

# PUBLIC WORKS ANNUAL REPORT

2021



This review is written for the interest of Council members, residents and as a matter of record for work performed by the Public Works Department in 2021.

When fully staffed, the Department has 17 full time employees working out of three buildings, the maintenance garage located at 4<sup>th</sup> and Oley Streets in Berkshire Heights, the tree house, located off Penn Avenue in Wyomissing Hills and the Parks Barn on Old Wyomissing Road

## **WATER**

**HYDRANT FLUSHING** – As part of regular maintenance to our distribution system we flush hydrants every spring. This work is done to clean the distribution system, gather data and identify hydrants that are not working properly. This is done with a two to four man crew across a roughly two week time period.

**HYDRANT MAINTENANCE** – We visit each of our 385 fire hydrants annually to lubricate them and check that they are draining and operating properly.

**RESIDENTIAL METER UPGRADES**- This would have been the fifth year of our replacement program. These upgrades allow us to read meters much faster than in the past, plus they store data on water use. This is very helpful when there is a disputed water bill. To accomplish these meter change outs our contractor must enter homes to do the work. Due to Covid, we were not able to do it for the second straight year. We had previously taken delivery of the meters, hopefully we will be able to install them in 2022. We did however replace 51 existing meters that stopped working or were malfunctioning.

**COMMERCIAL METERS** – There were no commercial new meter installations in 2021, but we did replace four commercial meters that were not operating accurately.

**METER READING** – We read commercial meters (200) each month and residential meters (2,400) each quarter. In addition to these planned readings we also get final readings for real estate sales. We also have the ability, with the newer meters, to download information when there is consumption complaint.

WESTERN BERKS WATER AUTHORITY ISSUES – The WBWA was replacing a meter at one of our interconnection points on Cambridge Ave in May. Things went very bad and caused a major event for our water system. The plant was shut down and they no longer could supply us with water. We do have back up water capability with PA American Water and RAWA. To access this water is a long process involving turning of 20 plus valves, and monitoring operating pressures. Even with effort we could only keep 80% of the Borough with water. The immediate situation was a 30 hour event, with weeks of getting the system back to normal in the aftermath. I give my crew a lot of credit for handling this situation in a professional manor.

There was a second event in August with an issue at the Western Berks plant. Although not as severe as the May event it was still very disruptive to our distribution system.

HYDRANT AND WATER VALVE REPLACEMENT – We replaced five water valves that were found to be leaking or not operating correctly. Three were on Park Road in Berkshire Heights, one was at 4<sup>th</sup> and Greenwich and one on Monroe Ave. at Lake Ave. We also replaced 2 fire hydrants and repaired 2 others that were either hit by cars or not operating properly.

MAIN BREAKS – We only had one water main break in the 1200 block of Old Mill Road

CAPITAL MAIN REPLACEMENT – We replaced the water main in 1400 block of Monroe Avenue and installed two new valves at State Hill and Greenwood Mall. This was contracted work. We supply construction observation and payment application processing.

DEP REPORTS AND SAMPLING – Our permit with the DEP requires us to file three annual reports. The Water Allocation Compliance Report supplies information on total water consumption, per capita consumption, and general system maintenance. The Water Supply Report involves water consumption for each source meter and source water supply. The Consumer Confidence Report is a public document that explains general water quality for a calendar year. In conjunction with the Western Berks Water Authority our water is regularly sampled at 9 different locations for chlorine residuals, coliform, and disinfection by products. We have two certified water operators on staff. This mandated certification involves continuing education credits over a three year cycle.

MISCELLANEOUS – There are many additional things we do with the water distribution system. Respond to and investigate complaints of high water bills, read our five source meters daily, hand out shut off notices, shut off water services for plumbers doing interior work on residential plumbing, get final readings for real estate settlements and repair service laterals that are damaged by contractors.

