Matt's NewsFLOW
2021: July Newsletter
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MATTABASSETT DISTRICT

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Preserving the environment for future generations to enjoy.

Leadership

John S. Dunham, P.E.
District Chairman

Arthur G. Simonian, P.E.
Executive Director

Member Towns & Representation:

New Britain

Tonilynn Collins
Don Naples
Mary Marrocco
Richard Healey
Kate Breslin

Cromwell

Bonnie Anderson
Doug Sienna
Joe Corlis

Berlin

John S. Dunham, P.E.
Robert Argazzi
James Fallon, P.E.

Middletown

Dale Aldieri
David Bauer
Joseph Samolis
Gerald Daley

Mattabassett District
245 Main Street
Cromwell, CT 06416
(860) 635-5550

All newsletters will be posted on our site: http://www.mattabassettdistrict.org/ and our Facebook Page: The Mattabassett District.

I would like to commend the staff and management team here at the District over the past 14 months of the COVID-19 pandemic.

John S. Dunham, P.E.

A Message From the Chairman

I would like to commend the staff and management team here at the District over the past 14 months of the COVID-19 pandemic. At the onset of the pandemic there was a lot of uncertainty about how the disease was transmitted and the ease with which it could be contracted. Our team is considered essential personnel, and many did not have the opportunity or ability to work from home since our operation required personnel to be on-site at the plant. Without the dedicated staff, we would not have been successful. I want everyone in the communities we serve to be aware of the dedication and courage of those employees as we continue to navigate our way through the pandemic.

Our partners at the DEEP have expressed concerns over what they believe is an increased frequency of higher than normal rainfall events. During these high rain events, we get a significantly greater flow of influent to the plant which strains our ability to fully treat all those flows. Although we are always in compliance with our permit discharge requirements, it does put a strain on our treatment system as well as our staff managing those flows. One way to address this concern is for the communities that we serve to continue their investment in the planning, engineering and construction of an aggressive inflow and infiltration (I&I) program. The District recognizes the challenges our communities' face financially planning and upgrading their infrastructure systems, that can be over 100 years old, but we encourage them to continue this effort. Reducing flows to the District will pay dividends in the future by way of lower assessments to the communities as their flows to the plant should diminish with increased I&I work.

About the District

The Mattabassett District's Water Pollution Control Facility, one of Connecticut's most efficient Publicly Owned Treatment Works (POTW), processes wastewater from New Britain, Berlin, Cromwell, Middletown, Newington, Rocky Hill and Farmington. Once treatment is provided, clean water is discharged into the nearby Connecticut River. The District began operation in 1968, as a physical/chemical treatment facility; then in 1987, the facility was upgraded to provide secondary treatment; and recently has completed a second upgrade to provide Nitrogen Treatment that will meet the new State and Federal Standards. Our wastewater capture rate is over 99.8%, significantly above industry standards. Our plant is State of the Art and first of its kind to navigate through new federal emission regulations. Other plants, in the future, will be guided by Mattabassett's innovative direction.

MATTABASSETT DISTRICT

Social Media

The Mattabassett District has both a website http://www.mattabassettdistrict.org/ and a Facebook page – The Mattabassett District.

Social Media sites will be used to communicate information on a regular basis along with technical descriptions of each portion of the Plant.

Employee Highlights

Operator Certifications

We would like to congratulate the following employee on receiving Operator Certifications: **Ty Wagner - Class IV Operator Certification**

Recipients of Spotter Awards

We did not issue any Spotter Awards during COVID-19 Pandemic.

Safety

We are happy to report that it has been 563 days since the last OSHA reportable accident through October 2020. We are now 212 days accident free through May 11, 2021.

Retirement

Anne Portier, Bookkeeper
Retired 9/30/20

After 19 years of dedicated service with The District, Anne has decided to retire.

Thank you, Anne!

MATTABASSETT DISTRICT

Bar Screens and Wash Press

After traveling the length of the trunkline, the first treatment process that wastewater passes through, is our two Headworks Bar Screens. A bar screen is a mechanical filter used to remove large objects, such as rags and plastics that will plug pumps and cause damage downstream.

Our screen consists of a series of vertical bars spaced 1/2” apart. As the bars collect large objects and rags, they are automatically cleared with rakes. These rakes are guided by a set of upper and lower sprockets on two chains.

We run our bar screens by both a timer and by differential level. As rags plug up the screen, the influent level rises. If we reach a difference of 6 inches on the influent vs. effluent side, the rakes will start. This maintains a smooth influent flow to our wet wells.

The rakes hauls the debris up to a large stainless steel scraper blade which clears the rake. The scraper blade then drops the rags and objects into a Vulcan Wash Press. This device simply washes the grease and organic matter off the rags while compressing it to reduce the size for hauling.

