

## **Good Morning Norton,**

I would like to answer a few questions that have been circling around. Many customers ask why is the town out flushing hydrants?

Why if they post they are flushing in one area that is far away from me do they say I may notice a change in my water quality?

### **Hydrant Flushing is necessary**

We must flush our hydrants for many reasons, first and foremost is to make sure the hydrant is functioning properly should it be needed during an emergency situation.

Hydrant flushing, pressure monitoring and flow recording also provides our technicians with information that is used to determine if a water main in the surrounding area needs to be upgraded.

Mass DEP requires that distribution systems are flushed to remove sediment in the pipes and improve and maintain water quality throughout the entire distribution system.

During hydrant flushing we are required to close water valves to direct the flow of water where we want it to go to clean a specific pipe, the closing of valves in some areas can change the direction of flow in other pipes similar to a road detour. The water will find another way to the final destination. The Distribution system in Norton is a continuous loop this is why when work is performed in one area of town other areas of town can notice a change in quality because the water has been forced to take a detour.

### **What if we do not flush?**

We would not know the condition and functionality of our fire hydrants our water mains and water gate valves. In the event of an emergency there could be serious consequences not knowing the condition of any of these. Other problems can arise from not flushing and maintaining a distribution system. poor water quality, continuous apparent color and low disinfection residuals, increased complaints due to small changes in flow or direction and all of these can lead to poor sample results.

We flush to maintain our system when we are able to do so safely.

Last fall we were unable to perform a full flushing program with our largest well offline for cleaning and redevelopment prior to the connection to the new water treatment facility. We had more than enough water for consumption and fire protection but felt the risk was too great to deplete our storage and not have our largest well on line to refill our tanks. Often times in the past flushing has been modified due to low water conditions or mechanical breakdowns and this was no different.

### **Dirty water**

Every area in town has an average flow rate in the water mains based on regular continuous demand, when that area remains at or below this regular flow rate the water is clean and clear.

When an extra flow is required in that same area which could be from, water service leaks or breaks, water main leaks or breaks, fire pump tests and operations and fire sprinkler flow, fire hydrant usage authorized or not and system flushing just to name a few. This is when customers experience dirty water.

This is exactly how hydrant flushing works we move water at a high rate of flow to intentionally scour the pipes and remove debris. This is done with a flow rate from a hydrant which normally cannot be achieved again in that area unless there is a major disturbance.

### **Where does my water come from?**

Norton has 5 gravel packed wells that produced on average 1.16 million gallons of water per day in 2019.

We have 2 large ground storage tanks and two elevated water storage tanks. For a total of 5.85 million gallons of water storage.

## **What well does my water come from?**

Norton water as mentioned is a continuous loop distribution system. Our wells turn on at a set low level in our storage tanks and off at a set high range. There are no specific times of day that each well operates or if they all operate at the same time. It is all based on system demand and controlled by our treatment facility operators. We have unlimited options to run off of our storage tanks and any combination of the wells.

When the water leaves the well near your home it does not necessarily pass directly by your home, demand and pipe size determine which way the water flows in each pipe similar to traffic on a road the less congestion or the larger pipe typically has a better movement.

With a blended system like ours and a continuous loop water is moving many directions depending on the demand. A basic simple overview of our system would be the water is pumped from the ground takes the path of least resistance to reach its final destination in our elevated storage tanks once the shut off level is achieved the wells turn off and now gravity flows the water out of the elevated tanks to your homes.

## **Water Treatment Facility**

The facility is currently operating with two of the three wells that will supply the facility.

We have just received to Mass DEP approval to add our third well to the filtration facility.

We will put our third well online next week and will be increasing our filtered water output to the distribution system, again this may cause a short-term disturbance and I will have technicians monitoring the system as I have each time, we have added a well to the new filtration facility.

Our system will incur changes as we transition out the high iron and manganese water from the past and fill and flush with our new clean clear filtered water. This will not be an overnight change. Although many residents have remarked that they have already noticed improvements in water quality, this will continue and will eventually reach every customer, the process will be slow and challenging.

This can only be achieved by system flushing. Which will begin to remove the years of iron and manganese sediment.

The end result is what we have all been waiting for.

I hope this helps answer a few of those questions that I get when I speak with residents. I ask that you please be patient we are all equally as anxious to remove the old and start with the new.

Please be aware like most we are working with an extremely limited staff due to Covid-19.

If you call the office you may receive the answering machine at any hour. Please know we have a technician on-call 24-7, 365.

I ask that you please follow the websites for updates, media has done an excellent job of getting the word out if we have a disturbance or are performing work in town.

There have been some posting delays with others working from home and many of us doing the work of 5 people when we are actually in the office.

Thank you,

Francis J. Fournier III  
Superintendent  
Norton Water/Sewer Dept.  
166 John Scott Blvd.  
Norton, MA 02766