



ANNUAL REPORT

Public Works Department

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MESSAGE FROM THE DIRECTOR



I am pleased to submit the Department of Public Works' 2022 Annual Report. This annual report shares 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.

A few highlights of accomplishments from the 2022 Calendar Year include:

- Through the efforts of the Forestry Division, the city was named Tree City USA for the 36th consecutive year and named Monarch City USA for the first time. The Division also planted 118 trees through the City's Shared Cost Tree Planting Program.
- The Street Division replaced 72 HSP streetlight fixtures with LED fixtures; replaced 1,023 faded, deteriorated, or damaged street and traffic signs; and replaced 1,500 squares of failed sidewalk. In 2022-23, the City's snow and ice control operations responded to 14 snow events totaling 16.5 inches of snow and used 1,636 tons of road salt.
- The Water Division in coordination with the Engineering Department replaced 2,900 feet of deteriorating water main pipe with ductile iron pipe. Crews removed and replaced 50 public lead services lines with copper pipe. In addition, crews inspected and pressure tested over 1,000 hydrants, repaired 45 hydrants, and replaced 5 hydrants.
- The Sewer Division operations and maintenance crews accomplished and exceeded their operational goals for cleaning and inspection. Additionally, the crews installed 2,287 linear feet of new storm sewer pipe along with 23 new manhole structures.
- The Fleet Division Superintendent facilitated the addition of 17 hybrid vehicles across all City Departments, including 9 hybrid Police Patrol SUV's, which replaced traditional gasoline combustion vehicles that were due for replacement.

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



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

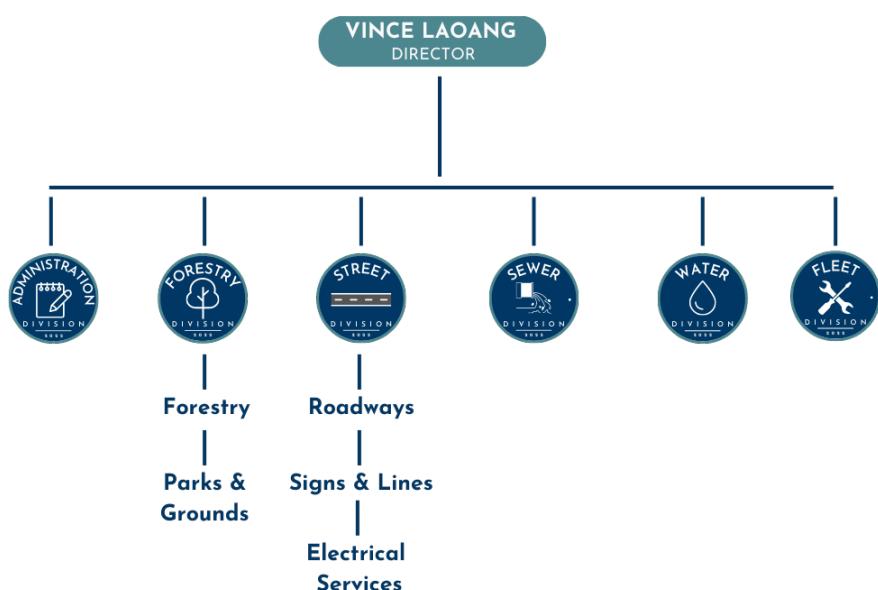
Jason Ackerlund
Forestry Superintendent

Sean Walsh
Superintendent of Sewers

Nathan Plunkett
Street Superintendent

Al McMillen
Water Superintendent

Sam Webb
Fleet Maintenance Superintendent



EMPLOYEE OVERVIEW & HIGHLIGHTS

54
FULL-TIME
UNION
EMPLOYEES

1
PART-TIME
EMPLOYEE

9
FULL-TIME
NON-UNION
EMPLOYEES

18
SEASONAL
EMPLOYEES

RETIREMENTS

Heidi Atkinson
Tim Dorn

NEW HIRES

Kyle Jongsma
Scott Klabacha
Melissa Roberts
Pedro Vazquez

ANNIVERSARIES

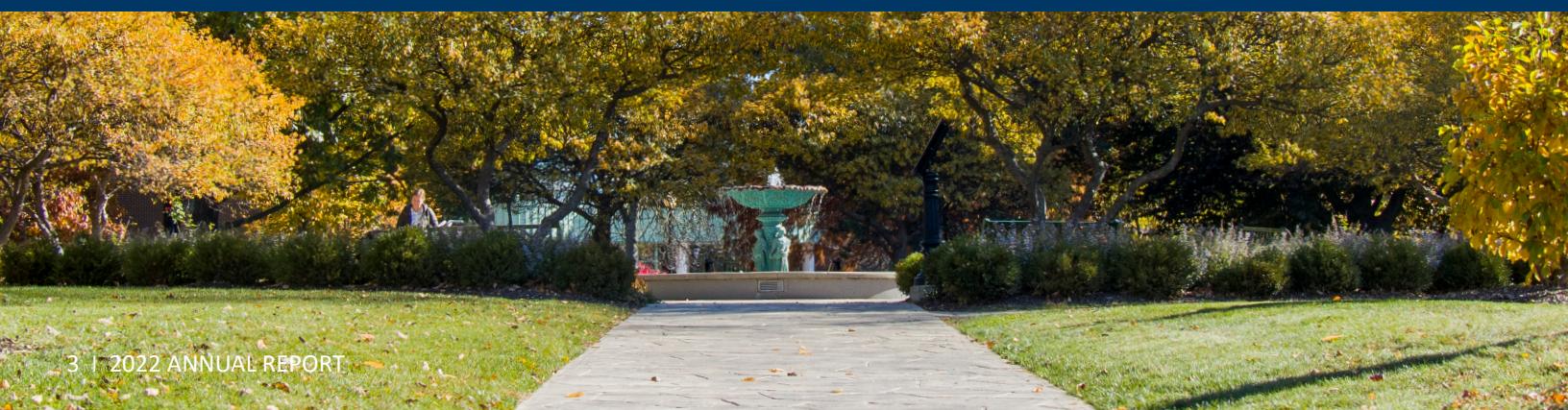
5 Years of Service
Matthew Flaska
Jeffrey Woods

