

City of
Fitchburg



Department of
Public Works

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

DPW Weekly Update September 20 – September 27, 2020

Dear Mayor, Councilors, and Colleagues;

Last week DPW submitted the Year 2 Annual Report for the MS4 General Permit to the EPA and DEP. In the last year (July 2019 to June 2020), DPW has fully completed the annual requirements and has made substantial progress including:

- Completed [Phase I of the stormwater system mapping](#);
- Completed the new salt shed to enclose/cover piles of salt used for deicing of roadways;
- Increased frequency of street sweeping to twice-yearly, removing and disposing of over 12,500 tons of material.
- Inspected and cleaned 5,400 catch basins, removing and disposing of over 18,000 tons of material;
- Became a designated MVP Community and obtained an Action Grant for the design of green infrastructure improvements to John Fitch Highway to improve water quality and reduce flooding;
- Distributed educational materials on [Pet Waste](#), [Organic Yard Maintenance](#) and [Care](#), and [Construction Runoff](#).
- Conducted the third year of the [Rain Barrel Program](#) with 129 barrels sold;
- Developed a written catchment investigation procedure and added the procedure to the [StormWater Management Plan](#) (SWMP);
- Screened 42 outfalls to determine if there was sewage being discharged into the stormwater system;
 - Identified and eliminated 9 Sanitary Sewer Overflows (SSOs);
- Developed Stormwater Rules and Regulations;
- Reviewed 27 site plans to ensure they complied with stormwater ordinances.

Although COVID-19 has hampered our efforts in the past year, DPW will continue to aggressively pursue the goals of reducing stormwater pollution through increased training, educational outreach, asset management, green infrastructure development, outfall testing, and cleaner roadway maintenance and operations activities in the upcoming year.

Sincerely,

Nicolas Bosonetto, PE
Commissioner of Public Works
City Engineer

STREETS DIVISION

Gary Withington - Superintendent

Due to continued decreased staffing levels, outstanding service requests have increased from 151 on March 1st to 360 on October 4. In the past two weeks DPW received 34 new requests and closed 35 requests. The total outstanding requests backlog is now 360, 1 less than the previous reporting period. Most outstanding requests are for potholes and storm drains.

| <u>Reporting Period</u> 9/21/20 – 10/04/20 | | <u>Previous Period</u> | <u>Change</u> |
|---|-----|------------------------|---------------|
| Previous Request Backlog | 361 | | |
| New Requests | 34 | 44 | -10 |
| Completed Requests | 35 | 59 | -24 |
| Total Request Backlog | 360 | 361 | -1 |
| Potholes | 125 | 127 | -2 |
| Storm Drains | 35 | 34 | 1 |
| Tree & Brush Pruning | 58 | 54 | 4 |
| Traffic, Signals, Signs | 16 | 16 | 0 |
| Berm Repairs | 20 | 20 | 0 |
| All other categories | 106 | 110 | -4 |
| | 361 | | |
| New Requests | 34 | 44 | -10 |
| Acknowledged | 35 | 59 | -24 |
| Completed & Closed | 360 | 361 | -1 |
| Open | 125 | 127 | -2 |

The weather last week was cool, but we finally received much needed rain. Paving projects were pushed to this week due to the rain.

| | Saturday 9/26 | Sunday 9/27 | Monday 9/28 | Tuesday 9/29 | Wednesday 9/30 | Thursday 10/1 | Friday 10/2 |
|-------------------|------------------|----------------|----------------|-----------------|-------------------|------------------|----------------|
| Rain (in) | 0.00 | 0.04 | 0.00 | 0.69 | 0.05 | 0.00 | 0.00 |
| Hi/Lo Temp (F) | 54/75 | 63/75 | 64/77 | 63/73 | 55/72 | 50/70 | 48/57 |

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

Signals, Signs & Stripes Crew

- Painted crosswalks and stop lines on Pearl Street, Clark Road, and Prospect Street.
- Made and installed street name signs for East Street and Pearl Street.
- Replaced pedestrian signals at the Upper Common (Rollstone Street) and at Putnam and Boulder Drive intersections. These signals had been knocked down by hit and run vehicle crashes.
- Replaced burnt-out signal lenses along Main Street and Summer Street.



