Edward Farrar Utility District
Commissioners Meeting

Wednesday August 09, 2023
4:30 pm in Steele Room

Present in the Steele Community Room: P.H. Flanders, L. Sayah, R. Finucane, C. Parks, N. Sherman; Commissioners. B. Woodruff, T. Leitz, D Calle; staff. Members of the public attending: A. Imhoff

Chairperson Flanders called the meeting to order at 4:42 P.M.

Approve Agenda: C. Parks made a motion to approve the amended agenda; L. Sayah seconded the motion; a vote was held and passed unanimously.

Public Comment: A. Imhoff mentioned a number of houses, included hers, will have higher than usual water meter readings due to the flood and that she was asking for a reduction on her water usage. After some discussion **L. Sayah made a motion that if water readings were high due to the flood, then the Utility Billing Clerk and the Public Works Director would adjust the bills as needed by comparing with previous quarter. N. Sherman seconded the motion; a vote was held and passed unanimously.**

Update on offer of short-term flood relief UDAG loans: T. Leitz approached flood impacted businesses to gauge interest in a potential UDAG loan. Three businesses would like to be consider for this loan: the owner of the Prohibition Pig building, Waterbury Sports and Jeremy Ayers Pottery. T. Leitz will meet with them to iron out the details of the loan.

Update on flood impacts on Water and sewer systems and future bills: While the department reports paint a detail picture of the work done during the flood, T. Leitz noted that he is working on a list of potential equipment Waterbury should buy for future floods. Whether this is a 100% own purchase or a joined purchase with other towns has not been decided. T. Leitz also informed the board that FEMA's reimburse is at 75% of our costs and it will be done thru the town. Another item that has been in discussion is a Flood Management Plan depending on river height and that is updated every year with key contact information. There were a number of homes that got flooded and their water meter readings will be high for the upcoming quarter.

Consideration on staff response appreciation awards: L. Sayah made a motion to authorize the Town Manager to give the EFUD staff appreciation awards to the for their extra efforts as he considers appropriate. R. Finucane seconded the motion; a vote was held and passed unanimously.

Department Reports – attached to these minutes.

Consider Minutes of previous meetings: minutes for the July 17th meeting were not available and will be considered for approval next meeting.

L. Sayah made a motion, seconded by C. Parks to adjourn the meeting at 5:40p.m. The motion was approved and the meeting adjourned.

The next meeting of the Edward Farrar Utility District is scheduled for Wednesday September 13th, 2023 at 4:30 p.m.