# SEWER

**SEWER SAMPLING** – We sample 28 food service locations for high strength waste twice a year. With the information gained we then surcharge them base on their results. This is an effort to lessen grease and other constituents that are bad for the sewer plant along with our collection system and pumping stations.

**BLOCKED SEWERS** – We responded to 97 calls sewer backups. The vast majority of these are caused by tree roots in the sewer trap or lateral. We had one block sewer main on Douglas Street.

**SEWER MAIN DIG UPS** – We did not have sewer main issues that required a dig up replacement of the pipe. We did however, have to replace the sewer lateral in the street at 79 Park Road that was flat and causing repeated backups at that property.

**PUMP STATION MAINTENANCE** – We have four sewage pumping stations and two metering pits. All require regular and emergency maintenance. The pumping stations are located below the Shoppes at Wyomissing, Wynnewood Apartment complex, behind our Borough maintenance garage and near the pool at Old Mill Road and Evans Avenue. We drain and clean the wet wells once a year to keep them free of grease and other solids, and change pump fluids as necessary. Three of the four stations have back up emergency generators that are exercised and inspected monthly. We visit each station daily to confirm they are running correctly and to log run times. The two metering pits are calibrated twice per year.

**PUMP STATION ISSUES** – We had a pump failure at the Berkshire Boulevard station in the summer. We installed a backup pump, but when we went to start up, that pump to was also bad. We luckily had a second backup pump that did work. The manufacturer of the bad pump did service the unit and returned it to us.

In December at this same station we had a force main failure. This is the pipe that carries the sewage away from that station when it is operating. This pipe broke in front of the On the Border restaurant. Due to possible depth of pipe issues we contracted with Schlouch to make the repair.

**CAPITAL SEWER WORK** – We contract out pipe repair, manhole work and cleaning and televising that we cannot do in house. We cleaned and televised a section of Wyomissing Hills that drains to the Joint Municipal Authority and the area bordered by Penn Ave and Parkside Drive North. In total we cleaned and televised 72,000' of pipe. In addition we lined five manholes that had infiltration issues. We provide construction observation and payment application processing.

**ROOT CONTROL** – We contract out each year to chemically treat sewer mains with known root intrusion. If roots go unchecked, they continue to grow in the pipe and cause serious back up issues. We treated 5,500 feet of pipe this year.

MANHOLE CASTINGS- There were many issues with the manhole lids on Park Road. Penn Dot paved that road this year. In preparation for the paving, we repaired or replaced most of these manhole lids and frames.

REPORTS AND CERTIFICATION – We annually fill out three DEP Chapter 94 reports. One for each of the three treatment plants we flow to. This report contains information of system maintenance, current flows, future flows and pumps station demands. The City also requires a special report for flow information as part of their consent decree. We have two certified sewer operators on staff. This mandated certification requires continuing education credits over a three year cycle.

## **STREETS**

CRACK SEALING AND PATCHING – We crack seal roads that are relatively new, but have developed some minor cracking. This process extends the life of the road by limiting water infiltration into the base material. We sealed North Wyomissing Blvd and part of Parkside Drive North, along with patches done the previous year. We mill and patch bad sections streets that may become pothole issues over time or areas that are showing signs of base failure. This practice is labor intensive for us but, can push back the need to fully pave a street for years. This year we laid 441 tons of blacktop.

STREET SIGNS – We do some type of sign work on a weekly basis. This could be replacing old or dirty signs, straighten sign post, replacing signs after an accident or adding signs per a Police request. We also added significant signage for the new one way traffic patterns on Oley Street and Greenwich Street

SNOWSTORMS- We had 4 snow events in 2021. One we just salted, three were plowable. The biggest was a three day event from January 29<sup>th</sup> to February 2<sup>nd</sup> that was a total of 18". We had to haul snow off the one way streets for three additional days after the event. We put down 647 tons of salt for the season.

LEAF COLLECTION – We collect leaves from early October until the end of December. It is the most labor intensive thing we do. For the year we collected 10,367 cubic yards of leaves.

