



WASTEWATER DIVISION

FITCHBURG DPW WASTEWATER DIVISION *Clean Water News*

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Summer 2018 Issue

Fitchburg DPW - Wastewater Division's Continued Public Outreach, Tours of the East Wastewater Treatment Plant:

Fitchburg DPW – Wastewater Division is continuing to provide tours of our Easterly Wastewater Treatment Facility.



(GoogleEarth Aerial Image of the East WWTF)

Keep an eye out for our new informational literature that will be coming out this Summer on the treatment plant and the sewer collection system!



Upcoming Events

DPW Day (Open House): 2:00 PM to 5:00 PM on Wednesday – June 6th, at the DPW Building (301 Broad St., Fitchburg). This event is in its 10th year, its been well attended, and its an excellent event for youngsters to get a better understanding about who DPW is, and what we do.

Wastewater Presentation at the Senior Center:

Wastewater Deputy Commissioner will make a presentation to the senior citizens at the Senior Center (14 Wallace Ave., Fitchburg) on Wednesday – June 27th, from 10:30 AM – 11:45 AM. The presentation will include some history of wastewater in Fitchburg, what we are working on now, and what issues we face, and what we are working towards. If you know any seniors that would be interested in attending this event.....spread the word!



Clean Water News

This is our third edition of “Clean Water News” quarterly newsletter (after a hiatus for the Spring 2018). Since we started the “Clean Water News” newsletter, we have been very pleased with the gains we have made in “communication”, “outreach education”, and collaborative networking with other City departments, environmental organizations, and peer organizations in the wastewater profession. Now that we are into Spring and soon Summer, we’ve started back up with plant tours, including tours that we gave to several City Councilors and Conservation Commission representatives. These tours are invaluable in educating visitors on the scope, complexity and importance of what we do.

We also had a very successful partnering project with Fitchburg Public Schools, Fitchburg DPW Engineering, and Worcester Polytechnic Institute. This project was supportive of FPS’s Science, Technology, Engineering & Math (STEM) curricula for 5th Grade. The focus was on stormwater and wetlands resources protection, but also included “Green Infrastructure” which relates to our Wastewater Consent Decree. As we all know, we have problems during and shortly after rain storm events.....so, we are looking to help prevent stormwater from entering into sewers to help prevent combined sewer overflows, sanitary sewer overflows, and plant secondary treatment system bypasses.

The WPI project also afforded an opportunity to engage with the Fitchburg High School’s Envirothon Team. Envirothon is Massachusetts’ leading natural resource education program for high school students, emphasizing hands-on, team-oriented problem solving and community involvement that prepares young people for environmental careers and active citizenship.

This year was Fitchburg High School’s first year participating in Envirothon, and at the statewide competition (May 18th) Fitchburg High finished 7th overall out of 26 competing teams.

Wastewater Business Office Closed:

- **Independence Day:** Wednesday, July 4, 2018

PROMOTING WASTEWATER!

Using Modern Technology to Assess an Aging System Fitchburg's Robotic Television Sewer Inspection

On March 14, the Wastewater Division Collection's Team demonstrated the City's Closed Circuit Television Camera Van to Mayor DiNatale. The camera van is used in order to televise and inspect the City's sewer pipes to observe broken pipes and blockages within the sewer system. As part of the City's Federal legal settlement with the EPA, otherwise known as the Consent Decree, the City is required to continually inspect the sewer system in order to



help prevent blockages and sewage overflows to the environment and basement backups.

The sewer camera is a stainless steel unit, with the option of using either tracks or wheels to move the camera. The camera is tethered to a 700 pound capacity tow line which carries the power to move the camera, as well as carry the television signal back to the camera van. The camera is controlled by an operator in the van using a controller.

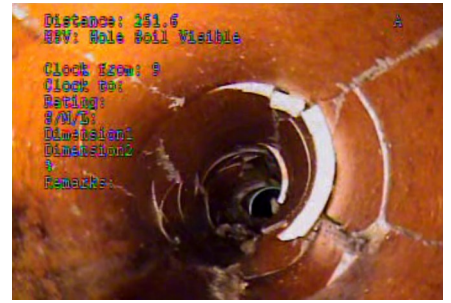
As the camera is driven down the sewer pipe, the van's computer and software system records the video and keeps track of how many feet down the pipeline the camera is located. The operator enters all the observed pipe issues into the computer's database. These defects within the pipes can include cracks, holes, grease, baby wipe blockages, or tree roots penetrating into the pipe.



CCTV Sewer Camera, with rubber tire set-up for 8-inch diameter pipes

After televising a segment of sewer, the computer software provides a rating for each segment of pipe on a scale of 0 to 5, with 5 being the worst.

To date, the City has conducted CCTV inspection of approximately 85% of the 150 miles of sewer piping within the City, with approximately 15 miles of pipe being assigned a condition rating of 4 or 5. The database created by televising the system is invaluable to the City and its ratepayers. Using the pipe inspection data, the City can prioritize its capital improvement projects to target areas of the sewer system that are in poor condition. The remaining portions of the system to be televised and inspected are mostly limited to the four-foot diameter main trunk sewer that runs through the center of the City, and old large brick pipes near downtown.



Typical image captured by the CCTV Sewer Camera. This pipe on Nutting Street would be rated a "5" due to heavy fracturing and deformation..

For the first time, this Spring Wastewater partnered together with DPW Engineering (in charge of Stormwater, and the MS4 Permit compliance) and the Fitchburg Conservation Commission to offer a "2018 Rain Barrels Program" to the public. Rain barrels are a form of "Green Infrastructure" and help to promote the capture of rain water on the properties where the rain falls, and to put that rainfall to beneficial use by the property owner. Rain barrels capture rain from pitched roofs with gutters and downspouts.

This program (see photo below) aligns with Wastewater's interests to help prevent rainwater runoff from entering into the separate and combined sewer systems. The program purchase deadline is June 3rd, and the barrels distribution event will be on June 9th.

Fitchburg, MA - 2018 Rain Barrels Program

Save Money, Collect Rain Water, Conserve Energy



THE GREAT AMERICAN RAIN BARREL COMPANY

To participate in the Fitchburg 2018 Rain Barrel Program, and find out more about the Rain Barrels, please visit: www.tgarb.com/community and click on Fitchburg.

We welcome input, feedback, questions, or comments from the public (to email: WWNewsletter@Fitchburgma.gov), to help shape the content to make the newsletter the best it can be.