



PUBLIC WORKS DEPARTMENT

2020 ANNUAL REPORT



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MESSAGE FROM THE DIRECTOR



I am pleased to submit the Department of Public Works' 2020 Annual Report. This annual report communicates the Department's organizational structure, core operations, and service levels by summarizing the organized efforts and diverse functions of the Department. As a Department, we strive to inform the public of all that we do to beautify, maintain, and enhance the functionality of the City.

Reflecting on 2020 amid the Covid-19 pandemic, I would consider our staff's efforts as adaptable and resilient. The Department was able to adjust and incorporate all safety and precautionary guidelines handed down by both the federal and state departments of public health, in order to continue to provide essential services for our residents as well maintaining full operational capacity to respond to any unforeseen emergencies. While some capital improvement projects and activities were delayed due to budget reductions and social distancing requirements, other maintenance projects were accelerated.

Highlights of our adjustments and accomplishments over the 2020 Calendar Year include:

- The Water Division suspended the meter replacement program during Covid-19 restrictions. The Water Division shifted their efforts to infrastructure inspections of hydrants, valves, and B-Boxes.
- The Forestry Division completed a 6-year Reforestation Plan to replace parkway trees lost from ash tree removal due to the Emerald Ash Borer infestation. A total of 3,267 trees were planted during this six-year program. Adams Park was rededicated in September to celebrate the improvement efforts in accordance with the master plan developed in 2018 as well as honoring the service of Mayor Michael Gresk.
- The Sewers Division maintained a split shift for the majority of the year and exceeded their pipe cleaning and structure inspection goals. Additionally, employees were trained with new methods in pipe repair to ensure watertight seals and prevent future damage to structures.
- City crews responded to an F-1 Tornado in August resulting in storm damage to property and trees.

On behalf of the Department, we thank the community, elected officials, City Manager, and other City Departments and their staff for their support. The City of Wheaton Department of Public Works is truly dedicated to fulfilling our mission to "...practice integrity, tolerance, and respect to enhance the quality of life for the entire community by efficient management of infrastructure and resources through innovation and best practices."

Vincent-Jay G. Laoang, PE
Public Works Director



MISSION STATEMENT

The City of Wheaton Department of Public Works pledges to practice integrity, tolerance, and respect to enhance the quality of life for the entire community by efficient management of infrastructure and resources through innovation and best practices.

VISION

To uphold and accomplish our mission with dignity, humility, and transparency so that the citizens of Wheaton and professional peers view our Department as a model for premier and industry-leading municipal service.

CORE VALUES

Teamwork

We value our workforce and strive to ensure that they are well trained and well informed, respect our customers and fellow workers, and display commitment and professionalism.

Flexibility and Creativity

We seek innovative means to accomplish our mission, vision, and goals.

Communication

We practice active listening and encourage diverse points of view.

Accountability

We are dedicated to fiscal responsibility and transparency in the use of public funds and the delivery of municipal services.

1 TEAM

6 DIVISIONS



Administration
Division



Forestry
Division



Street
Division



Sewer
Division



Water
Division



Fleet
Division

The City of Wheaton Public Works Department is responsible for providing public services to citizens in a variety of areas to ensure that Wheaton is a clean, safe, and enjoyable place to live.

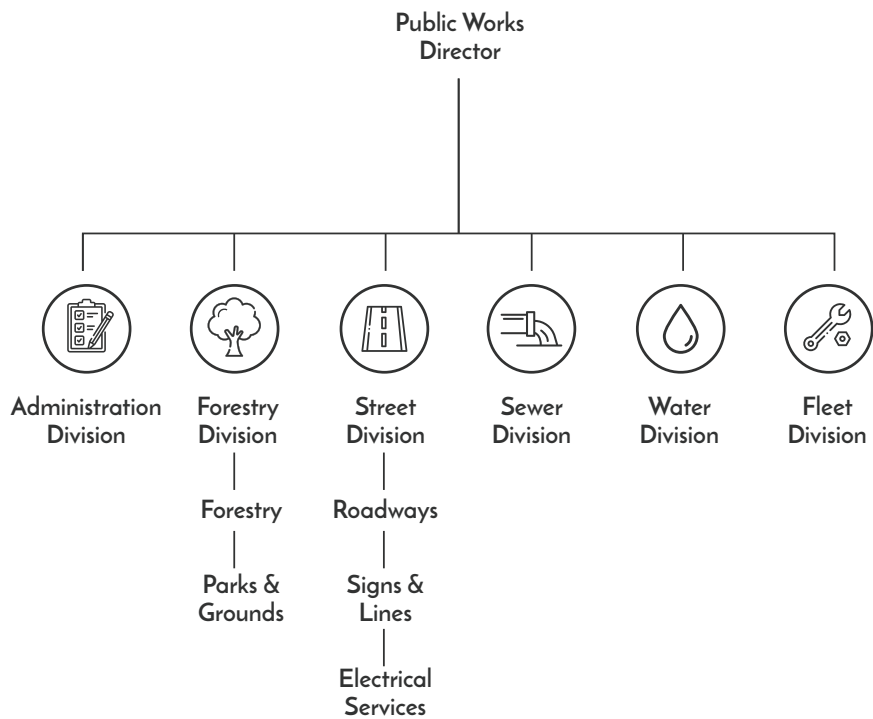
To help maintain public safety during emergency situations, the Department also provides resources, heavy equipment, snowplows, barricades, pumps, generators, and personnel as needed.

The Department is divided into six divisions in order to efficiently deliver these services: the Administrative Division, the Street Division, the Forestry Division, the Sewer Division, the Water Division, and the Fleet Services Division.

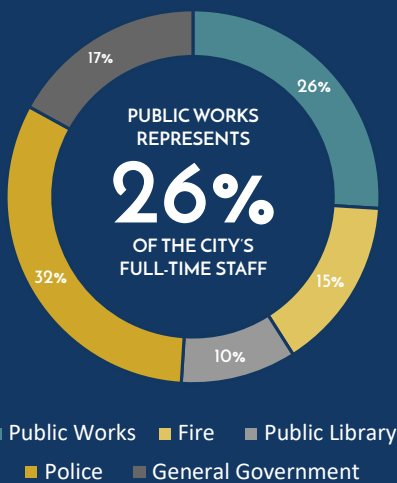
ORGANIZATIONAL CHART

KEY PERSONNEL

- Vince Laoang**
Public Works Director
- Susan Wallace**
Administrative Superintendent
- Kevin Maloney**
Forestry Superintendent
- Sean Walsh**
Superintendent of Sewers
- Nathan Plunkett**
Streets Superintendent
- Al McMillen**
Water Superintendent
- Sam Webb**
Fleet Maintenance Superintendent



EMPLOYEE OVERVIEW & HIGHLIGHTS



RETIREMENTS

Tim Daniels
Street Maintenance Specialist
32 Years of Service

Chris Fisher
Sewer Maintenance Specialist
32 Years of Service

ANNIVERSARIES

15 Years of Service
Rocco Saniacomo, Sewer Division

20 Years of Service
David Tilsk, Streets Division
Gregory Gadzinski, Streets Division

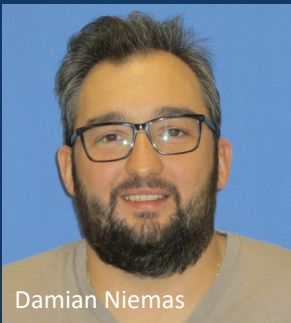
Jon Hostetler, Streets Division
Ryan Bustin, Forestry Division
Tom Gantz, Streets Division

25 Years of Service
Kevin Maloney, Forestry Division

30 Years of Service
Jeffrey Doy, Streets Division
Michael Goist, Streets Division
Scott McClain, Forestry Division

NEW HIRES

Damian Niemas
Sergio Sanchez
Greg Spencer



CITY OF WHEATON 2020-2025 STRATEGIC PLAN

The City's Strategic Plan serves as a roadmap to guide decision-making by the City Council. It is comprised of priorities that reflect the desires of Wheaton residents and property owners and highlights the areas of focus that have been determined essential to preserving the City as a premier community in the region. Wheaton's plan for the future is based on the following five strategic priorities:

Financial Stability

- Control expenditure increases over a five-year period
- Maintain structurally balanced budgets, striking balance between operating expenditures and infrastructure investment
- Effectively communicate information about City finances to the community
- Maintain fund balance reserves based on established policy targets

Enhanced Infrastructure

- Decrease overland flooding into primary structures
- Decrease sanitary sewer backups
- Establish annual investment and operating targets to maintain City's infrastructure

Responsive & Efficient Service

- Prioritize essential services for the City of Wheaton
- Identify key performance indicators to track service delivery levels for operating departments

Community Safety

- Continue to prioritize the health, safety and welfare of the community
- Increase partnerships that focus on the health, welfare and safety of Wheaton residents
- Increase community outreach concerning safety and security issues

Environmental Sustainability

- Develop policies and create programs that preserve the natural environment



DEPARTMENT OPERATING BUDGET

The Public Works Department's operating budget for CY2019 totaled \$30,022,095 with capital improvement projects included. The City's General Fund finances the Administration, Street, and Forestry Divisions. The Water and Sewer Divisions are funded by revenue generated from metered water sales. Various departments fund the Fleet Services Division through vehicle usage fees.

