



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

**DPW Weekly Update August 24 - August 30, 2020**

Dear Mayor, Councilors, and Colleagues;

This week the Wastewater Division completed and filed the semi-annual consent decree remedial measures progress report with the DEP and EPA. As you may be aware the consent decree is the legal document executed in June 2012 whereas the City of Fitchburg is required to perform all necessary remedial measures listed in Section VII of the decree to achieve and maintain compliance with the Clean Water Act, the NPDES permit, and all associated state and federal laws. Under the direction of Deputy Commissioner of Wastewater Jeff Murawski, the August 2020 remedial measures report includes the following progress:

**Sewer System Operation and Maintenance:** Under the direction of our Collection Systems Manager Tony Maressa, the sewer system continued to be cleaned and inspected.

- 92.7% of the 142 miles of sewers have been inspected with CCTV.
- 30,000 of the 37,000 feet of trunk sewer were inspected using TV, sonar, smoke and radar.
- 2,037 out of 3,575 manholes (57%) have been inspected.
- The critical position of Sewer General Foreman is still vacant and needs to be filled to bring the sewer crew to full capacity.
- During the six month reporting period there were a total of 76 combined sewer overflows with an estimated 5,073,682 gallons of combined sewer/stormwater being released into the environment. This 5 million gallon figure represents about one days' worth of treated effluent from the wastewater treatment plant.
- Initiated heavy cleaning and inspections of the five siphons.
- 161 of the 262 combined manholes (61%) have been separated. Thirteen (13) manhole separations occurred in the last 6 months.

**Geographic Information Systems (GIS) Mapping:** Under the direction of our GIS Engineer Ken DuPont, the city's sewer and storm water systems continues to be mapped and analyzed. Asset management allows DPW to accurately know the location, condition, and operational attributes of each manhole, catch basin, pipe and outfall.

- 99.36% of the 3,575 sewer manholes have been located and mapped.
- 2,445 drain manholes have been mapped (unknown number total).
- 3,975 catch basins have been mapped (unknown number total).

Wastewater Treatment Plant Upgrades: Under the direction of Superintendent Mark McNamara the Wastewater Treatment Plant continued to operate in accordance to the NPDES permit.

- Plant operations have maintained a continuous CEPT mode for the plant process. Wetweather CEPT operations appear to be increasingly effective, and operations staff appear to have addressed process issues that relate to low pH.
- The overall compliance of the treatment operation appears to be significantly improved, but the Secondary Systems Upgrades (SSU) Project which began on March 3, 2017 required us to take portions of our treatment process offline while the work was performed. All Secondary Systems work was completed on August 24th, 2020, and the final tank (Second Stage, Secondary Clarifier No. 2) was refilled and put into service. As of this writing, the Plant has full treatment capacity restored.
- As a result, the City fully expects the 12-month rolling phosphorus average to trend back down now that the majority of SSU Project work is completed, and to be significantly under the interim phosphorus limit of 0.5 ppm as a result of the biological nutrient removal improvements implemented by the SSU Project.

Wastewater Treatment Plant Maintenance: Under the supervision of maintenance engineer Ken LeTourneau, the Wastewater Treatment Plant maintenance plan continues to be implemented.

- Completed 376 preventative maintenance work orders.
- Completed 58 demand work orders.
- Completed annual OSHA inspections.
- Completed SSU project upgrades.

In the next six months, the Wastewater Division plans to:

- Continue upgrades to the Wastewater Treatment Plant including SCADA upgrades, equipment replacements, and facility upgrades.
- Continue the RFEI process for converting the decommissioned west wastewater treatment plant into an anaerobic digestion facility.
- Commence construction on a project to separate approximately 27,600 feet of combined sewers and the rehabilitation of 33,000 feet of sanitary sewers. This project will also close four CSO regulators.

