewalk along Garfield and Berkley Streets. This week PJ Albert installed loam and hydroseeded in areas where lawns were disturbed.

Permits, Site Visits & Inspections

- Performed site visit to 77 Falulah Street to review proposed driveway/parking area.
- Performed construction oversight and inspection for installation of ADA ramps along Franklin Road from Reingold School to Oak Hill Road.
- Completed multiple daily inspections of Unutil trench restorations including work performed by Neuco and SFors (minimum of 3 daily inspections).
- Inspected Water patch restoration on Wallace Avenue (2 days - 2 inspections).

Engineering Services				
		<u>Type</u>	<u>Number</u>	<u>Fees</u>
PERMITS		Street Occupation Permits (No Fee)	0	n/a
		Trench Permits (\$75)	3	\$225
		Excavation/Street Opening Permits (\$250/\$350)	14	\$3,350*
		Driveway/Curb Cut Permits (No Fee)	1	n/a
		Sign Permits (No Fee)	0	n/a
		Sewer Permits (See Ch. 149 for Fees)	0	\$0
INSPECTIONS		Driveway Inspections	1	n/a
		Trench Inspections	19	n/a
		Site Visits/Inspections	7	n/a
		Dig-Safe requests	0	n/a
		Sewer/Drain Inspections	0	n/a
		Street Light Inspection	0	n/a
		Totals	45	\$3,575

*Includes one contractor permit at \$350, 10 Unutil permits and 2 Comcast permits at \$250 each, one Wastewater Division permit at \$0 (fee waived).

WATER SUPPLY DIVISION

John Deline - Deputy Commissioner of Water Supply

The Water Supply Division produced 34.2 million gallons of drinking water this past week. No transfer of water between reservoirs is taking place. Reservoirs continued to be inspected and patrolled on a daily basis.

Water Treatment

Reservoir Levels as of 6/4/20			
Northern Reservoirs	Elevation below spillway		Southern Reservoirs
Fitchburg/Ashby	Full	- 0.72 feet	Meetinghouse
Scott	Full	- 0.66 feet	Mare Meadow
Lovell	- 0.56 feet	Full	Bickford
Water Filtration Plant Flows/Production from 5/29/20 through 6/4/20			
	Falulah Plant	Regional Plant	Totals
Raw Water Inlet (Gal)	9,298,000	28,919,000	38,217,000
Backwash to waste (Gal)	1,485,000	2,447,000	3,932,000
Finish Water - Treated & Distributed (Gal)	7,813,000	26,472,000	34,285,000
Capacity	(6 MGD) 22%	(12 MGD) 34%	(18 MGD) 30%
Efficiency	84%	92%	90%

- Due to the COVID-19 crisis, only required/regular maintenance is being completed in the plants as well as any emergency repairs. Treatment personnel have been permanently (for the duration of the crisis) to each treatment plant and no intermingling or transferring of treatment operators between plants will occur. Outside contractors will only be utilized for emergency repairs or for maintenance that is necessary to keep the treatment plants in good operating condition.
- The spring removal of sludge from the backwash residuals settling lagoons continued this week. One load per day is being pumped from the lagoons and disposed of at the West Plant (a total of 15-20 loads needs to be removed from each of the lagoons, which takes 5-8 weeks to complete depending on precipitation/weather).
- The valve on Filter #2B at the Regional plant would not open similar to what occurred with Filter 2A. Nothing mechanical was found wrong and, upon reviewing the issue with Laviolette Controls, it was determined that the same card controls the function of the valves on both filters. The filter was shut down (as is Filter 2A) - the new card should be in by 6/9, at which point it will be installed/programmed by Laviolette Controls and, hopefully, return both valves/filters to service.
- Received quotes from Gustavo Preston for replacing the pressure reducing valves on the plant water pumps at the Regional Plant.
- After a lengthy period without any significant issues, a complete communication failure between plants/stations occurred a couple times during the week. Verizon was contacted and they said they could not find anything wrong with their equipment. Treatment personnel reset modems at all of the plants and stations and were able to get things up and

running with the exception of the communication between the Scott Station and the Falulah Plant. Laviolette Controls will be coming in to replace card at Regional and will look at the Scott Station at the same time. In the meantime, the Falulah Plant can be operated via the Regional Plant.