10 Years of Service
John Devaney

20 Years of Service
Jim Palumbo

30 Years of Service
Richard Swanson

35 Years of Service
Tim Dorn



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 CY2022 totaled \$32,493,130 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: \$5,769,145

SEWER (STORM): \$2,135,753

SEWER (SANITARY): \$3,082,320

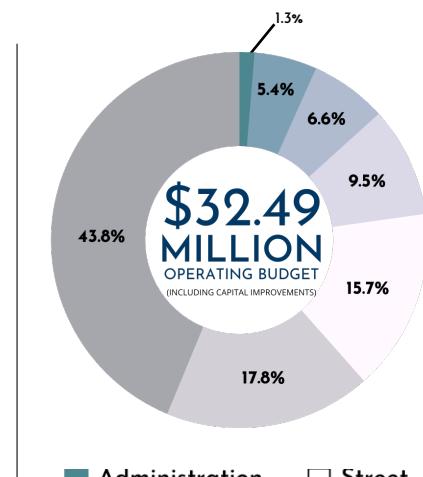
WATER: \$14,241,210

ADMINISTRATION: \$410,037

STREET: \$5,114,218

FORESTRY: \$1,740,447

TOTAL: \$32,493,130



■ Administration □ Street
■ Forestry □ Fleet
■ Sewer (Storm) □ Sewer (Sanitary)
■ Water

CAPITAL IMPROVEMENT PROJECT BUDGET

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

FLEET: \$10,000

SEWER (STORM): \$701,210

SEWER (SANITARY): \$1,348,770

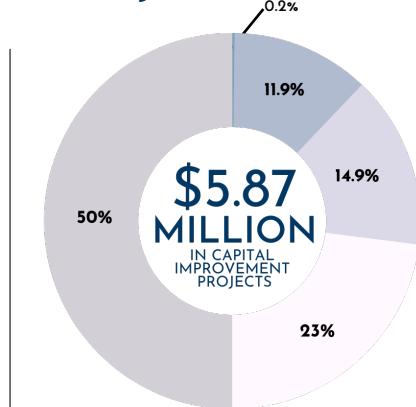
WATER: \$2,934,050

ADMINISTRATION: \$0

STREET: \$877,000

FORESTRY: \$0

TOTAL: \$5,871,030



■ Water □ Sewer (Storm)
■ Sewer (Sanitary) ■ Street
■ Fleet



29

training sessions
provided

11,736

invoices
processed

4,241

service requests
answered

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

2022 ACCOMPLISHMENTS

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

Status: Staff determined that contractual hauling saves the City 50% in annual dump fees.

Goal: Enhance department effectiveness through the development of personnel.

Status: Three Tier II employees were promoted to Maintenance Specialist and one employee was promoted to Supervisor.

ORGANIZATIONAL CHART



VINCE LAOANG
Director of Public Works

Dispatcher/
Assistant

Administrative
Assistant (Part-Time)





19,900+

trees maintained
in City's rights-of-way

24

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

1,500+

street furniture assets
maintained

250+

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 19,900 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



TREE PRUNING

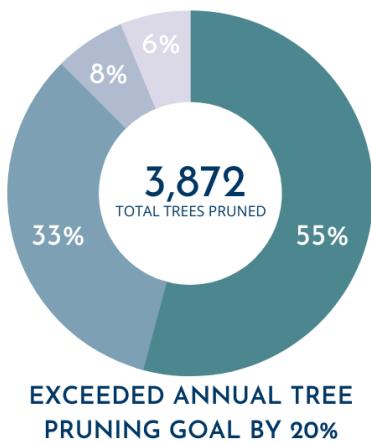
A total of 3,872 trees were pruned in CY2022, including 483 trees were pruned by request, either by residents or other City Departments. 3,389 trees were addressed through a cyclical pruning cycle. It is the goal of the Forestry Division to inspect and prune all City-owned trees on a seven-year trim cycle. Routine pruning promotes proper growth habits and future development of the tree. Regular pruning ensures a healthier, safer urban forest.