We collect approximately 1 ton of rags and grit each week to haul to a landfill. The Middletown Pump Station has 2 bar screens that are similar to ours here in the plant.

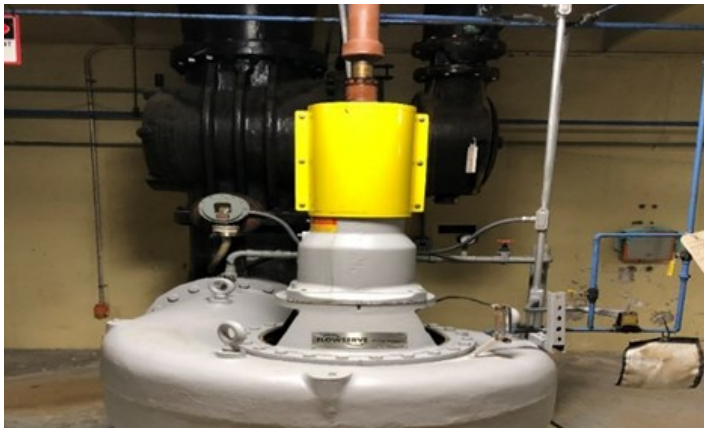
Raw Sewage Pumps and Wet Wells

After passing though the bar screens, the next step in the process are the Wet Wells/Raw Sewage Pumps (RSP's). The Wet Wells are the lowest point in Cromwell, sitting at an elevation of 14 feet below sea level. This was designed to take advantage of gravity conveyance; after all, the 9-mile trunkline from New Britain to Mattabassett has a total drop of nearly 50 feet without the need of pumping.

The two Wet Wells serve six 200 horsepower Worthington centrifugal pumps. These large pumps are capable of pumping 18 million gallons a day (MGD) a piece, for a total of over 100 MGD in extreme wet weather events. Four of the six pumps are equipped with Variable Frequency Drives (VFD's), which save a tremendous amount of electricity.

The VFD's react to the wet well level set point that is selected for the appropriate operating conditions. The level sensors are ultrasonic, which means they emit acoustic pulses to the liquid surface and back to the transducer. The time the pulse takes to go down and up is converted into the height of the water in the wet well. These ultrasonic level sensors are fortified by old-fashioned high level ball floats in the rare case of failure.

The RSP's force the wastewater up to the operations level of the plant, at an elevation of 36 feet above sea level. From this level, the wastewater flows through the plant by gravity before being cleaned and returned to the Connecticut River.



If It's Not Toilet Paper, Don't Flush It!

Due to COVID-19, People are flushing high volumes of disinfectant wipes which do not breakdown like toilet paper. This leads to clogged equipment in our facility. We ask the people of our community to please be mindful of what they flush down the toilet.

Mattabassett participated with a Company that collected wastewater samples in the community to track and trace COVID-19 in WWTP.

During COVID-19 the District only had one COVID-19 Positive case occur and not until in 2021.

The lab passed their proficiencies and processed some outside samples for COVID-19 analyzed by Biobot and Aquavitas.