FLEET: \$3,500,524

SEWER (STORM): \$1,705,189

SEWER (SANITARY): \$1,971,111

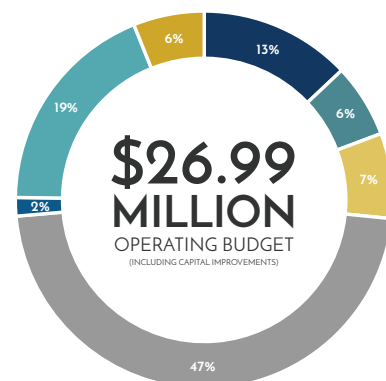
WATER: \$12,697,246

ADMINISTRATION: \$426,749

STREET: \$5,052,402

FORESTRY: \$1,639,785

TOTAL: \$26,993,006



- Administration
- Forestry
- Street
- Sewer (Storm)
- Sewer (Sanitary)
- Water
- Fleet

CAPITAL IMPROVEMENT PROJECT BUDGET

Capital Improvement projects include scheduled maintenance activities, design and implementation of upgrades and improvements for optimum infrastructure sustainability.

FLEET: \$192,700

SEWER (STORM): \$325,000

SEWER (SANITARY): \$607,800

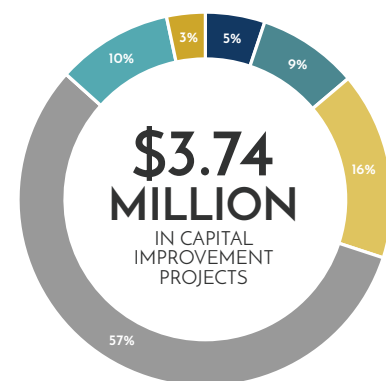
WATER: \$2,119,725

ADMINISTRATION: \$0

STREET: \$375,000

FORESTRY: \$125,000

TOTAL: \$3,745,225



- Administration
- Forestry
- Street
- Sewer (Storm)
- Sewer (Sanitary)
- Water
- Fleet



Administration Division

42

training sessions
provided

11,575

invoices
processed

2,787

service requests
answered

The Administrative Division of Public Works oversees the administrative functions, long-range planning and resources allocation of the Public Works Department.

2020 ACCOMPLISHMENTS

Goal: Continually work on improving operations through identifying opportunities to enhance performance and reduce costs.

Status: Conducted a review and evaluation of Contractual Services. Bids, contracts, or purchases for projects authorized were completed within budgeted fiscal year.

Goal: Enhance department effectiveness through the development of personnel.

Status: Continue to monitor Tier II Employee development and cross training requirements. One employee promoted to Maintenance Specialist.

OTHER ACCOMPLISHMENTS

- Manage Department Covid-19 response. Ensure safe work environment for employees and visitors

ORGANIZATIONAL CHART



Dispatcher

Administrative
Superintendent

Administrative
Assistant





Forestry Division



19,847

trees maintained
in City's rights-of-way

24

acres of open spaces,
parks, & rights-of-way
routinely mowed

18,000+

plants maintained
throughout City

70+

seasonal flowerpots
& beds maintained in
downtown & gateways

The Forestry Division's staff of certified arborists (Forestry) and horticulturalists (Parks & Grounds) take pride in keeping Wheaton a safe and attractive place to live. Forestry crew maintains more than 19,800 trees in the City rights-of-ways and other public open spaces. They are responsible for planting, pruning, and scheduled removals of the urban tree canopy.

The Parks & Grounds crew cares for planting areas, flower pots, bushes, and turf in all city rights-of-way, public grounds and parking lots. Approximately 24 acres of landscaped areas require mowing, trimming, and planting. Many sites have landscape features to maintain. Adams Park is the only park owned and maintained by City crews.

Other areas maintained include the Central Business District amenities, street furniture, planters, seasonal holiday lightings and decorations. The Division crews respond to storm-damaged trees after inclement weather and support the city-wide snow removal operations.

ORGANIZATIONAL CHART



Forestry
Superintendent

Supervisor (2)

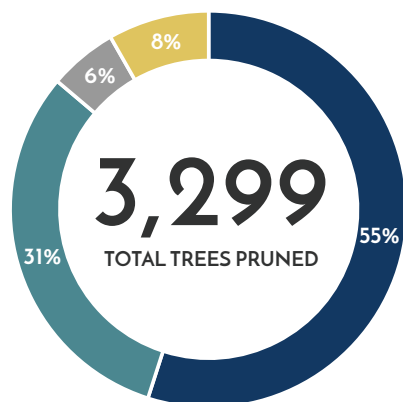
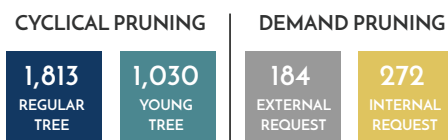
Maintenance
Specialist (3)

Maintenance
Worker (4)



TREE PRUNING

A total of 3,299 trees were pruned in CY2020, including 456 trees were pruned by request, either by residents or other City Departments. 2,843 trees were addressed through a cyclical pruning cycle. It is the goal of the Forestry Division to inspect and prune all City-owned trees on a seven-year trim cycle. Routine pruning promotes proper growth habits and future development of the tree. Regular pruning ensures a healthier, safer urban forest.



EXCEEDED ANNUAL TREE PRUNING GOAL BY 24%

TREE REMOVAL

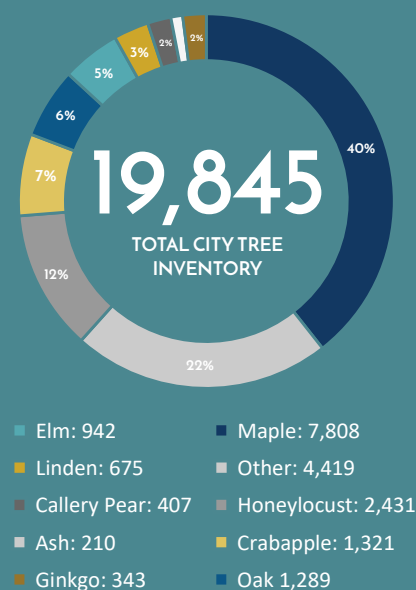
Staff removed 345 trees in CY2020 that were either dead or diseased. A total of nine infected Ash trees were removed through Public Works. The 207 remaining Ash trees may have been treated by the property owner or are considered healthy and will be monitored to determine if removal is warranted.

REFORESTATION PROGRESS

Due to the devastation of the Emerald Ash Borer infestation 6,000 ash trees were removed throughout the City. In 2015, a Reforestation Program was initiated to replace trees where suitable. The program was completed in 2020 with a total of 3,269 trees replanted. As a result, the City's tree inventory is more widely diverse, minimizing the impact of future diseases or infestations on the tree population.

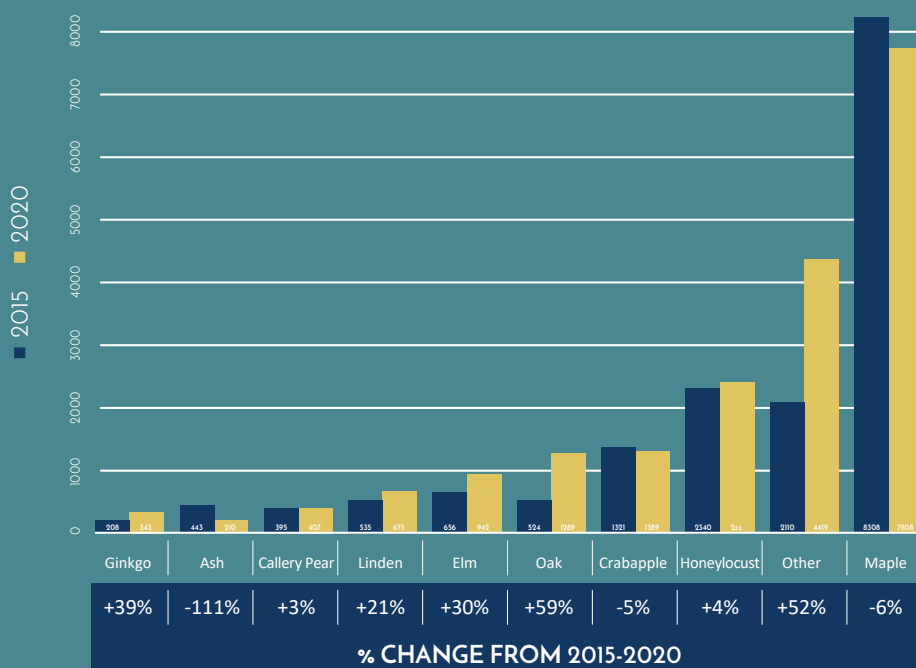
The largest population of trees, Maple, has been reduced from 49% to 39% of the total tree population. Over this same period, "Other" trees, a category that is made up of a wide variety of species with smaller populations, has increased from 12% of the total tree population to 23%. The diversity of all tree species is presented below.

2020 CITY TREE INVENTORY



15% INCREASE OF CITY TREE INVENTORY SINCE 2015

CITY TREE INVENTORY 2015 & 2020



PARKS & GROUNDS

Staff maintains and enhances City owned properties to be both safe and aesthetically pleasing. In addition to the landscapes surrounding City parking lots, the division maintains 24.6 acres of open space and public rights-of-way. These areas include the Central Business District and Adams Park. Crews also provide the following services:

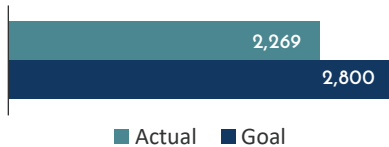
- monitor and maintain the streetscape inventory of plants and trees
- provide mulching
- apply pesticide & herbicide at Adams Park, municipal owned parking lots, sewer lift stations and other areas
- pickup trash and water plants in the CBD and citywide
- mow lawns in Adams park, the CBD and City rights-of-ways



2020 ACCOMPLISHMENTS

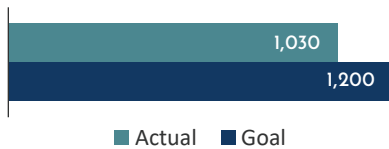
Goal: Tree Cycle Pruning Program established on a seven-year cycle for mature trees with an annual goal is to prune 2,500 trees.