2,096
REGULAR
TREES

1,293
YOUNG
TREES

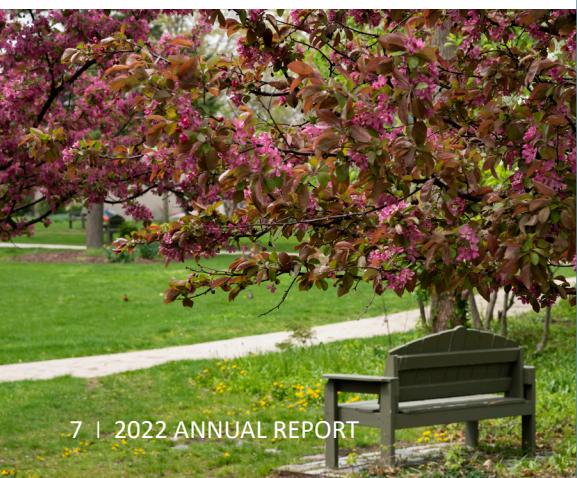
242
EXTERNAL
REQUESTS

241
INTERNAL
REQUESTS



TREE REMOVAL

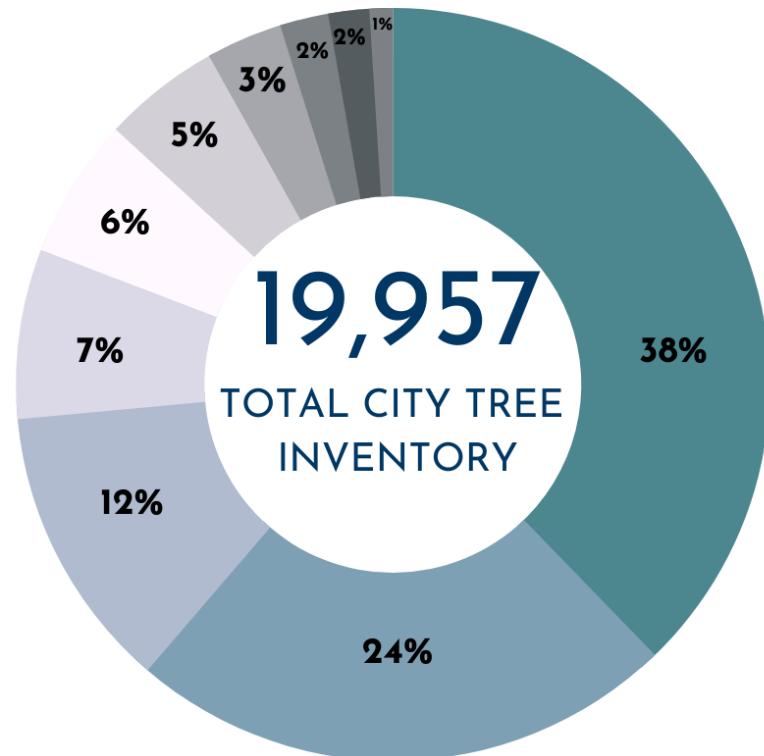
Staff removed 503 trees in CY2022 that were either dead or diseased. A total of eight infected Ash trees were removed through Public Works. The 200 remaining Ash trees may have been treated by the property owner or are considered healthy and will be monitored to determine if removal is warranted.



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
- Pick up trash and water plants in the CBD and citywide
- Mow lawns in Adams park, the CBD and City rights-of-ways



Maple: 7535	Elm: 1005
Other: 4694	Linden: 655
Honeylocust: 2444	Callery Pear: 416
Elm: 1005	Gingko: 349
Oak: 1456	Ash: 200
Crabapple: 1203	

2022 ACCOMPLISHMENTS

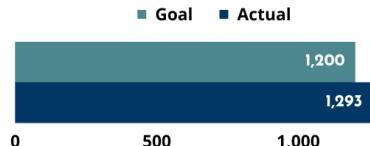
Goal: Tree Cycle Pruning Program established on a seven-year cycle for mature trees with an annual goal is to prune 1,600 trees.

Status: Pruned 2,096 trees in the cycle pruning programs. Contractor Services pruned 589 trees.



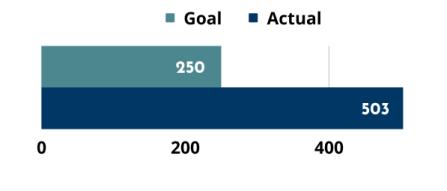
Goal: Young Tree Cycle Pruning established on a three-year cycle. Prune trees planted in 2016 and 2019 – estimate 1,200 trees.

Status: Young Tree Cycle Pruning reached 1,293 trees pruned.



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 503 dead, diseased, or hazardous trees from City rights-of-way.



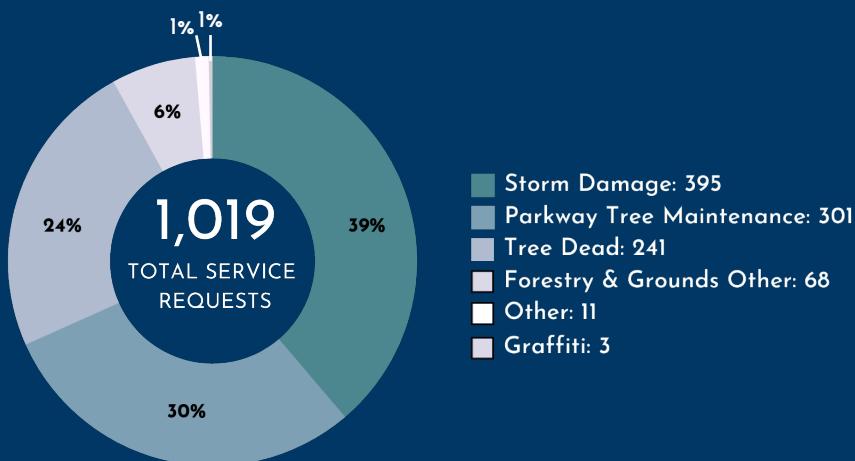
OTHER ACCOMPLISHMENTS

- Planted 118 trees through Shared Cost Tree planting program.
- 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 36th consecutive year.
- Continued Certification training for Certified Arborists on staff (4).
- 287 new trees were planted throughout the City.
- 31 new trees were planted during Phase 4 of the Central Business District Enhancement.
- Named Monarch City USA for the first time.

The Forestry Division annually hauls approximately 2,200 yards of mulch and 700 yards of logs.



