

# PUBLIC WORKS ANNUAL REPORT

2020



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 2020.

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 man crew across a roughly two week time period.

**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. Do to Covid, we were not able to do it. We did purchase and take delivery of the meters so hopefully we will be able to install them in 2021. We did however replace 33 existing meters that stopped working or were malfunctioning.

**COMMERCIAL METERS** – There was one new commercial meter pit installed on 2020. That was at the new hotel on Berkshire Court. We also replaced a failing 6” meter at the Wynnewood Apartment Complex

**METER READING** – We read commercial meters (200) each month and residential meters (2,400) each quarter.

**HYDRANT AND WATER VALVE REPLACEMENT** – We replaced two fire hydrants that were not working properly. One on Woodland Road at the Woodland Plaza Apartments and one on Spring Street at Palmer Candy. In addition two street valves were also replaced one at Fourth and Greenwich and one at Junco and Goldfinch

**SAMPLING STATIONS-** In partnership with the Western Berks Water Authority we sample our water system at 9 locations as part of our DEP permit. In the past we had to get into mostly commercial businesses to draw these samples. In an effort to make it more efficient and get better samples we installed sampling stations in the meter pits at the Wyomissing High School, Country Meadows and the Crown Plaza.

**WOODLAND ROAD PRESSURE REDCUING VALVE –** There is a pressure reducing valve at interconnection with Western Berks Water at Woodland Road and State Hill Road. This valve reduces the 120psi coming from Western Berks down to 90psi for our use. This type valve needs to be service with a new diaphragm and hardware every 10 years.

**MAIN BREAKS –** We had three water main breaks for the year. One on Evans Ave. at the High School, one at the entrance to Greenwood Mall and the last on Birchwood Road.

**CAPITAL MAIN REPLACMENT –** Due to Covid, there were no water main replacement projects done.

**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 98 calls sewer backups. The vast majority of these are caused by tree roots in the sewer trap or lateral. We had no blockages in sewer mains.

**SEWER TRAP INSERTS** – In 2019 we installed over 70 solid caps on sewer traps in the Lincoln/Brandywine area and on Downing Drive. This year we concentrated on a section of Wyomissing Hills that drains to the City treatment plant. We installed approximately 20 solid trap inserts, 10 manhole inserts and did mortar repairs to 5 leaking manholes. This is all in an effort to stop storm water from getting into the sanitary sewer.

**SEWER MAIN DIG UPS** – While doing capital cleaning and televising of the Birdland drainage basin in 2019 we found two sections of sewer main that were in too bad of condition to re line. There was a section on Hummingbird Road and a section in Junco Drive that were dug up and replaced.

**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. We did have two issues at the Berkshire Blvd Station. Due to a total pump failure we had to replace one wet well pump. We also had issues with a breaker that was tripping and causing the station to run on backup power. This breaker has been replaced.

**CAPITAL SEWER WORK** – Due to Covid, there was no capital sewer done in 2020.

**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.

**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. Portions or all of Woodland Road, North Wyomissing Blvd, Overhill Road and Cambridge Avenue were done this 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 305 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 add significant signage to make George Avenue a one way street.

**SNOWSTORMS**- We had 3 snow events in 2020. Two in January and one in December. The two in January were very minor. The one this December was 8” we used 390 tons of salt for the year.

**LEAF COLLECTION** – We collect leaves from early October until the end of December. Historically we collected with 7 trucks and additional temporary help. Due to Covid, the lack of available temporary labor, and being short staffed we only used 5 trucks this year. We did use scheduled overtime to get the job done and the crew did a great job. We collected a new record quantity of leaves, 11,500 cu. yds.

**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 – Due to Covid, no capital paving projects were done in 2020.

50/50 SIDEWALK PROGRAM – Due to Covid, the 50/50 sidewalk program was cancelled.

ROADSIDE MOWING / SPRAYING – We mow roadway shoulders and right of ways twice 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.

PIPE AND INLETS – Over time the mortar joint inside catch basins deteriorates. This lets dirt fall into the basin and can lead to small sinkholes. We re grouted this joint in eight inlet boxes. There was also a storm sewer manhole on State Hill Road at Valley Road that started popping off during heavy rain events. This was causing a traffic hazard. We removed the existing frame and lid and replaced with a vented type that we can bolt down.

## **MISCELLANEOUS**

CONCRETE WORK – Our crews placed new concrete behind the Borough Hall. We did this to get rid of mulched areas that had to be maintained and gave us an area to place trash and recycling cans. We also installed new curb at two locations where street trees had fallen and took out the curb.

HAPPY HOLLOW STEPS – The handrails on the stairways near the Happy Hollow playground were rusted and in disrepair. We welded, sanded and painted them. The project turned out great.

COUNCIL ROOM TABLE – We had a condensate leak from above the Council Chambers that did some damage to the table. We cleaned, sanded and stained the entire table.