Figure 1- Replaced Pedestrian Signals

Paving Crew

- Filled potholes on West Street and Nichols Street.
- Supported Water Division by paving trench patches on Plymouth Street, Hollywood Street, Ashburnham Hill Road and Read Street.
- Supported Cemetery Division by paving area around catch basin at Forest Hill Cemetery.
- Supported Wastewater Division by paving trenches on Rinnock Road and Theresa Street.
- Installed grindings at driveway entrance at 290 Rollstone Road.

Stormwater Crew

- Continued cleaning catch basins and culverts.

Sidewalk Crew

- Completed reconstruction of ADA ramps at Water Street and Granite Street. Large tree and stump had to be removed because it had destroyed the sidewalk.
- Started repair of sidewalk on Day Street in front of FHA.



Figure 2 - ADA Ramps completed across Granite and Water Street

Trash & Streetsweeping & Brush

- Spot streetsweeping around the City.
- Picked up trash along Main Street.
- Picked up illegal dumping on Upham Street, Cleghorn Street, pieces of furniture on Charles Street.
- Ground stumps on Rollstone Road.
- Picked up large stump on Ashburnham Hill Road and loamed.
- Supported City Clerk by cleaning out the Elections trailer, throwing out the old portable booths and replacing with newly delivered booths.

Mechanic Shop

- Started repairing and preparing spreaders on large trucks for the winter season.

PARKS DIVISION AND RECREATION DEPARTMENT

Nate LaRose – Recreation Director

- Attended Virtual Central Region Recreation Directors Meeting on 9/29/2020. Discussion included winter programming during Covid-19 Pandemic and updates on summer programming.
- Met with High School student to discuss processes for conducting public art in the parks on 9/29/2020.
- Attended virtual meeting with Weston & Sampson to discuss scope of work for the Coggs Hall Park Mirror Lake Accessibility Project on 9/29/2020. Next meeting scheduled for 10/14/2020.
- Conducted virtual meeting with Halloween Planning Committee on 10/1/2020 to discuss marketing and preparation for Spooky Drive-In Movies.
- Assisted Fitchburg Cultural Council with Website updates and potential website material on 10/1/2020 and 10/2/2020.
- Assisted Community Development with potential project items for proposed Shared Streets Grant.

- Continued discussions with Fitchburg Public Schools Athletics on outdoor park use and permitting during Covid-19 Pandemic.
- Hosted Civic Days Movie in the Park at Riverfront Park on 9/26/2020. Attendance was approx. 20 participants.
- Received and assembled new Infield Maintenance Rascal for Coolidge Park. Item was procured utilizing a State Earmark for softball field maintenance at Coolidge Park.
- Upcoming Events:
 - 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

Other Updates:

- Following conversations with Fitchburg State University we have the sad news to announce that due to the Covid-19 Pandemic the annual Winter Walking Club at the Fitchburg State Recreation center will be cancelled this year. We appreciate all the support we've received from Fitchburg State for this long running program and look forward to returning in future years.

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 | 0 |
| Inurnments..... | 2 |
| Up righted monuments..... | 0 |
| Uncovered/cleaned flat monuments | 0 |
| Foundation marking for monuments..... | 1 |
| Catch basin repair | 0 |
| Filled Sink Holes | 0 |
| Trimmed Trees | 0 |
| Trimmed shrubs..... | 0 |
| Meeting with Families..... | 3 |
| Payments - invoiced/processed..... | 12 |
| Family Genealogy | 4 |



