

City of
Fitchburg



Department of
Public Works

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

DPW Weekly Update September 13 - September 20, 2020

Dear Mayor, Councilors, and Colleagues;

Last week the City of Fitchburg welcomed Governor Baker, Lt. Governor Karyn Polito, and EOEEA Secretary Theoharides to the Bernardian Bowl. They came to award a Municipal Vulnerability Preparedness (MVP) Action Grant in the amount of \$271,787 for the project titled “John Fitch Highway – A Resilient Road Corridor.” City Council previously appropriated \$124,300 in matching funds from free-cash and DPW Engineering will add an additional \$15,000 in-kind costs for a total project cost of \$411,000.

Nick Erickson (DPW Assistant City Engineer) has been pivotal in obtaining the MVP grants and will be serving as project manager on this important project. Mr. Erickson initially obtained a \$102,000 grant in June 2019 for the planning process that culminated in Fitchburg becoming a certified MVP community. That designation allowed Fitchburg to apply for and obtain the latest MVP Action Grant.



Figure 1 - Mayor DiNatale welcoming Governor Baker (center), Lt. Governor Polito (left) and Secretary Theoharides (right)

DPW Engineering will be using the grant to prepare preliminary design plans and permitting of green infrastructure improvements along John Fitch Highway between Summer Street and Lunenburg Street to help reduce urban flooding and improve water quality in Baker Brook, create some green space to beautify that area, and to improve pedestrian access along the corridor.

Since construction of John Fitch Highway in the 1950's, the roadway and associated development have disrupted the natural drainage system dominated by Baker's Brook. Commercial development in the 1960's filled many wetlands and sections of Baker's Brook were realigned to create more developable parcels. Expansive rooftops and large parking surfaces were added, creating large impervious surfaces that now quickly generate stormwater runoff. Flooding events triggered by rainfall as small as 2 inches have brought significant damage to local structures as well as business disruption. Future precipitation increases from climate change impacts are expected to exacerbate the flooding damage and disruptions in this area, making a redesign of the area critical to make the community climate resilient.

The proposed vision for the JFH is to develop a resilient commercial corridor. The proposed design will focus on incorporating green infrastructure solutions such as bioretention, water quality swales, removal of impervious cover, tree box planters, pedestrian refuge islands, and shared-used paths. The proposed design focuses on converting the John Fitch Highway median and roadway drainage areas with features that increase stormwater infiltration while reducing urban heat island effect in the area. The roadway is currently car-dominated, but by updating the roadway with improved crosswalks, refuge islands and shared-use paths the City will create new linkages and mobility opportunities within this environmental justice neighborhood and to nearby essential facilities. Lastly, public investment in the area may spur private re-investment and economic growth in our Gateway City. This project will be an innovative example of tying together economic growth, improved mobility, and climate resilience.

Public participation will be a very important aspect of the John Fitch Highway redesign. In the beginning of the project, DPW will seek community feedback on the vision through public meetings and a "Envision JFH Artwork Challenge." Later in the project, we'll seek feedback on the preliminary design through an online video and survey. Finally we'll present the preliminary design for public comment. At each touch point, the community will be able to provide feedback to be incorporated into the design. The DPW design team will discuss the comments internally, with the help of a steering committee and City staff, and post a summary of each component of the strategy throughout the project on the project webpage and submit a final summary at the end of the project.

Sincerely,

Nicolás H. Bosonetto, PE
City Engineer/Commissioner of Public Works

STREETS DIVISION
Gary Withington - Superintendent

Due to continued decreased staffing levels, outstanding service requests have increased from 151 on March 1st to 376 on September 20. In the past two weeks DPW received 43 new requests and closed 32 requests. The total outstanding requests backlog is now 376, 11 more than the previous reporting period. Most outstanding requests are for potholes and storm drains.

<u>Reporting Period</u> 9/7/20 - 9/20/20		<u>Previous Period</u>	<u>Change</u>
Previous Request Backlog	365		
New Requests	43	38	5
Completed Requests	32	41	-9
Total Request Backlog	376	365	11
Potholes	138	131	7
Storm Drains	44	46	-2
Tree & Brush Pruning	52	59	-7
Traffic, Signals, Signs	16	13	3
Berm Repairs	20	20	0
All other categories	106	96	10
New Requests	43	38	5
Acknowledged	37	32	5
Completed & Closed	2	3	-1
Open	41	35	6

The weather last week was cool and dry.

