

**WYOMISSING PUBLIC WORKS DEPARTMENT
2016 YEAR END REPORT**



This review is written for the interest of council members, citizens and as a matter of record of work performed by the Public Works Department for the year 2016.

The Department is headed by Jim Babb, the Public Works Manager. Under his direction there are four lead people. Marty Ulrich heads the Maintenance Department; Kevin Lutz the Parks Department; Mark McLaughlin the Tree Department; and Kent Robinson the Buildings and Grounds Department. We also have a full-time Mechanic. All told we have seventeen full-time employees. These crews are housed in one of three facilities: the Maintenance Garage located at Fourth and Oley Streets, the Park Barn on Old Wyomissing Road, and the Tree House located off East Park Road in the Wyomissing Hills.

SEWER

SEWER SAMPLING – We sample 27 sewer connections, serving commercial restaurants, twice per year. These samples are averaged, and the results used to surcharge these establishments for high strength waste. This program is now in its tenth year and has helped with maintenance costs in the collection system.

PUMP STATION MAINTENANCE – We have four pump stations and two metering pits. All require regular and emergency maintenance. The pumping stations are located below the Shoppes at Wyomissing shopping center, Wynnewood apartment complex, Fourth and Oley Streets behind our garage and at Evans Ave and Old Mill Road. We drain and clean the wet wells once per year to keep grease and other solids from building up in the wet wells. Three of the four have emergency generators that are exercised and tested monthly. We also drain and replace pump lubricants on a regular basis. The two metering pits are calibrated twice per year. We visit each of the stations every day to log run times and do a visual inspection. In addition to this routine maintenance we had two pump failures at the Berkshire Blvd station. Both were pulled and replaced. We also added a new automatic dialer at this location, the last of the stations to get this upgrade that tracks station operations. At Fourth and Oley we also had to replace a “three way” valve. This valve allows us to isolate each of the two pumps for maintenance reason. This was a large job, we had to shut the station down and truck away the incoming sewage during the operation.

MAIN AND LATERAL BLOCKAGES – We responded to 91 calls for blocked sewers. 86 were at lateral connections and 5 were in our public mains. These numbers are very typical. Most of these blockages are the result of root intrusion into the main or lateral.

CAPITAL SEWER REPAIRS – We contracted out the cleaning and televising of just over 30,000 feet of sewer mains located in the “low end”. This area is bordered by Penn Ave, Wyomissing Blvd, Park Road and Parkside Drive North. In addition, they did 23 point repairs and three man hole to man hole lining runs totaling 1,500’. We provided all construction observation and pay application review.

LATERAL ISSUES – We had many issues with public sewer laterals this year. At 229 Logan Ave the lateral settled and was pitched back towards the home. It had to be dug up and replaced. There were two homes on the 1500 block of Cleveland Ave that shared a lateral that broke off from the main causing back ups. It was 10’ deep. We contracted with Schlouch to dig up the alley and make the repair. We also had three properties with chronic backups due to roots. We tried a new process of lining the laterals that seems to take care of the problem. The locations were 5 Birchwood, 435 Wroxham, and 16 Valley.

OTHER ISSUES – We had a manhole on Cedarwood Road that sank a few inches, causing flow issues. We dug it up and removed it. No sinkhole found. Palmer Candy had an accidental spill of a liquid wax that got into the sewer system. It hardened as it flowed downstream causing major issues. Our crews and a contracted crew flushed and cleaned over 1,000 feet of this hardened wax out of the sewer system.

ROOT CONTROL – Due to the extensive tree cover in the Borough, we get root intrusion into the sanitary sewer. If left unchecked, it causes blockages in the system. We contracted out 11,500’ root control “foaming” this year

SEWER FLUSHING – In addition to the contracted cleaning and televising we also do “in house” flushing. This year we cleaned the drainage area of the Hills that flows to the JMA and finished some of Birdland that we had started earlier.

REPORTS AND CERTIFICATION – We annually fill out three Chapter 94 reports, one for each treatment plant to which we flow. This DEP report contains information on system maintenance, flow and future demand. The City of Reading also requires an additional report as part of their consent decree. We have two certified sewer operators. This DEP mandated certification requires continuing education during a three year cycle.

WATER

VERIO DRIVE METER PIT – The lids on this underground vault that contains two pressure reducing valves were very old and dangerous. It is located in the street at Verio and Meadowlark. Before paving Meadowlark we replaced them.