Waterbury Water Monthly Report July 2023

Items of Interest

Sampling

Maintenance

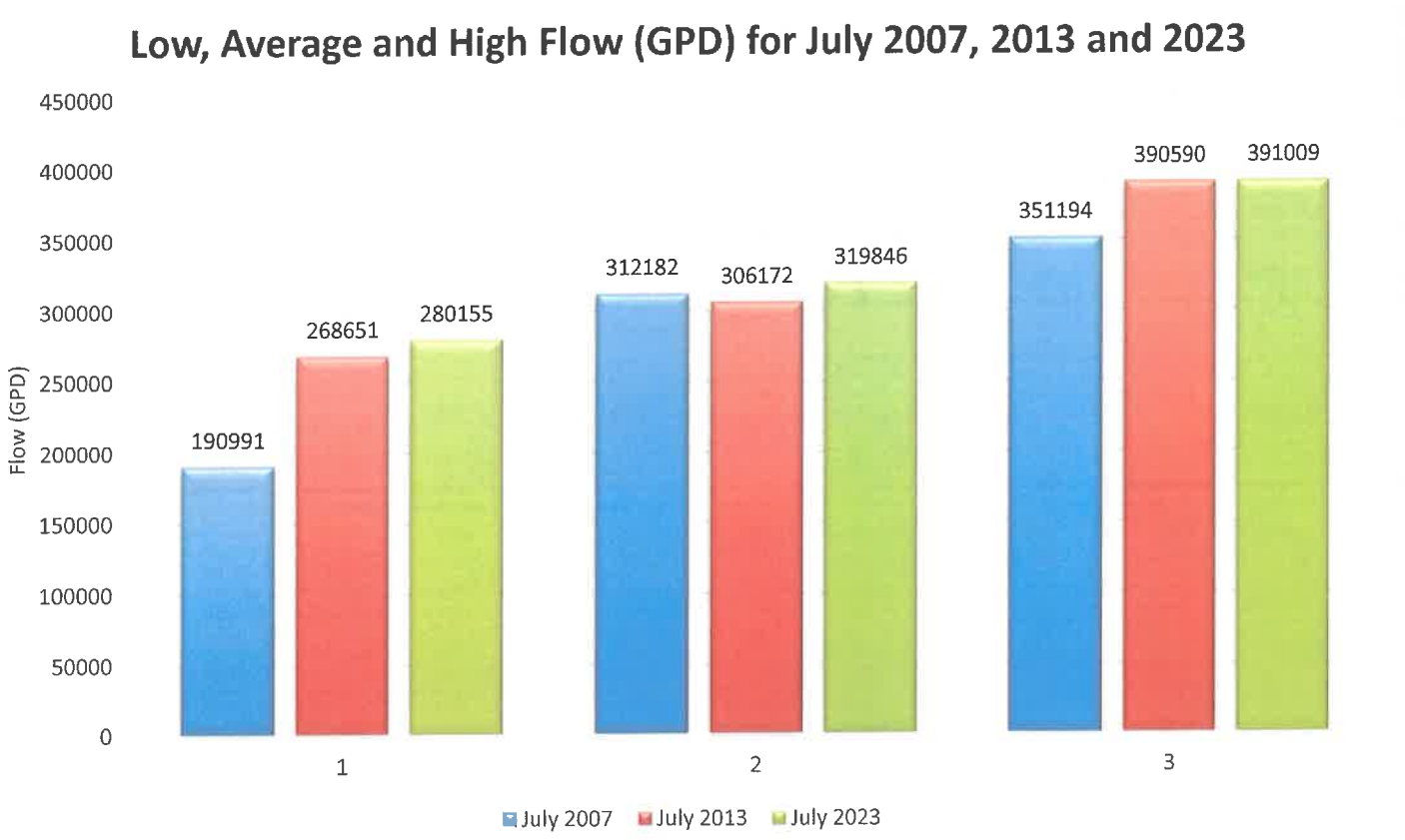
Weather

Personnel

2023 Flood

Flow Data

High Day	Low Day	Average Day	Peak Flow
7/12/2023	7/10/2023		7/26/2023
391009 Gallons	280155 Gallons	319846 Gallons	773 GPM



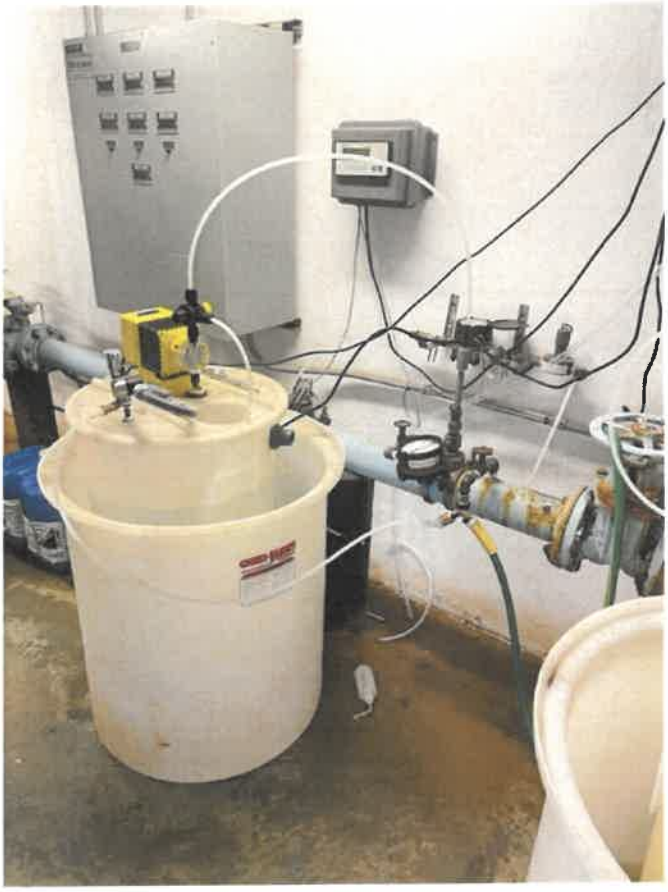
Sampling

All Seven monthly coliform samples were submitted and came back favorable. The weekly fluoride samples were sent to the state lab.

