



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

DPW Weekly Update March 16 – March 22, 2020

Dear Mayor, Councilors, and Colleagues;

As we enter the third week of the COVID-19 state of emergency DPW is prepared to continue providing mission essential functions to the City. Last week a directive was issued to all DPW employees reminding them that they are considered essential personnel in sustaining critical functions and protecting our community. As the COVID-19 pandemic develops, DPW crews will focus on maintaining the following Mission Essential Functions (MEFs):

1. Provide clean and safe drinking water to residents and provide ample water supply for fire suppression;
2. Collect and treat wastewater to protect the health of residents and the environment;
3. Maintain roadways and bridges open to vehicular and pedestrian traffic;
4. Maintain compliance with regulatory mandates including dams and stormwater;
5. Respond to emergencies including water line breaks, sewer back-ups, snow/ice events, storm damage, and flooding events. Assist Fire and Police Departments during emergency events;
6. Provide timely and respectful burial services for the deceased;
7. Permit and inspect construction to assure engineering and safety standards are being met.

Following federal guidance released earlier last week, DPW staff were reminded that people who “work in a critical infrastructure industry, as defined by the Department of Homeland Security...have a special responsibility to maintain your normal work schedule.”

In order to maintain essential staffing levels, DPW continued to protect our employees and facilities through a policy of isolation to prevent contagion. DPW facilities are off-limits to everyone except employees of the facility. Facilities and equipment continue to be cleaned on a regular basis.

Please refer to each DPW Division’s section in the weekly report for details on actions being taken to deal with the COVID-19 state of emergency.

Sincerely,

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

CONSTITUENT SERVICES

DPW continued to respond to service requests in a timely manner through the [SeeClickFix](#) program. In the past two weeks DPW received 22 new requests and closed 10 requests. The total outstanding requests backlog is now 166, an increase of 12 from the previous reporting period. We will continue to work on the backlog request in preparation for the spring season.

<u>Reporting Period</u> <u>3/9/20 - 3/8/20</u>		<u>Previous Period</u>	<u>Change</u>
Previous Request Backlog	154		
New Requests	22	31	-9
Completed Requests	10	42	-32
Total Request Backlog	166	154	12
Potholes	35	28	7
Storm Drains	49	49	0
Tree & Brush Pruning	14	14	0
Traffic, Signals, Signs	5	5	0
Berm Repairs	5	5	0
All other categories	58	53	5
New Requests	22	31	-9
Acknowledged	0	1	-1
Completed & Closed	1	11	-10
Open	21	20	1

STREETS

	Saturday 3/14	Sunday 3/15	Monday 3/16	Tuesday 3/17	Wednesday 3/18	Thursday 3/19	Friday 3/20
Rain (in)	0.	0.0	0.0	0.1	0.0	0.0	0.0
Snow (in)	0.0	0.0	0.0	0.0	0.0	2.5	0.0
Hi/Lo Temp (F)	34/46	28/45	19/37	28/45	30/52	34/41	36/64

Sources:

<https://www.cocorahs.org/ViewData/ListDailyPrecipReports.aspx> (STA MA-WR-22)

<https://www.timeanddate.com/weather/@4936825/historic>

Plowed and salted roadways due to 2-inch snow storm on 3/19/2020.

Streetsweeping

DPW continued to sweep the following mainlines:

- Franklin Road,
- Clarendon Street, and
- Daniels Street,

Stormwater



DPW Streets continued cleaning out swales and culverts on swales on Billings Road.

Street crews removed collapsed catch basin at Plymouth and Madison Street intersection. The collapsed catch basin was removed using the backhoe and the vacuum excavation truck as pictured. The catch basin structure was completely deteriorated and instead of rebuilding the structure using bricks and mortar a concrete precast catch basin was used.

Potholes

Pothole patching efforts continued during the week using cold-patch and the hot box at various locations, including the following:

Figure 1 - Vacuum Excavation

- Ashburnham Hill Road.
- Ashburnham Street,
- Fifth Mass Pike,
- Gillis Court,
- Intervale Road,
- Kimball Road,
- Kimball Street,
- Main Street,
- Oak Hill Road,
- Pearl Hill Road,
- Popular Street,
- Romes Way,
- Sarah Lane,

Repaired sink hole behind South Street School and at 323 Clarendon Street.