MATTABASSETT DISTRICT

Biosolids Treatment

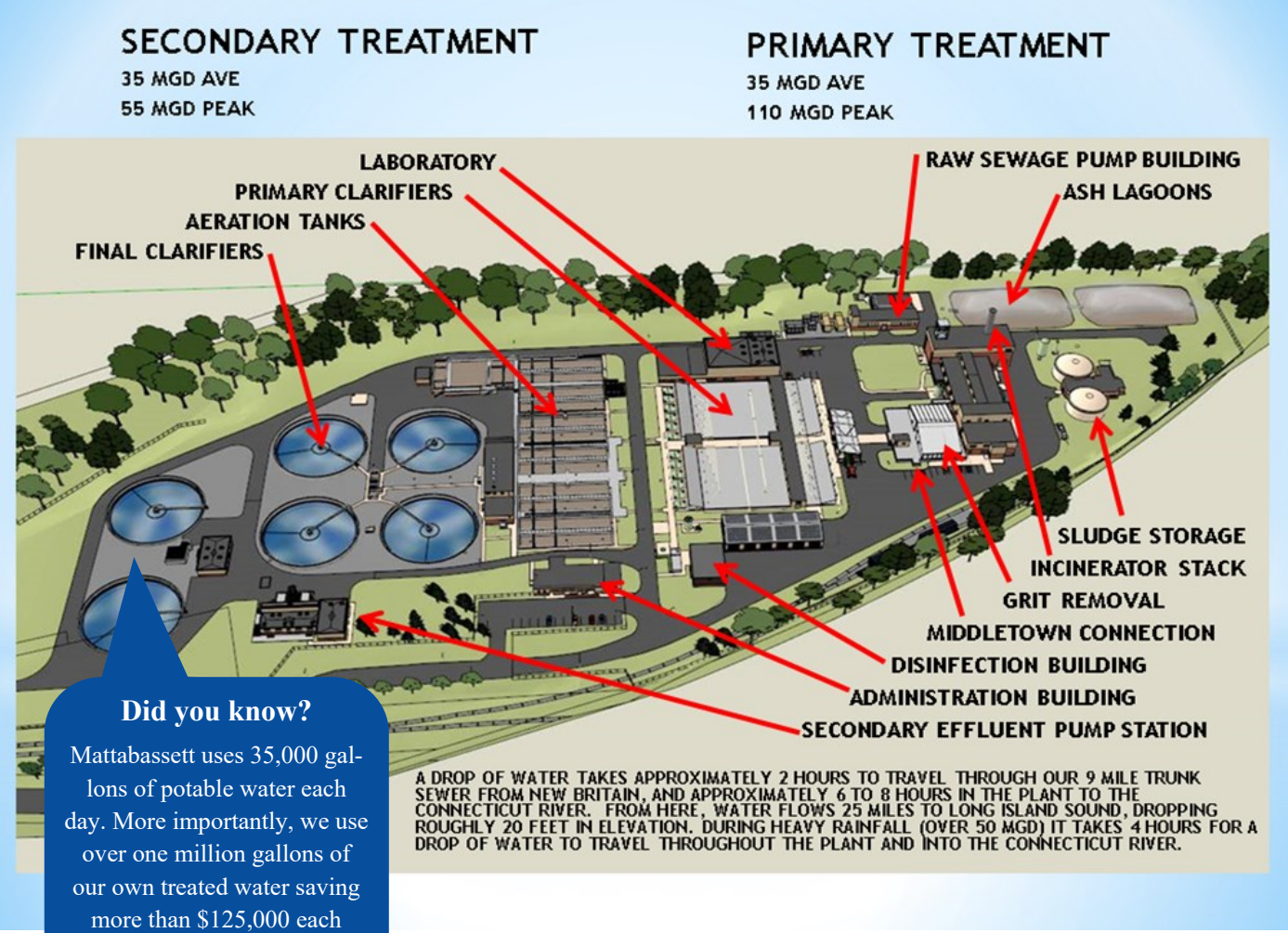
From the Biosolids Storage Tanks, biosolids are pumped into three centrifuges. These centrifuges spin the liquid biosolids to dewater the solids to a 25% mixture, which is called “cake”. The cake is then pumped into our incinerator, where the biosolids are completely combusted in 19 tons of "boiling" sand heated to 1400° Fahrenheit.

The Mattabassett District is the first incinerator in the United States to meet the new stringent EPA regulations in the country. The sterile ash is disposed of at the District's ash disposal landfill located on the Berlin/ New Britain line.

Odor Control

Acknowledging the importance of odor control, we also monitor emissions from our facility and measure removal efficiency. The number of complaints have dropped 90% over the past five years. The odor control system consists of chemical scrubbers, a Bioway tower, and six activated carbon/coconut media scrubbers.

To date, The Mattabassett District has spent over $6.3 million on our odor control systems, and we are constantly evaluating and refining our methods and our equipment. In addition to this, we spend over $100,000 annually on maintenance and carbon media replacement. Our underlying stated goal has always been to be a good neighbor. To this end, we are committed to making certain that our facilities are odor free.



Did you know?

Mattabassett uses 35,000 gallons of potable water each day. More importantly, we use over one million gallons of our own treated water saving more than $125,000 each month.

MATTABASSETT DISTRICT

Remembering William P. Candelori

It is with great sadness that we announce that a past Chairman of our Board of Directors, William P. Candelori, who represented the City of New Britain passed away on 9/19/2020.

Bill served on the District Board of Directors from 3/13/2002 – 10/31/2015. He was Chairman of the Board from 9/12/2006 – 9/21/2015. He served on the Public Relations and District Project Construction Committees.

Matt's NewsFLOW!

You may wonder why we selected this as the name of our newsletter.

MATT is short for Mattabassett and it's the name of the fish on our site, http://www.mattabassettdistrict.org/. It's also the name of the real fish that swims in an aquarium in the lobby of the wastewater treatment facility in Cromwell. The water in the aquarium is actually effluent – water taken from the facility after it has been cleaned and treated. The effluent is so clean that the fish can survive for many years without extra treatment.

Matt is a Gourami, they are referred to as anabantids or labyrinth fish. Gourami's make a wonderful addition to the passive community aquarium adding brilliant color and diversity. Large Gourami fish species are very graceful swimmers that have unique coloration and color patterns, and work best in a community aquarium.

Hi, I'm Matt!

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