Figure 3 - Mausoleum Step Repair - before and after



Figure 4 - Repaved various areas



Figure 5 - Painted informational signs

ENGINEERING DIVISION

Nicholas Erickson, P.E. – Assistant City Engineer

Administrative/Engineering

- Conducted nine (9) one-hour interviews with short-listed respondents to the DPW's solicitation for on-call engineering consultants.
- Held conference call with Weston & Sampson, one of the City's current engineering consultants, to discuss potential projects for upcoming FEMA grant opportunities.
- Confirmed Address confirmation for 566 Ashby West Rd to facilitate permitting.
- Attended virtual Conservation Commission meeting to provide information and assistance as needed.
- Held conference construction progress meeting for the Narrows Road Hydrogenerator Project to discuss project schedule and outstanding information required for the contractor, Waterline Industries, to keep making forward progress.
- Reviewed Invoice #5 from Waterline Industries for the Narrows Road Hydrogenerator Project and approved for payment.
- Held call with Arcadis to discuss Supervisory Control and Data Acquisition (SCADA) System upgrades at the Narrows Road PRV Station that could be incorporated into Waterline Industries' scope for the Narrows Road Hydrogenerator Project.
- Prepared and submitted a quarterly update to the Executive Office of Energy and Environmental Affairs (EOEEA) regarding work at McTaggart's Pond Dam. McTaggart's Pond Dam is in extremely poor condition, and the City received a grant of \$375,000 from the EOEEA to help determine the best path forward for the dam. Thus far the City has hired Weston & Sampson to complete safety inspections of the dam every 3 months on an ongoing basis, and has hired Tighe & Bond to complete an Alternatives Analysis to evaluate options for the dam, including repair, removal, and reducing the size of the dam/impoundment such that it would no longer fall under jurisdiction of the Department of Conservation and Recreation (DCR) Office of Dam Safety (ODS). Based on the results of the Alternatives Analysis, the City has decided to remove the dam and will assign the design and permitting of the dam removal to an engineering consultant in the very near future.
- Attended the Economic Development Task Force Meeting.
- Contacted Verizon regarding a complaint about a deteriorating manhole in front of the City Hall offices on Boulder Drive.
- Continued to work on obtaining the necessary information to move forward with the MassDEP Asset Management Grant awarded to the City of Fitchburg to digitize its water system assets into GIS.
- Completed and submitted the City's Annual Municipal Separate Storm Sewer System (MS4) Report to the US Environmental Protection Agency (EPA). Submission of this report is a requirement of the City's MS4 permit from the EPA, which regulates discharges from the City's stormwater system.
- Reviewed Traffic Study prepared by FPD regarding safety concerns on Boutelle St. Discussed ways that DPW can address some of these concerns. (including one site visit)

- Began to design a discontinuance plan for Cottage Ave and Cottage Square. Design is in CAD format. Still need to prepare a legal description to accompany the plan so that we can present to City Council.
- Provided street acceptance requirements and answered questions to a developer interested in a portion of McIntire Road at Alpine Road to make accessible 4 building lots without road frontage.
- Investigated a land ownership issue at the end of Winch Street where constituent noticed an error on their deed. The constituent was correct that a “proposed” extension of Winch St was never actually accepted. Therefore, the land shown on Fitchburg’s Tax Maps at the end of Winch St is not actually owned by the city. This error will be corrected for the next Tax Map update.
- Reviewed Utility Site Plan for 42 Flicker Drive.
- Provided Street Acceptance Dates for various streets associated with the MassDOT Water St Bridge project.
- Provided official address confirmation for Moran Square Redevelopment Project.
- Reviewed updated plan showing revised water line location for proposed development off of Franklin Road.
- Performed records search to locate plans of a culvert extending from Water Street to the Nashua River that was damaged by JH Lynch and Sons, Inc. during construction of Phase I of the Twin Cities Rail Trail Project.