Water Distribution

- Mowed/weed-wacked Falulah Reservoir, Scott Tank, Lovell Dam, Oak Hill Tank, Falulah Tanks, Lacava Pump Station, Scott Dam, Marshall Station, Meetinghouse Dam/Dike, and Fitchburg North Dam.
- During the week, FWD crews checked/maintained all water trenches repaired with cold patch.
- FWD personnel continued lubing/greasing hydrants on the on the High System.
- FWD personnel installed a 12 inch hydrant extension and new break away coupling on a hydrant at FHS.
- FWD personnel prepped and paved the trench at 191 Ellis Street and in front of 95 Wallace Road. Used 7 tons of binder and 2 tons of top.
- FWD personnel excavated curb stop at 34 Pershing Street and checked water pressure (very low) used cleaning device (gum drops) to clear service line and tap. Full pressure now.
- FWD personnel repaired gate box covers at 266 St. Josephs Avenue and Constitution Drive at Revolution Drive.
- Investigated discolored water at Performance Trans on Benson Street, we believe this is due to the recent water break on Water Street and the hydrant use at the Airport. Water is now clear in the area.
- Completed weekly inspections and maintenance/cleaning of Water Division vehicles and equipment.
- FWD personnel cleaned/disinfected steering wheels, shifters door handles and knobs in all water division vehicles.
- Completed housekeeping/disinfection of common surfaces at 1200 Rindge Road throughout the course of the week.
- Received survey plan for the Porter property (Ashby) which divided up the property into two lots, one lot of 20 acres is being purchased by the City to protect the watershed to Fitchburg Reservoir. The plan was brought to the Ashby Planning Board for their meeting on 6/10 and will be recorded at the Registry of Deeds upon obtaining the Planning Boards sign-off. This was the time-critical piece of the work needed to be completed to meet the closing deadline of the end of June.
- Received survey plan for the Dimmick property in Hubbardston that the owner is donating to the City (it is a land-locked parcel mostly surrounding by City-owned watershed property) under the MA tax credit program for donations of conservation land. This plan will be recorded at the Registry of Deeds in preparation for a closing later this year.

Fire Hydrants

Total Hydrants	Out of Operation	Hydrants Replaced	Hydrants Repaired	Maintenance Completed	Painted	Flushed
1,632	2	0	1	99	6	0

Administration and Meters/Billing

- Total of 10 real estate closings – final readings completed along with preparation of final bills for attorneys/realtors. Future real estate closing final readings also scheduled.
- 22 invoices totaling \$36,024.38 were processed for FY20 warrant WG20050.
- 4 purchase requisitions were entered into Munis for approval by Purchasing.
- The Fitchburg Water Division participated in the conference call that is being held weekly (this is the ninth week) with MA DEP, Massachusetts Water Works Association, and several hundred public water suppliers across the state. The Commissioner of MA DEP, Martin Suuberg, presented a status update in regard to COVID-19 and its effects/impacts on public drinking water suppliers. Mr. Suuberg also provided answers to questions submitted by public water suppliers over the past week.
- Completed bi-monthly payroll for w/e 6/12/20. Total payroll for the two week period was \$59,075.85, including overtime of \$3,685.05. Longevity for Local 39 was also paid out on this payroll, a total of \$6,034.00 paid to 6 employees.
- Sold 5 new meters for irrigation purposes and 1 for a new house.
- Loaded/unloaded laptops for June billing, experienced additional issues with the collection/transfer of data for one section (different section than last month) which still has Badger meters. Spent a considerable amount of time attempting to troubleshoot but was unable to correct and ended up having to reread the section; however, there were still issues the second time around (and were being worked on as of 6/8).
- Made a deposit for the 9/10 in the amount of \$62,374.62, which included the payment from Wachusett Mountain Ski area for water purchased over the winter months for snowmaking.
- Attended a progress meeting for the water meter upgrade project - meeting focused on where we were and what are the steps/schedule for starting again on meter replacements.

In addition to routine maintenance and administrative tasks, the following services were completed:

Water Permits and Inspections	
Type	Number
Emergency DigSafe Mark-outs	5
DigSafe Mark-outs	14
Inspections of Work on Water System	3
Record Plan Updates	7
Special Permit Applications Reviewed	0
New Water Service Applications	0
View Permits reviewed	1
Curb Stops Turned off/on	5
Located/cleaned gate/curb boxes	12
Final Readings/Real Estate Closings	7
New Meter Installations	15
Backflow Preventers Tested	0
Cross Connection Surveys	0
Residential Appointments Made	0
Totals	69

WASTE WATER DIVISION

Jeff Murawski - Deputy Commissioner of Wastewater

The WWTF processed 50.56 million gallons of sewage during the third week of May. In total, 36.8 tons of organics and 73.6 tons of solids were removed and prevented from entering the Nashua River.