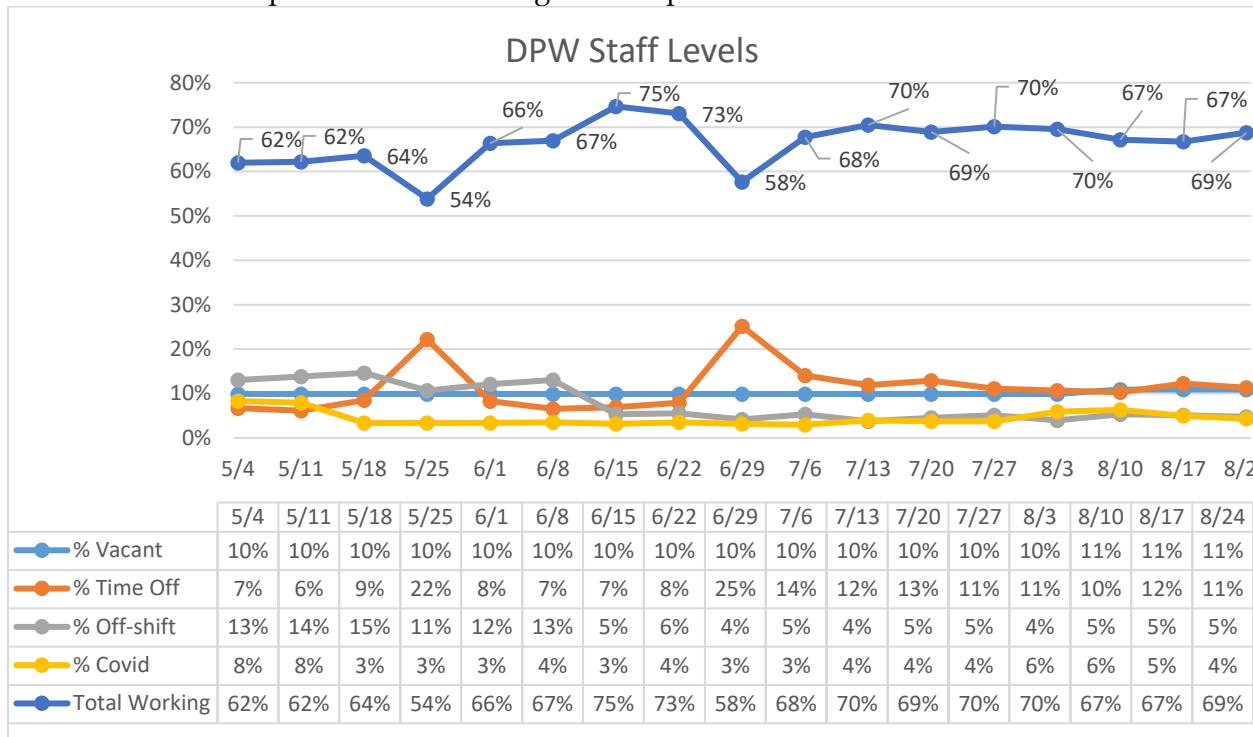
All of these figures are just a superficial overview of the work our Wastewater Division does every day to protect the environment and keep the City of Fitchburg functioning. This year the sewer rates increased from \$8.51 to \$9.11 per 100 cubic feet in order to pay for the many upgrades to the sewer system and treatment plant necessitated by the consent decree and outlined above.

Sincerely,

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

## DPW STAFFING

DPW Staffing levels for the past week were at 69%. Some DPW employees have started receiving significantly reduced paychecks because they have to stay home to take care of children who cannot attend school or childcare because of the COVID closures. These employees are all out of personal time off (PTO = sick, personal, vacation) and cannot work from home like their cityhall counterparts. These are the same employees who were classified as 'essential' and required to work throughout the pandemic.



DPW continues to have a high vacancy rate (11%) with 11 open positions across multiple divisions and one Workers Comp extended absence. These vacant positions are a detriment to continued operations and maintenance of all facets of our infrastructure and burden our remaining staff.

| Position                      | Division       | Last Date Worked       | Working Days Lost |
|-------------------------------|----------------|------------------------|-------------------|
| Civil Engineer                | Engineering    | 7/22/20                | 27                |
| DPW Clerk                     | Administration | 3/13/20                | 122               |
| Dispatcher                    | Streets        | 10/26/19               | 221               |
| Working Foreman               | Streets        | 7/7/19                 | 301               |
| HSMEO                         | Streets        | 9/7/18                 | 517               |
| Mechanic                      | Streets        | 9/7/18                 | 517               |
| Laborer                       | Parks          | 1/6/20                 | 171               |
| General Foreman - Collections | Wastewater     | 3/8/18                 | 648               |
| Head Water Meter Reader       | Water          | 2/18/20                | 140               |
| Water Distribution HSMEO      | Water          | 7/19/16                | 1075              |
| Water Distribution LMEO       | Water          | 12/20/19               | 182               |
| Recreation Assistant          | Recreation     | 8/11/20                | 15                |
|                               |                | Total Person-days lost | 3936              |

## STREETS DIVISION

Gary Withington - Superintendent

Due to continued decreased staffing levels, outstanding service requests have increased from 151 on March 1<sup>st</sup> to 450 on August 30<sup>th</sup>. This is an increase of 198% (+299) over the past 6 months. There is a direct correlation between the staff available and the number of request that go unanswered through the [SeeClickFix](#) program. In the past two weeks DPW received 46 new requests and closed 34 requests. The total outstanding requests backlog is now 450, 12 more than the previous reporting period. Most outstanding requests are for potholes and stormdrains.