METER TESTING – Every other year we test the commercial meters of 10 of our largest consumers. We did testing this year and for the first time found two meters that were operating slowly. The 2” meter at the High School and the fire meter at the Inn at Reading.

METER UPGRADING – This was the first year of a long term project to replace all residential meters. This is being done because of changes in meter reading technology and the fact that the current inventory is 15 to 20 years old on average. We replaced 210 meters in the Birdland area that will allow us to “drive by” to get readings as opposed to walking up to each home.

HYDRANT FLUSHING – In May, we flush all of the Wyomissing system fire hydrants. Sometimes this is a team effort involving Fire Department and Maintenance personnel to check fire flows and grease hydrants. Because we were short staffed this year the maintenance department did it solo and did not open every hydrant. Instead we used the 5” connections and just pulled water through the system using heavy flow and using about a quarter of the hydrants.

METER READING – We read industrial and commercial meters once per month (193) and residential meters once per quarter (2,393)

METER MAINTENANCE – When we find a meter is not operating properly we replace it in full or change the electronic head or box. This year we replaced or repaired 67 meters.

HYDRANT REPLACEMENT AND REPAIR – If we find a hydrant is not working properly or gets hit by a car we replace or repair it. We replaced hydrants at Cleveland and Wyomissing Blvd, Old Mill and Tanager, Old Mill and Meadowlark. We repaired hydrants at Cleveland and Clayton, 1300 block of Parkside Drive South and on State Hill in front of Bell Tower. We also replaced a broken valve in Greenwich and Oley streets.

MAIN BREAKS – We had four main breaks. One on Junco Drive, one on Berkshire Ct., one on Tanager, and one in a Right of Way at the Woodland Plaza Apartments

MAIN REPLACEMENT – We did two main replacement projects. The first was Bluejay Drive from Farr Road to Old Mill Road. The second was the replacement of two lines in a Right of Way between Farr Road and Hummingbird Road. The Boro provides inspection services, technical assistance, pay application review and residential communication.

INSTALLATION OF SAMPLING STATIONS – The DEP is changing sampling practices for coliform. This revised total coliform rule requires much more sampling. To make it easier on WBWA who actually pulls the samples, we installed six stations. Some involved piping in existing commercial

pits and some required running pipe from the main to the planting strip and installing a small enclosure to house the station.

LEAD AND COPPER SAMPLING – Every three years we must take lead and copper samples to satisfy DEP requirements. With the recent issue in Michigan, this 20 sample exercise took on a life of its own requiring a sampling strategy plan among other things. We passed!

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 for residents and end users. This report explains water quality, sampling practices, and violations. In conjunction with the Western Berks Water Authority our water is regularly sampled for chlorine residual, disinfection by products, coliform, lead and copper. In addition, this year we supplied a Water Withdraw application. This is done every fifteen years and sets the maximum volume that we can withdraw. We have one certified water operator on staff. This involves taking continuing education during a three year cycle.

MISCELLANEOUS – During the course of the year we hand deliver delinquent notices, shut off water for none payment, get final readings for real estate settlements and respond to customer complaints.

STREETS AND STORM SEWERS

PATCHING – We spend a lot of time each summer milling and patching spots that could become bigger issues in the winter months, or to prolong the life of a street before it would need a complete overlay. We also do permanent restoration to street cuts from main breaks and sewer and storm sewer dig ups. Major areas done this year were Grandview Blvd, Valley Road, Holland Sq., Oriole Dr., Cambridge Ave., Meadowlark Rd., Greenwich St., Vista Rd., 1100 Block of Garfield Ave. For the year we laid 548 tons of blacktop.

STREET SIGNS – We work on street sign maintenance on a weekly basis. This can be anything from planned replacement of dirty or bent signs, to police requests for changed signs, to putting back up posts and signs that are hit by cars.

DEP/MS4 – This directive from the DEP forces us to take action on storm water quality. To satisfy our permit we inspected all of our outfalls for illicit discharges and started the mapping process for drainage basin calculations. We also compiled our annual report. This is in addition

to many many meetings on how to comply with the upcoming permit. I act as chairmen of the Wyomissing Creek Coalition and am a member of the Berks County Steering Committee.

SNOWPLOWING – During the 2015/2016 season we only had four events. Three required salting only, but from Friday January 22nd to Sunday the 23rd we had a 30 inch event. Clean up took well into the next week. We applied for and got PEMA reimbursement money due to the severity of the storm. For the whole season we used 480 tons of salt. An unusually small amount.

