Town of Ware
Department of Public Works

Flushing Program
Questions and Answers

1. **Why does the Water Department need to flush the system?**
   Particles in the water settle in the distribution system over time. Also, the pipe naturally corrodes over time and corrosion products develop on the wall of the pipe. These sometimes slough off the pipe into the water. All of these particles need to be periodically flushed from the pipes.

2. **Are these particles unhealthy?**
   Typically these particles are metals (iron and manganese) and will not affect health. They are more of an aesthetic (color, taste and odor) concern and can stain fixtures and laundry. Occasionally they can build up to an extent that they harbor bacteria but the disinfection should take care of this.

3. **How is the system flushed?**
   The system is flushed beginning at the water source and moving outward to the ends of the system. Specific valves are opened and closed prior to opening specific fire hydrants to ensure: that pipes are flushed with clean water, that service interruptions do not occur (or are minimized), and that the water flows in the proper directions so that the entire system is flushed. All hydrants are not opened; just the ones needed to flush the intended pipes. The hydrants need to be fully opened to develop the proper flow and velocity in the pipe to ensure that particles get flushed from the pipe.

4. **Will I be told when my pipes will be flushed?**
   It is not possible to notify everyone exactly when the flushing will occur on a particular street. There is a map of the system on the Town website which shows the seven different zones that have to be flushed sequentially. There is no way to know how much progress will be made each day and where we need to start the next day. Since parts of the system that are not being flushed will also be affected by the flushing and operation of the valves, there is no way to be certain who will be affected. As such, we ask for everyone's patience and that you do what you can to not be adversely affected by the water quality that may result during this period. Be certain that your water is clear before using it or doing laundry. The water should clear up in the evening in the areas that have not been flushed yet.

5. **What will users experience?**
   During flushing customers may experience fluctuations in pressure and flow and some dirty water. This is due to the valves being closed and the large flow of water from the hydrants. Additionally the large flow required to flush the sediments in the pipes will cause the sediments in other pipes to be stirred up. If a customer's tap is used, these

sediments will get pulled into the customer's pipes. Sediments in areas not being flushed on a particular day may get stirred up and could cloud the water for a period of time. After an area is flushed it should remain good throughout the rest of the flushing unless we are having problems with the valves.

6. **What should customers do?**
   When hydrants are being flushed the customers should try not to use their water unless absolutely necessary. This will minimize the dirty water being drawn into the building. Do not do laundry. After each day's flushing is over, if a customer's water is still dirty the building plumbing should be flushed from all faucets. It should not take too long to flush the system. Verify that the water is clear before using it. If you have strainers or filters, these should be removed and cleaned. After each zone of town has been cleaned, there should be few, if any, further problems in that area.

7. **Why does it take so long to do?**
   The water system is comprised of 45 miles of pipes, and hundreds of valves and hydrants. All of this pipe needs to be flushed in a systematic manner. Specific valves need to be opened each day and certain valves flushed. Valves do not always work as intended and it takes a significant effort to open and close them, often in the middle of traffic, to make them operate correctly. If they do not operate, then other valves need to be operated. The hydrants need to be flushed until the water is clear. This can sometimes take over an hour depending on the state of the pipe. Only one hydrant can be opened at a time. Also provisions must be taken to ensure that the water flow does not disrupt traffic or cause other problems. There is no rushing this process if you want to get it right. Lastly, the water operators have additional responsibilities which also need to get completed every day.

8. **Will this flushing solve all the "dirty" water problems?**
   This flushing will hopefully reduce the "dirty" water problems but probably not eliminate them right away. The system is old and pipe corrosion is always occurring. As well, some materials are deposited on the pipes from the water. There is a lot of sediment in the system and there are many rusty pipes. We will probably have several flushing cycles before we see a dramatic improvement. Also, flushing needs to be done semi-annually and new problems develop over time as new particles settle in the pipes and corroded pipes affect the water quality. We are, however, quite hopeful that it will have a very positive effect on the parts of the system that experience a lot of water quality problems.