FORESTRY DIVISION: SERVICE REQUESTS



29%

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



166.3

centerline miles of roadways maintained

10,000+

miles of roadways swept annually

4,000+

potholes repaired annually

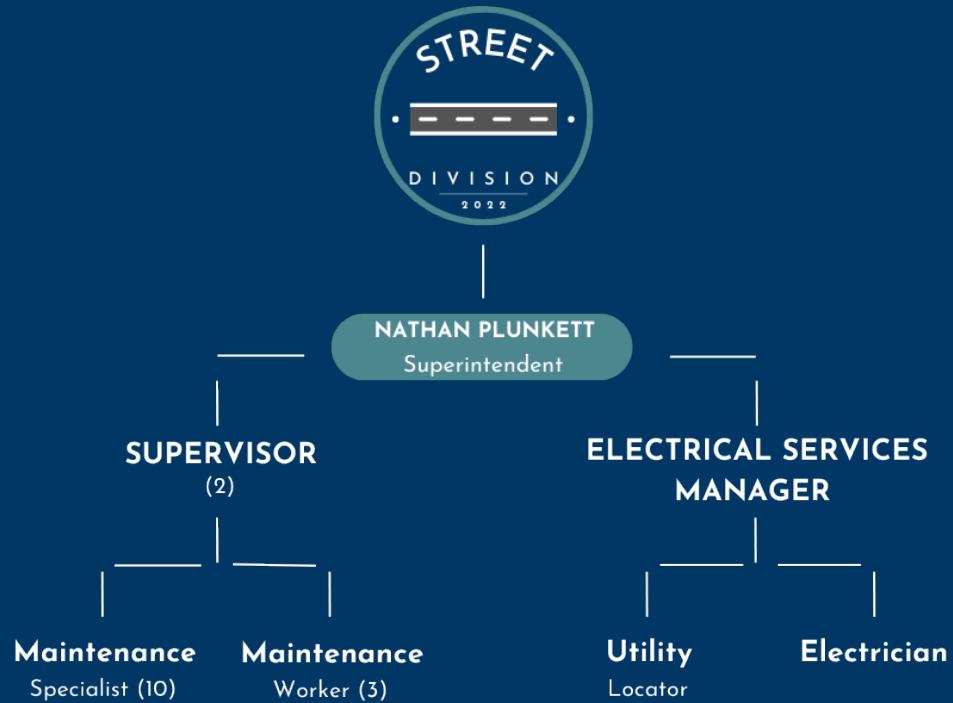
160+

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 162 residential and commercial driveways in 2022.

ORGANIZATIONAL CHART



ROADWAY MAINTENANCE

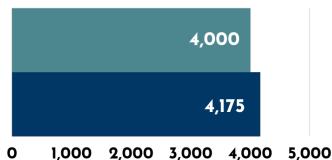
Roadway maintenance in the City of Wheaton is truly a collaborative effort between Public Works and the City's Engineering Department. The Engineering Department evaluates and monitors the condition of the City's infrastructure, including streets, to then plan construction and capital improvement projects. 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 2022, the Streets Division repaired 4,175 potholes.

■ Average ■ 2022



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

PROACTIVE 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 2022, the Streets Division performed 2.3 miles of asphalt overlays, and performed 0.6 miles of asphalt patching.

2.3

miles of
asphalt
overlays

0.6

miles of
asphalt
patching

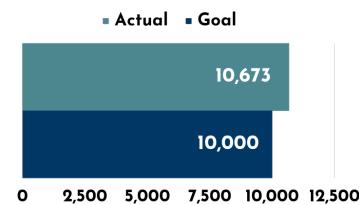
STREET SWEEPING

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 2022, the Streets Division swept 10,673 miles of the City's streets.



SNOW AND ICE CONTROL

The City of Wheaton maintains approximately 166 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 2022 the Division responded to 14 snow events that produced a total of 16.5

14

snow events

16.5

inches of
snow

1,636

tons of
salt used

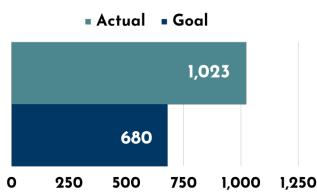
inches of snow. A total of 1,636 tons of treated salt was used on the City's streets.

The Street Superintendent and five 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 maintains a total of 10,659 signs include roughly 6,054 regulatory signs, 1,392 warning signs, 2,017 guide signs, and 1,196 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 2022, the Streets Division replaced 1,023 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 2,872 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.

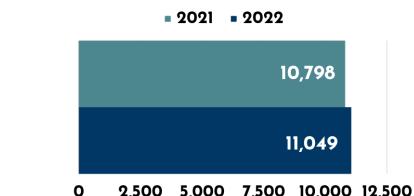
In 2022, Electrical Services re-lamped 67 streetlights, replaced 72 high pressure sodium (HPS) streetlight fixtures with energy efficient LED lights, and replaced 11 streetlight poles that were knocked down.



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 2022, staff responded to 11,049 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



Sidewalk Problems: 115
Signshop: 74
Potholes: 65
Streetlight Out: 47
Accident w/ Damage to City Property: 24
Other: 17
Repair: 8

13%
OF TOTAL PUBLIC WORKS
DEPARTMENT SERVICE
REQUESTS WERE FOR THE
STREET 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 159 emergency locates called into JULIE 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



2022 SUMMARY OF EVENTS



FIRST QUARTER

During the first quarter of 2022, the Sewer Division focused on the operations and maintenance (O&M) of the sanitary and storm sewer infrastructure. Some of the O&M tasks completed were large diameter sewer cleaning, creek and outfall clearing, and root cutting. The Sewer Division also responded to a small storm event in March of 2022. The heavy rain, combined with snow melting, created small flooding in various locations throughout the City of Wheaton. Along with O&M, the Sewer Division conducted snow operations with the Street Division and completed JULIE locates when the full-time locator was not available.



The Sewer Division construction crew began replacing damaged catch basins and pipe. The replacement program provides enhanced sewer infrastructure to areas found to need improvement during routine inspections. Training was also conducted across a variety of fields. For example, the Sewer Division conducted cross training with the Water, Street, and Forestry Divisions. EPA and safety training was also completed by the Sewer Division in the first quarter of 2022.

SECOND QUARTER

The second quarter of 2022 began with the Sewer Division beginning restoration projects from previous excavations. The Sewer Division had several excavations which occurred over the winter months that needed to be restored in areas of the City's public right of way. Therefore, the Sewer Division patched streets, replaced curbs, and overlayed parkways with dirt and grass seed.

In addition to restoration, the Sewer Division began FOG (fats, oils, and grease) cleaning at all sanitary lift stations. Once the lift stations were cleaned of FOG, the O&M crew began servicing all known areas of FOG for heavy cleaning. Construction crews began large diameter pipe repairs in Central Park and began preparations for the upcoming construction season.



The Sewer Division continued training in the areas of HAZMAT, OSHA, PPE, and continuing education at the College of DuPage. Toward the end of the second quarter of 2022 is when the Sewer Division began the Storm Sewer Pipe Replacement Program funded by the Capital Improvement Program. During CY 2021, the Sewer Division inspected and identified several storm sewer mains in need of full replacement. With help from the Engineering Department, the Sewer Division was given plans on replacing sewer main, structures, and service taps. During the second quarter of 2022, the Sewer Division construction crew installed 794 feet of storm sewer main and installed 7 new storm sewer structures.