	Saturday 9/12	Sunday 9/13	Monday 9/14	Tuesday 9/15	Wednesday 9/16	Thursday 9/17	Friday 9/18
Rain (in)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hi/Lo Temp (F)	50/66	52/72	52/72	46/61	48/70	57/72	48/61

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

Signals, Signs & Stripes Crew

Continued painting crosswalks and school zones throughout the city.

MassDOT installed new Rectangular Rapid Flashing Beacon (RRFB) crosswalk signs on Westminster Street next to the Fitchburg Diner as part of the bridge over Phillips Brook replacement project. These signs were added per the Road Safety Audit (RSA) conducted in the area after a pedestrian fatality in the area.



Figure 2 - New RRFB on Westminster St

Paving Crew

Moved the old concrete flower pots to the Airport per request.
 Supported the Wastewater Division by paving sewer trenches on Broad Street.
 Filled potholes on the following streets:

- Academy Street,
- Arn How Farm Road,
- Bel Air Drive,
- Burnap Street
- High Rock Road,
- Institute Street,
- Klondike Street,
- Middle Street,
- Nestor Ave,
- Olin Ave,
- Pearl Street,
- Second Street,
- Temple Street,
- Theresa Street,
- Wanoosnoc Road,
- Water Street,

Structures Crew

Replaced culvert on Ashby West Road and rebuilt headwalls.

Sidewalk Crew

Completed work on Clarendon Street.

Trash & Streetsweeping & Brush

Spot streetsweeping around the City.
 Picked up trash along Main Street.
 Removed large rock from side of Mt Elam Road.
 Picked up illegal dumping around city:

- Mattress on Mt. Elam Road
- Propane tank on River Street
- TV on Fisher Road
- Mattress on Lunenburg Street

PARKS DIVISION AND RECREATION DEPARTMENT

Nate LaRose – Recreation Director

- Park crews hydroseeded Goodrich Park playing field.
- Fixed tie down for flag at Monument Park.
- Continued mowing lawns.
- Pruned trees and bushes at Sadie Quatrala and Gateway Park.
- Helped FHS move goals and equipment for fall sports.
- Met with FSU & Reimagine North of Main on Friday, September 11, 2020 to discuss layout for upcoming Spooky Drive-In Movies.
- Splash Parks at Crocker Playground in Waites Corner and Parkhill Park are now closed for the season.
- Recreation Department assisted with MVP Award Announcement setup on Sept. 15, 2020.
- Met with Halloween Event planning committee to discuss updates on all Halloween themed activities on Sept. 17, 2020.
- Met with Reimagine North of Main and Mass Development on Sept. 17, 2020 to discuss potential materials needed for more regular programming at Riverfront Park and Mill Street during Covid-19 State of Emergency.
- Sports are still allowed to permit for use of the fields. Types of use and games are regulated by the EOEEA guidance for Youth and Adult Sports Phase III Step 1.
- Board of Park Commissioners authorized Outdoor Events to be scheduled through the Recreation Department in the Parks. All events must comply with the Governor's Reopening Plans. Permitting for outdoor events can be found online at fitchburgma.viewpointcloud.com under the DPW category.
- Concerts on the Common held its sixth performance on September 16th with Blue Honey. Due to Covid-19 Guidance on outdoor events are 50 people. Attendance was 37 participants.
- Upcoming Events:
 - Civic Days Movie at the Park – Riverfront Park
 - DuckTales the Movie – September 26, 2020
 - Concerts on the Common Schedule:
 - The Boothill Express – September 23, 2020
 - Movies at Putnam Place
 - A Nightmare Before Christmas – October 30, 2020
 - Spooky Drive-In Movies at the Wallace Civic Center
 - Hocus Pocus – October 24, 2020
 - The Addams Family (2019) – October 31, 2020

CEMETERIES DIVISION

Jaquelyn Poirier - Superintendent

The Trustees of the Cemeteries met on Thursday September 17 at the Senior Center and on-line. Items discussed included updating of cemetery software system to track graves/families, the Forest Hill Cemetery expansion projects, and reviewed draft burial licenses. It is estimated that there are about 256 remaining graves, approximately a 2 year supply, at Forest Hill. Temporary expansions of the cemetery at the columbarium area and Section P were discussed as well as the larger proposed expansion on the Electric Avenue property.