Street Lights

- Coordinated with Dagle Electric on various street light repairs throughout the City.
- Updated the Dagle Electric’s repair list as needed.
- Updated SeeClickFix as needed.
- Reviewed invoice from Dagle Electric and approved for payment.
- Conducted one site visit to field test a string of 5 streetlights in front of City Hall along Boulder Drive to help determine outage locations.



Figure 6 - Street Light outage

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 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, removed excess material, fine-graded the roadway subgrade to the proper elevations, tilled in calcium chloride, and compacted to form a suitable base for the roadway.
 - Paved the binder course of pavement.
 - Graded and paved driveway aprons and a couple of parking areas along the eastern shoulder of the road near the quarry property.
 - 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, removed excess material, compacted, and adjusted water gate valve boxes in preparation for curb and concrete installations.
 - Pulverized existing paved aprons along the eastern edge of the roadway from Wall Street to Pratt Street, graded and compacted subgrade, and repaved the binder course of pavement.
 - Installed berm along eastern edge of roadway.
 - PJA's subcontractor, MTK, installed curbing, concrete sidewalks, and concrete driveway aprons along the western edge of the roadway.
 - Graded a new parking area at 63 Beech Street.
 - Relocated a fire hydrant located within the sidewalk area to gain clearance to meet ADA regulations.
 - Pulverized, graded, and repaved driveway pavement behind concrete driveway aprons to ensure smooth transition for residents when entering/exiting their properties.
 - PJA's subcontractor, ROU, began raising frames and covers of manhole and gate valve structures in advance of paving the 1.5-inch top wearing course.

This past week PJA completed the following:

- PJA's subcontractor, ROU, finished raising frames and covers of manhole and gate valve structures in advance of paving the 1.5-inch top wearing course.
- Installed loam along areas affected by the construction and hydroseeded.
- Repaired a homeowner's fence that needed to be removed for sidewalk construction.
- Repaired a homeowner's brick steps that were damaged during sidewalk construction.

DPW Engineering performed daily field visits and provided daily construction administration and oversight.

- **Water Street ADA Ramps Project** – This is a project to construct ADA ramps on Water Street. DPW Engineering performed daily site visits and provided field support to DPW crews as needed.

Permitting, Inspections & Site Visits

- Performed site visit to Clarendon Street at St. Andrew Street to investigate resident complaint of failing Unitil trench patches. Notified Unitil's paving subcontractor S. Fors of the complaint and they promptly repaired the patches.
- Performed site visit to Crawford Street to check on the condition of the Cold-In-Place Recycling layer of pavement installed by Indus two weeks ago. It appears to be holding up well. This will be topped with a 1.5-inch layer of hot mix asphalt by PJ Albert in the next week.
- Performed site visit to Boutelle Street to review safety concerns identified in the Traffic Study prepared by FPD.
- Performed site visit to City Hall to evaluate a small gravel parking area in need of paving. Asked PJ Albert, the City's paving contractor, to provide estimate.
- Performed site visit to 80-86 Lunenburg Street to meet with demolition contractor Associated Building Wreckers and identify the location of test pits required for sewer capping prior to completing the foundation demo at this location.



Figure 7 - RailTrail Culvert Location

- Conducted three site visits to the Twin Cities Rail Trail Project along Water Street near its intersection with Bemis Road to investigate a culvert damaged by JH Lynch and Sons, Inc., the contractor completing the project. The culvert was not shown on the construction plans and at first they were not sure of what it was.
- Conducted record research and determined that the culvert was initially constructed by the railroad in the mid to late 19th century over a brook. Over time the entirety of the brook from Wanoosnoc Road to the Nashua has been culverted. About 10 years ago MassDOT connected all of the upstream drainage to the culvert as part of the Route 12 improvement project.