Mechanic Shop

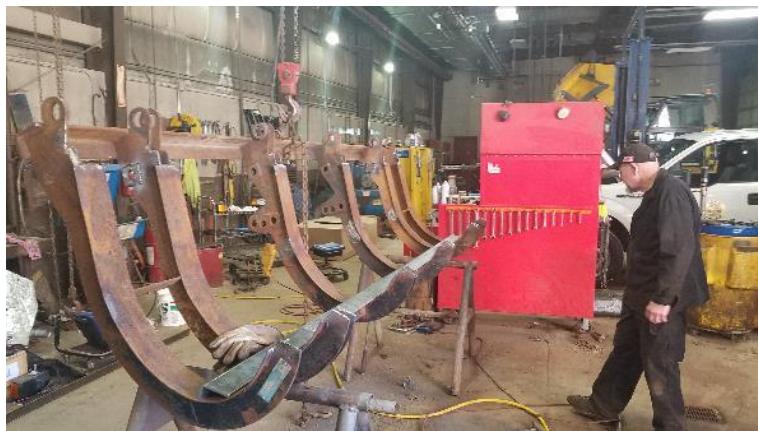


Figure 2 - Plow Frame Fabrication and Repair

Mechanic Shop continued to repair snow plows, trucks and spreaders before putting them away for the season. Due to a mild winter and resulting snow budget surplus, deferred maintenance on equipment was addressed. New segmental blade systems were purchased for two of the large trucks.

PARKS AND RECREATION



Figure 3- Gazebo Star Trails

Mr. Whitney Shaw took an amazing photo of the gazebo at Coggshall Park showing star trails. Anyone interested in the image can contact him through Instagram [@whitneyrshaw](https://www.instagram.com/@whitneyrshaw) or email at info@besthdtour.com .

All City playgrounds, dog parks, and public bathrooms in parks are closed to the public until the COVID-19 state of emergency is lifted. Parks, fields, courts, and tracks continue to be open but the public is advised to avoid large gatherings. Please exercise social distancing and avoid touching common surfaces.

All recreation programs and events continue to be cancelled until further notice. These cancellations include the Annual Amazing Egg Race Family Fun Day on Saturday, April 4, 2020.

We recognize these closures and cancellations can be disappointing and a hardship, however these decisions are being made in the best interest of the community. The Recreation Department will continue to monitor the situation with guidance from the Mayor's Office and the

Board of Health.

Park Crews began preparations for the pool and splash pad by removing plywood from bathhouse windows, draining the pool, and starting clean-up operations.

CEMETERIES

Cemetery crews continued to clean up the grounds and surrounding areas. Prepared new lowering device that can handle extra-large internments (over 550 pounds).

Cemetery Superintendent sent letter to funeral providers advising of new procedures due to COVID-19 emergency:

“At the conclusion of all graveside services, the families will be asked to exit the grave area. We will not allow families to be involved with any part of the burial. We respectfully ask that if the family wishes to watch the interment, they must remain at least a 10' distance from the grave. This will give my men on the grounds ample room to safely take care of their loved one. Please communicate this policy with your families.”

In order to protect our employees, Cemetery offices are closed to the public and families will be seen by appointment only. Please call 978-345-9578 or email jpoirier@fitchburgma.gov to set up an appointment.

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

Full Interments	5
Inurnments.....	0
Up righted monuments.....	0
Uncovered/cleaned flat monuments	1
Foundation marking for monuments.....	1
Catch basin repair	0
Trimmed Trees	0
Trimmed shrubs.....	0
Meeting with Families.....	2
Payments - invoiced/processed.....	5
Family Genealogy	3