The Cemetery crews continued to clean, mow, and maintain the cemetery grounds. Also maintained the walking trails around Forest Hill Cemetery. In addition to routine maintenance and administration tasks, the following were completed:

Full Interments	3
Inurnments.....	1
Up righted monuments.....	0
Uncovered/cleaned flat monuments	0
Foundation marking for monuments.....	2
Catch basin repair	0
Filled Sink Holes	3
Trimmed Trees	10
Trimmed shrubs.....	0
Meeting with Families.....	9
Payments - invoiced/processed.....	9
Family Genealogy	7

<p><u>ENGINEERING DIVISION</u> Nicholas Erickson, P.E. - Assistant City Engineer</p>
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Engineering

- Attended a 90% Design Workshop with DPW Water Division and Arcadis, an engineering consultant hired by the City to design upgrades to the Supervisory Control and Data Acquisition (SCADA) systems at the City’s two Water Treatment Facilities and various remote sites (pumping stations, tanks, etc.). The City and Arcadis anticipate bidding this project out over the winter for construction next year.
- DPW Engineering reviewed 29 Letters of Interest (LOIs) submitted by consultant engineering firms in response to an Engineering Request for Qualifications (RFQ). DPW Engineering has worked with the Procurement Officer to advertise the RFQ in order to prequalify up to six (6) engineering firms in 10 engineering disciplines to support DPW in the planning, design, construction, maintenance and operation of the city’s infrastructure:

- | | |
|----------------------------------|------------------------------------|
| 1. Traffic Engineering | 7. Distribution/Collection Systems |
| 2. Asset Management/GIS | 8. Permitting, Process, and |
| 3. Transportation | Regulatory Compliance |
| 4. Bridges/Culverts | 9. SCADA |
| 5. Dams/ Geotechnical/ Walls | 10. Water & Natural Resources |
| 6. Environmental Health & Safety | |

Administrative

- Virtually attended Economic Development Task Force meeting with various City stakeholders to discuss the Game On Soccer project and various other topics.
- Provided the Mayor’s Office with written permission for a homeowner on Nutting Street to remove a tree located within a private paper road called Beckwith Street.

- Answered questions about sewer connection options for a potential homebuyer of 1052 Franklin Rd.
- Provided various street layouts to an engineering firm conducting a land survey on Snow St. in Fitchburg.
- Answered questions about sewer connection options and road opening requirements for a potential business developer on Cobbler Drive.
- Used AutoCAD Civil 3D to calculate the volume of winter sand remaining at the Airport Road Sand Pit based on GPS points collected in the field.

Street Lights

- Coordinated with Dagle Electric on assisting with tie-in of new lighting on Main Street in front of City Hall.
- Coordinated with Dagle Electric on de-energizing/removing conduit for an ornamental street light on Elm Street in advance of a sewer main replacement. This conduit will be replaced following the sewer main replacement.
- Performed site visits to investigate reports of outages at the following locations:
 - In front of Union auto repair on River St.
 - Dailey Terrace
 - Ornamental in front of Post Office
 - Broad Street
 - In front of Bank/across from old city hall rear driveway
 - Across from Putnam St. garage

Road Construction

- ***Beech Street Reconstruction Project*** - The City's paving contractor, PJ Albert (PJA), continued road and sidewalk reconstruction of Beech Street from Kimball Street to Pratt Street. This past week PJA completed the following:
 - PJA relocated a fire hydrant located within the sidewalk area to gain clearance to meet ADA regulations.
 - PJA's subcontractor, MTK, continued forming and pouring sections of sidewalk and driveway aprons along the westerly side of Beech St from Pratt Rd to Kimball St.
- ***Crawford Street Paving Project*** - This is a project to repave Crawford Street from the Nashua River to the Fitchburg/Leominster line using a combination of Cold-In-Place asphalt recycling for a 4-inch thick binder course of pavement by Indus, the City's pavement preservation contractor, and traditional hot mix asphalt paving for a 1.5-inch thick wearing course of pavement by PJ Albert, the City's paving contractor. This past week Indus completed their Cold-In-Place asphalt recycling along the entire length of the project. DPW Engineering performed daily field visits and provided daily construction administration and oversight. Final paving is anticipated during Monday and Tuesday of next week.