Figure 8 - Inside RR Culvert

- Conducted one site visit to the Greek Pit to help JH Lynch and Sons, Inc. load sections of old granite curbing onto a flatbed trailer to bring over to Twin Cities Rail Trail project to temporarily cover the damaged culvert near the intersection of Water Street and Bemis Road.

| Engineering Services | | | |
|----------------------|---|--------|----------------------|
| Type | | Number | Fees |
| PERMITS | Street Occupation Permits (No Fee) | 1 | n/a |
| | Trench Permits (\$75) | 1 | \$75 |
| | Excavation/Road Opening Permits (\$250/\$350) | 10 | \$2,600 ¹ |
| | Driveway/Curb Cut Permits (No Fee) | 1 | n/a |
| | Sign Permits (No Fee) | 0 | n/a |
| | Sewer Permits (See Ch. 149 for Fees) | 1 | \$0 |
| | Application Reviews | 14 | n/a |
| | Engineering Plan Reviews | 9 | n/a |
| INSPECTIONS | Driveway Inspections | 0 | n/a |
| | Trench Inspections | 1 | n/a |
| | Site Visits/Inspections | 17 | n/a |
| | Dig-Safe requests | 0 | n/a |
| | Sewer/Drain Inspections | 4 | n/a |
| | Street Light Inspection | 1 | n/a |
| Totals | | 59 | \$2,675 |

Notes:

¹ Includes 9 permits for Unitil at \$250 each (inspection fee waived) and 1 permit for a private contractor at \$350.

WATER SUPPLY DIVISION

John Deline – Deputy Commissioner of Water

The Water Supply Division produced 32.2 million gallons of drinking water this past week. Water is being transferred from Bickford Reservoir to Mare Meadow Reservoir, from Mare Meadow Reservoir to Meetinghouse Reservoir, which is the terminal reservoir to the Regional Plant, and from Fitchburg and Scott Reservoirs 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 10/2/20 | | | |
|--|--------------------------|----------------|---------------------|
| Northern Reservoirs | Elevation below spillway | | Southern Reservoirs |
| Fitchburg/ Ashby | -2.18 feet | - 1.50 feet | Meetinghouse |
| Scott | -4.39 feet | -5.74 feet | Mare Meadow |
| Lovell | -5.08 feet | -1.80 feet | Bickford |
| Water Filtration Plant Flows/Production from 9/25/20 through 10/1/20 | | | |
| | Falulah Plant | Regional Plant | Totals |
| Raw Water Inlet (Gal) | 8,730,000 | 27,078,000 | 35,808,000 |
| Backwash to waste (Gal) | 1,157,000 | 2,462,000 | 3,619,000 |
| Finish Water - Treated & Distributed (Gal) | 7,573,000 | 24,616,000 | 32,189,000 |
| Capacity | (6 MGD) 20.8% | (12 MGD) 32.2% | (18 MGD) 28.4% |
| Efficiency | 86.7% | 91% | 90% |

- The fall removal of sludge/settled solids from the backwash residuals settling lagoons at the Regional Plant continued this week (second 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 and the underground storage tanks at the Regional Plant have been completed, the contractor is now working on the clearwells at the Regional Plant. Per MA DEP Regulations, water storage tanks and clearwells must be cleaned/inspected every 5 years.
- Waterline Industries continued 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.).

- Experienced communication problems between the Falulah Tanks and Falulah Plant. Contacted Verizon, they responded fairly quickly but it took two days and two technicians to resolve the issue. During that time, the Falulah Plant had to be operated essentially manually by an operator since tank levels were not being communicated to the plant SCADA system.
- Experienced a power outage at the Falulah Plant on 9/30. A number of pieces of equipment faulted/tripped out but all were reset and no permanent damage/issues were noted.
- Another link in the traveling screens for intake at the Meetinghouse Gatehouse failed. Weston & Sampson Services were called in to complete an emergency repair - their technicians installed a temporary patch link until a new link can be acquired (it has been ordered).