**STREET SWEEPING** – We run our street sweeper more than most municipalities due to the heavy tree dirt. It is generally out at least four days a week during the spring, summer and fall season. We report street sweeping volume to the DEP as part of our MS4 program

**ALLEY MAINTENANCE** – All of the alley's in Berkshire Heights are stone along with a few in the older part of town. They are very prone to potholes and washouts after heavy storm events and attract a lot of residential complaints. We grade and level them each spring and after heavy storm events.

**CAPITAL PAVING PROJECT** – Only two roads were paved in 2021. Hill Avenue from Park Road to 8<sup>th</sup> Avenue and Cherrywood Road in Greenwood Mall. Both roads were milled and overlaid. All paving projects involve replacement of bad or broken curb. We are the administrators of this curb work along with construction inspection and payment application processing. Also included in the project was the paving of a park trail from Wyomissing Boulevard to the Museum property.

**50/50 SIDEWALK PROGRAM** – After skipping a year due to Covid the program returned this year. We had a record 57 participants in the program. After application is made we visit each property and mark sidewalk that warrants replacement. We then confirm cost and buy in from the resident before work is done. We provide construction inspection, resident billing and payment application review.

**ROADSIDE MOWING / SPRAYING** – We mow roadway shoulders and right of ways once each year to keep vegetation from encroaching onto the road. This is done in many places throughout the Boro including Berkshire Blvd near the PSU Campus, Tulpehocken Road, Crossing Drive, Penn Ave, State Hill Road, Valley Road near the playground and Spring Street and Sixth Street in the area of the Berkshire Heights playground. We also spray weed control on medians and curbs in many of these same places.

**MECHANIC** – Jake Kaylor is our full time mechanic. He does all state inspection and repair for the entirety of the Boro fleet including Public Works, Police and Administration totaling 45 vehicles. He keeps all other rolling stock operating, this includes 8 leaf collectors, two back hoes, two skid steers. There is also a quantity of small engine equipment that Jake keeps operational; blowers, mowers, generators, etc..

## **STORM SEWERS**

CATCH BASIN CLEANING – We have well over 700 catch basins in the Borough. During the summer we clean debris off the tops of these basins before and after heavy rain events. We do not do all 700, but over time we know which ones need the most attention.

MS4 PERMIT – As part of our storm water permit we annually inspect pipe outfalls at the creek, inspect storm water facilities on private property, and educate our personnel and the public on storm water issues and pollution prevention. We are currently waiting on DEP review of our most recent 2017 permit application so we can proceed with installing storm water facilities that will help us meet our pollution reduction numbers.

LINCOLN AND BRANDYWINE STORM SEWER – We had major flooding in this area during a large storm event in 2019. In its aftermath, one project we identified was to install some additional inlet capacity in the area. We installed about 150' of new pipe and three inlet boxes.

RIDGEWOOD ROAD STORM SEWER – We replaced 60' of rusted storm sewer pipe on Ridgewood Road that was failing and causing a sinkhole in the area.

## **MISCELLANEOUS**

OLD MAN ECHO – This stone structure was built in the 1930's and requires periodic maintenance due to the volume of storm water that passes over it. There was a lot of missing stone and masonry that we replaced and re-laid.

TREE HOUSE SALT SHED – We have a salt shed at the Tree House with wooden siding that was starting to deteriorate. We re-sided the entire structure with new vinyl siding.

POOL PUMP HOUSE- There was an old brick pump house that serviced the baby pool before a new one was built a few years ago. We removed this old structure along with the piping and electric.

RECYCLING CANS – If residents need a new recycling can they call the Boro Hall and we then deliver it to them. Over the year we delivered well over 200 cans.

CREEK EROSION – There is a culvert that carries the Wyomissing Creek under Cambridge Avenue near the Cambridge Commons Apartments. Overtime there has been some sediment build up on the upstream side that interfered with the flow. We received a DEP permit to remove a gravel bar, install rip rap and deflection structures.