Dig Safe

- Performed Dig Safe mark out for Crocker School per request from LGC, Inc., who conducted exploratory soil borings at five locations. Marked out drainage location in the rear of the school.
- Performed Dig Safe/Site Visit to 275 Lunenburg St. Located the sewer main, the private sewer service location is unknown.

- Dig Safe to 84 Salem St. to mark out sewer and drainage.

Site Visits

- Conducted a survey of winter sand stockpile to obtain an accurate volume.
- Conducted Site Visit/Inspection of 48" Drain line crossing from Hobson St. to Salem St. behind St. Anthony School. Completed deed research of abutting parcels to determine easement ownership over drain line.
- Conducted Site Visit to Crescent Street at Pleasant Street to inspect sinkhole location. Complaint area outside of city owned right of way.
- Performed site visit to Read Street to review proposed parking lot improvements for a multifamily building on Ashburnham Hill Road with the project proponents.

Permitting & Inspections

- Continued to work on refining and improving the forms and workflows within ViewPoint Cloud, the City's online permitting software, for road opening permits, trench permits, and sewer connection permits.
- Assisted various constituents and contractors with filling out their online permits.
- Performed various application and engineering plan reviews as required.
- Began working on a Water Connection Permit application form for DPW Water.
- Site Inspection for a road opening/sewer repair at 304 Shea St. by JJT Excavation.
- Site Inspection for a road opening/sewer repair at 39 Dumais St. by JJT Excavation.

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/Road Opening Permits (\$250/\$350)	4	\$700 ¹
		Driveway/Curb Cut Permits (No Fee)	2	n/a
		Sign Permits (No Fee)	0	n/a
		Sewer Permits (See Ch. 149 for Fees)	1	\$0
		Application Reviews	16	n/a
		Engineering Plan Reviews	2	n/a
INSPECTIONS		Driveway Inspections	0	n/a
		Trench Inspections	2	n/a
		Site Visits/Inspections	29	n/a
		Dig-Safe requests	3	n/a
		Sewer/Drain Inspections	2	n/a
		Street Light Inspection	5	n/a
Totals			69	\$925

Notes:

¹ Includes 2 permits for DPW Water at \$0 each (fee waived) and 2 permits for a private contractor at \$350 each.

WATER SUPPLY DIVISION

John Deline – Deputy Commissioner of Water

The Water Supply Division produced 32.8 million gallons of drinking water this past week. Water is being transferred between the Fitchburg and Scott Reservoirs to Lovell Reservoir, which is the terminal reservoir to the Falulah Plant, and from Bickford Reservoir to Mare Meadow Reservoir. Reservoirs and watershed areas continued to be inspected and patrolled on a daily basis.

Water Treatment

Reservoir Levels as of 9/17/20			
Northern Reservoirs	Elevation below spillway		Southern Reservoirs
Fitchburg/ Ashby	-1.59 feet	- 1.50 feet	Meetinghouse
Scott	-4.00 feet	-5.40 feet	Mare Meadow
Lovell	-6.30 feet	-0.33 feet	Bickford
Water Filtration Plant Flows/Production from 9/11/20 through 9/17/20			
	Falulah Plant	Regional Plant	Totals
Raw Water Inlet (Gal)	9,093,000	27,342,000	36,435,000
Backwash to waste (Gal)	1,217,000	2,379,000	3,596,000
Finish Water - Treated & Distributed (Gal)	7,876,000	24,963,000	32,839,000
Capacity	(6 MGD) 21.7%	(12 MGD) 32.6%	(18 MGD) 28.9%
Efficiency	87%	91%	90%