THIRD QUARTER

During the third quarter of 2022, while the construction crew was installing new sewer main, the O&M crew had continued to restore the public right of way in various locations, along with standard cleaning and inspections of the sewer infrastructure. The entire crew rotated in and out of cross training with all the divisions within the Public Works Department.

The O&M crew also did standard cleaning and checks at the lift stations throughout the city. Other O&M tasks such as, restrictor cleaning, creek cleaning, and root cutting were also completed. Midway through the year, the crew began to perform maintenance of its tools, vehicles, equipment, and warehouse. Proper preventative maintenance during the year is vital in order to have the operational success the Sewer Division has had over the last few years. The supervisors have found routine maintenance has increased productivity and increased the longevity of its equipment and vehicles.

At the end of the third quarter, the construction crew completed the storm sewer replacement program. The crew had installed 2,287 linear feet of storm sewer, along with 23 structures, during

2022 SUMMARY OF EVENTS



the construction season. The fourth quarter would be spent restoring the public right of way for various projects completed in the third quarter of 2022.

FOURTH QUARTER

The fourth quarter of 2022 had the Sewer Division wrapping up all excavation projects and completing all restoration from previous excavations. O&M crews completed their annual goals by exceeding their cleaning and inspection targets. In preparation for the winter months, the Sewer Division underwent snowplow training and prepped for the snow season. Meanwhile, the Sewer Division conducted routine maintenance of tools, vehicles, and equipment.

Yard maintenance was also completed by cleaning the spoil bin and hauling materials to the Bluff City dump. The warehouse was completely reorganized and inventory was taken of materials on hand at Public Works.

In December, the Sewer Division experienced two force main breaks on Elm street, near the Elm & Blanchard lift station. The crew successfully excavated to the force main and installed a repair clamp on the 10" force main and the 8" force main where the leaks were located. Restoration of the area is set for spring of 2023.



CAPITAL IMPROVEMENT: STORM SEWER PIPE REPLACEMENT PROJECT 2022

The Storm Sewer Pipe Replacement Program, funded by the Capital Improvement Program, began in the summer of 2022. The Sewer Division identified several storm sewers in need of full replacement. Once the sewer mains were tagged for replacement, they were sent to the Wheaton Engineering Department in order to be surveyed and drawn up for the Public Works crew to have plans of execution of the replacement.

Once the plans were completed, the crew would begin each project by notifying the residents in the area of the upcoming construction. Once the notifications were made, the crew would move equipment on site and begin layout to start street saw cutting. If any trees needed to be trimmed prior to excavation, it would be done during this time as well. After prep work had been completed, the crew would begin excavation and replacement of the storm sewer. Upon completion

of the full replacement and backfill, the street would then be paved in conjunction with the Street Division of Public Works. In a short period of time, the Public Works Department was able to deliver tree trimming, a new storm sewer with enhanced infrastructure, and a new street overlay within 30 working days.

Total Linear Footage Installed in 2022	Total # of Structures Installed in 2022
2,287 ft	23

The locations where the storm sewer was replaced in 2022:

- Orchard, north of Butterfield Road
- Campbell, south of Pershing Avenue
- Jefferson, west of Main Street
- Franklin, east of Main Street

2022 RECAP

Administratively, the Sewer Division responded to 608 calls from residents throughout the year, a 13% increase from 2021. The Sewer Division also approved 79 residents for the sanitary sewer replacement and basement backup prevention program. 17 of those residents approved for the program were reimbursed in accordance with the program. Budget evaluations were done

monthly in order to maintain operations, but to also have a reserve for emergency projects should they arise. Sewer related emergency response plans were drafted and practiced by the sewer crew under the guidance of the division Supervisors. Emergency training was conducted for lift station failure, and drills were conducted quarterly for crew familiarization.

The 2022 calendar year did come with several challenges. Supply chain shortages, equipment breakdowns, and the gravel union strike did slow operations down throughout the year. However, the Wheaton Sewer Division, and the entire Public Works Department, was able to accomplish all sewer related goals set forth by the Director, Superintendents, and Supervisors.

Task	2021	2022	Annual Goal	+ / -
Sanitary Sewer Cleaned	272,363	273,830	236,503 feet	37,327
Sanitary Sewer Televised	N/A	79,378	59,563 feet	19,815
Storm Sewer Cleaned	167,280	170,059	142,747 feet	27,312
Storm Sewer Televised	74,022	83,713	64,712 feet	19,001
Catch Basins Cleaned	1,983	1,826	1,782	44
Structure Replacement	N/A	39	Previous Year: 30	9
Service Requests / Emergency Call Response / Contractor Inspections	N/A	608	Previous Year: 531	77