Maintenance

Maintenance during the month of July carried on despite the flooding that occurred. A valve box was replaced on the corner of Howard Ave and Rt 100. This valve box was found while looking for a small leak in the same area. While digging to diagnose the problem with the leaking valve the water department found a valve that had been paved over. The water leak was from a future connection. That leak has been resolved. The valve that was found was an in-line valve and a new valve box was installed.

The water department has officially begun fluoridating at the Sweet Well Field control building. As of July 10th, there is a new fluoride day tank in the well building that is on-line and actively fluoridating our well water. We can now continue to add fluoride to our water whether we are pulling from the wells or the brooks. Roland Luxenberg who is a fluoride consultant for the state made a visit to the well field control building and was impressed with the day tank set-up. He will be reporting back to the Vermont Department of Health.



On June 21st, EFUD was awarded 3 days of valve exercising by the Vermont ANR. This work was completed by GPRS who was contracted by the state. The water operators were able to assist Mike Bishop of GPRS. 44 valves were inspected and 42 of those valves were exercised. 2 valves were unable to be exercised due to valve box positioning. Those valve boxes have been added to a list of upcoming projects. The 44 valves were located on S. Main St., N. Main St., Winooski St., Grandview Hts., Ellinwood Ave., Hillcrest Ter., Armory Ave., and High St. The misaligned valves were on S. Main St. and Ellinwood Ave.

A contractor hired by the Zenbarn broke the service line in the Zenbarn parking lot. The water department along with the public works director were able to assist with turning water off and offering advise pertaining to how the repair should be completed.

Doug Curtin from the Hach Company stopped by the plant to perform quarterly service on our Hach equipment. Those services were completed and there are no issues to report.

Maintenance that was conducted pertaining to the flood will be discussed in detail at the end of this report.

Weather

As you know the weather for the month of July was tumultuous but at times beautiful. Flood specific weather will be covered at the end of this report. July brought temperatures as high as 90.7° F and as low as 50.4° F. Throughout the month total rain fall was 14.99 inches with wind speeds as high as 13.6 mph.

Personnel

There is nothing to report about the water operators this month. Grant McCraken has continued to impress. He has assisted in all water operations over the last month. Grant has also worked with the Wastewater and Highway departments. All reports from those that have worked with him have been very positive. The water operators have started training Grant on some water specific tasks and he is more than willing and capable of performing those tasks with minimal training.

2023 Flood

The 2023 flood was a high precipitation event that resulted in flooding in our town and region. Local weather stations showed an approximate rain fall of 1.97 inches on July 9th, 4.1 inches on the 10th, and .23 inches on the 11th. Between the 9th and 10th there was a total of 6.07 inches which resulted in increased flows within our brooks, streams, and rivers. Most of the overall flood damage resulted in damage to basements and some first floors of residential and commercial buildings along Elm St, Randall St, South and North Main St, Batchelder St, Winooski St, Foundry St, Parker Ct, Healy Ct, and Union St. The Water Departments role mainly consisted of shutting off water at curb stops, troubleshooting inoperable curb stops, assisting with trash removal, assisting with out-of-town municipal crews, monitoring water quality, running the treatment plant, answering user water safety questions, assisting the wastewater department, and dam clean up post flood. The following is a day-by-day breakdown of what the water department did during the flood.

July 10th

Throughout the day the water department monitored water levels throughout the town. By 0930 all water ways were showing increased flows and Waterbury Center streams and brooks had already crested their banks. At 1230 Kenny and Grant went to check on the Old Filter Plant and found that a large stream had

developed adjacent the building and a culvert leading to the building was also starting to fail.

The Waterworks was also experiencing increased flows from the rain. Waterworks Rd was already seeing the beginnings of culvert failures and sections of the road were beginning to wash out.