- The fall removal of sludge/ settled solids from the backwash residuals settling lagoons at the Regional Plant was initiated 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).
- CorrTech continued working on the inspection and cleaning of the following water storage tanks and clearwells: Overlook Storage Tank (1.5 MG), Regional Underground Storage Tanks (each 1.0 MG), Regional clearwells, and the Oak Hill Storage Tank (0.465 MG). Overlook Tank was completed this week and they have begun working on the storage tanks and clearwells at the Regional Plant. Per MA DEP Regulations, water storage tanks and clearwells must be cleaned/inspected every 5 years.
- Gustavo Preston installed new VFDs (variable frequency drives) for the plant water pumps at the Regional Plant. Previously, flow/pressure from the pumps was regulated with PRVs (pressure regulating valves). By utilizing VFDs (which adjust the speed of the pump to regulate flow/ pressure), there will be an electrical cost savings of approximate \$5,500 per year. The cost of the work/equipment was \$18,216, but is reduced to \$11,466 by a grant from National Grid in the amount of \$6,750. Given that the PRVs needed to be replaced at a cost of \$9,900, the additional cost to install VFDs was only \$1,566, which will be recovered quickly at a savings of \$5,500 in electricity costs per year.

- Coggswell Sprinkler completed the annual fire flow test of the fire pump at the Lacava Pump Station. All went well, with the only issue a relief valve that needs to be repaired or replaced.
- Replaced the bulb in benchtop turbidity meter at the Falulah Plant but there are still issues with the meter, Hach (manufacturer) will be contacted for technical assistance.
- Waterline Industries began working on the installation of the pump and controls at the Marshall Regulating Plant. Installation of this pump will permit pumping of water from the city's Low (distribution) System to its High (distribution system). Currently, due to different hydraulic grade lines, water can only flow from the High System to the Low System through the pressure regulating valves at this station. This pump will greatly improve the resiliency of the city's water system under emergency situations (e.g., water main breaks, reservoir issues, fires, etc.).
- Lavolette Controls finished setting up and programming (the SCADA system) the backup hydroxide and PAC pumps at the Falulah Plant. This was completed in order to meet MA DEP requirements for backup systems.
- Brought representative of Arcadis (who is working on design of new SCADA system for the plants and stations) around Falulah to collect additional measurements for cabinets for new control panels for the replacement SCADA system controls.
- Started pump #1 at the Bickford Pump Station in order to transfer water from Bickford Reservoir to Mare Meadow Reservoir. This is the first time that the pumps at Bickford have been operated this year. Mare Meadow Reservoir is now down more than 5 feet but Bickford is close to full - transferring water will help to fill Mare Meadow (or at least slow/stop its drop when pumping to Meetinghouse Reservoir) and also "make room" in Bickford for any precipitation/runoff from future rain events (otherwise, it would be loss over the spillway at Bickford rather than being "saved" in Mare Meadow).
- Began experiencing issues with the bi-carb feed system at the Falulah Plant - determined the cause to be a failed module and a bad fuse. Replaced both and the system was returned to property operation.

Water Distribution

- Patrolled areas around Wachusett and Mare Meadow Reservoirs.
- Mowed/weed-wacked the following areas: Scott Tank, Scott Dam, Narrows Road PRV Station, and Wyman Dam.
- Cut/removed brush from Bickford Dike and Lovell Dam spillway, also worked on removing wood debris from Lovell spillway.
- Open/closed gate valves to isolate the Marshall PRV station for the contractor installing a new pump. New gate valves were installed inside the building as the first step in this work.
- Opened the Scott Reservoir outlet 5 turns (water will flow to Lovell Reservoir, the terminal reservoir to the Falulah Plant).
- FWD personnel performed seasonal shut offs at Parkhill Splash Park and Bath House, and Crocker Splash Park.
- FWD personnel assisted a contractor (Tandem) with renewal of water service on the owner's side at 181 South Street.
- FWD personnel installed a curb stop box extension at 264 Electric Avenue.

- Monday, 9/14, at 11:30 p.m., FWD personnel received a call reporting a water main break in front of 110 Marshall Street. Personnel responded and shut off the 8-inch water main. Upon excavating the water main, an approximately 1.5-inch hole was found in the bottom of the water main. The repair was made using a stainless steel wrap around, water was restored at 3:30 a.m. and the trench was backfilled/compacted.