TREE HOUSE GARAGE – There is an accessory garage on the Tree House property. This building is used for storage for some of their equipment. This building was in disrepair needing foundation work, siding and gutters. Our crew did a great job refurbishing this building.

UNDERGROUND FUEL TANKS – We have two underground fuel tanks at the garage. They need to pass a DEP inspection every three years. There were some changes needed this year that included observation ports at the fill area and upgrades to the leak control system.

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

POOL ELECTRIC – As with the fuel tanks, there needs to be an electrical inspection of the pool property every three years. We knew we were going to have some issues. This biggest item was removing an old electric panel that was in the spring house and running a new electric feed line to the baby pool pump house.

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.

STONE HOUSE POND – The drain pipe for the pond was broken, making it difficult to drain for maintenance. We installed and new drain pipe and valve. While we were working there we also fixed and improved the spillway pillars that were in disrepair.

RETIREMENT – We had two employees retire in 2020. Kevin Lutz who had 35 years of service and Matt Hoffmann who had 40 years of service. Both had a lot of institutional knowledge and will be missed.

## **PARKS AND RECREATION**

The Parks was in a state of flux in 2020. Kevin Lutz retired, Rob Lewis left to take another position and Dan Macrina finished the end of the year as an interim director. Listed below are the general duties and responsibilities of the department.

- Equipment maintenance to mowers and tractors.
- Replacing rotten boards on bridges, railings and benches.
- Staining bridges and railings.
- Erecting and removing signs for recreation events.
- Emptying trash cans throughout the parkland.
- Putting up and taking down Christmas decorations and lights.
- Weeding beds and chemical control of weeds on roadsides, buildings and park areas.
- Cutting back encroaching vegetation on park trails.
- Dead tree removal.
- Maintaining trail surfaces.
- Mulching and spring plantings at Borough Hall, Stone House, pool, fire house and street malls.
- Leaf collection at pool and playgrounds.
- New tree plantings
- Over-seeding malls, ball fields and other lawn areas
- Spring start up and fall shutdown of plumbing at all playground and recreation facilities
- Pool start up and shut down. Cleaning, mechanicals, plumbing, ladders, etc...
- Drain and clean the Stone House pond twice a year.

GRASS CUTTING – From April through October the parks department is continually cutting grass somewhere. The parkland is approximately 380 acres of the finest urban parkland you will find anywhere, some is wooded, some is meadow and some is fine grass. There are some areas that get cut once-a-week, some once-a-month, and still others maybe once-per-year. It all depends on what type of environments we want to encourage. We have four small riding mowers and two tractors with which to do this mowing. We also have an “arm” attachment to do roadside mowing. Even with this in house mowing we still contract out the mowing of many locations including the Boulevard Malls, Library, Borough Hall etc..

## **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 2020 we pruned a total of 1,394 street trees in all sections of the Borough. Of this total, 381 were mature shade trees and 1,013 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 2020 were Parkside Drive North (Park Road to Wyomissing Boulevard), Lafayette Avenue, Timberline Drive, Evans Avenue (Girard to Old Mill Road, school side), Spring Street (Park Road to Crossing Drive) and Warwick Drive (Vista to Tewkesbury Drive). We also did maintenance and safety pruning on selected sections of 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 2021, we plan to concentrate much of our maintenance efforts on Hill Avenue, Cardinal Place, Bluebird Road and the islands on Wyomissing Boulevard.

The pruning numbers above do not include resident requests. We responded to and resolved 156 resident requests in 2020, 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 137 trees removed from the streets of Wyomissing in 2020, 78 were taken down by our own crew and 59 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 two to three 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. We also save a number of 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 149 trees to the streets of the Borough in 2020, which we purchased from three different area nurseries. Of the total number of trees planted, 142 were replacements for trees removed in 2019 and seven were planted on new sites. The five red oaks removed on Wyoming Avenue for the tennis court reconstruction were replaced with five 'Shademaster' honeylocust. 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 2020 were bur oak, 'Shademaster' honeylocust, American hornbeam, sassafras, 'Green Gable' black gum and willow oak.

We didn't include any bare root trees in our plantings again this year, but plan to include some bare root in 2021 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 56 bare root trees we've planted in 2013 and 2014.

**PESTS AND DISEASES** - Historically, there have been few pest or disease problems among our street trees that warranted any major resources to control. In 2020 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. On Windsor Street we removed six green ash and replaced them with a combination of sugar maple and horsechestnut. In June, we continued the tree injection regimen by treating 102 ash trees along Franklin Street, Cherrywood Road, Warwick Drive, Woodland Road, Grandview Boulevard and Margaret Drive. We plan to continue treating more ash trees every spring 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. In fact, there seemed to be 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 2021, 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 2020 Wyomissing received The Arbor Day Foundation's Tree City, USA status for the sixteenth 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 savings. The total of these benefits to the Borough of Wyomissing, according to the i-Tree formulas is \$1,104,215.