SEWER DIVISION: SERVICE REQUESTS



■ Sanitary-related: 427
■ Storm-related: 203
■ Non Sewer-related: 12

18%

OF TOTAL PUBLIC WORKS
DEPARTMENT SERVICE
REQUESTS WERE FOR THE
SEWER DIVISION



230

miles of water lines maintained

4.5

million gallons of water supplied per day

53,000+

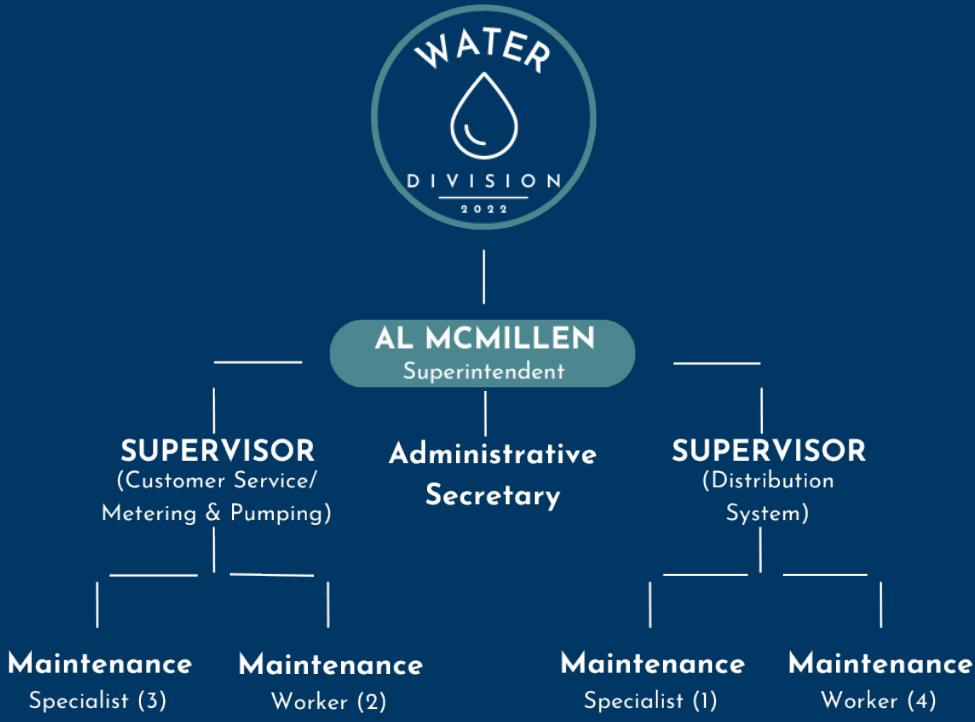
residents, businesses, and visitors

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 2022, the Division collected the following samples:

DISTRIBUTION SYSTEM SAMPLES

- 32 Stage II Disinfectant By-Product Rule
- 40 Distribution Water Quality
- 720 Coliform
- 78 Entry Point Water Quality
- 10 Sets Sequential Lead

EMERGENCY BACK-UP WELL SAMPLES

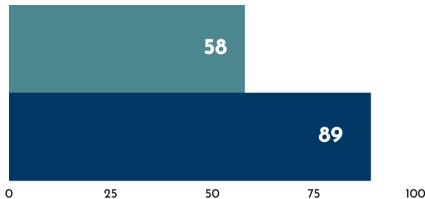
- 70 Coliform
- 3 Sets Volatile Organic Compound
- 2 Sets Synthetic Organic Compound
- 2 Sets Nitrate and Nitrite

WATER MAIN BREAKS

The City experienced an average of 58 water main breaks annually from CY2013 to CY2022. In CY2022, crews repaired 89 water main breaks.

REPAIRED 89 WATER MAIN BREAKS

■ AVERAGE ■ CY2022



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 CY2022, a total of 1,614,751,000 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 2022, Wheaton was at 9.7% non-revenue water.

WATER DISTRIBUTION

Staff are responsible for the maintenance and repair of the water distribution system. There are approximately 230 miles of water main, 2,600 fire hydrants, and 3,100 valves in the system.

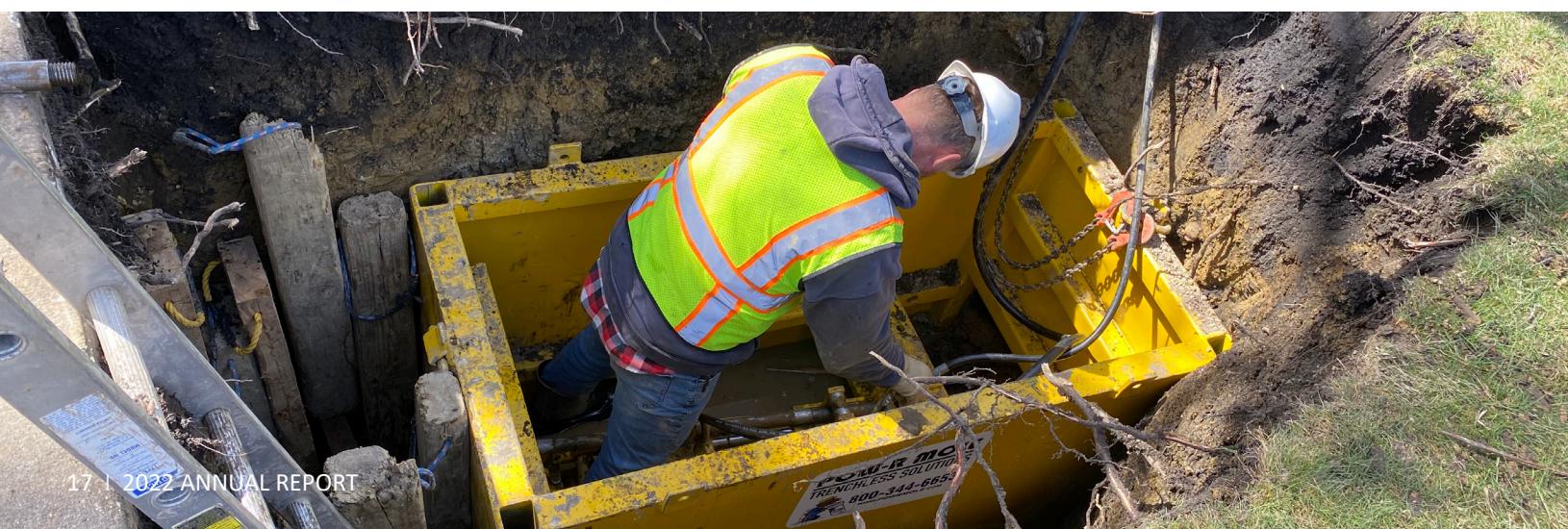
3,100
valves in
water system

2,600
fire hydrants
in water system

In CY2022, the Division

- inspected 581 valves
- repaired 8 valves
- replaced 7 valves
- inspected 883 fire hydrants
- flushed 2,654 fire hydrants
- replaced 4 fire hydrants
- painted 195 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.



2022 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 1,068 fire hydrants, 2 leaks were found and repaired. Non-revenue water loss for 2022 was 9.7%.

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

Status: Maintained records for over 1,500 backflow prevention device tests completed in 2022.

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 60 large meters. 93% of meters on an annual schedule were tested. 42% of meters on a 2-year schedule were tested.