Figure 3 - Water Main Break

- FWD personnel shut off the water main on Oliver Street on two days for the contractor (Blue Diamond) that is replacing the sewer trunk line working under the 8-inch water main. While operating the gate valves, personnel found the gate at Elm Street would not close tight and the gate at Prichard Street broke in the closed position. FWD personnel excavated the gate valve on Oliver Street at Prichard Street and removed the broken disc from inside the valve and installed a plate on the valve to replace the operating mechanism - this valve is not needed due to other, nearby valves, and replacing it would have been very difficult due to nearby connections and other utilities.



Figure 4 – Water main over sewer line

- FWD personnel performed numerous turn offs/ons of water services for the water meter replacement project.
- FWD personnel on Friday assisted the meter contractor (BayState) with the installation of the second 6-inch fire-rated water meter in the pit at Meadowbrook Village - this completes the replacement of new meters at this development.
- FWD personnel attempted to continue hydrant flushing on the High and Low systems but, due to running with a skeleton crew again this week, no hydrants were flushed this week.
- 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.

Fire Hydrants

Total Hydrants	Out of Operation	Hydrants Replaced	Hydrants Repaired	Maintenance Completed	Painted	Flushed
1,632	4	0	0	0	5	3

- Contractor (P.J. Albert) excavated and installed a new hydrant on Beech Street at Martel, FWD supplied the hydrant and coupling for the installation.

Administration and Meters/Billing

- Total of 17 real estate closings - final readings completed along with preparation of final bills for attorneys/realtors. Future real estate closing final readings also scheduled.
- 53 invoices totaling \$59,238.01 were processed for FY20 warrant WG21012.
- 7 purchase requisitions and 1 change order were entered into Munis for approval by Purchasing.
- September water/sewer billing completed. All preliminary reports were completed for the 9 bill runs. 11,059 bills created and sent to Touchpoint for printing and mailing.
- During the course of the week, a total of 189 water meters were replaced with new Neptune meters - 26 were changed by FWD personnel and 163 by the City's contractor, Baystate WinSupply.
- Two irrigation meters were sold for new installations by customers.
- Missy met with Nick Erickson for training on the new permitting software.
- Worked with the BOH to determine the existing sewer connections at Hollis Hill Farms after inquiries from BOH.
- Met (virtual meeting) with Weston & Sampson and Ti Sales representatives about the ongoing meter project.
- Held 90% review meeting with Arcadis for the SCADA system upgrades - it was a very good meeting and great progress is being made (project remains on schedule).
- Attended meeting with DPW personnel regarding the selection of on-call engineering consultants. Reviewed the firms submitting letters of interest and submitted short list of interview candidates for Water Division work/projects.
- Received reimbursements (\$489K total) from State for the land protection grants for the Crocker/Jewell Hill Farm and Porter properties. This was the final item to close out these projects.

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

Water Permits and Inspections	
Type	Number
Emergency DigSafe Mark-outs	2
DigSafe Mark-outs	5
Inspections of Work on Water System	3
Record Plan Updates	4
Special Permit Applications Reviewed	0
New Water Service Applications	1
View Permits reviewed	0
Curb Stops Turned off/on	21
Located/cleaned gate/curb boxes	32
Final Readings/Real Estate Closings	7
New Meter Installations	19
Backflow Preventers Tested	13
Cross Connection Surveys	0
Residential Appointments Made	0
Totals	107

<p><u>WASTE WATER DIVISION</u> Jeff Murawski, P.E. - Deputy Commissioner of Wastewater</p>
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The WWTF processed 31.3 million gallons of sewage during the last week of August. In total, 54.7 tons of organics and 137.5 tons of solids were removed and prevented from entering the Nashua River.

<u>Week of 9/06/2020 - 9/12/2020</u>		
Sewage Flow	31.32	Million Gallons
Rainfall	0.15	Inches
Secondary Bypass	0.00	Million Gallons
BOD _{in} (lbs)	111,053	Pounds
BOD _{out} (lbs)	1,736	Pounds
BOD Removal (%)	98.45%	
TSS _{in} (lbs)	277,001	Pounds
TSS _{out} (lbs)	2,066	Pounds
TSS Removal (%)	99.08%	

WWTF Maintenance & Operations:

- Plant Equipment Fleet Vehicle, TX Gator: performed maintenance checks on Gator; need to order new tires before Winter.
- Secondary Systems Upgrades Project: no SCADA work was performed this week; no work was performed on the Tate Andale Basket Strainer this week (*ongoing*).