LEAF COLLECTION – This is the most labor intensive job we do. We collect with 6 to 7 trucks and pickers at the height of the season. The year went relatively smoothly and we never got behind. We dump our leaves at a transfer station in the Parkland, or at a similar area in Spring Township. We contract with WD Zwicky to haul them from these transfer stations. This fall we collected 10,630 cu. yd. of leaves.

STREET SWEEPING – We run our street sweeper more then most municipalities, due to the heavy tree dirt. It is generally run four days per week, year round unless there is ice or snow in the gutter line. We report the volume of sweeping debris to the DEP for MS4 storm water compliance. We collected 1,300 cu. yds. of street sweepings.

ALLEY MAINTENANCE – All of the alleys in Berkshire Heights are stone and require maintenance in the form of grading or adding stone. There are also a few in the older part of town. We usually go through them once in the spring, and then as needed after heavy rain events.

CAPITAL STREET WORK – This years project was quite extensive. Base repair and overlay streets were North Wyomissing Blvd. from Van Reed Rd. to Seventh Street, Parkside Drive N. from Park Rd. to Wyomissing Blvd., Wayne Ave. from Trent Ave. to Reading Blvd., Meadowlark Rd. from Bluebird Rd. to Verio Dr., Forest Ave. from Penn Ave. to Reading Blvd., Wyomissing Blvd. from Parkside Dr. South to Museum Rd., all of Wyoming Ave. and a small portion of Cheltenham Dr. In addition, there were two roads that required total or partial reconstruction. They were South Park Rd. from Penn Ave. to Wayne Ave., and Timberline Dr. from Greenwood Mall to Pinewood Rd. The Borough provides inspection, pay application review, curb replacement administration and general oversight.

STORM SEWER – During most of the year except for the winter months we clean leaves and debris off of catch basins before and after rain events.

SINKHOLES – We deal with sinkholes on a regular basis. Some are small and just require dirt to fill , others are more extensive and require flowable fill or excavation. Locations this year were, alley behind 1401 Cleveland, 43 Greenwich, 97 Wellington, 1537 Farr, 93 Wellington, Spring Street at Glen Gary, behind the Post Office, and South Park near the Scottish Rite.

We also had a large sinkhole on Abington Drive. This event was caused by UGI and PA American water. The road had to be closed for a few days to excavate and repair. Just after final restoration was done, it opened a second time late fall.

STATE HIGHWAY CLEAN UP – We continued to do spring clean up on Penn Ave and State Hill Road. This includes cleaning up garbage, blowing off islands, weed control and removal of heavy sediment along the curbs.

SIDEWALK PROGRAM – The second year of this program was another success. We replaced approximately 2,800 sq. ft. of sidewalk at 65 locations. The borough administers the program from taking and reviewing applications, field marking locations, customer contact, payment application review, inspection and billing.

MECHANIC – This was the first full year of employment for Jake Kaylor who was hired in 2014. Jake's responsibilities include the maintenance and inspection of over 30 vehicles from the Police Department, Public Works Department and Administration. He also maintains all the back hoes, tractors, leaf pickers and other machinery.

BUILDINGS AND GROUNDS

PLAYGROUNDS – We maintain four Borough-owned playgrounds: Happy Hollow, Berkshire Heights, Memorial Park, and a small one behind the former Hills Borough Hall. These playgrounds also contain four baseball fields. We perform routine maintenance as follows:

- Turn on water supply in the spring and get plumbing working.
- Safety checks and repair of playground equipment.
- Adding or replacing fall zone mulch and sand.
- General grounds clean up of trash, leaves and debris.
- Prep ball field infields for spring play.
- In the fall we shut off water supplies and winterize buildings.
- Clean and perform minor maintenance of tennis and basketball courts.
- Brush cutting.
- During the spring and summer months, we do routine general maintenance including trash pickup, vandalism repair and painting.
- Tennis and basketball court power washing and crack sealing.
- Snow removal at recreational facilities.

POOL - For a three-month facility, the pool needs ten months of maintenance, including:

- Pull and stow pool covers.
- Drain and clean pool floor (acid wash and power wash).
- Make necessary masonry repairs to pool floor and tiles.
- Charge the plumbing in the bathhouse and kitchen, and ensuring all showers, sinks and toilets are in working order.
- Clean bath house and minor painting and repairs.
- Set up lifeguard stands, ladders and railings.
- General removing of sticks, leaves and trash.
- In the spring we just reverse the process.
- During pool season we vacuum the pools on a regular basis, check pool chemistry levels and assist the pool manager with repairs.