Water Distribution

- Reservoir caretaker Patrolled brook for beavers, broke down last beaver dam, Mare Meadow, Bickford on foot, Falulah brook, Fitchburg reservoir, Oak Hill tank/pump, Scott tank.
- Reservoir caretaker Seeded bare areas on Bickford dam, Fitchburg S dam, Falulah dam. .
- Reservoir caretaker cut brush around Falulah reservoir, Fitchburg North spillway.
- FWD personnel removed rocks/debris from inside the curb stop box at 62 Prescott Street with the Vac Truck.
- FWD personnel repaired gate boxes at 487 Clarendon Street and on the new bridge on Westminster Street.
- FWD personnel performed numerous turn off/on of water services for the water meter replacement project.
- FWD personnel tried to continue hydrant flushing on the High and Low systems, due to running with a skeleton crew again this week, 17 hydrants were flushed this week.
- FWD personnel excavated and expose the 8" main to Dillion Boiler and the new 8" branch at utility pole 23 and 24 on Crawford Street and prepped for connection next week.
- On Friday morning 10/2 personnel responded to a water main break on Weymouth Street, water main was isolated and personnel excavated and repaired the break with 7 feet of six inch ductile iron pipe, two six inch hymax's and also needed to replace a one inch service tap to 7 Weymouth Street.



Figure 9 - Water Main Break

- 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 | 4 | 1 | 1 | 0 | 0 | 18 |

- FWD personnel excavated and removed a Darling solid barrel hydrant and installed a new hydrant, barrel and shoe at the Airport behind the Civil Air Patrol Building.
- FWD personnel repaired a hydrant that was broken during a brush fire at 343 Ashburnham Street and return it to service, notified FFD.

Administration and Meters/Billing

- Total of 24 real estate closings – final readings completed along with preparation of final bills for attorneys/realtors. Future real estate closing final readings also scheduled.
- 35 invoices totaling \$279,952.82 were processed for FY20 warrant WG21015.
- 7 purchase requisitions and 2 change orders were entered into Munis for approval by Purchasing.
- Loaded laptop for Badger meter reading and Trimble for Neptune. A total of 5,172 accounts with Badger meters were loaded, leaving 6,094 accounts with the new Neptune meters being read through the City's fixed network system.
- During the course of the week, a total of 176 water meters were replaced with new Neptune meters - 19 were changed by FWD personnel and 157 by the City's contractor, Baystate WinSupply. Customer accounts in Munis were updated by office personnel.
- Four water meters were sold - one for a new house and three for sewer-only accounts.
- Completed a 9/10 deposit in the amount of \$8,954.75.
- Set up account with United Rentals for rental of a generator to test operation of the pump at the Marshall Station. Scheduled generator rental for week of October 19th.
- Attended monthly progress meeting for the Narrows Road Hydroturbine project, attendees included Water Division staff and representatives of Weston & Sampson (engineer) and Waterline Industries (contractor).
- Participated in meeting regarding SCADA system upgrades with Arcadis and City representatives, specifically the changes needed for the Narrows Road PRV Station.
- During the course of the week, participated in presentations by nine engineering consultants to DPW staff.
- Obtained drive by final readings for real-estate closings.
- Completed water meter readings city wide for monthly billing.

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

| Water Permits and Inspections | |
|--------------------------------------|---------------|
| Type | Number |
| Emergency DigSafe Mark-outs | 3 |
| DigSafe Mark-outs | 9 |
| Inspections of Work on Water System | 1 |
| Record Plan Updates | 13 |
| Special Permit Applications Reviewed | 1 |
| New Water Service Applications | 0 |
| View Permits reviewed | 0 |
| Curb Stops Turned off/on | 17 |
| Located/cleaned gate/curb boxes | 32 |
| Final Readings/Real Estate Closings | 6 |
| New Meter Installations | 16 |
| Backflow Preventers Tested | 0 |
| Cross Connection Surveys | 0 |
| Residential Appointments Made | 0 |
| Totals | 98 |

WASTE WATER DIVISION

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

The WWTF processed 30.6 million gallons of sewage during the last week of August. In total, 65.7 tons of organics and 155.6 tons of solids were removed and prevented from entering the Nashua River.