Goal: Increase the number of public and private lead service lines replaced.

Status: Presented the Lead Service Line Replacement Program to City Council, to be implemented in 2023. Replaced 41 public lead service lines.

Maintain Quality Infrastructure

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 883 fire hydrants, repaired 27 fire hydrants and replaced 4 fire hydrants.

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

Status: Replaced 2,900 feet of deteriorating water main with ductile iron pipe and replaced 41 lead services.

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 225 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.

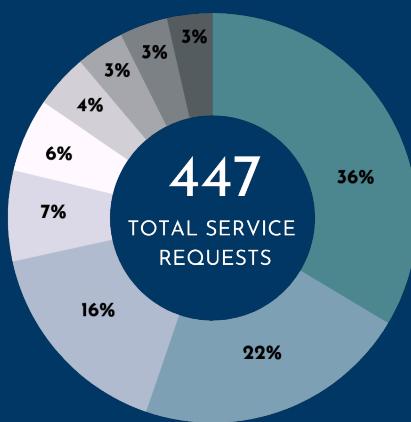
Status: Four employees attended the ISAWWA Annual Conference. Three renewed forklift certification, six renewed flagger certification, and four attended the ISAWWA Water Distribution Conference.



2,900
feet of
water mains
replaced

41
lead
service lines
replaced

WATER DIVISION: SERVICE REQUESTS



- Other: 150
- Possible Leak: 97
- Turn Off Water: 73
- Check for Leaks: 32
- Emergency Locate: 26
- Read Meter: 19
- Check for Dead Meter: 17
- Water Quality Complaint: 17
- Turn-On Water: 16

12%

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



160

City-owned vehicles maintained

88

large pieces of primary & ancillary equipment maintained

17

stationary power generators maintained

141

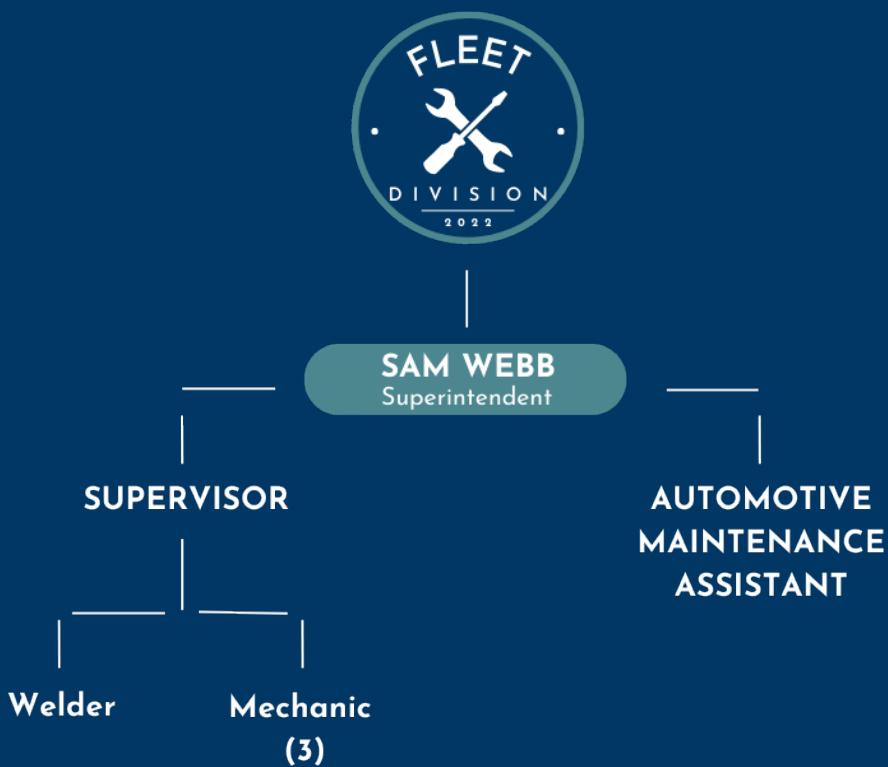
smaller pieces of ancillary equipment maintained

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) IL
- Underground Storage Tank (UST)
- IL DOT Certified Safety Tester

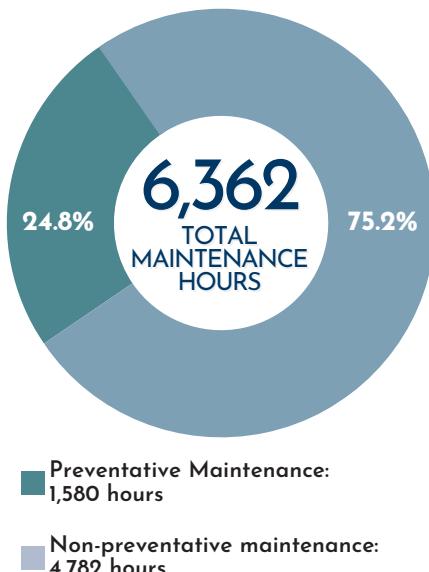
ORGANIZATIONAL CHART



PREVENTATIVE & NON-PREVENTATIVE VEHICLE MAINTENANCE

To ensure the continued operation of City vehicles, staff perform both preventative and non-preventative maintenance on City vehicles and equipment.

Staff performed 4,782 hours of non-preventative maintenance and 1,580 hours on preventative maintenance in CY2022.



Staff responded to 1,005 service requests for mechanical jobs in CY2022. Much of Fleet's mechanical jobs addressed Public Works equipment with the remaining addressing Police, Fire, and Other equipment in that order.

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 CY2022 created \$37,117 in revenue, and there was \$1,500 generated in vehicles traded in CY2021.

FUEL CONSUMPTION

Wheaton implemented a Green Fleet policy in 2012 with the goal of reducing

\$37,117 vehicles sold in 2022	\$1,500 vehicles traded in 2022
---	--

the carbon footprint of its vehicles over time. The City's 160 licensed vehicles used 118,301 gallons of fuel in CY2022, a .8% increase from CY2021. In CY2022, City vehicles logged 741,043 miles and 23,300 fleet engine hours.