Along Main St later that evening the Winooski River would crest its shoreline and start to make its way into town. Overnight the river would rise to the second

highest recorded crest level of 426.22 ft only eclipsed by Hurricane Irene which crested at 430 ft according to NOAA. There were no immediate water department related issues as of July 10th.

July 11th

Throughout the night the water department continued monitoring water levels. There were no water department activities until the water receded the morning of July 11th.

Once the water from the Winooski fell to manageable levels the water department began shutting off water to users at the curb stops throughout town. As basements were pumped out, water heaters which had been floating fell to the floor and broke the water lines in user's basements. Once the water department or users were able to enter their basements safely and shut off water to their water heaters or access their water shut off valve adjacent their meters,

water was then turned back on at the curb stop. In total the water department shut off and then turned back on 24 curb stops. While actuating those curb stops there were a number of curb stops that needed to be found and then dug up to access the shut offs. The overall concern was that water mains would need to be shut off resulting in a loss of pressure in our system. At no point did the water department need to shut of water mains, boil water notices were not necessary, and the towns water supply remained safe for users.

The culvert at the Old Filter plant did fail which resulted in the Old Filter Plant being inaccessible for about 24 hours.

Waterworks Rd was impassable for a short time as well. The Waterbury Highway Department were quick to fix the roads to our infrastructure within 24 hours of any road issues. When the water department was not helping with water related issues, they were assisting with trash removal, helping out the wastewater department, and any other post flood activities that they could be of assistance.

July 12th – July 26th

The water department continued to assist wherever they could help out around town following the flood. The only major issue the water department encountered as a result of the flood was sand and rocks that were stuck in the dams along Merriam and Tyler Brooks. On July 24th through the 26th the water department brought the EFUD backhoe up to the dams and cleared out all the debris.

During and throughout the following weeks the water department had no issues supplying the town with safe drinking water. On July 14th your water and wastewater operators were recognized by the Town Manager as well as Senator Peter Welch for the long hours and excellent service that was provided throughout this natural disaster.


25
NO
COMMERCIAL
VEHICLES

Wastewater Progress Report
July 2023

- **Process and Operations:**
  - Process running well and meeting permit limits.
  - Significant flooding occurred 7/10 see timeline of events
  - Sludge holding tanks filling up, not able to turn over drying beds very fast
  - July 2023 Avg. Flows:

    Influent: .312 MGD
    Average flow does not include flood event 7/10-7/13 influent flow meter was not working at that time due to it being submerged in water.
    Effluent: .442 MGD
    Average flow does not include the approximate 5,916,750+ gallons that were bypassed directly to the river/field 7/11-7/14
    Precipitation: 10.85 inches/month
    Operating days/month = 18

- **Collection System:**
  - Some damage occurred in the flooding event to the section of line behind the cemetery. One manhole had a significant washout around the structure resulting in rocks getting in. That manhole will not accessible with a vactor truck until the road can be rebuilt. Rebuild work started 8/2
  - All manholes along the cemetery line will need to have infiltration issues addressed.
  - Manhole 54 and 46 on elm street need infiltration issues addressed.
  - Manhole 93 needs a new frame and cover after flood.
  - Randall St manholes do not show signs of infiltration
  - Access road to Thatcher brook line will need some work.
  - Manholes across the ball filed line need to be inspected.

- **Office & Personnel**
  - Operators staffed the treatment plant continually 7/10-7/13
  - Time was spent communicating with the state wastewater direct discharge supervisor throughout and after the flood.
  - Thanks to both water and highway employees for assisting throughout and after the flood.

- **2023 Projects List**
  - Manhole infiltration repairs-

MPS Pump Run hours

Pump 1= 75 hours Pump 2= 70 hours

Estimated effluent flows.

4-inch diesel pump with 3" hose ran approx. 22.5 hours at 450gpm= 607,500 gal

4-inch diesel pump with 4' hose ran approx. 37.25 hours at 550gpm= 1,229,250 gal

4-inch siphon approx. 24 hours at approx. 300gpm= 432,000 gal

Sludge barge approx. 70 hours at approx. 200gpm= 840,000 gal

Lagoon pump without chlorine approx. 20 hours at 520gpm= 624,000gal

Lagoon pump with chlorine approx. 70 hours at 520gpm= 2,184,000

3 and 4-inch gas trash pumps were used but unsure exactly how many hours they were used as the pumps would run out of gas for an unknown amount of time before an operator could refuel the pump.