HURRICANE IDA – In September, Hurricane Ida came thru with 5.5” of rain. Luckily it was over a 24 hour period. We did have flooding, but nothing catastrophic.

CHRISTMAS TREES – We pick up Christmas trees a few times a week during month of January

POOL – Getting the pool up and running and then shut down takes a lot of time and manpower. We got a late start this year due to Covid. We remove the cover, power wash to floor, install the steps and railings, clean up the grounds and bathhouse and get the mechanicals up and running.

PARKS AND REC – We assist the Parks and Recreation Department in many ways throughout the year with construction help, pool help and many other things.

## **TREES**

PRUNING AND GENERAL MAINTENANCE - Maintenance pruning of street trees in the Borough includes hazardous deadwood removal, structural correction and repair, elevation over streets, sidewalks, traffic signals and signs, and training of all trees planted in the past ten to twelve years. In 2021 we pruned a total of 1,264 street trees in all sections of the Borough. Of this total, 342 were mature shade trees and 922 were trees on our small training lists. We consider the training process one of the most important things we do. It involves directional and structural pruning to encourage an appropriate upright structure that reduces future maintenance and damage and gives street trees the best chance at long term survival between the curb and sidewalk. The sections of the Borough that we thoroughly and completely pruned in 2021 were the 1550 block of Dauphin Avenue, 800 block of Hill Avenue, Cardinal Place and Van Reed Road. We also did maintenance and safety pruning on selected sections of Cedarwood Road, Monroe Avenue and Penn Avenue. We constantly monitor high traffic areas with large trees (Penn Avenue, the Boulevards, Monroe Avenue, Van Steffy Avenue, Larchwood Road, Cedarwood Road) to keep hazardous deadwood to a minimum. There are a number of streets in the Borough, in addition to the Boulevards, that are lined with large mature oak trees which are at least 80 to 90 years old and require diligent inspection for deadwood, and structural or root problems. Monitoring these areas is part of our weekly routine and we resolve any hazards we find as soon as possible. Looking forward into 2022, we plan to concentrate much of our maintenance efforts on the 900 block of Hill Avenue, Bluebird Road, sections of Dauphin Avenue and the islands on Wyomissing Boulevard.

The pruning numbers above do not include resident requests. We responded to and resolved 117 resident requests in 2021, many involving multiple trees. Phone calls from residents are valuable in drawing attention to problems we may miss in our own scouting. These concerns include everything from dead branches, elevation and clearance to exposed roots and lifted sidewalks. When we look at damaged sidewalks, we tell residents that after their contractor has the old concrete removed, we will come in and grind or cut the exposed roots to allow the new slab to be formed and poured. We definitely insist that we do the root work, being careful not to grind too much, which could compromise the health and stability of the tree. Before the process begins, we encourage affected residents to apply for the Borough's 50/50 sidewalk replacement program.

REMOVALS - Trees that are declining and becoming hazardous or too costly to maintain are marked for removal. Significant crown dieback, severe decay of large limbs or the trunk, and signs of root rot are the main reasons for removing trees. In some of the older sections of Wyomissing, there are street trees that are probably approaching one hundred years of age. Some of these trees, especially on the narrower streets, are beginning to outgrow the space they were planted in. Though these trees may appear healthy and sound, a storm related failure of all or part of their structure could be catastrophic. Starting in 2015, we included massive size in relation to practical growing space as one of the criteria for considering a tree for removal.

Of the 129 trees removed from the streets of Wyomissing in 2021, 91 were taken down by our own crew and 38 were removed by private contractors. Using contractors to remove the largest and most time-consuming trees allows us more time for pruning and requests. We put out three to four bid requests per year and have been very satisfied with the results.

A large amount of firewood is generated in both our pruning and removal operations. We deposit this wood at the Park Barn parking area and behind the Tree House in Wyomissing Hills for residents to take free of charge. Occasionally we will save large oak trunks which are either sold to a saw mill or turned into boards for use on the park grounds. We grind all stumps to a depth that allows us to replant trees whenever practical and where space still allows.