- Primary Settling Basins Cross Collector Project: six (6) wall bearings at machine shop to be reworked (2nd set); waiting for reworked sprockets from mfg. (*ongoing*).
- CEPT Fire Alarm RF Signal Reporter: Fire Dept. is not receiving signal; troubleshot condition, and found expired batteries; replaced batteries.
- Headworks Blower Room, MCC 11: AC coil is icing up; (need to call in on-call HVAC, MPC); freon is probably low.
- Blower Building, Aeration Control Panel: replaced UPS (power supply back-up battery).
- Process Control Room: AC does not work (need to call on-call HVAC, MPC).
- Headworks, Aerated Grit Chambers Building, Hydrotherm Boiler: Flow switch failure (need to call on-call HVAC, MPC).
- Performed Groundskeeping, at East & West Plants.
- Total Phosphorus numbers have begun to go down. **Update:** We seem to have an unusual pattern of the first two tests of the week being within proper parameters but the third test is abnormally high. We are continuing to investigate this condition.
- 09/14/2020: Completed and submitted the August NPDES DMR report to USEPA & MADEP.
- 2020 3rd Quarter Toxicity Test samples were collected this week, and submitted to the lab for analyses.
- Tested all emergency showers.
- Preventative Maintenance checks on Gravity Belt Thickeners.
- Cleaned the Gravity Thickener.
- Cleaned the Return Activated Sludge Pumps.

Work Order Report: Sept. 12th - 18th, 2020					
Demand Statistics		PM Statistics		Averages	
Rejected Work Orders	0	Rejected Work Orders	0	% Total Work Orders Completed On Time	83.30%
Demand Work Orders	3	PM Work Orders	22	Avg. Days Late / All Work Orders	4
Demand Work Orders Completed Late	0	PM Work Orders Completed Late	4	Avg. Days to Complete / All Work Orders	8.37
Demand Work Orders Completed On Time	3	PM Work Orders Completed On Time	18	Total Maintenance Man Hours	69
% Demand Work Orders Completed On Time	100.00%	% PM Work Orders Completed On Time	81.80%		
Avg. Days Late / Demand Work Order	0	Avg. Days Late / PM Work Order	4		
Avg. Days to Complete / Demand Work Order	0	Avg. Days to Complete / PM Work Order	8.37		

Administration:

- Deputy Commissioner managing Division remotely (as of Mar. 17th).
- Daily (or more frequent, as needed) conducting video calls with Wastewater Management Team.
- Participated in monthly morning drive radio Wastewater segment, with Travis & Sherman, on WPKZ's "Morning Kommuter" radio program.
- Review of received "On-Call Engineering" quals submissions.
- Sewer Billing Abatements.
- Coordinated with Purchasing Department, for Wastewater procurement needs.

Sewer System



Figure 5 - Elm Street sewer replacement

- Training on JetScan CCTV jet nozzle by JF McDermott. The tool allows an operator to CCTV a sewer line using the jet truck, instead of the CCTV camera. Will be helpful in cases of bends, offset joints, or blockages where the CCTV camera cannot pass through.
- Raised buried manhole on Broad Street, paved base course, and joint sealed edges.
- Picked up parts from FW Webb/Pipe Plus for fixing leaking siphon sewer at the Airport.
- Joint-sealed 5 manholes that were raised in previous weeks.
- Saw cut pavement at two (2) manholes, and the frames & covers will be raised next week.
- Repaired leaking tire on one vehicle.
- Performed weekly pump station checks: no issues were found.
- Cleaned and washed down new Jet/Vac Truck, the F550, and the Box Truck.
- Blue Diamond Equipment continued on Elm Street sewer repair. Two lengths of pipe were installed.