STONE HOUSE – We drain and clean the pond twice per year and maintain the ice for skating. We also keep the inside and grounds maintained for public events and rentals.

GARAGE AND BOROUGH HALL – We do general maintenance to these buildings. Change light bulbs, minor electrical work, painting and plumbing.

ADDITIONAL WORK – In addition to this regular routine work we also did the following:

- Removed old playground equipment at the Hills playground and excavated area for new equipment. Also build black top trail for the new area.
- Aerated and over seeded grass at the Hills playground.
- Installed volleyball nets at Hills playground.
- Added rain leaders at pool bath house to take rain water to the street.
- Repaired interior cinder block wall at pool bath house
- Re pointed old stone structure at Stone house pond outfall.

PARKS

ROUTINE MAINTENANCE – The majority of the parks department's time is not really spent on specified projects, but on routine maintenance that is done on an ongoing basis. The following is a list of some of those items:

- 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.
- Fertilize and weed control of baseball fields.
- New tree plantings.
- Over-seeding malls, ball fields and other lawn areas.
- Leaf removal.

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.

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 2016 we pruned a total of 1,278 street trees in all sections of the Borough. Of this total, 435 were mature shade trees and 843 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 2016 were Albright Avenue, Franklin

Street, Crossing Drive and Ridgewood Road. We also made progress in pruning major portions of the 1700 and 1800 blocks of Reading Boulevard. Along the west side of the 700 block of Wyoming Avenue, we trimmed a group of large mature red oaks to facilitate the planned refurbishment of the tennis courts. We constantly monitor high traffic areas with large trees (Penn Avenue, the Boulevards, July 4th parade route, 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 2017, we would like to concentrate much of our maintenance efforts on streets west of Clayton Avenue including Lincoln Avenue, Squire Court and the 1800 block of Reading Boulevard.

The above pruning numbers do not include resident requests. We responded to and resolved 142 resident requests in 2016, 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 of the tree or make it unstable.

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 131 trees removed from the streets and parklands of Wyomissing in 2016, 87 were taken down by our own crew and 44 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.

In 2017 we may have a slight increase in our removal number as we take down a number of mature Norway maple trees along Woodland Road between State Hill Road and Ridgewood Road. These trees have been declining for years and haven't recovered well from the hail storm a couple of summers ago. We feel it is time to take many of these trees out and replace them with species that can thrive in the harsh heat, wind and traffic conditions along that busy stretch of road.

A large amount of firewood is generated in both our pruning and removal operations. This wood is dumped 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 130 trees to the streets of the Borough in 2016, which we purchased from four different area nurseries. Of the total number of trees planted, 128 were replacements for trees removed in 2015 and only 2 were planted on new sites. We respond to residents' requests for street trees as much as our yearly budget allows, but are still catching up on our replacements of trees lost in the two October storms (2011, 2012) and to the Boulevard reconstruction projects.

As part of Wyomissing's Arbor Day Observance, a group of local children helped us plant a dawn redwood at Happy Hollow playground, directly across the promenade from the pavilions. We will be losing two more oak trees at the playground in 2017 due to root damage inflicted during the reconstruction project in 2015 but will continue to replace these trees and any future losses with a mix of oaks and dawn redwoods.

In an effort to further diversify the tree population, we continue to look for unique species and varieties to plant, as well as seeking out different local nurseries to obtain high quality trees at the best prices. Some of the rarer or underrepresented species included in our plantings in 2016 were American hornbeam, willow oak, sassafras and yellowwood.

We didn't include any bare root trees in our plantings again this year. 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 use the next couple of years 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 2016 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.

There is a concern in our region about the approach 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 Berks County, with confirmed sightings in the area of Hamburg, Bernville and I-78. In the fall of 2012 we began a preventative program of pesticide injections to protect native ash trees along the streets of Wyomissing. In May and June 2016, we continued the tree injection regimen by treating 116 ash trees on various streets of the Borough. We plan to continue treating more ash trees every spring into the future until the threat from the emerald ash borer subsides.

MISCELLANEOUS

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

In 2016 Wyomissing received The Arbor Day Foundation's Tree City, USA status for the twelfth 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 Forino Construction to prepare sites for new sidewalk construction. Our involvement and input aided in the installation of new sidewalks adjacent to 54 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 7,660 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.