

WHAT ARE VARIOUS CAPITAL PROJECTS, as referenced in Bond Ordinances? Reference to #4:A-D

Water treatment plant resiliency: As noted by TWW personal and the NJDEP the plant can at times shut down due to power failures and other factors. This was in increase the number of plant shutdowns, making the Filtration plan more resilient than it already is. We have made great strides with our current generator system but there is more work that needs to be done when the plant goes from PSE&G power to emergency power.

Vehicles: TWW has a fleet of 106 vehicles, that cover everything from Backhoes, heavy repair trucks to small meter reading trucks and cars. TWW also comprehensive replacement program. These are multi-year fundings to keep our employees safely on the road.

Superpulsator upgrade: This as noted by TWW and the NJDEP is critical for the cleaning and maintenance of the Superpluators. The project engineering was approved and paid for by Council and the bids are reading for advertisement.

Gravity Thickener Rehabilitation: Gravity use gravity to condense sludge that is produced in the treatment plant for processing so it can economically be removed for beneficial reuse. The two large tanks and electrical/mechanical portions of this system are approaching 50 years and are in very poor shape. When these units shut down there is no place for the sludge to go, so it builds up in the plant until it eventually makes its way into our finished water. This lead directly to turbidity violations in 2018 and prior.

Water Accountability Act Compliance: This Act went into effect in 2017. The critical item was for TWW to find and exercise (operate) all of our valves. Now that this is done, we have many valves that now need to be removed and replaced or repaired.

Water Distribution System Improvements: Many sections of our water mains are in well excess of 150 years old and many are undersized and need to be replaced. This also covers older pipe that is still in great condition but heavily rusted. These mains can be taken out of service and "cleaned" and then lined with cement, thus extending their life for another 100 years. TWW prides itself that 75% of our mains have been cleaned and lined but it is a never-ending process. Additionally, we have discovered may dead end water mains. Dead end mains lead to very poor water quality because the water gets very old and stagnate. A large portion of this was to install small hydrants at the ends of these mains, thus TWW personal can flush these mains and provide better and safer water.

Facilities Improvements: TWW has 3 main structures. The filtration plant, the central pump station and reservoir and our distribution building. By far the most work needs to be done at the filtration plant. Every roof at Filtration leaks. This rainwater that enters the building not only causes damage to equipment but has penetrated the concrete structure itself, and there is much structural work now to be done. Also on the roof is a failed HVAC system. The HVAC system is especially critical in our filtration bays. Before the water enters the filter bay, it is heavily chlorinated (for disinfection). The chlorine gasses off the water surface and concentrates in the bays. When Chlorine gas mixed with water it does readily convert to Hydrochloric Acid. This makes it very difficult for TWW personal to work in and is also destroying the mechanical equipment and the concrete roof.