Status: Pruned 1,945 trees, including both cycle and demand pruning programs. Contractor Services limited to 324 trees pruned due to Covid-19 expenditure reductions.



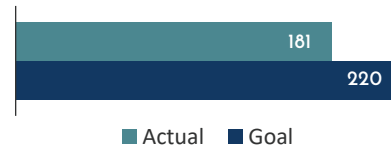
Goal: Young Tree Cycle Pruning established on a three-year cycle. Prune trees planted in 2013 through 2016 – estimate 1,200 trees.

Status: Young Tree Cycle Pruning reached 1030 trees pruned.



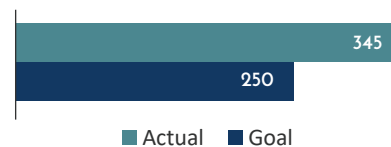
Goal: Final year of the Reforestation Plan plant up to 220 trees as determined by available suitable sites.

Status: Completed a six-year Reforestation plan planting the final 181 trees in the spring. 3,269 trees were replaced during project.



Goal: Tree Removal Program to address dead, diseased, or hazardous trees from the City rights-of-way – estimate 250 trees to be removed.

Status: Removed 345 dead, diseased, or hazardous trees from City rights-of-way.



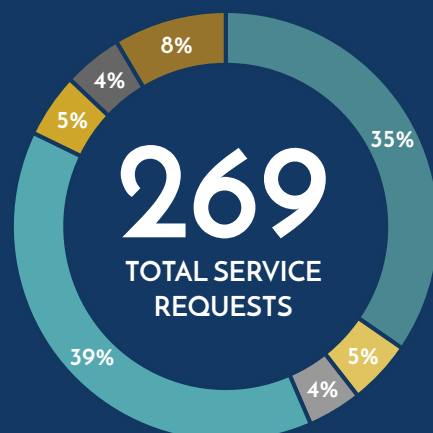
OTHER ACCOMPLISHMENTS

- Adams Park re-dedication of renovations in accordance with Master Landscaping Plan.
- Planted 118 trees through Shared Cost Tree planting program.
- Responded to August 10 - F1 tornado addressed whole trees down in the street, tree limbs on wires, trees on homes and a city-wide clean-up collection and removal.
- Address maintenance and restoration needs in public works facility, parking lots, lift stations, generator areas, and open spaces.
- Holiday Tree Lighting installation completed by city crews.
- Named Tree City USA for the 34th consecutive year.
- Continued Certification training for Certified Arborists on staff (4).



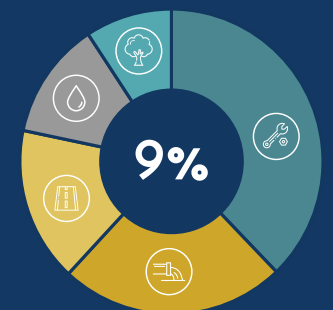
The Forestry Division annually hauls approximately 2,200 yards of mulch and 700 yards of logs. A large storm on August 10, 2020 generated approximately 1,700 cubic yards of mulch.

FORESTRY DIVISION: SERVICE REQUESTS



- Parkway Tree Maintenance: 104
- Storm Damage: 93
- Graffiti: 13
- Inquiry: 13
- Forestry & Grounds Other: 12
- Repair: 11
- Other: 23

(Accident with Damage to City Property, Clean up, Mailbox Damaged by Snow Removal, Parking Garage Maintenance, Accumulated garbage or debris, Remove, Tree Planting)



9% OF TOTAL PUBLIC WORKS DEPARTMENT SERVICE REQUESTS WERE FOR THE FORESTRY DIVISION



Street Division

166.3

centerline miles of
roadways maintained

10,000+

miles of roadways
swept annually

4,000+

potholes repaired
annually

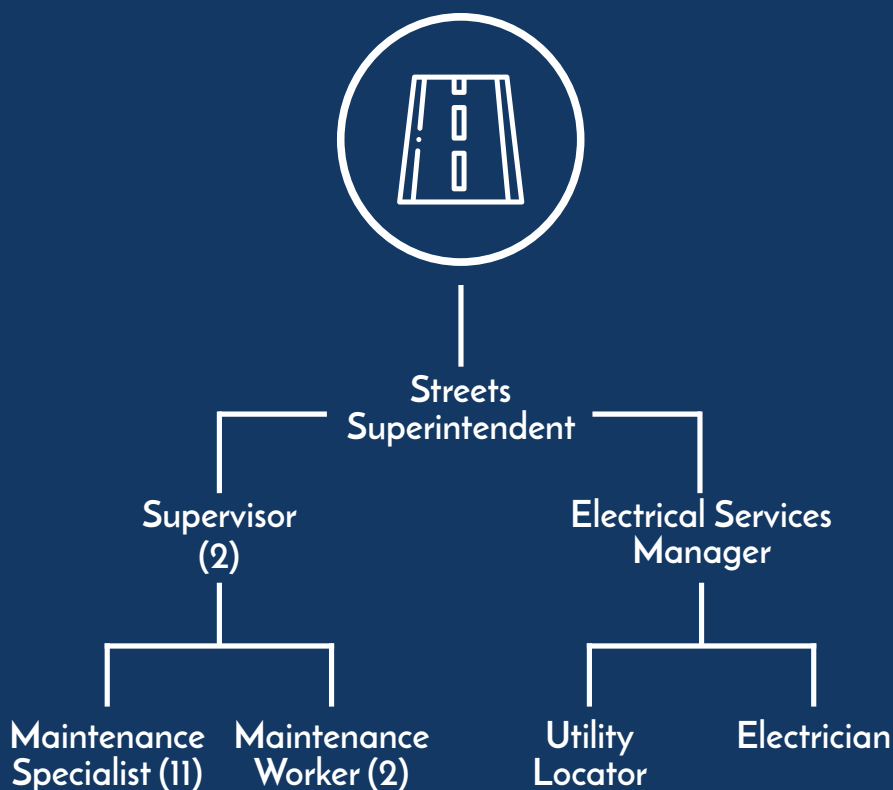
150+

residential & commercial
driveway inspections

The Street Division is responsible for many maintenance activities related to the City's streets, rights-of-way, and public facilities. The City of Wheaton has 166.3 centerline miles of roadways. The division also ensures compliance with federal, state and local regulations in all three of its sub-sections: Roadways, Signs and Lines, and Electrical.

The Roadways Section is charged with pavement maintenance, street sweeping, snow and ice control, alley maintenance, and miscellaneous waste disposal. The Signs and Lines Section installs and maintains all signs, pavement markings, and special event barricading. The Electrical Section maintains all pumps, generators, streetlights, civil defense sirens, and traffic signals. The Street Division also conducted inspections for 373 residential and commercial driveways in 2020.

ORGANIZATIONAL CHART



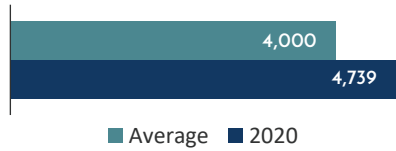
ROADWAY MAINTENANCE

Roadway maintenance in the City of Wheaton is truly a collaborative effort between Public Works and the City’s Engineering Department. The Engineering Department evaluates and monitors the condition of the City’s infrastructure, including streets, to then plan construction and capital improvement projects. The City’s in-house Roadways Maintenance Program aims to maintain or increase the overall condition of City streets. Staff implements the recommendations from the Engineering Department and sets them into action. This is done by developing and implementing project management tools and allocating in-house resources to complete projects.

MAINTENANCE METHODS

Maintenance procedures are used to repair and prolong the life of the City’s roadways.

Cold Patches: Potholes are filled in year-round both proactively and in response to resident reporting. The cold patch method is a temporary fix until a more extensive form of repair is scheduled for that portion of the street. An average of up to 4,000 potholes are repaired annually. In 2020, the Streets Division repaired 4,739 potholes.



Crack Fills: Filling or sealing cracks is important to roadway maintenance because it reduces the ability of water and other incompressible materials to enter the pavement surface that would otherwise accelerate deterioration. The application of hot-applied crack fill can extend pavement life from six months to four years.

Surface Sealing & Restoration: Gilsonite sealer-binder (GSB) is a sealing agent applied to roadways after they are constructed or repaired. Treating a roadway with GSB extends the life of the

pavement by reintroducing oils and resins lost to UV Rays, oxidization, temperature swings, and precipitation. Crews initially treat pavement one year after installation, and ideally reapply every five years.

Resurfacing/Overlay: From early May until late fall, a major component of street maintenance includes resurfacing roads throughout the City, which includes milling (grinding) street segments and re-paving them. The following criteria are used to prioritize streets for resurfacing each year.