| <u>Week of 9/20/2020 – 9/26/2020</u> | | |
|--------------------------------------|---------|-----------------|
| Sewage Flow | 30.55 | Million Gallons |
| Rainfall | 0.47 | Inches |
| Secondary Bypass | 0.00 | Million Gallons |
| BOD _{in} (lbs) | 133,277 | Pounds |
| BOD _{out} (lbs) | 1,878 | Pounds |
| BOD Removal (%) | 98.47% | |
| TSS _{in} (lbs) | 313,295 | Pounds |
| TSS _{out} (lbs) | 2,092 | Pounds |
| TSS Removal (%) | 99.17% | |

WWTF Maintenance & Operations:

- Plant Equipment Fleet Vehicle, TX Gator: new tires were ordered, have been received and were installed on Fri. – Oct. 2nd.
- Secondary Systems Upgrades Project: Contractor ‘slice-seeding’ project-disturbed grassed areas (*ongoing*).

- Primary Settling Basins Cross Collector Project: Treatment Operations personnel are cleaning Basin No. 3, sides A & B; Maintenance is pre-assembling shaft assemblies; repair work will commence on Monday – October 5th (*ongoing*).
- Performed Groundskeeping, at East & West Plants.
- Preventative Maintenance rounds were performed this week, by available maintenance staff, using “Staffing Minimization” hours (69.5 person-hours in total).
- Subsequent to discontinuing “Shelter-in-Place” staffing, Treatment Operations staff are now on a normal shift rotation plan but with limited staff (“staffing minimization”).
 - Weekend operators on their 10.5 hour weekday shift are performing exterior plant duties this week (Secondary Clarifiers cleaning, Gravity Thickeners cleaning, Chlorine Contact Chamber cleaning, and pumps and draft tube cleanings).
- Total Phosphorus numbers have begun to go down. We seem to have a pattern of the first two tests of the week being within proper parameters but the third test is abnormally high. Treatment Ops is continuing to investigate the issue.
 - **Update:** Increased Ferric dosage rates, on 10/01/2020 (*ongoing*).
- Tested all emergency showers.
- Preventative Maintenance checks on Gravity Belt Thickeners.
- Cleaned the Gravity Thickener.
- Cleaned the Return Activated Sludge Pumps.
- 09/28/2020: Drained Primary Settling Tank #3 for Maintenance. Flushing and cleaning the tank for work that will begin on Monday - 10/5/2020.
- 09/30/2020: SSU Project video conference with CDM, Wright-Pierce, and City Personnel about outstanding issues.
- Chemical deliveries:
 - None.

| <u>Work Order Report: Sept. 26th - Oct. 2nd, 2020</u> | | | |
|--|-------|---|---------|
| Demand Statistics | | PM Statistics | |
| Rejected Work Orders | 0 | Rejected Work Orders | 0 |
| Demand Work Orders | 0 | PM Work Orders | 11 |
| Demand Work Orders Completed Late | 0 | PM Work Orders Completed Late | 0 |
| Demand Work Orders Completed On Time | 0 | PM Work Orders Completed On Time | 11 |
| % Demand Work Orders Completed On Time | 0.00% | % PM Work Orders Completed On Time | 100.00% |
| Avg. Days Late / Demand Work Order | 0 | Avg. Days Late / PM Work Order | 0 |
| Avg. Days to Complete / Demand Work Order | 0 | Avg. Days to Complete / PM Work Order | 8.8 |
| | | Averages | |
| | | % Total Work Orders Completed On Time | 100.00% |
| | | Avg. Days Late / All Work Orders | 0 |
| | | Avg. Days to Complete / All Work Orders | 8.8 |
| | | Total Maintenance Man Hours | 69.5 |

Administration:

- Deputy Commissioner managing Division remotely (as of Mar. 17th).
- Daily (or more frequent, as needed) conducting video calls with Wastewater Management Team.
- Represented DPW – Wastewater Division at ‘well-wishing sendoff’ for former Mayor Chief of Staff, A.J. Tourigny.
- Participated in interviews of ‘On-Call Engineer Contract’, short-listed firms.
- Circulated construction contracts for City execution signatures for the “*CSO 007, 011, 039 and 049 Separation/Rehabilitation Project*”. Documents are with the City Solicitor now. “Pre-Construction Conference” meeting is scheduled for Friday next week (Oct. 9th, 2020).
- Sewer Billing Abatements.
- Coordinated with Purchasing Department, for Wastewater procurement needs.

Sewer System

- Vacuumed out the water from fractured 6-inch diameter pipe at the Airport. Permanent repairs are scheduled to occur on October 7th.

- Replaced batteries on five (5) sewer system flow meters.
- Swapped a “**DRAIN**” cover for a “**SEWER**” cover on Normandy Road.
- Performed ‘CSO Checks’ due to a September 30th early morning rain event: we had found three (3) CSO activations (at CSO Regulator Numbers 032, 039 & 045).
- Push camera’d a private manhole and line on Main Street to determine routing of the line, and also added to GIS mapping.
- Checked historically known problem areas of the sewer system: no issues were found.
- New Jet/Vac Truck was repaired (repairing a leaking hydraulic O-ring).
- Formally abandoned Combination Manhole No. 79, on Hurd Street, by building a shelf and plugging the lines within the manhole structure.
- Weston & Sampson CMR replaced 2 leaking knife gate valves at the airport on the Cobbler Drive Force Main. We also concrete-anchored the manhole frame casting, as it was sitting loose on the pre-cast concrete manhole structure.
- Started checking Combination Manholes due to rain event. Although we did not have a qualifying rain event, we are doing our due diligence and checking the manholes since months have passed since the last check.
- Assisted the DPW – Division of Water Supply on Weymouth Street. There are four 4-inch diameter clay pipes discovered, that are not on record plans, and are possibly active. We will revisit this next week with push camera and dye testing to confirm what is active.

DPW ADMINISTRATION

Courtney Lamoureux – Business Manager

- Financial:
 - Reviewed all DPW Department accounts for accuracy and monitored budgets.
 - Reconciled and reviewed budgets remaining on CDBG projects with the Community Development project manager.
 - Provided the Assistant City Engineer with the FY21 Q1 financial information for the McTaggart’s Pond Dam grant to be provided with the quarterly update.
 - Submitted the requested documentation for the City’s external auditors to the Treasurer’s office.
- Administrative:
 - Submitted DPW Department absences due to COVID-19 reasons to the human resources department.
 - Reviewed applicants received for the DPW Head Clerk position. Job posting closed on 9/29/20.
 - Held a meeting with the purchasing department to discuss plow contracts for the upcoming season. Started to revise the plow agreement and required documents as agreed upon. Plow contracts should be ready for distribution next week.
 - Placed the first order for road salt deliveries from Eastern Salt. 20 loads of salt will be delivered in the next few weeks.
 - All DPW Divisions submitted vehicle acquisitions and disposals to the Mayor’s office for inclusion in the annual Green Communities reporting.

| 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 | 37 | \$ 11,025 | *Note 1 | | | |
| Cemeteries | 10 | \$ 1,879 | | | | |
| Parks | 2 | \$ 337 | | | | |
| Recreation | | | | | | |
| Water Supply | 35 | \$ 279,953 | | | | |
| Waste Water | 18 | \$ 29,627 | *Note 2 | \$ 34,245 | | |
| | | | *Note 3 | | | |
| Total | 102 | \$ 322,820 | | \$ 34,245 | \$ - | \$ - |
| *1 - Engineering Permits & Performance Bonds | | | | | | |
| *2 - Septage at East Plant (Gallons) | | | | | | |
| | | 402,882 | | | | |

DPW Staffing levels for the past week were at 70%.