- Ted Berry Co. continued on cleaning Siphon No. 3's 36" dia. barrel and 30" dia. barrel on the main trunk sewer. Nothing too exciting being pulled out, except lots of grit and some grease.
- Boring contractor is scheduled for Highview Street Sewer Replacement, to perform ledge probes to obtain ledge depths below surface grade.
- Sheldon Farm Inc. is scheduled to pump out 6" siphon's septic tank at Airport.
- Continued adding sewer laterals to GIS mapping from Engineering Division's field books.

DPW ADMINISTRATION

Courtney Lamoureux - Business Manager

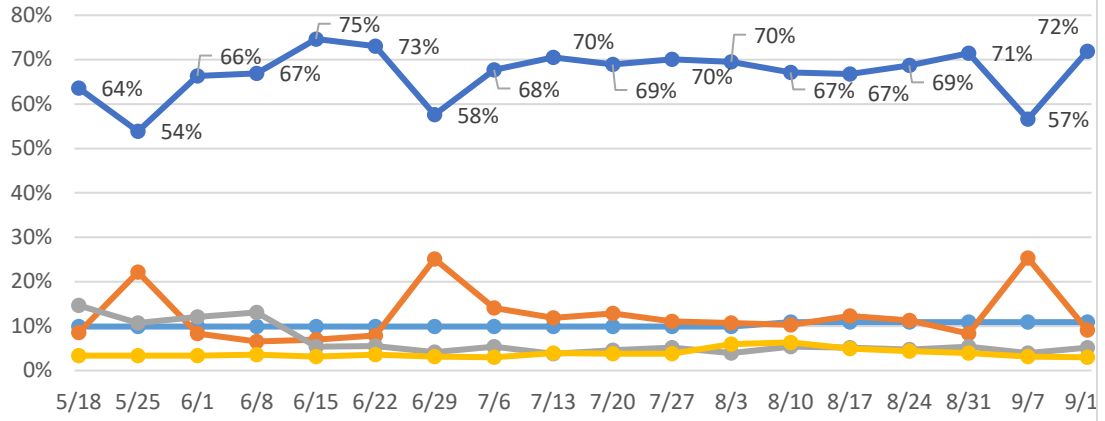
- Financial:
 - Reviewed all DPW Department accounts for accuracy and monitored budgets.
- Administrative:
 - Submitted DPW Department absences due to COVID-19 reasons to the human resources department.

- Assist the Auditor's office with the FEMA grants portal.
- All DPW Divisions processed payroll for the Local 39 license and clothing stipends.
- All DPW Divisions are working on completing the Compensated Absences records for the City Auditor's Office.
- Compiled and submitted the total gallons of diesel and gas for FY20 to the Mayor's office for Green Communities reporting.
- Correspondence with the Fitchburg Greenway Committee regarding work to be performed and needs from the City at the Rollstone Hill Trail. Student Conservation Association (SCA) volunteers will be on site starting 9/21/20 for 10 days performing trail maintenance and cleanup.

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	52	\$ 34,006	*Note 1			\$ 25,750
Cemeteries	4	\$ 1,126				\$ 3,950
Parks	5	\$ 422				\$ 3,275
Recreation						\$ -
Water Supply	23	\$ 59,238			\$ 542,976	\$ 27,429
Waste Water	30	\$ 39,374	*Note 2	\$ 26,615	\$ 1,052,401	\$ 6,825
			*Note 3			
Total	114	\$ 134,166		\$ 26,615	\$ 1,595,377	\$ 67,229
*1 - Engineering Permits & Performance Bonds						
*2 - Septage at East Plant (Gallons)		313,118				

DPW Staffing levels for the past week were at 72%.

DPW Staff Levels



	5/18	5/25	6/1	6/8	6/15	6/22	6/29	7/6	7/13	7/20							
● % Vacant	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	11%	11%	11%	11%	11%
● % Time Off	9%	22%	8%	7%	7%	8%	25%	14%	12%	13%	11%	11%	10%	12%	11%	8%	25%
● % Off-shift	15%	11%	12%	13%	5%	6%	4%	5%	4%	5%	5%	4%	5%	5%	5%	5%	4%
● % Covid	3%	3%	3%	4%	3%	4%	3%	3%	4%	4%	4%	6%	6%	5%	4%	4%	3%
● Total Working	64%	54%	66%	67%	75%	73%	58%	68%	70%	69%	70%	70%	67%	67%	69%	71%	57%