- Date of last major rehabilitation
- Trends and observations of past roads maintenance
- Location proximity to arterials, collectors, or school-adjacent streets
- PCI score
- Areas identified by staff and/or residents
- Conflicts with the Water Main Replacement Program

PRO-ACTIVE PAVEMENT MANAGEMENT

Wheaton’s roadways are assessed every three years to determine their, and the total street system’s, pavement condition index (PCI). PCI scores provide an approximation of a street’s physical condition and help to prioritize road maintenance. In 2020, the Streets Division performed 2.14 miles of asphalt overlays, and performed 2.37 miles of asphalt patching.

2.14
miles of
asphalt
overlays

2.37
miles of
asphalt
patching

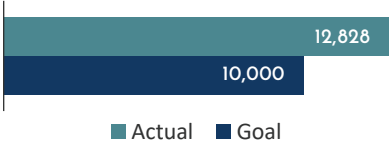
STREET SWEEPING

All City streets are swept monthly between May and September to control litter, leaves, and any environmental contaminants found in the gutter line. Concentrated sweeping occurs during the leaf season to address falling leaves and early spring to remove any debris buildup caused by snow removal efforts.

Street sweeping serves three important functions:

- Removes leaves and tree debris that naturally fall into the public right-of-way.
- Improves water quality by reducing the pollutants that accumulate in the street and infiltrate stormwater.
- Improves the appearance of streets and parking lots and contributes to the overall appearance of the City.

The City’s two mechanical sweepers perform all regularly scheduled street sweeping, while the vacuum sweeper is used primarily to clear millings during pavement resurfacing and reconstruction. The division maintains an aggressive sweeping program to ensure a minimum of 10,000 miles is swept each year. In 2020, the Streets Division swept 12,828 miles of the City’s streets.



SNOW AND ICE CONTROL

The City of Wheaton maintains approximately 165 miles of streets along with 270 dead-end streets and cul-de-sacs divided into 16 specific snow plow routes as part of its snow removal operations.

In 2020 the Division responded to 21 snow events that produced a total of 42.2 inches of snow. A total of 2,863 tons of treated salt was used on the City’s streets.



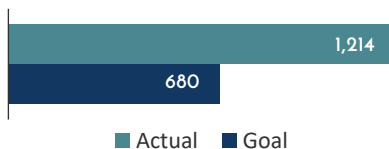
The Street Superintendent and four supervisors from the Street, Sewer, and Forestry divisions coordinate to ensure that snow is efficiently removed from roadways, parking lots, sidewalks, and facilities. If necessary, this may also be accomplished with assistance from private contractors.

Staff utilize several salt reduction practices and annually calibrate vehicle salt

spreaders to distribute the compounds efficiently. These materials and practices allow staff to respond effectively to the variety of weather conditions winter brings and use less salt overall.

SIGNS

The City's maintains a total of 10,743 signs include roughly 6,054 regulatory signs, 1,392 warning signs, 2,017 guide signs, and 1,280 other signs. Maintenance includes the design and fabrication; installation; assessment of condition and reflectivity; and sign removal. In response to FHWA regulations requiring all municipalities develop a sign maintenance plan that maintains the minimum requirements for sign retro reflectivity, staff have implemented a 15-year cycle sign replacement program that aims to replace 680 signs annually. In 2020, the Streets Division replaced 1,214 signs.



PAVEMENT MARKINGS AND STRIPING

The City maintains approximately 78 miles of traffic lines, and more than 1,916 pavement markings. Pavement markings are currently contracted out by the Department. Pavement markings include arrows, stop bars, crosswalks, handicap

parking, and text that are applied to the roadway. Roadway striping is typically replaced on either an annual or two-year cycle. These markings include roadway edge lines, lane lines, parking spaces, turning lanes, and centerlines that use a water-based, retroreflective latex paint.

SIDEWALK REPLACEMENT PROGRAM

The City of Wheaton is responsible for the maintenance and replacement of public sidewalks. The City systematically surveys public sidewalks to identify defective and deteriorated sections that create a potential hazard. These surveys are conducted in a different geographic area of the City each year to determine which portions of sidewalk in each area will be addressed with the funds available each year.

ELECTRICAL SERVICES

Staff maintains 2,796 streetlights, 9 civil and defense and weather sirens, traffic signals at 14 intersections, 6 school zone warning flashers. Staff also inspect or maintain key electrical components of the City's emergency generators, sewer lift stations, and transfer switches. Staff are also responsible for replacing faulty underground cable, repairing controller issues, repairing damaged or knocked down streetlights, conducting JULIE locates, and performing monthly testing of the City's generators, pumps, and civil defense sirens.

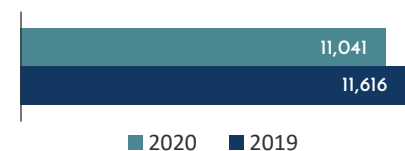
In 2020, Electrical Services re-lamped 100 streetlights, replaced 76 high pressure sodium (HPS) streetlight fixtures with energy efficient LED lights, and replaced 11 streetlight poles that were knocked down.



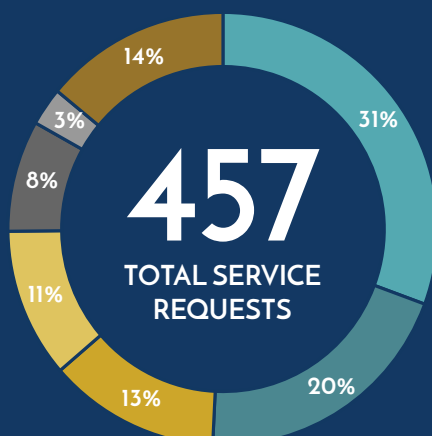
JULIE LOCATES

Performing JULIE (Joint Utility Locating Information for Excavators) locates is an essential customer service function. Locates are undertaken by Electrical with assistance from both Water and Sewer. When area residents or service providers plan to dig in Wheaton, they are required to call JULIE.

In 2020, staff responded to 11,041 JULIE requests by locating and marking underground City utilities in the right-of-way before excavation or other digging activities commence. The quantity of locates performed are dependent on annual construction and utility provider activity.

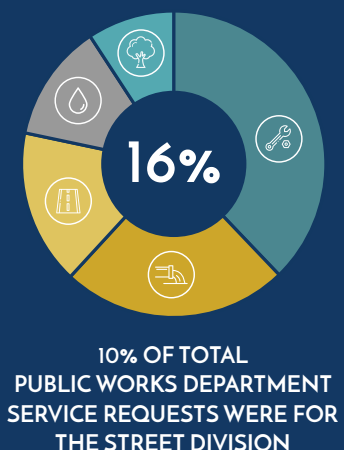


STREET DIVISION: SERVICE REQUESTS



- Signshop: 140
- Streetlight Out: 92
- Sidewalk Problems: 59
- Potholes: 51
- Accident w/ Damage to City Property: 38
- Repair: 13
- Other: 64

(Broken Parking Meters, Clean up, Covid-19 Merchant Tents, Emergency Locate, Missing/Damaged Sign, Replacement)





Sewer Division

168.3

miles of sanitary
sewers maintained

175.4

miles of storm
sewers maintained

160+

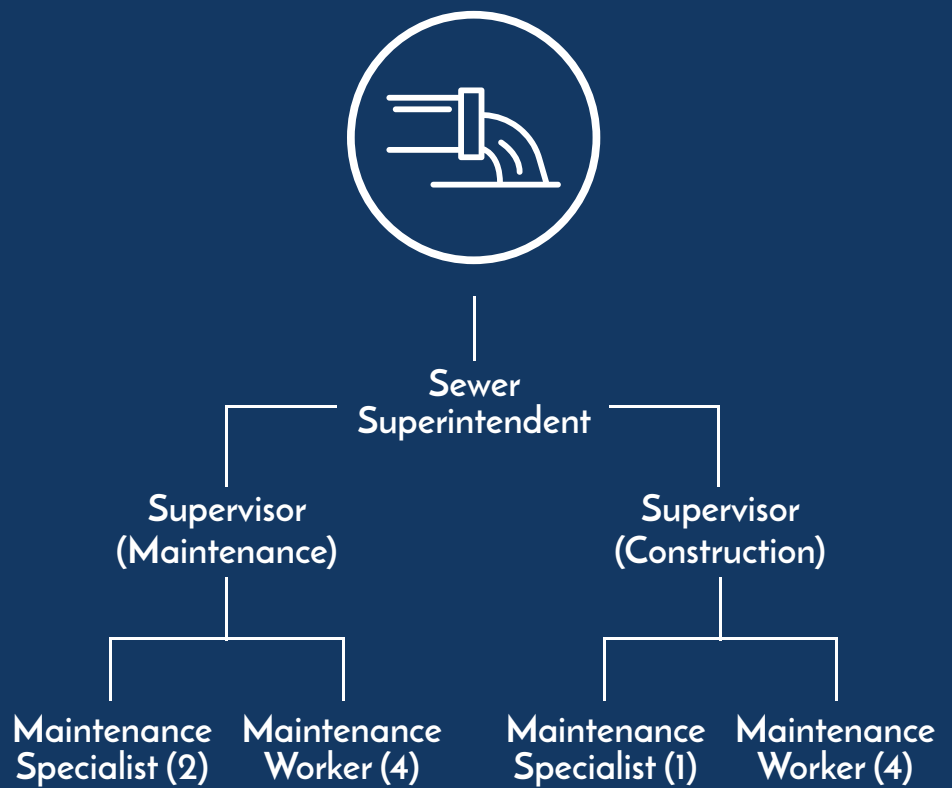
retention ponds
maintained

5,870

catch basins
maintained

The Sewer Division is responsible for providing uninterrupted service to all residents served by the City's sanitary and storm sewer systems via proactive maintenance and repair programs. These services are maintained through investigation, inspection, evaluation, and analysis of the systems' long and short-term needs. The Division maintains 168.3 miles of sanitary sewer, 175.47 miles of storm sewer, more than 160 retention ponds, six sanitary lift stations, two storm lift stations and 5,870 catch basins, and over 7 miles of creek channel. The Division performs limited maintenance of the creek channels within the City limits. The City is only responsible for maintaining the creek sections within public right of ways and drainage easements. The Division responded to over 88 emergency locates called into J.U.L.I.E. during the calendar year. In conjunction with the Road Program, the Division also inspects, repairs, and replaces manholes. Sewer personnel assist with snow removal operations, storm events, and other cross-divisional functions as needed.