| Reporting Period<br><u>8/17/20 - 8/30/20</u> |     | Previous Period | Change |
|--|-----|-----------------|--------|
| <b>Previous Request Backlog</b>              | 438 |                 |        |
| New Requests                                 | 46  | 42              | 4      |
| Completed Requests                           | 34  | 65              | -31    |
| <b>Total Request Backlog</b>                 | 450 | 438             | 12     |
| Potholes                                     | 130 | 127             | 3      |
| Storm Drains                                 | 93  | 89              | 4      |
| Tree & Brush Pruning                         | 61  | 57              | 4      |
| Traffic, Signals, Signs                      | 12  | 12              | 0      |
| Berm Repairs                                 | 26  | 29              | -3     |
| All other categories                         | 128 | 124             | 4      |
|  |     |                 |        |
| <b>New Requests</b>                          | 46  | 42              | 4      |
| Acknowledged                                 | 25  | 10              | 15     |
| Completed & Closed                           | 6   | 9               | -3     |
| Open   | 40  | 33              | 7      |

The weather last week started out with a strong windstorm on Sunday caused moderate tree damage throughout the city. The rest of the week was cooler and wetter.

|                   | Saturday<br>8/22 | Sunday<br>8/23 | Monday<br>8/24 | Tuesday<br>8/25 | Wednesday<br>8/26 | Thursday<br>8/27 | Friday<br>8/28 |
|-------------------|------------------|----------------|----------------|-----------------|-------------------|------------------|----------------|
| Rain (in)         | 0.02             | 0.27           | 0.32           | 0.00            | 0.00              | 0.21             | 0.21           |
| Hi/Lo<br>Temp (F) | 66/84            | 64/90          | 66/86          | 66/84           | 55/72             | 55/66            | 63/77          |

Sources:

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

### Signs & Stripes Crew

Replaced missing stop sign at Myrtle Avenue and Orange Street.  
Continued painting crosswalks and school zones throughout the city.

### Paving Crew

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

- Bond Street
- Fairmount Street,
- Oak Hill Road,
- Shattuck Street,

Installed berms at:

- 88 Newtonville Ave,
- 193 Woodland Street,
- 134 St Andrew Street,
- John Fitch Highway by Summer Street

DPW crews paved the previously milled section of Main Street and Summer Street at Moran Square.



*Figure 1 - Paving Moran Square*

Supported the Water Division by paving trenches on Blossom Street, Hazel Street, Milk Street, Hurd Street and Reingold Avenue.

Supported the Wastewater Division by paving sewer trenches on Leighton Street.

### Structures Crew

- Repaired catch basin on Industrial Road.

## Sidewalk Crew

Continued construction of sidewalk on Clarendon Street.

Demolished the collapsed section of sidewalk at Daniels and Pratt Street. Repointed the granite block retaining wall and backfilled.



*Figure 2 - Sidewalk repair Daniels at Pratt*

## Trash & Streetsweeping & Brush

Due to heavy windstorm, DPW once again did tree clean up throughout the city:

- Franklin Road,
- Kimball Street,
- Prescott Street,
- Prichard Street
- 195 Bishop Street,
- 151 Bishop Street,
- 428 Lincoln Street,
- 35 Carey Street,
- 33 Alpine Road,
- West Street,
- Coggshall Park,
- Rindge Road,
- Ashby State Road,
- Summer Street,
- Essex Street,
- Cortland Ave,
- Pearl and North Street

- Spot streetsweeping around the City
- Cut brush on Billings Road, Ashburnham Hill Road, and Arn How Farm Road.
- Picked up illegal dumping:
  - Dresser on Pratt Street,
  - Five bags of trash on 5<sup>th</sup> Mass Pike,
  - Bags of trash on Belmont Street.

## **PARKS DIVISION AND RECREATION DEPARTMENT**

Nate LaRose – Recreation Director

- 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.
- Weekly Reoccurring Events:
  - Free Friday Night Movies at Putnam Place:
    - Jumanji: The Next Level – Rain Date: September 7, 2020
  - Concerts on the Common Schedule:
    - The Outcrops – September 2, 2020
    - A Fine Connection – September 9, 2020
    - Blue Honey – September 16, 2020
- Continued to mow parks and pick up trash
- Picked up trash on Main Street.
- Replaced missing flags at Flag Park.

## **CEMETERIES DIVISION**

Jaquelyn Poirier - Superintendent

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 .....                  | 1  |
| Inurnments.....                        | 2  |
| Up righted monuments.....              | 0  |
| Uncovered/cleaned flat monuments ..... | 0  |
| Foundation marking for monuments.....  | 1  |
| Catch basin repair .....               | 0  |
| Trimmed Trees .....                    | 7  |
| Trimmed shrubs.....                    | 3  |
| Meeting with Families.....             | 15 |
| Payments - invoiced/processed.....     | 4  |
| Family Genealogy .....                 | 4  |