ENGINEERING

- Held conference call with Arcadis to discuss progress on the Stormwater Utility Feasibility Study. Arcadis is performing this study to determine if a stormwater utility is feasible as a sustainable funding source for Fitchburg's Municipal Separate Storm Sewer System (MS4) Permit Program. The study will help identify total budgetary needed for funding, and ways in which that budgetary need can be allocated among various property types (residential, commercial, industrial, institutional, etc.).
- Attended virtual demo of Utility Cloud software. This is an asset management/work management software that is being looked at by DPW Wastewater to fulfill one of many obligations under its Consent Decree from the US Environmental Protection Agency (US EPA).
- Held conference call with the project proponents of the development of 196 Water Street and the associated parking lot at the corner of Nashua Street and Water Street. Informed the contractor for the project that what has been constructed to date is not in conformance with the approved plan for the parking lot.
- Held conference call with Whitman & Bingham Associates to discuss the proposed Planned Unit Development off of Meadowbrook Lane and Canton Street. DPW Engineering expressed some concerns about the stormwater management system being proposed and how it will impact neighboring properties.
- Worked with the DPW Business Manager to complete Chapter 90 Project Request Forms for Spring 2020 paving project areas and sent to MassDOT for review and approval.
- Fulfilled records search/plan request for TF Moran for 649 John Fitch Highway.
- Drafted a Continuity of Operations Plan (COOP) for the Engineering Division. This plan focused on identifying the functions and services provided by DPW Engineering staff, which of those functions are critical to DPW operations, and what resources are required to keep those operations moving along.
- Evaluated the proposals received in response to the Water Division's RFQ for the design phase of its Supervisory Control and Data Acquisition (SCADA) Upgrade Project.

- Attended on-site meeting with the City's paving contractor PJ Albert to discuss Spring 2020 paving. PJ Albert is looking to begin paving operations as soon as possible; however this may be delayed due to current circumstances.

Permits & Inspections

- Performed daily site visits to inspect new curbing, sidewalk, and sign post bases being installed by DPW crews at the intersection of Oak Hill Road and Franklin Road.
- Performed site visit to Westminster Hill Road to investigate complaints of lines being painted on road. Resident claimed lines were a layout for a turn-around at the end of Westminster Hill Road to be constructed by the developer of the new Game-On facility. He indicated that he was concerned the layout out was too small for emergency vehicles, and was concerned additional tree cutting might take place. DPW Engineering is looking into the matter further.
- Performed site visit to Valley Street to check on construction progress. A private developer is currently extending the roadway and utilities and building several single family homes. The lots have been cleared and grubbed, and utilities have been extended. The road appeared to be rough graded only. The material on site does not appear suitable for a roadway base. DPW Engineering will continue to work with the developer.
- Performed site visit to First Street to investigate a report from Unitil that they encountered an abandoned well while installing a new gas main. Found well on site, instructed Unitil to backfill.

Engineering Services			
	<u>Type</u>	<u>Number</u>	<u>Fees</u>
PERMITS	Dumpster Permits	0	\$0
	Trench Permits	0	\$0
	Excavation Permits	0	\$0
	Driveway Permits	0	n/a
	Sign Permits	0	n/a
	Sewer Permits	0	\$0
INSPECTIONS	Driveway Inspections	0	n/a
	Trench Inspections	0	n/a
	Site Inspections	5	n/a
	Dig-Safe requests	0	n/a
	Sewer/Drain Inspections	0	n/a
	Street Light Inspection	0	n/a
	Totals	5	\$0

WATER SUPPLY

The Water Supply Division produced 28.7 million gallons of drinking water this past week. No transfer of water between reservoirs is taking place. Reservoirs continued to be inspected and patrolled.

The Wyman Pond Dam gate valve was closed this week in order to begin the refilling of the reservoir following the winter/seasonal drawdown. The impoundment has to be refilled by April 1st each year in accordance with State/MA DEP regulations. The seasonal drawdown is completed primarily for the control of invasive weeds in shallow areas but also helps to protect docks and other shoreline structures from freeze damage.