ORGANIZATIONAL CHART



"New methods and technologies are continually evaluated and implemented to accomplish the Division's maintenance, repair, and response goals and to provide excellent service to the City's residents.

In 2020, the Sewer Division improved its catch basin and structure infrastructure by using improved methods to increase asset longevity.

For example, the Sewer Division purchased a core machine in order cut a perfectly centered hole for pipe intrusion into the structures. The coring process allows the Sewer Division to install a direct drive connection which enables a water tight seal, preventing intrusion and further damage to the sewer structures."

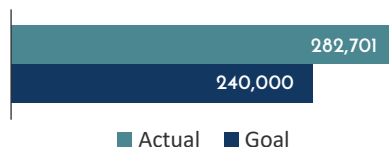
Sean Walsh
Superintendent of Sewers

SEWER DIVISION: SANITARY

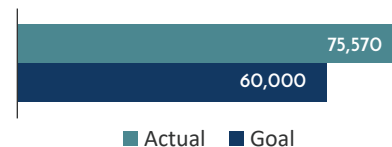
Wheaton's sanitary sewer system carries wastewater from bathrooms, sinks, kitchens, and other plumbing fixtures to a wastewater treatment plant, where it is treated and released. Staff provide proactive and emergency maintenance to the sanitary sewer system in pursuit of the following goals: maintaining the system's capacity, providing uninterrupted service, and reducing sanitary sewer overflows. These goals are outlined in the Division's EPA-mandated Capacity, Management, Operation, and Maintenance (CMOM) plan. Staff regularly clean the sewer pipes

to prevent buildup and inspects them for defects with closed circuit television equipment. The annual cleaning goal of sanitary sewers is 240,000 feet of pipe, or 27% of the total system. Staff exceeded this goal by cleaning 305,866 feet of sanitary sewer which is 34.5% of the total system. The annual televised inspection goal of sanitary sewer lines is 60,000 feet of pipe, or 6.7% of the total system. Staff surpassed this goal by conducting 74,486 feet of inspection which is 8% of the total system.

CLEANED 34.5% OF CITY SANITARY SEWER SYSTEM



INSPECTED 8% OF CITY SANITARY SEWER SYSTEM



SEWER DIVISION: STORM

Storm sewers carry rainfall runoff and drainage from storm drains to local streams, rivers, detention and retention ponds, and other bodies of water. Staff maintain the storm sewer system by regularly cleaning the pipes to prevent buildup and inspecting them for defects with closed circuit television equipment. The cleaning goal for the calendar year is 143,000 feet of pipe, which is 15.4% of the total system. Staff surpassed the goal by cleaning 195,505 feet of storm sewer pipe which is 21% of the total system. The annual televised inspection goal for the system is 65,000 feet of pipe, which is 7% of the total system. Staff exceeded their goal by conducting 73,495 feet of televised inspections which is 8% of the total system.

Catch basins are structures that drain water from streets and low-lying areas. They are designed to collect debris and sediment; preventing them from entering the storm sewer system where they could cause blockages or be carried to local receiving waters. Staff maintains approximately 5,870 catch basins through regular cleaning, repairing, and replacing when necessary. Staff's yearly cleaning goal of 1,800 catch basins assures that basins are cleaned on a four-year cleaning cycle. In CY2020, staff cleaned 2,290 basins, repaired 128 basins, and replaced 36 basins.

195,505
feet of storm
sewers cleaned

73,495
feet of televised
inspections performed

2,290
catch basins
cleaned

2020 ACCOMPLISHMENTS

(Sanitary) Goal: Reduce basement backups and Sanitary Sewer Overflows.

Status: Reimbursed approximately \$8,500 to homeowners (3) participating in the Overhead Sewer Private Property Protection Program and approximately \$10,000 to homeowners (5) participating in the Sanitary Sewer Service Line Reimbursement Program. Completed restorations in 5 locations which included street, sidewalk, curb repairs, and landscaping where necessary. Achieved 100% of our maintenance/cleaning goals.

(Sanitary) Goal: Maintain Quality Infrastructure.

Status: 10 sanitary manholes were replaced, and 15 sanitary manholes were repaired. Inspected over 500 sanitary structures and replaced 35 feet

of sewer pipe. Completed over 240,000 feet of sanitary sewer cleaning and over 60,000 feet of sanitary sewer televised inspections. Averaged a response to over 650 calls for service by residents and businesses in 2020.

(Storm) Goal: Maintain Quality Infrastructure.

Status: Replaced over 35 catch basins, a 49% increase from 2018, and repaired over 130. Completed 145,00 feet of storm sewer cleaning, 65,000 feet of storm sewer televised inspections and cleaned 1,785 catch basins. Responded to over 600 residential calls for service by residents in 2020.

(Storm) Goal: Efficient and Effective Services.

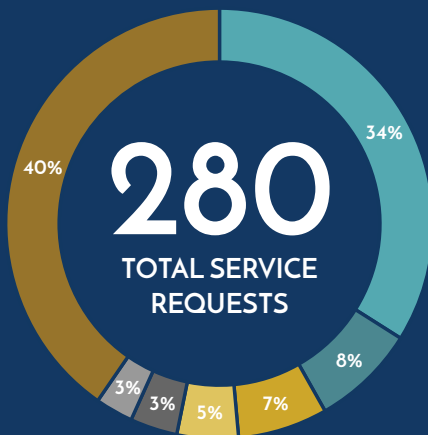
Status: Launched a program tracking storm sewer and catch basin cleaning to prevent unnecessary cleaning redundancy. Accomplished 100% of our target goals. Staff training at Local 150 training facility and attends of workshops and seminars.

OTHER ACCOMPLISHMENTS

- Staff training at Local 150 training facility and attended workshops and seminars.
- Toolbox Talks with the crew educating them on new practices to gain efficiency in underground utilities
- Purchased secondary Vacor / cleaning truck allowing crews to jet rod sewers, clean catch basins, and perform hydro excavations.

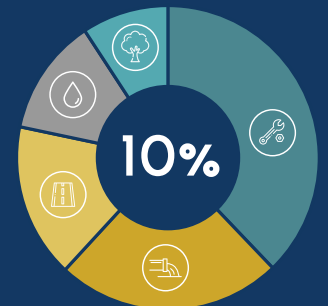
SEWER DIVISION: SERVICE REQUESTS

SEWER DIVISION: STORM



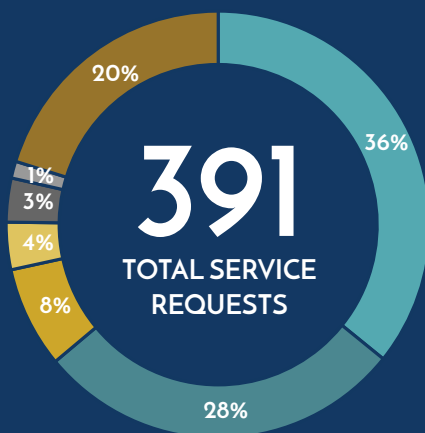
- Street Flooding: 95
- Surface Failure (Sinkhole): 22
- Main Sewer Stoppage: 19
- Emergency Locate: 13
- Investigation/Evaluation: 10
- Customer Response: 8
- Other: 113

(Customer Response, Debris Affecting Drainage, Private Sewer Stoppage, Structural Failure, Unfounded, Misc.)