## **ENGINEERING DIVISION**

Nicholas Erickson, P.E. – Assistant City Engineer

### Engineering

- City Engineer participated in Twin Cities Rail Trail Phase II design meeting with MassDOT, Rail Trail Association, design consultants, Fire Chief, Police Chief, Mayor and Community Development. The latest proposal includes the closure of Railroad and First Streets to accommodate several features including a mound built of boulders with trees on top. City Engineer explained to the group that there are significant utilities located under the street including sewers, water lines, gas lines, electric lines, drainage lines, and all the associated manholes to access them. Burying these manholes and utilities under a mound of boulders and planting trees on top of them is very impractical. Tree roots would find their way into

the sewer and water lines and cause damage. DPW crews need access to the utilities with very large trucks for maintenance purposes. City Engineer also explained that closing off the streets would create dead ends that would make it difficult for plow trucks and garbage trucks to turn around. Also the snow plows would push all the snow into the new landscaped areas. Other issues were raised including the maintenance logistics and costs of this new park and pedestrian bridge on DPW.

#### Administrative

- Reviewed latest invoice from Arcadis for NPDES MS4 Permit Compliance Assistance work.
- Reviewed Invoice # 4 from Waterline Industries for the Narrows Road Hydrogenerator Project and approved for payment.
- Performed records search for Marshall Street at Johnson Street per request from Merrimack Engineering Services, Inc. Sent resulting plans via email.
- Answered various questions from engineering firms about the on-call engineering RFQ.
- Reviewed estimate from DPW Wastewater for the amount to be donated to the City's paving program for installing temporary trench patches in lieu of permanent trench patches for the CSO #0039 Separation Project.
- Re-submitted TaxParcel Assess geodatabase to MassGIS for review after making minor edits that were flagged during QA.
- Received notification from MassGIS that Fitchburg's TaxParcel Assess GIS geodatabase is fully compliant and up-to-date.
- Supplied Street layouts and sewer plans for O'Brien Land Surveying who is conducting a survey at 135 Intervale Road.
- Notified Community Development that Associated Building Wreckers has satisfied DPW Engineering's requirements for sewer capping at all five (5) of the demolition properties contracted by Fitchburg:
  - 40-44 Plymouth/ aka 8 Woodland Street
  - 40(1/2) Nashua Street
  - 130 Academy Street
  - 22 Third Street
  - 617 Water Street

#### Street Lights

- Contacted the City's street light maintenance contractor Dagle Electrical Construction Corp. (Dagle) for emergency removal of a concrete street light pole with falling debris on Elm Street at Prichard Street. They came out the following morning to remove the pole. Replacement will occur when replacement parts are received.
- Dagle Electric removed an ornamental street light from in front of 320 Pearl Street where a hit-and-run automobile accident caused damages. Replacement will occur when replacement parts are received.
- Dagle Electric repaired 3 street lights on DPW Engineering's repairs list, closed the 3 See-Click-Fix work requests that for associated with these repairs:
  - Ornamental on Hanna Lane
  - Ornamental on Jessica Way
  - LED for Pole Y2 on Linda Street

- Performed site visit to Hayden Passway per request from the Mayor to investigate poor lighting. Found 3 street lights out there, currently only one is connected to the City's street light network but it appeared to be functioning properly. Need to conduct a night check to verify operation of the other two lights and evaluate coverage.
- Performed site visit to Merle Street to verify resident complaint of a street light not working. Verified light is not working and added to DPW Engineering's repair list.
- Contacted Unitil about cutting power to an ornamental street light at the corner of Elm Street and Fox Street while a City contractor performs a sewer repair. A new manhole will need to be installed where conduit for the light currently exists. Once the manhole is installed, the conduit will be relocated then Unitil will restore power.

### 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. To date, PJA has completed the following:
  - Lowered drain and sewer catch basin and manhole structures to the elevations required to allow for the proposed finished grades along the roadway.
  - Removed existing sidewalk and unsuitable curbing.
  - Pulverized existing roadway pavement and compacted to ensure it remained drivable.
  - Removed excess material and fine-graded the roadway subgrade to the proper elevations.
  - Applied liquid calcium chloride to the roadway, tilled it in to a depth of six inches, and compacted. The calcium works as a binding agent to create a very dense base, and also aids in dust control.
  - Applied calcium chloride flakes to the roadway as a top dressing/fog-seal, which further promotes moisture absorption, compaction, and controls dust.
  - Paved the binder course of pavement.
  - Began grading and paving driveway aprons.
  - Installed an edge drain along the eastern edge of the roadway between House #56 and House #100 to catch all of the groundwater that bleeds out from the City's quarry property. The edge drain consists of an 8" diameter perforated plastic pipe encased in crushed stone that is tied into the drainage system. This will capture the groundwater and help prevent dangerous icing conditions that occur in this area during the winter months.
  - Graded sidewalks along the western edge of the roadway and removed excess material in preparation for curb and concrete installations.
  - Finished grading and paving driveway aprons.
  - Pulverized existing paved aprons along the eastern edge of the roadway from Wall Street to Pratt Street and graded and compacted subgrade.
  - Patched trench for edge drain with binder.
  - Marked out locations for berm along the western side of the roadway and locations for aprons along the eastern side of the roadway.
  - Added berm pad in areas along the eastern edge of the roadway where needed in preparation for berm installation.