PLANTING - We added 143 trees to the streets of the Borough in 2021, which we purchased from four different area nurseries. Of the total number of trees planted, 133 were replacements for trees removed in 2019 and 10 were planted on new sites. We respond to residents' requests for street trees as much as our yearly budget allows.

In an effort to further diversify the tree population, we continue to look for unique species and varieties to plant, with an emphasis on trees native to our geographical area. Streets that were traditionally

planted with a single species are gradually being transformed to contain up to four different species, displaying various sizes, shapes and fall colors. Some of the more rare or underrepresented species included in our plantings in 2021 were chestnut oak, shumard oak, American hophornbeam, sassafras, 'Purple Robe' black locust and dawn redwood.

We purchased 26 bare root trees from Schichtel's Nursery in New York. Among the advantages of the bare root method are lower cost, ease of transport and handling because of reduced weight, and possibly faster establishment and increased survivability. The only drawback is that there are currently no local nurseries with any bare root offerings. We would like to increase the percentage of bare root trees we plant each year as more local nurseries begin to sell them. In the meantime, we'll continue to evaluate establishment success of the 82 bare root trees we've planted since 2013.

**PESTS AND DISEASES** - Historically, there have been few pest or disease problems among our street trees that warranted any major resources to control. In 2021 we applied pesticide to honeylocust trees along Berkshire Boulevard to control two different insect pests, and sprayed selected cherry and crabapple trees to eliminate fall webworm. We also used multiple applications of a fungicide on crabapples on High Road to control a rust disease and applied a soil injected pesticide to control aphids and scale in selected trees around the Borough. We also did limited soil injection to control or reduce spotted lanternfly where residents requested it.

There is a concern in our region about the presence of the emerald ash borer, a destructive pest that could inflict significant damage to our ash trees in the future. The emerald ash borer has arrived in Wyomissing, impacting green and white ash along our streets, as well as in the parklands. In the fall of 2012, we began a preventative program of pesticide injections to protect native ash trees along the streets of Wyomissing. We are gradually removing ash that are already in decline due to EAB or other reasons. These removals will continue into 2022. In early summer, we continued the tree injection regimen by treating 89 ash trees mostly along Meadowlark Road. This is the fourth treatment these trees have received since 2012. We plan to continue treating more ash trees every summer into the future until the threat from the emerald ash borer subsides.

The current outbreak of spotted lanternfly in Pennsylvania is the latest pest concern that we need to monitor into the future. Though we have seen them feeding on some street trees in Wyomissing, mainly red maples and Norway maples, we have not noticed any damage that would justify significant chemical control efforts. For the second year there has been a significant decline in the total number of lanternflies in Wyomissing, by our own observation and far fewer calls from residents. We will be monitoring again in 2022, responding to residents' questions and concerns and keeping abreast of the ongoing research on the spotted lanternfly.

MISCELLANEOUS - Tree Department staff continues to attend one or two seminars each year for continuing education and to keep pesticide certification and ISA Certified Arborist credits updated.

In 2021 Wyomissing received The Arbor Day Foundation's Tree City, USA status for the seventeenth year. Each year that we renew the award, the Pennsylvania Bureau of Forestry recognizes our effort and presents Wyomissing with a commendation and new banners and signs to post at various entrances to the Borough.

In accordance with the 50/50 sidewalk repair program instituted by Wyomissing in 2015, the tree department worked closely with concrete contractors to prepare sites for new sidewalk construction. Our involvement and input aided in the installation of new sidewalks adjacent to many street trees throughout the Borough.

In closing I will repeat the information I presented in 2013 regarding the calculated values of Wyomissing's street tree population. According to a software program called i-Tree, the approximately 7,700 street trees that Wyomissing maintains have a total replacement value of over \$54,000,000. The program also calculates dollar value benefits of Wyomissing street trees due to storm water retention, air quality improvement, carbon dioxide absorption and energy