Total estimated partial treatment discharge 5,916,750+

Estimated influent flow Sunday morning through Saturday morning approx. 7,000,000gal

Timeline of events for flooding event 7/10/2023

Sunday 7/9/23

Process was turned on at 1430 after finding out rain event was predicted, and rain totals were estimated at 5+ inches. At 1430 lagoon height was 11' 7"

Monday 7/10/23

Operators arrived at normal scheduled time 0700. Overnight rain total was 2.77 inches. At 1200 the MPS wet side started flooding at which point the manhole gate valve was used to begin throttling incoming flow down. At 1500 the lagoons were at 12'4" and influent flow had reached 570,000 gallons since midnight. By 2000 influent flow had reached 1,000,000 gallons. At 2200 operators believed that the MPS pumps had failed because flow was showing only 100-300 gallons. It was later determined that was caused by the influent flow meter being fully submerged in water. Throughout Monday operators were able to keep the treatment plant fully operational, meeting all permit required parameters.

Tuesday 7/11/23

At 0045 operators had no choice but to shut the treatment process off. That decision came when it was noted that the Chlorine Contact Chamber was backing up with river water. The gravity flow could not overcome head pressure from the CCC through the outfall pipe. At 0640 the decision was made to use a 3-inch trash pump to pump from lagoon 2 to the field/ river behind the lagoon banks. At that point the river had already flooded into the field. At 0900 Stowe wastewater department had delivered their 4-inch diesel trash pump it was set up in lagoon 1 and discharging into the river/ field using 3 inch discharge hose. By 1200 lagoon pump 1 was able to be turned on at a rate of 520GPM to try to keep up with the influent. At 1940 operators were able to make access to the MPS. The flood doors to the dry side were very helpful, only allowing a little water to enter. It was found that both pumps were operating and that the flowmeter pit was full of storm water. Operators started pumping out the meter pit to see if there was any visual damage. At 2345 it was decided to turn on the secondary lagoon pump and slow the speed of lagoon pump 1 in an effort to limit the stress of pump 1.

Wednesday 7/12/23

Lagoon levels were at 13'6". At 0630 the diesel pump discharge hose was swapped out from 3-inch to 4-inch. At 0730 operators utilized the sludge barge pump to also discharge out of lagoon 1. At 0800 the chlorine pump was turned on hand and

approximately 500GMP of partially treated effluent was disinfected. At 0900 a 4-inch siphon was set up out of lagoon 1. At 1230 a 4-inch has trash pump was set up out of lagoon 1.

Thursday 7/13/23

Lagoon levels were at 12'6". At approximately 0900 the 4-inch siphon had stopped due to lagoon levels lowering. Our electrical contractor was onsite for the day evaluating the MPS and small pump stations that were affected. It was noted that the Ice Rink Pump Station panel did not appear to have been submerged. The pumps were operating normally. Lincoln St Pump Station panel was not affected either. After troubleshooting most of the day the MPS was finally able to be run off of VFD control only. The electrician did have to replace a failed float in the MPS wet well, this was causing short pump cycles and multiple alarms for high level. At approximately 1900 a severe thunder storms came in producing .62 inches of rain within 1 hour. The diesel pump was shut off at 1945, while the sludge barge and lagoon pumps remained on. Operators left site for night at 2000.

Friday 7/14/23

Operators were back at 0530 and lagoons levels were at 12'1". The diesel pump was operated from 0600 to 1620. The electricians were back at the MPS to start demo of flooded electrical components. The sludge barge and lagoon pumps ran throughout the entire day. Operators left for the day at 1630.

Saturday 7/15/23

Operators arrived at 0515 to lagoon levels at 11'6". The sludge barge was turned off at 0530. At 0600 full treatment processes began. At 0806 lab testing was done and confirmed that the treatment plant was operating withing permit compliance.

Hours worked

Matt 7/9-7/15= 90

Tony 7/9-7/15= 70.5

Lagoon levels

7/9=11'7" 7/10=11'9" 7/11=13'4" 7/12=13'6" 7/13= 12'6" 7/14=12'1" 7/15=11'6"