Water Treatment

Reservoir Levels as of 3/19/20			
Northern Reservoirs	Elevation below spillway		Southern Reservoirs
Fitchburg/Ashby	Full	-1.14 feet	Meetinghouse
Scott	Full	Full	Mare Meadow
Lovell	Full	Full	Bickford

Water Filtration Plant Flows/Production from 3/13/20 through 3/19/20			
	Falulah Plant	Regional Plant	Totals
Raw Water Inlet (Gal)	6,380,000	25,092,000	31,472,000
Backwash to waste (Gal)	1,409,000	1,366,000	2,775,000
Finish Water - Treated & Distributed (Gal)	5,331,000	23,726,000	28,697,000
Capacity	(6 MGD) 15%	(12 MGD) 30%	(18 MGD) 25%
Efficiency	84%	95%	91%

- 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) sequestered 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.

Water Distribution

- Plowed/sanded water treatment plants and remote stations on Thursday.
- FWD crews located and cleaned out curb stop boxes throughout the week to prepare for possible service line shut downs for meter replacements. Service lines that have been determined to be, or potentially be, iron pipe are likely to require shut downs.
- Completed shut downs of water service lines on Monday and Tuesday to allow the meter replacement contractor to replace meters which had iron services and/or wheel valves that the contractor determined might fail if operated.

- During the course of the week, FWD crews checked/maintained all water trenches repaired with cold patch (final restoration will be completed in the spring when the weather improves and local asphalt plants reopen).
- FWD personnel loamed and seeded excavated areas at 132 Delisle Street, 212 Chester Street, 100 and 1006 Westminster Hill Road, 53 Harrison Ave, 995 Oak Hill Road, 16 Matthew Street, 342 Cathy Street, 50 Klondike Ave, 244 Madison Street, and 44 Cane Street.
- FWD personnel removed part of broken gate box top on Summer Street at Harvard Street and installed a gate box top extension.
- FWD personnel excavated and repaired a leak on a 1.5-inch service line at 447 Water Street, trench was backfilled, compacted and cold patched.
- FWD personnel assisted all week in the meter department covering a vacant position.
- FWD personnel picked up cold patch from Keating's.
- FWD personnel picked up loam at Mass Natural.
- Investigated water in the basement at 92 Oak Hill Road, a sample was taken and tested negative as ground water.
- 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	Painted	Flushed	Winterized
1,632	2	0	0	0	0	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.
- 28 invoices totaling \$233,211 were processed for FY20 warrant WG20039.
- 1 purchase requisition was entered into Munis for approval by Purchasing.
- Changed 65 meters in Munis to Neptune as part of the meter upgrade project.
- The City's meter upgrade project has been suspended for the time being as a result of the COVID-19 crisis.
- The Water Division completed preparations for the COVID-19 crisis, including developing a Continuity of Operations Plan (COOP), reviewing security for all facilities, obtaining new ID cards for all personnel, etc. Until the crisis is over, only emergency repairs to the water system and maintenance work (e.g., hydrant flushing, painting/maintenance of hydrants, replacement/exercising of valves, etc.) which precludes contact with the public, customers, and contractors will be completed.

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

Water Permits and Inspections	
Type	Number
Emergency DigSafe Mark-outs	4
DigSafe Mark-outs	25
Inspections of Work on Water System	4
Record Plan Updates	5
Special Permit Applications Reviewed	0
New Water Service Applications	0
View Permits reviewed	0
Curb Stops Turned off/on	7
Located/cleaned gate/curb boxes	20
Final Readings/Real Estate Closings	3
New Meter Installations	5
Backflow Preventers Tested	4
Cross Connection Surveys	0
Residential Appointments Made	0
Totals	77

WASTE WATER

The WWTF processed 58.51 million gallons of sewage. In total, 52.77 tons of organics and 70.06 tons of solids were removed and prevented from entering the Nashua River.

Week of 3/8/2020 - 3/14/2020		
Sewage Flow	58.51	Million Gallons
Rainfall	0.01	Inches
Secondary Bypass	0.00	Million Gallons
BOD _{in} (lbs)	107,832	Pounds
BOD _{out} (lbs)	2,288	Pounds
BOD Removal (%)	97.82%	
TSS _{in} (lbs)	142,692	Pounds
TSS _{out} (lbs)	2,567	Pounds
TSS Removal (%)	97.74%	

- Circulated execution copies of the Fitchburg/Westminster Intermunicipal Agreement (IMA) short-term extension for Fitchburg signatories.
- Provided review comments on DRAFT RFEI procurement document to West Group Law, for West Plant repurposing into a anaerobic digester project solicitation.
- Deputy Commissioner Murawski initiated protective/preventative “self-quarantine” telecommuting (starting Tuesday - March 17th); and established communications

routines with subordinate Wastewater Management team and with supervisor, Commissioner Bosonetto.