- PJA's subcontractor, ROU, raised structures to finished grade (catch basin frames and grates, manhole frames and covers, water gate valve boxes, etc.).

This past week PJA completed the following:

- Installed berm along eastern edge of roadway.
- Dug out several areas behind the berm in preparation for paving an asphalt apron.
- PJA's subcontractor, MTK, installed curbing along the western edge of the roadway.



*Figure 3 - Resetting Curb on lower Beech St*



*Figure 4 - Final section of curbing*

DPW Engineering performed daily field visits and provided daily construction administration and oversight, including inspection of ADA ramp compliance for crosswalks.

#### Permitting

- 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.
- Reviewed requirements for Utility Site Plans with the Building Commissioner.
- Assisted various constituents and contractors with filling out their online permits.
- Performed various application and engineering plan reviews as required.

#### Dig Safe

- Performed Dig Safe mark out of sanitary sewer service at 268 Milk Street for a telephone pole replacement.
- Performed Dig Safe mark out on Woodland Avenue for property demolition sewer capping.
- Performed Dig Safe mark out for emergency water main repair in front of 21 Read Street.

#### Site Visits & Inspections

- Performed site visit to Warner Ave. Extension to investigate resident complaints of an industrial mining operation being conducted without any permitting or erosion controls. Attended with Building Commissioner and Planning/Con Com Agent. Confirmed resident complaint, this is something that needs to be permitted via Special Permit from the Planning Board. The Building Commissioner plans to send a notice to the property owner.
- Performed site visit to 415 Princeton Road to investigate complaints of a downed Verizon wire. Could not locate the issue. Contacted Verizon, who indicated they had a downed guy wire in the vicinity and would repair as soon as possible.
- Performed site visit to 200 Daniels Street to review the findings of DPW Wastewater's CCTV inspection of a drain line from a catch basin in the parking lot to the main line in the street. The property owner plans to separate the roof drainage out from the building's sanitary sewer service, and would like to tie into this drain line. Unfortunately it is too small in diameter and is in poor condition, so it must be replaced. Followed up with a phone call to Joe Tocci (JTT Excavating), who has been asked by the property owner to provide a quote for replacing the drain line from the catch basin to the road and tying in the drain line from the roof drains.
- Performed site visit to Moran Square for inspection of paving work by DPW crews in front of the old Harper Furniture building. Several sections of the roadway had deteriorated badly.
- Performed trench inspection following an emergency water main repair in front of 21 Read Street.
- Conducted a dye test of the sewer service for 21 Read Street to ensure that the sewer service was not damaged during excavation for water main repair.
- Performed site visit to inspect DPW Wastewater patch on Fifth Mass. Turnpike.
- Assisted homeowner at 530 Rollstone Road to layout property lines along the Right of Way (for demonstrative purpose only, not survey quality).

- Performed site visit to 5 Jane Ave. to review a driveway permit application.
- Assisted homeowner at 200 Cathy Street to assist with the layout of property lines along frontage and abutting parcel (for demonstrative purpose only, not survey quality).
- Inspected capping of sanitary sewer service for a city demolition property at 8 Woodland Street.

| <b>Engineering Services</b> |   |               |                  |
|-----------------------------|---|---------------|------------------|
|                             | <u>Type</u>                                   | <u>Number</u> | <u>Fees</u>      |
| PERMITS                     | Street Occupation Permits (No Fee)            | 1             | n/a              |
|                             | Trench Permits (\$75)                         | 2             | \$150            |
|                             | Excavation/Road Opening Permits (\$250/\$350) | 1             | \$0 <sup>1</sup> |
|                             | 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              |
|                             | Application Reviews                           | 15            | n/a              |
|                             | Engineering Plan Reviews                      | 7             | n/a              |
| INSPECTIONS                 | Driveway Inspections                          | 1             | n/a              |
|                             | Trench Inspections                            | 2             | n/a              |
|                             | Site Visits/Inspections                       | 20            | n/a              |
|                             | Dig-Safe requests                             | 3             | n/a              |
|                             | Sewer/Drain Inspections                       | 3             | n/a              |
|                             | Street Light Inspection                       | 3             | n/a              |
| <b>Totals</b>               |   | <b>59</b>     | <b>\$300</b>     |

Notes:

<sup>1</sup> Includes 1 permit for DPW Water at \$0 (fee waived).

**WATER SUPPLY DIVISION**

John Deline – Deputy Commissioner of Water Supply

The Water Supply Division produced 35.3 million gallons of drinking water this past week. Water is being transferred from Mare Meadow Reservoir to Meetinghouse Reservoir, which is the terminal reservoir to the Regional Plant, and from Fitchburg Reservoir to Lovell Reservoir, which is the terminal reservoir to the Falulah Plant. Reservoirs continued to be inspected and patrolled on a daily basis.