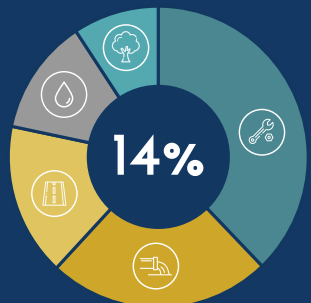


10% OF TOTAL PUBLIC WORKS DEPARTMENT SERVICE REQUESTS WERE FOR THE SEWER DIVISION (STORM)

SEWER DIVISION: SANITARY



- Private Sewer Stoppage: 140
- Investigation/Evaluation: 110
- Main Sewer Stoppage: 30
- Misc.: 14
- Emergency Locate: 13
- Odor: 5
- Other: 79



14% OF TOTAL PUBLIC WORKS DEPARTMENT SERVICE REQUESTS WERE FOR THE SEWER DIVISION (SANITARY)



Water Division

230

miles of water lines
maintained

4.5

million gallons of
water supplied per day

53,000+

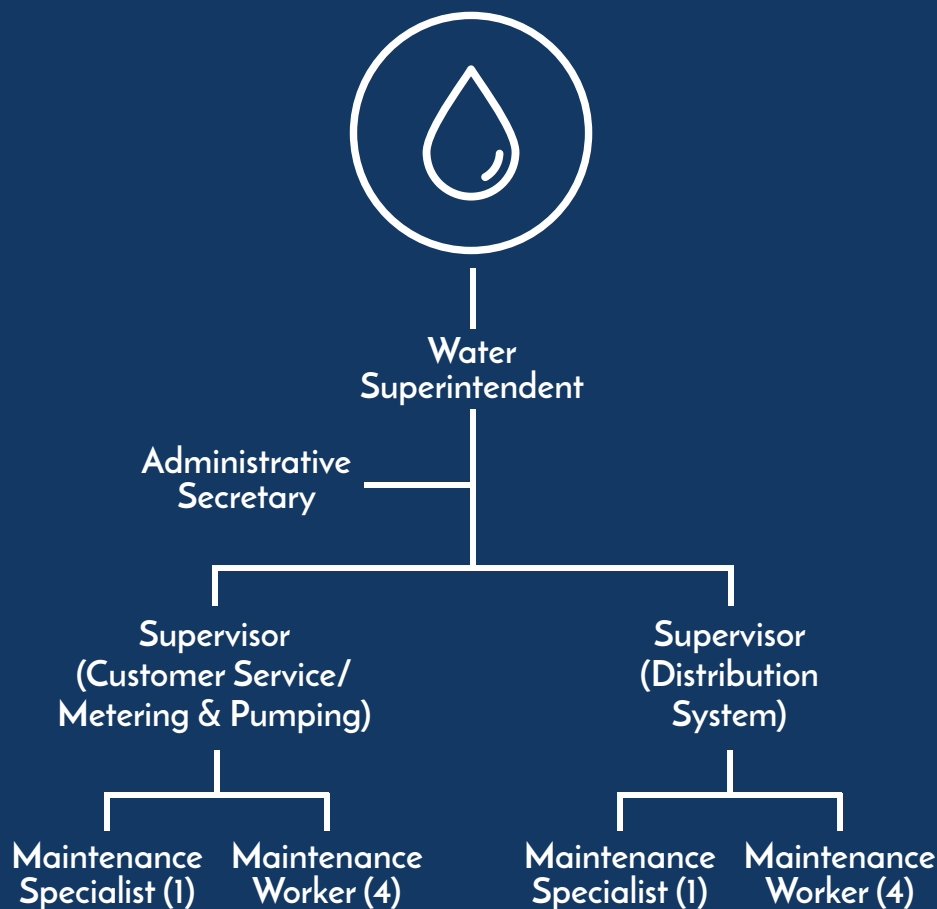
residents, businesses,
and visitors

168

hours (24/7) of staff
availability per week for
emergencies

The Water Division ensures the reliable operation of the City's waterworks system and provides a high-quality supply of drinking water at sufficient pressure and affordable prices. This is done by balancing cost-effective services with sound environmental responsibility. The Water Division is responsible for the operation, maintenance, and repair of City-owned waterworks infrastructure, including 230 miles of water line, and the supply, treatment, storage, distribution, and testing of the drinking water. The City supplies an average of 4.5 million gallons of water per day to more than 53,000 residents, businesses, and visitors. The Water Division staff is available 24 hours a day, 7 days a week for emergency response to water main breaks, emergency utility locates, and any other water-related emergencies.

ORGANIZATIONAL CHART



WATER QUALITY

The Water Division must meet specific guidelines for drinking water quality as established by the United States and Illinois Environmental Protection Agencies (EPA) and the Safe Drinking Water Act (SDWA). In 2020, the Division collected the following samples:

DISTRIBUTION SYSTEM SAMPLES

- 16 Stage II Disinfectant By-Product Rule
- 40 Distribution Water Quality
- 720 Coliform
- 78 Entry Point Water Quality
- 30 Lead and Copper

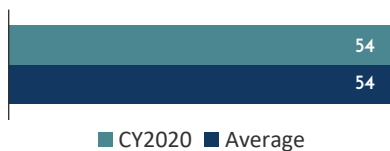
EMERGENCY BACK-UP WELL SAMPLES

- 70 Coliform
- 5 Set Radionuclide
- 4 Set Volatile Organic Compound
- 2 Set Synthetic Organic Compound
- 2 Set Nitrate and Nitrite
- 5 Set Inorganic Compound

WATER MAIN BREAKS

The City experienced an average of 54 water main breaks annually from CY2012 to CY2019. In CY2020, crews repaired 54 water main breaks.

REPAIRED 54 WATER MAIN BREAKS, MATCHING 8-YEAR AVERAGE



WATER DISTRIBUTION

Staff are responsible for the maintenance and repair of the water distribution system. There are approximately 230 miles of water main, 2,700 fire hydrants, and 3,100 valves in the system.

3,100	2,600
valves in water system	fire hydrants in water system

In CY2020, the Division

- inspected 1,145 valves
- repaired 147 valves
- replaced 11 valves
- inspected 1,597 fire hydrants
- flushed 2,687 fire hydrants
- replaced 23 fire hydrants
- painted 178 hydrants.

In addition to the mechanical maintenance of valves and hydrants, staff is also responsible for B Box locates and checks, water inspections, and replacing curb stops.

PUMPING & STORAGE

Staff are responsible for the operation and maintenance of the pumping and storage system. Staff maintains two elevated tanks that hold three million gallons of water, five ground storage reservoirs that hold 4.27 million gallons, three pump stations with 21 high-service pumps, six emergency backup wells, and three standby electrical generators. Staff also performs monthly testing, preventative maintenance, and repairs on this equipment. In CY2020, a total of 1,727,400,000 gallons of metered water was pumped through the system. In 2019, the Illinois Department of Natural Resources reduced the allowable non-revenue water from 12% to 10%. In 2020, Wheaton was at 11% non-revenue water.

"In CY2020, staff shifted from meter replacement to inspections and maintenance due to the Covid-19 pandemic. By doing so, 18 leaks in the water system were found and repaired potentially saving 7,621,200 gallons of water per year."

Al McMillen
Water Superintendent



2020 ACCOMPLISHMENTS

Maintain water quality and comply with regulatory agency requirements

Goal: Continue to improve upon leak detection programs to comply with the IDNR' Lake Michigan water allocation requirement of maintaining non-revenue water below 10%.

Status: Through in-house leak detection survey of 2,540 fire hydrants, 18 leaks were found and repaired. Non-revenue water loss for 2019 was 10.0%.

Goal: To protect water consumers through the Cross-Connection Control Program, check for cross-connections in an effective manner.

Status: Maintained records for over 1,200 backflow prevention device tests completed in 2020

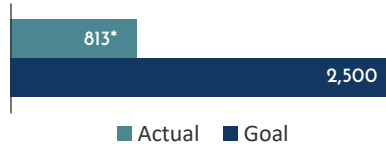
Ensure fairness, accuracy, and consistency of billing for water use

Goal: Field test and calibrate 100% of 2-inch and larger non-disc meters according to an annual schedule. Field test and calibrate 50% of 2-inch and larger non-disc meters according to a 2-year schedule.

Status: Field testing was completed on 37 large meters prior to March. Testing was not completed at any school buildings due to Covid-19. 20% of meters on an annual schedule were tested. 43% of meters on a 2-year schedule were tested.

Goal: Replace 2,500 water meters as part of a multi-year program.

Status: Due to the Covid-19 pandemic, Water Division operations shifted away from meter replacement to leak surveying, valve and fire hydrant maintenance, and building maintenance. The Division was able to replace 813 water meters, leaving 1,823 meters remaining to be replaced.



*significantly impacted by Covid-19

Maintain Quality Infrastructure

Goal: Replace President St. Pump Station generator to improve reliability of emergency pumping operations.

Status: Due to Covid-19 this project was put on hold while the City's financial plan was managed. This project will begin in 2020, to be completed in spring 2021.

Goal: Continue on-going program of fire hydrant inspection, pressure-testing, and replacement to ensure adequate availability of water for firefighting purposes.

Status: Inspected and pressure-tested over 1,500 fire hydrants and replaced 23 fire hydrants.

Goal: Replace water mains in accordance with the recommended replacement schedule of the 2013 Water Distribution System Hydraulic Analysis.

Status: Replaced 3,500 feet of deteriorating water main with ductile iron pipe and replaced 48 lead services.

3,500
feet of
water mains
replaced

48
lead
service lines
replaced

Efficient and Effective Services

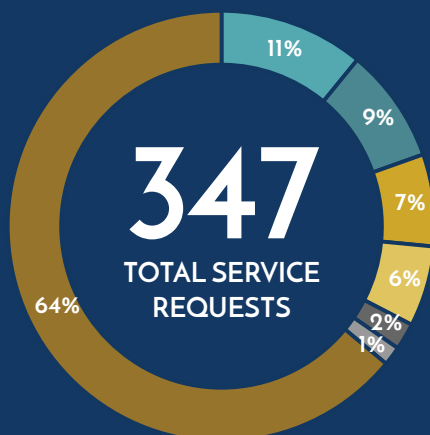
Goal: Continue to collect GPS information and develop GIS maps to improve efficiency of water distribution system maintenance activities.

Status: Collected 665 GPS points on existing B-boxes and new water main, valves, fire hydrants and services.

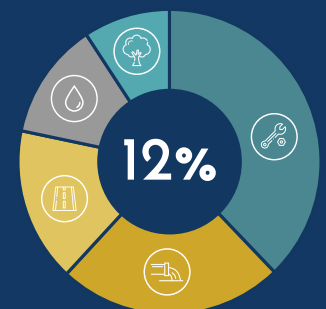
Goal: Continue staff education at training courses, conferences, and seminars.