- Worked with Plant Managers to implement “social distancing” protections for staff at the East Plant (from contact with septage haulers).
- Septage Hauling Personnel SOP Change: moved printer, pH testing instrument, and check deposit box to new “Septage Desk” in the Process Wing hallway (to create “social distancing” isolation, as a protective measure for Plant Staff against exposure to COVID-19 from septage haulers).



Figure 4 - Rag Blockage at WWTF

- Collaborated with DPW Management team to produce “City of Fitchburg – DPW – Continuity of Operations Plan (COOP) – COVID-19” plan.
- Participated in monthly Wastewater segment with Travis & Sherman, on WPKZ’s “K-Zone Kommute”, as a telephone call-in segment.
- Participated in wastewater industry webinar (hosted by Water Environment Federation) on the subject of “Clean Water Act Regulatory Issues in a Pandemic”.
- On Sunday (March 22nd) the wastewater treatment facility (WWTF) started experiencing an extreme increase in rags and fibrous wipes materials at the headworks. This is possibly the beginning of a large inflow of rags and wipes caused by the COVID-19 panic buying of toilet paper and disinfectant wipes. We once again remind people not to flush rags and wipes down the toilet.

Sewer System

- Put up fence, near #168 Lunenburg Street, where we PJ Albert replaced a manhole that had frequent SSO issues.
- Checked CSOs: 3 CSO activations occurred due to rain event last week.
- Conducted 2 spot repairs on Plymouth Street where we had frequent back-ups due to poor pipe configuration. Reconfigured sewer service wye connections to prevent solids build up. (See attached picture).
- Loaded up the new F-550 with tools, washed 3 trucks on Friday.
- Placed cold patch pavement in two dig locations on Clarendon Street; will replace cold patch in coming construction season with hot mix asphalt.
- Investigated two service calls: assisted resident with a pump alarm at #15 Glen Avenue, and also worked with Health Department to determine source of sewer leak at #152 South Street. “Notice to Correct” was issued to the building Owner.
- Investigated a claim for a sewer billing abatement at #172 Ashburnham Street; it appears that the interior water leak did not enter the sewer system.
- Reviewed final plans for Green Acres “Drainage Improvement Project”, and sent comments to Engineer/State.

- PJ Albert separated one combination manhole on Normandy Road for the City. Two additional separations have been assigned. Conducted multiple daily inspections for this work.
- Continued with plan review for CSO 7/11/39/48 Project.

DPW ADMINISTRATION

- Winter operations:
 - Continued to contact plow contractors that have not yet billed the City for plowing this season and requested they bill us so we can close out snow & ice costs for the year.
- Financial:
 - Received more requests from internal auditors for backup documentation for water department land purchases in FY19. Continued to look thru documentation to find documents that were requested.
 - Answered questions from the City Auditor's regarding FY21 submitted budgets.
 - Reviewed all DPW Department accounts for accuracy and monitored budgets.
- Administrative:
 - Submitted Chapter 90 project request to MassDOT for Spring paving.
 - Worked on departmental contingency plans to deal with the COVID-19 epidemic.

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	33	\$ 10,761	*Note 1			
Cemeteries	8	\$ 1,397				
Parks						
Recreation	6	\$ 660				
Water Supply	28	\$ 233,211			\$ 536,543	
Waste Water	57	\$ 370,675	*Note 2	\$ 12,540	\$ 1,057,936	
			*Note 3			
Total	132	\$ 616,705		\$ 12,540	\$ 1,594,479	\$ -
*1 - Engineering Permits & Performance Bonds						
*2 - Septage at East Plant (Gallons)						
*3 - Industrial Billing Payments						