<u>Week of 5/17/2020 - 5/23/2020</u>		
Sewage Flow	50.56	Million Gallons
Rainfall	0.00	Inches
Secondary Bypass	0.00	Million Gallons
BOD _{in} (lbs)	75,433	Pounds
BOD _{out} (lbs)	1,923	Pounds
BOD Removal (%)	97.26%	
TSS _{in} (lbs)	152,530	Pounds
TSS _{out} (lbs)	5,278	Pounds
TSS Removal (%)	96.13%	

WWTF Maintenance & Operations:

- 06/03/2020: Conference call with MassDEP about the current COVID-19 situation.
- 06/03/2020: Took 2nd Stage Secondary Clarifier No. 1 offline, for SSU Project 'warranty' repairs.
- 06/05/2020: Participated in SSU Project 'punch list' GoToMeeting virtual meeting, with Contractor, Engineer, OPM, and MassDEP.
- One Treatment Plant Operator (not a part of the "shelter-in-place" staffing program) was scheduled to perform exterior plant duties this week (clarifier cleaning, gravity thickeners cleaning, pumps and draft tube cleanings).
- Tested all emergency showers.
- Preventative Maintenance checks on Gravity Belt Thickeners.
- Cleaned the Gravity Thickener.
- Cleaned the Return Activated Sludge Pumps.
- Chemical deliveries: None.

Administration:

- Deputy Commissioner managing Division remotely (as of Mar. 17th).
- Daily (or more frequent, as needed) conducting video calls with Wastewater Management Team.
- Coordinated with Purchasing Department, for Wastewater procurement needs.
- Wed. - June 3rd: participated in group "ZOOM" call held by MassDEP Commissioner Martin Suuberg, held for Massachusetts Wastewater Professionals, regarding COVID-19 pandemic.
- Collaborating with Purchasing, Community Development & consultant (West Group Law) on the Request For Expressions of Interest on the repurposing of the Westerly Wastewater Treatment Facility.

- Fri. – June 5th: Coordinated and participated in group discussion with Contractor, Engineer, and OPM for the East Plant’s “Secondary System Upgrades Project”, reviewing and discussing the outstanding items to be completed, and the schedule for completion.
- Coordinating for completion of necessary CWSRF Loan Application documents, for the CSO 007, 011, 039, 048 Project.....waiting on City Solicitor.
- Working to resolve a frustrating phone situation for the DPW - Wastewater Division.

Sewer System

- CCTV’d storm drain on Theresa Street: appears we have an illicit connection at either #129 or #143 Theresa Street. Video was a bit inconclusive; and we will have to conduct a dye test to confirm.
- CCTV Camera does not appear to pan and tilt, received loaner camera, and packed up our camera to ship out for repair.
- CCTV’d and it appears that #128 Pratt Road and #403 Pratt Road are tied in to the drainage system; no evidence of sanitary sewerage but there are lateral connections that appear to be active in some fashion.
- Could only CCTV up 130 feet on Prichard Street. Marked out for Dig-Safe where a manhole might be, and to access pipe if there is no manhole.
- Raised a buried catch basin off of Sawyer Passway; loamed and seeded the area, and also removed the large granite boulders that were around the depression.
- Sawcut out two buried manholes in preparation for raising.
- Plugged an abandoned lateral off of Westminster Street that was identified in the SSES Phase 4 report.
- Determined that a catch basin on Walton Street is not tied in to the sanitary system, but the drainage system.
- Determined via field investigation that two catch basins on Boulder Drive are tied into the trunk sewer.
- Scheduled new Combination Jetter/Vacuum (‘Jet/Vac’) truck training on 6/9/2020.

<p><u>DPW ADMINISTRATION</u> Courtney Lamoureux – Business Manager</p>

- Financial:
 - Reviewed all DPW Department accounts for accuracy and monitored budgets.
 - Continued year end reviews and processes for close out of FY20.
 - Calculated and submitted continuing appropriation budgets for July, August, September for the City Auditor’s office. The 3 month continuing appropriation budgets will be presented to Council for approval and will be used until the fiscal year budgets can be set.
 - Researched sewer connection fees received from 2015-2019 per a request from a contractor who stated they paid \$8,500 in sewer connection fees for a project. Did not find any record of this payment in our system or records. Informed Engineering Division who were able to locate the payment. It appears the contractor has paid for water connection fees and inspections but not any sewer connection fees.

- Administrative:
 - Submitted DPW Department absences due to COVID-19 reasons to the human resources department.
 - All DPW Divisions processed bi-weekly payrolls which included contractual longevity payments for laborers, mechanics, plant operators and plant technicians.
 - Documented and distributed 1 new petition received for the public works committee to review.

Invoicing, Warrants, and Payrolls						
	Invoices		Deposits		Billings	Payroll
<u>Division</u>	<u>Number</u>	<u>Total \$</u>	<u>Number</u>	<u>Total \$</u>		
Streets/Admin/Engineering	20	\$ 9,669	*Note 1	\$ 408		\$ 77,262
Cemeteries	16	\$ 6,969				\$ 14,708
Parks						\$ 7,819
Recreation	9	\$ 329				\$ 3,354
Water Supply	22	\$ 36,024				\$ 59,076
Waste Water	10	\$ 34,133	*Note 2	\$ 26,730		\$103,682
			*Note 3			
Total	77	\$ 87,123		\$ 27,138	\$ -	\$265,901
*1 - Engineering Permits & Performance Bonds						
*2 - Septage at East Plant (Gallons)						
		314,471				