Status: Two Water Division employees completed Local 150 heavy equipment training before March. Conferences and seminars were cancelled due to Covid-19, but some staff education has been completed using webinars and online training

WATER DIVISION: SERVICE REQUESTS



- Check for Dead Meter: 38
- Read Meter: 30
- Check for Leaks: 24
- Emergency Locate: 21
- Water Quality Complaint: 7
- Turn-On Water: 5
- Other: 222



12% OF TOTAL
PUBLIC WORKS DEPARTMENT
SERVICE REQUESTS WERE FOR
THE WATER DIVISION



Fleet Division

160

City-owned vehicles
maintained

88

large pieces of primary
& ancillary equipment
maintained

17

stationary power
generators
maintained

141

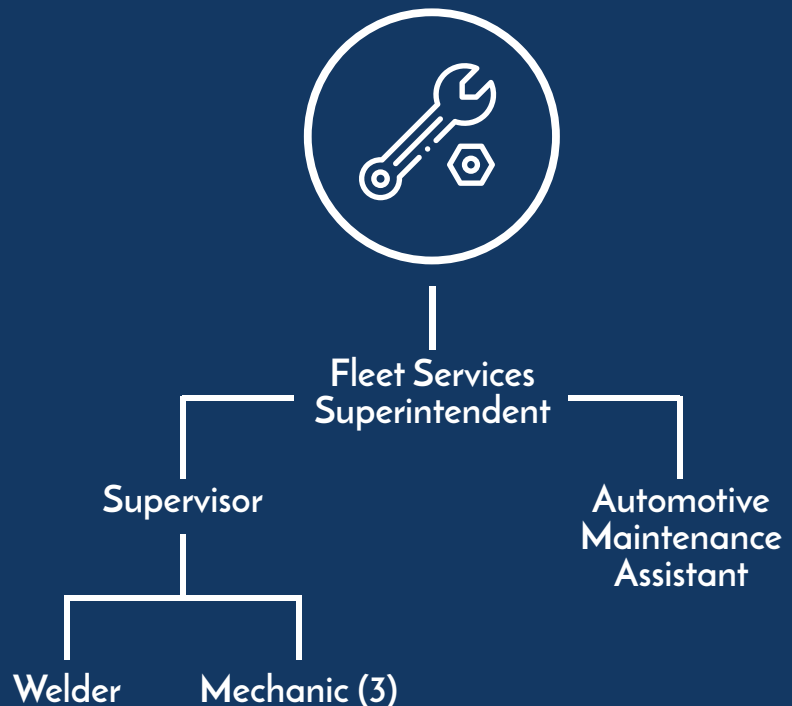
smaller pieces of
ancillary pieces of
equipment maintained

The Fleet Services Division is charged with providing maintenance, repair, and fueling services to all City-owned vehicles and equipment. City-owned assets include 160 licensed vehicles, 88 large pieces of primary and ancillary equipment, including 17 stationary power generators, and 141 smaller pieces of ancillary equipment. Ancillary equipment includes salt spreaders, snowplows, de-icing and anti-icing equipment, mowers, asphalt pavers, and rollers among other items. The Fleet Division also specifies and acquires replacement vehicles and equipment; disposes of retired assets; administers a central parts and supplies inventory; ensures that National Fire Protection Agency (NFPA) and Public Works safety standards are met for various equipment.

Division personnel utilize Computerized Fleet Analysis (CFA) software to track and manage these assets. To stay up to date with best practices and safety standards, Division staff maintain the following specialty certifications:

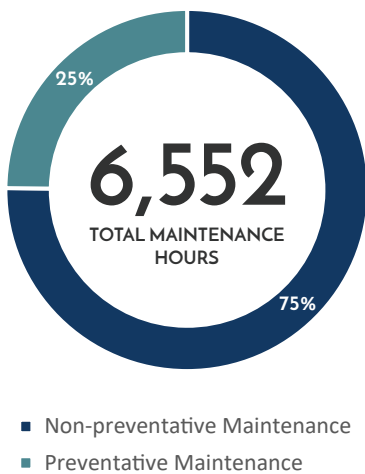
- Automotive Service Excellence (ASE)
- Emergency Vehicle Technician (EVT) II
- Underground Storage Tank (UST)

ORGANIZATIONAL CHART



PREVENTATIVE & NON- PREVENTATIVE MAINTENANCE

To ensure the continued operation of City vehicles, staff perform both preventative and non-preventative maintenance on City vehicles and equipment. Staff performed 4,925 hours of non-preventative maintenance and 1,627 hours on preventative maintenance in CY2020. Fleet services was also successful in eliminating the existing backlog of preventative maintenance and repair work over the fiscal year while having reduced staffing by one (1) full-time position.



Staff responded to 1,054 service requests for mechanical jobs in CY2020. Much of Fleet's mechanical jobs addressed Public Works equipment with the

remaining addressing Police, Fire, and Other equipment in that order. Having eliminated the existing backlog of repair and maintenance work, the Division is better positioned to implement efficiency initiatives and undertake projects that will fine-tune operations.

VEHICLE REPLACEMENT PROGRAM

Fleet oversees the City's Vehicle Replacement Program, using equipment life expectancy data and internal usage statistics to plan for the acquisition, reassignment, and resale of City vehicles and large equipment. Staff also completed their first year of data collection of setup and up-fitting costs associated with vehicle acquisition and re-assignment. This information will be used to further refine the program's cost estimates and requisite funding levels. Vehicles sold by the Division in CY2020 created \$34,560 in revenue, and there was \$46,000 generated in vehicles traded in CY2020.



Vehicle and equipment replacements in CY2020 included a new pickup truck for the Engineering Department, and

a new brush chipper for the Forestry Department.

FUEL CONSUMPTION

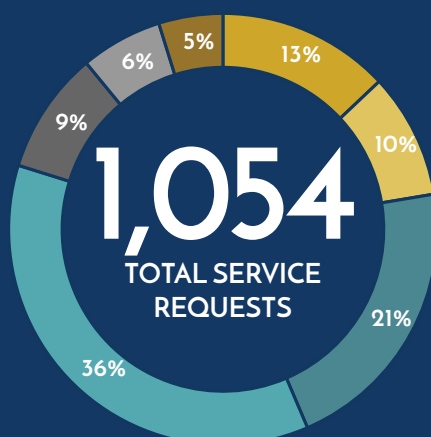
Wheaton implemented a Green Fleet policy in 2012 with the goal of reducing the carbon footprint of its vehicles over time. The City's 160 licensed vehicles used 118,904 gallons of fuel in CY2020, a 16% reduction from CY2019. In CY2020, City vehicles logged 895,216 miles and 24,907 fleet engine hours.

HYBRID VEHICLES

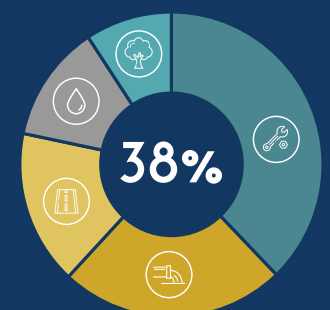
The City has acquired seven hybrid vehicles across all departments including one hybrid Patrol SUV that was put in service in 2020. Five additional hybrid Patrol SUVs were purchased in 2020 but, due to Covid-19, delivery date is 2021.

- The non-hybrid Police SUV averaged 9.43 miles per gallon, and the hybrid Police SUV averages 17.63 miles per gallon.
- The City's other hybrids average 27.7 miles per gallon, with the lowest vehicle averaging 22.3 miles per gallon, and the highest being 40.21 miles per gallon.

FLEET DIVISION: SERVICE REQUESTS



- Street Division: 382
- Police Department: 223
- Fire Department: 137
- Forestry/Parks & Grounds Division: 99
- Sewer Division: 97
- Water Division: 65
- Other: 51



38% OF TOTAL
PUBLIC WORKS DEPARTMENT
SERVICE REQUESTS WERE FOR
THE FLEET DIVISION

2020 ACCOMPLISHMENTS

Goal: Provide a safe working environment for employees; reduce personal injury and vehicle accident incidents to zero.

Status: Through training and awareness, provided a safe working environment for employees; reduced personal injury and vehicle accident incidents to zero.

Goal: Provide safe, reliable, and efficient transportation and equipment for City personnel and operations.

Status: Through thorough preventative maintenance procedures, safety inspections, and developing new vehicle specifications, provided safe, reliable, and efficient transportation and equipment for City personnel and operations.

Goal: Develop a fully burdened hourly labor rate annually. Through controlling overhead costs, reduce the hourly labor rate until it cannot be further reduced.

Status: With the help of the IT Department, developed the annual fully burdened hourly labor rate. Staff controlled overhead costs through price comparisons, analysis of operations, obtaining greater usage of expendable parts before replacement.

Goal: Manage compliance with NFPA 1911-1914 standards for Fire Pumps. Comply with Illinois Department of Transportation safety inspection requirements, aerial equipment

testing and certification, EPA emissions inspections and State Fire Marshal fuel storage requirements and regulations.

Status: Managed compliance with NFPA 1911-1914 standards for Fire Pumps. Complied with IDOT safety inspection requirements, aerial equipment testing and certification, EPA emissions inspections and State Fire Marshal fuel dispensing and storage requirements and regulations for two locations. Properly disposed of shop waste.

Goal: Develop a mechanism to better convey/ explain Fleet Division charge back rate details to user groups and Management staff.