### Water Treatment

| Reservoir Levels as of 8/27/20 |                          |                     |              |
|--------------------------------|--------------------------|---------------------|--------------|
| Northern Reservoirs            | Elevation below spillway | Southern Reservoirs |              |
| Fitchburg/ Ashby               | -1.12 feet               | - 0.32 feet         | Meetinghouse |
| Scott                          | -3.31 feet               | -4.94 feet          | Mare Meadow  |
| Lovell                         | -3.59 feet               | -0.26 feet          | Bickford     |

| Water Filtration Plant Flows/Production from 8/21/20 through 8/27/20 |               |                |                |
|--|---------------|----------------|----------------|
|  | Falulah Plant | Regional Plant | Totals         |
| Raw Water Inlet (Gal)  | 9,309,000     | 29,808,000     | 39,117,000     |
| Backwash to waste (Gal)  | 1,261,000     | 2,556,000      | 3,817,000      |
| Finish Water - Treated & Distributed (Gal)                           | 8,048,000     | 27,252,000     | 35,300,000     |
| Capacity   | (6 MGD) 22.2% | (12 MGD) 35.5% | (18 MGD) 31.0% |
| Efficiency   | 86%           | 91.4%          | 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.
- Disassembled the second (2 of 2) Raw Water/Plant Strainer at the Regional Plant - inspected the internals and completed a thorough cleaning - no issues were noted.
- Began experiencing problems with bi-carb at the Falulah Plant, black material appeared in the pre-pump strainer. Personnel will institute more frequent cleaning of the strainer and the material will be collected to review with Holland Company (the supplier of the chemical).

### Water Distribution

- On Saturday, August 22nd, Treatment personnel discovered that much higher than normal flows were occurring in the City's High Distribution System, indicated that there was a significant break/leak. Distribution personnel were called in to look for the source of the leak, concentrating on river crossings initially. In a short time, the leak was found on a six-inch fire protection line at the old Seaboard Box Company on Daniels Street. The line was shut off and the building owner and FFD were notified. The line was repaired by a contractor (Tandem) on Tuesday and put back into service.



Figure 5 - Water main break - Daniels Street

- FWD personnel excavated the water service tap at 260 Hollywood Street and installed a BOT (box over tap). The trench was backfilled and compacted.
- FWD personnel set-up a hydrant bleeder at 170 Arn How Farm Road, this was installed to improve water quality in the area and increase chlorine residuals.
- FWD personnel excavated and reset/straightened curb boxes at 22 Kinsman Road and 792 Water Street.
- FWD personnel, on Thursday, 8/27, excavated and repaired a water main break on an 8-inch water main on Read Street, in front of house number 21.



Figure 6 - Water main break - 21 Read St

- FWD personnel reset the granite curbing in front of the new hydrant on Plymouth Street at Oak Hill Road.
- FWD personnel performed numerous shut off/turn on for the water meter installation contractor (Baystate Winnsupply) in order to allow them to complete water meter change outs on water service lines with old valves on the interior of the buildings and/or old, iron pipe.
- FWD personnel continued hydrant flushing on the High and Low Systems in the Cleghorn and Main Street areas.

- 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.

Fire Hydrants

| Total Hydrants | Out of Operation | Hydrants Replaced | Hydrants Repaired | Maintenance Completed | Painted | Flushed |
|----------------|------------------|-------------------|-------------------|-----------------------|---------|---------|
| 1,632          | 2                | 0                 | 0                 | 0                     | 16      | 27      |

- FWD conducted a hydrant flow test at 346 River Street on Tuesday, 8/25.

Administration and Meters/Billing

- Total of 18 real estate closings – final readings completed along with preparation of final bills for attorneys/realtors. Future real estate closing final readings also scheduled.
- 33 invoices totaling \$88,972.28 were processed for FY20 warrant WG21010.
- 9 purchase requisitions and 1 change order were entered into Munis for approval by Purchasing.
- The Fitchburg Water Division participated in the conference call that is being held bi-monthly 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 payroll for the week ending 9/4. Total payroll was \$56,202.40, including \$4,539.16 in overtime for the two week period.
- From 8/21-8/27, 247 water meters were replaced/upgraded to Neptune meters. 26 change-outs were completed by FWD personnel and 221 by Baystate Winsupply personnel.
- Sold 2 irrigation/water only meters.
- Submitted 9/10 deposit to the Treasurer in the amount of \$7,382.00
- Had lengthy discussion with MA DEP regarding the schedules for the ACO and Sanitary Survey items and the impact that COVID-19 has had on completing work. Some items have been completed but others could not be due to COVID-19 and extensions were/will be requested. MA DEP agreed that the impacts and requested extensions are justified and will work with the Water Division to develop new completion dates. MA DEP followed up with an email confirming this conversation.
- Followed up with State regarding reimbursements of grants for the Jewell Hill Preservation Project and the purchase of the Porter Property. State contact indicated that reimbursements should be received by the City shortly. One received, these accounts can be reconciled and closed out.

- Submitted order to City Council to accept the donation of a 60-acre parcel of land in Hubbardston for the purpose of watershed protection. The property is land-locked but has a common boundary with City of Fitchburg property within the watershed to Mare Meadow Reservoir. The owner will receive a tax credit through the State's conservation land tax credit program: <https://www.mass.gov/service-details/commonwealth-conservation-land-tax-credit-cltc>

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

| Water Permits and Inspections        |            |
|--------------------------------------|------------|
| Type                                 | Number     |
| Emergency DigSafe Mark-outs          | 1          |
| DigSafe Mark-outs                    | 15         |
| Inspections of Work on Water System  | 6          |
| Record Plan Updates                  | 10         |
| Special Permit Applications Reviewed | 0          |
| New Water Service Applications       | 1          |
| View Permits reviewed                | 2          |
| Curb Stops Turned off/on             | 22         |
| Located/cleaned gate/curb boxes      | 40         |
| Final Readings/Real Estate Closings  | 3          |
| New Meter Installations              | 21         |
| Backflow Preventers Tested           | 0          |
| Cross Connection Surveys             | 0          |
| Residential Appointments Made        | 0          |
| <b>Totals</b>                        | <b>121</b> |

#### WASTE WATER DIVISION

Jeff Murawski, P.E. - Deputy Commissioner of Wastewater

The WWTF processed 31.86 million gallons of sewage during the first week of August. In total, 52.2 tons of organics and 136.2 tons of solids were removed and prevented from entering the Nashua River.

Week of 8/16/2020 – 8/22/2020

|                          |         |                 |
|--------------------------|---------|-----------------|
| Sewage Flow              | 31.86   | Million Gallons |
| Rainfall                 | 0.37    | Inches          |
| Secondary Bypass         | 0.00    | Million Gallons |
| BOD <sub>in</sub> (lbs)  | 106,060 | Pounds          |
| BOD <sub>out</sub> (lbs) | 1,748   | Pounds          |
| BOD Removal (%)          | 98.22%  |                 |
| TSS <sub>in</sub> (lbs)  | 274,707 | Pounds          |
| TSS <sub>out</sub> (lbs) | 2,318   | Pounds          |
| TSS Removal (%)          | 99.09%  |                 |

## WWTF Maintenance & Operations:

- Fournier Presses: adjusted belts on the presses' compressors.
- Secondary Systems Upgrades Project: Second Stage, Secondary Clarifier No. 2 was returned to online status this week (week of August 24<sup>th</sup>); Contractor is continuing to work (running signal wires) for the Settled Effluent's 'Tate-Andale' Basket Strainer (ongoing).
- Primary Settling Basins Gear Reducers Replacement Project: Primary Basin No. 2 work was completed, and put back in service on August 25<sup>th</sup>.
- Primary Settling Basins Cross Collector Project: six (6) wall bearings are at the machine shop to be reworked (2<sup>nd</sup> set); waiting for reworked sprockets from the manufacturer.
- Primary Sludge Pump No. 2, Pump Piston: key fell out; replaced the key, and dimpled the key to set it, to help preventing the key from 'walking out' again.
- Aerzen Aeration Blower No. 4: performed belt inspection (per maintenance code on Blower's Control Screen).
- Performed Groundskeeping, at East & West Plants.
- Preventative Maintenance rounds were performed this week and last week, by available maintenance staff, using "Staffing Minimization" hours (172.5 person-hours in total, this week and last week).

| Work Order Report: August 14 <sup>th</sup> - 28 <sup>th</sup> , 2020 |         |                                       |        |   |        |
|--|---------|---------------------------------------|--------|---|--------|
| Demand Statistics  |         | PM Statistics                         |        | Averages                                |        |
| Rejected Work Orders   | 0       | Rejected Work Orders                  | 0      | % Total Work Orders Completed On Time   | 84.20% |
| Demand Work Orders   | 3       | PM Work Orders                        | 38     | Avg. Days Late / All Work Orders        | 3      |
| Demand Work Orders Completed Late                                    | 0       | PM Work Orders Completed Late         | 6      | Avg. Days to Complete / All Work Orders | 8.87   |
| Demand Work Orders Completed On Time                                 | 3       | PM Work Orders Completed On Time      | 32     | Total Maintenance Man Hours             | 172.5  |
| % Demand Work Orders Completed On Time                               | 100.00% | % PM Work Orders Completed On Time    | 84.20% |   |        |
| Avg. Days Late / Demand Work Order                                   | 0       | Avg. Days Late / PM Work Order        | 3      |   |        |
| Avg. Days to Complete / Demand Work Order                            | 3       | Avg. Days to Complete / PM Work Order | 9      |   |        |