Status: With the help of the IT Department, simplified the Fleet Division charge back calculation to eliminate over and under calculations and produce a clear view of costs.

Goal: Establish and apply benchmarks for inventory levels. Continue to evaluate and overhaul the parts room inventory, remove obsolete parts for disposal, analyze part usage and adjust stock levels accordingly. Right sizing the parts inventory is a three-year goal to be incrementally attained by the end of CY2022.

Status: Established and applied inventory benchmarks for commonly used stock items. Continued to evaluate and overhaul the parts room inventory, remove obsolete parts for disposal, recoup previous expenditures through

auction or trade-in, analyze part usage and adjust stock levels accordingly. Completed year one of a three-year goal to overhaul the parts room inventory which will be incrementally attained by the end of 2022.

Goal: Establish an employee productivity rate/ benchmark for the two most performed preventative maintenance labor operations on the five most populated vehicle classes.

Status: With information compiled by the IT department, established an employee productivity rate/ benchmark for the two most performed preventative maintenance labor operations on the five most populated vehicle classes.

OTHER ACCOMPLISHMENTS:

- Purchased vehicles and equipment considering operational needs, fuel savings, purchase price and environmental impacts. Continued to incorporate total vehicle capital costs in the budgeting and request for replacement processes. Due to the financial effects of Covid-19, deferred the purchase of four vehicles totaling \$454,000 to CY2021.
- Reduced costs where possible through extending the service life of vehicles and equipment.
- Replace two in ground heavy truck lifts in the Fleet repair facility.
- Developed bid specifications for the assessment of facility standby generator systems at four locations





2021 Goals



ADMINISTRATIVE DIVISION

- Continually work on improving operations through identifying opportunities to enhance performance and reduce costs.
- Enhance department effectiveness through the development of personnel.

the south east quadrant in accordance with Master Landscaping Plan.

- Address maintenance and restoration needs in public works facility, parking lots, lift stations, generator areas, and open spaces.

and liabilities. Continue on-going inspections, evaluation, and repair of the public sector, City-owned sanitary sewers.

- Continue efforts to comply with Federal EPA regulations regarding sanitary sewer overflows and NPDES Phase II Storm water requirements.

FORESTRY DIVISION

- Continually work on improving operations through identifying opportunities to enhance performance and reduce costs.
- Enhance department effectiveness through the development of personnel.
- Tree Cycle Pruning Program established on a seven-year cycle for mature trees with an annual goal is to prune 2,800 trees.
- Young Tree Cycle Pruning established on a three-year cycle. Prune trees planted in 2015 and 2018 – estimate 1,150 trees.
- Tree Removal Program to address dead, diseased, or hazardous trees from the City rights-of-way – estimate 300 trees to be removed.
- Address maintenance and restoration needs in public works facility, parking lots, lift stations, generator areas, and open spaces.
- Adams Park maintenance and improvements including landscaping

SEWER DIVISION (SANITARY)

Maintain sanitary sewer infrastructure to meet expected and appropriate level of service and comply with State and Federal EPA regulations

- Continue to track participation in both the Overhead Sewer Private Property Protection Program and Sanitary Sewer Service Line Reimbursement Program to acquire data to understand the magnitude and locations of residential sewer backups in order to assess program effectiveness and provide supporting data for potential capital improvement projects. Maintain sanitary sewer system capacity, reduce infiltration and inflow.
- Continue to identify and quantify infiltration and inflow sources using structure inspection, dyed water flooding, lateral TV inspection with dye flooding, and flow monitoring to identify and develop strategies to remediate the private sector extraneous flows caused by illegal connections and their associated sewer back-up problems within the City and their associated costs

Maintain Quality Infrastructure

- Maintain public infrastructure including ongoing cleaning, repairing, and inspecting sanitary sewers.
- Televis 60,000 feet of sanitary sewer.
- Clean 240,000 feet of sanitary sewers system annually.
- Continue to maintain and make structural improvements to sanitary sewer system, repair and replace manholes, laterals, and sewers where appropriate and necessary.
- Operate at peak efficiency employing state-of-the-art energy efficient technology, and sound mechanical practices to provide uninterrupted service.
- Continue to contract rehabilitate deep manholes with epoxy lining to restore structural and watertight integrity.
- Purchase new equipment and tools to increase our work quality and limit maintenance in future years.

Efficient and Effective Services

- Conduct employee training in areas such as trench safety, IDOT Flagger Training, and other industry specific topics that provide needed skills for safe effective operations. Attend locally sponsored workshops and seminars.

Implement “Green Practices” when possible

- Investigate environmentally neutral technologies for sewer system maintenance “Good Practices”, and Best Management Practices.

SEWER DIVISION (STORM)

Maintain Storm Sewer infrastructure to meet expected and appropriate level of service

- Continue to ensure compliance with Stormwater National Pollutant Discharge Elimination System (NPDES) | US EPA NPDES permit requirements and periodic IEPA inspections.
- Maintain public infrastructure including cleaning, repair, and inspection of storm sewers.
- Continue efforts to comply with Federal EPA regulations regarding NPDES Phase II Storm water requirements.
- Televis 64,712 feet of storm sewer annually.
- Clean 10% of storm sewers system and catch basins on a 7-year cycle and 1,800 catch basins annually.
- Continue efforts to comply with Federal EPA regulations regarding MS4 Permit as directed by the City’s Storm Water Engineer.
- Identify structural issues within the system and tag them for lining and

other capital improvement projects.

- Identify obstructions and pipe failures in order to reduce flooding.

Efficient and Effective Services

- Maintain and report storm cleaning quantities, debris removed, and system repairs, maintaining and updating the database and the GIS system atlases.
- Continue to update inventory records to accurately establish supply and material quantities.
- Follow the cleaning plan to eliminate cleaning redundancy.

Implement “Green Practices” when possible.

- Investigate environmentally neutral technologies for sewer system maintenance “Good Practices”, and Best Management Practices.

FLEET DIVISION

Safe and Efficient Operations

- Continue to provide a safe working environment for employees; maintain keeping personal injury and vehicle accident incidents to zero.
- Provide safe, reliable, and efficient transportation and equipment for City personnel and operations.
- Purchase vehicles and equipment with increased emphasis on fuel savings and environmental impact.
- Continue to develop the annual fully burdened hourly labor rate with the new charge back calculation.
- Reduce costs where possible through extending the service life of vehicles and equipment.

- Establish and apply inventory benchmarks for commonly used stock items. Continue to evaluate and overhaul the parts room inventory, remove obsolete parts for disposal, analyze part usage and adjust stock levels accordingly. This will be year two of a three-year goal to overhaul the parts room inventory which will be incrementally attained by the end of 2022.
- Utilize productivity rate benchmarks to attain standardization and greater efficiency of preventative maintenance labor operations.

Compliance Management

- Manage compliance with NFPA 1911-1914 standards for Fire Pumps. Comply with Illinois Department of Transportation safety inspection requirements, aerial equipment testing and certification, EPA emissions inspections and State Fire Marshal fuel dispensing and storage requirements and regulations for two locations. Properly dispose of shop waste.

Capital Projects

- Manage the completion of the construction phase of the City Hall standby generator replacement project.
- Prioritize and request future funding for the replacement of the facility generators evaluated in the generator assessment completed in 2020. Manage the development of engineering specifications for any facility generators identified as needing replacement in 2022.





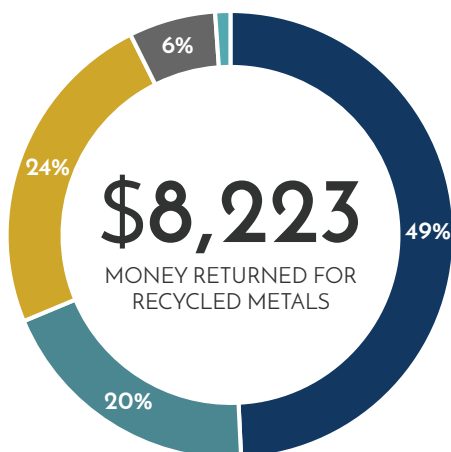
Sustainability Initiatives



SCRAP METALS RECYCLING

The Public Works Department tries to recycle any materials that are able to be recycled. In 2020, the Department was able to recycle 151,641lbs of scrap metal, 2,464lbs of brass, 1,788lbs of yellow brass, 1,475lbs of aluminum, and 53lbs of copper. In total the Department was able to acquire \$8,223.33 in reimbursement funds.

SCRAP METAL: 151,641LBS
BRASS: 2,464LBS
YELLOW BRASS: 1,788LBS
ALUMINUM: 1,475LBS
COPPER: 53LBS
TOTAL: 259,633LBS



■ Scrap Metal: \$4,048.83
■ Brass: \$1,601.60
■ Yellow Brass: \$1,966.80
■ Aluminum: \$516.00
■ Copper: \$90.10

OTHER RECYCLABLES

Apart from scrap metal, the Public Works Department also does its part to recycle other items that can be recycled including light bulbs, holiday lights, tires, and used vehicle oil. In 2020, the Department recycled 3,000 light bulbs, 3,608lbs of holiday lights, 100 tires, and 12.5 gallons of used vegetable oil.

3,000

light
bulbs

3,608

pounds of
holiday lights

12.5

gallons of
vegetable oil

100

vehicle
tires

LED STREETLIGHT REPLACEMENT

In 2020, the Public Works Department was able to replace 74 LED streetlights. As part of a rebate program from ComEd, the Department applied for and received a rebate of \$4,496.80