- 07/10/2020: Took 2<sup>nd</sup> Stage Secondary Clarifier No. 2 off line for SSU Project repairs;
 Update:
  - Contractor put Clarifier back into service on Monday - August 24<sup>th</sup>, 2020.
- 08/26/2020: Participated in audio conference call with MADEP about current COVID-19 updates.
- Tested all emergency showers.
- Preventative Maintenance checks on Gravity Belt Thickeners.
- Cleaned the Gravity Thickener.
- Cleaned the Return Activated Sludge Pumps.
- Chemical deliveries:
  - Sodium Hypochlorite (Disinfectant and Odor Neutralizing Chemical).

## Administration:

- Issued 'Notice to Proceed' to West Group Law PLLC, for the next procurement phase for the West Plant Repurposing, which will be a 'Request For Proposals' (RFP).
- Coordinated with Purchasing Department, for Wastewater procurement needs.
- Working to resolve a frustrating phone situation for the DPW - Wastewater Division:
  - IT is collaborating with Wastewater, to create a new 'phone tree' and message system for callers to Wastewater's new main number (978 - 829 - 1930).
  - UPDATE: New incoming call phone tree for Wastewater's 978 - 829 - 1930 number is online.

- Coordinating Wastewater Team's efforts, for Consent Decree 'Semi-Annual Report' deliverable at the end of August, on the City's progress on the Remedial Measures of the Consent Decree.
- Submitted letter response to USEPA, concerning the EPA audit (conducted May 11<sup>th</sup> - 12<sup>th</sup>, 2020) of the City's Industrial Pretreatment Program.

Sewer System

- Service call at #156 Chester Street: was discovered to be a homeowner issue; but we jetted main line (the City-owned sewer) as good measure.
- Performed CSO Block checks, due to thunderstorms: 3 CSO activations were found to have occurred.
- Raised two (2) sunken manhole frames & covers on Leighton Street, and installed the base course pavement at one manhole. The second manhole will receive base course paving next week.
- Performed CMOM inspection of 700 feet of 10" diameter sewer line in the easement off of Mount Vernon Street. We discovered two buried manholes....one that is buried 20 feet deep, under a storage overhang at #35 Mount Vernon Street; and we also discovered about a 100-foot length section of pipe that is in very poor structural condition (exhibiting 'hinge' fractures). The sewer issue will be addressed during downtown sewer separation project in a few years.
- Assisted the DPW - Division of Water Supply, on Read Street, with the Wastewater Division's Jetter/Vac truck.
- Responded to a service call at #23 Congress Street: was discovered to be a homeowner issue.
- Built up a diversion wall on river manhole, located at First Street at Railroad Street, to further protect the manhole from river debris.
- Joint sealed 3 manholes on Authority Drive.
- Finished meter data analysis and report for the Consent Decree's Semi-Annual Remedial Measures Status reporting to both EPA and MassDEP.

**DPW ADMINISTRATION**

Courtney Lamoureux – Business Manager

- Financial:
  - Reviewed all DPW Department accounts for accuracy and monitored budgets.
  - Participated in budget discussions with the Mayor's office and Finance team. Finalized FY21 requested budgets for all DPW Divisions and approved the draft budgets received from the City Auditor's office.
- Administrative:
  - Submitted DPW Department absences due to COVID-19 reasons to the human resources department.
  - All DPW Divisions have been creating FY21 purchase orders.
  - All DPW Divisions processed bi-weekly payrolls and are working on compiling Local 39 licenses for the upcoming contractual stipend payment.
  - Submitted a Chapter 90 project request to MassDOT for Citywide Cracksealing.

| 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                    | 71            | \$ 44,658         | *Note 1       |                  |             | \$ 61,378        |
| Cemeteries                                   | 5             | \$ 505            |               |                  |             | \$ 10,207        |
| Parks  | 14            | \$ 1,434          |               |                  |             | \$ 6,819         |
| Recreation                                   |               |                   |               |                  |             | \$ 5,058         |
| Water Supply                                 | 33            | \$ 88,972         |               |                  |             | \$ 56,020        |
| Waste Water                                  | 48            | \$ 369,914        | *Note 2       | \$ 43,385        |             | \$ 82,484        |
|  |               |                   | *Note 3       |                  |             |                  |
| <b>Total</b>                                 | <b>171</b>    | <b>\$ 505,483</b> |               | <b>\$ 43,385</b> | <b>\$ -</b> | <b>\$221,966</b> |
| *1 - Engineering Permits & Performance Bonds |               |                   |               |                  |             |                  |
| *2 - Septage at East Plant (Gallons)         |               |                   |               |                  |             |                  |
|  |               |                   | 510,412       |                  |             |                  |