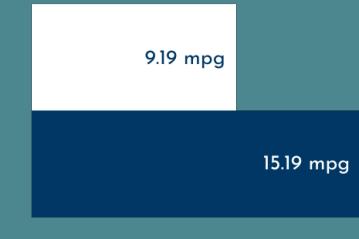
HYBRID VEHICLES

The City has acquired 17 hybrid vehicles across all departments including nine hybrid Patrol SUV.

- The non-hybrid Police SUV averaged 9.19 miles per gallon, and the hybrid Police SUV averages 15.19 miles per gallon.
- The City's other hybrids average 27 miles per gallon, with the lowest vehicle averaging 18.69 miles per gallon, and the highest being 37.78 miles per gallon.

AVERAGE MILES PER GALLON

■ Non-Hybrid ■ Hybrid



2022 ACCOMPLISHMENTS

Strategic Priority 1: Financial Stability

Goal: Reduce costs and implement strategies to gain efficiencies.

Action Item: Reduce costs where possible through extending the service life of vehicles and equipment.

Status: All vehicles that were requested for replacement during 2022 had surpassed age and/or usage

requirements.

Action Item: 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.

Status: Completed the initial goal to revamp the parts inventory. Removed obsolete items and auctioned when practical.

Strategic Priority 3: Responsive and Efficient Services

Goal: Provide comprehensive vehicle, equipment, and standby power services

2022 ACCOMPLISHMENTS

to support operations

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

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

Action Item: Complete State of Illinois provided staff training and perform Department of Transportation safety inspections in house to save staff time and reduce inspection costs.

Status: Training and certification has been attained by three Fleet staff members. In-house Safety lane was approved by the State of Illinois and became operational during 2022.

Action Item: Manage compliance with NFPA 1911-1914 standards for Fire Pumpers. Comply with Illinois Department of Transportation safety inspection requirements, aerial equipment testing and certification.

Status: Complied with all applicable regulations.

Action Item: Manage the completion of

the construction phase of the City Hall standby generator replacement and improvement project so that operations can continue during a power outage.

Status: The City Hall generator replacement and improvement project has been completed.

Action Item: Manage the development of engineering specifications for the replacement of Generator 7 at Public Works so that operations can continue during a power outage.

Status: Developed project specifications and assisted in RFP process. Construction is on schedule for 2023.

Action Item: Manage electrical improvements to Fire Stations 37 and 38 for Generators 3 and 5 so that operations can continue during a power outage.

Status: Project completed.

Action Item: Manage the construction and installation of two heavy vehicle lifts in the Fleet facility which will support other department's services.

Status: Engineering Services have been awarded. Construction is scheduled for 2023.

Action Item: Manage the development of engineering specifications and manage

construction of a new fueling facility at Public Works.

Status: A study is being conducted in 2023 to determine the lifespan of the fuel system components and if the fueling facility requires replacement. Staff is awaiting recommendations.

Strategic Priority 5: Environmental Sustainability

Goal: Reduce vehicle emissions and comply with regulations without compromising service levels

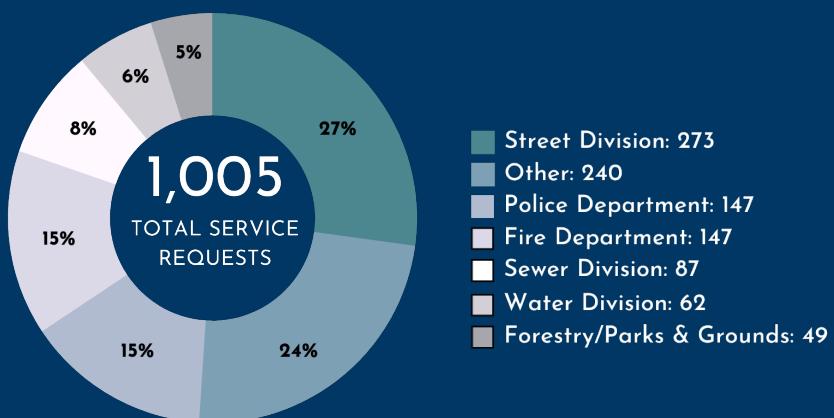
Action Item: Purchase vehicles and equipment with increased emphasis on fuel savings and environmental impact.

Status: Plans to add one additional gasoline- electric hybrid vehicle to the fleet and replace two gasoline- electric hybrid vehicles for 12 and 13-year-old units that have surpassed age and usage requirements were not achieved due to supply chain issues and canceled vehicle orders.

Action Item: Manage compliance with EPA emissions inspections and State Fire Marshal fuel dispensing and storage requirements and regulations for two locations. Properly dispose of shop waste.

Status: Complied with all applicable regulations.

FLEET DIVISION: SERVICE REQUESTS



28%

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



ADMINISTRATIVE DIVISION

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

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 1,600 trees.
- Young Tree Cycle Pruning established on a three-year cycle. Prune trees planted in 2017 and 2020 – estimate 1,200 trees.
- Tree Removal Program to address dead, diseased, or hazardous trees from the City rights-of-way – estimate 250 trees to be removed.
- Address maintenance and restoration needs in public works facility, parking lots, lift stations, generator areas, and open spaces.
- To reduce the City's carbon footprint.

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 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

Maintain Quality Infrastructure

- Maintain public infrastructure including ongoing cleaning, repairing, and inspecting sanitary sewers.
- Revise 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.

- Televise 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 ad directed by the City's Storm Water Engineer.
- Identify structural issues within the system and tag them for lining or replacement.
- 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

Financial Stability

- Goal: Reduce costs and implement strategies to gain efficiencies
- Action Item: Reduce costs where possible through extending the service life of vehicles and equipment.

Responsive and Efficient Services

- Goal: Provide comprehensive vehicle, equipment, and standby power services to support operations
- Action Item: Provide safe, reliable, and efficient transportation and equipment for City personnel and operations.
- Action Item: Continue to perform Department of Transportation safety

inspections in house to save staff time and reduce inspection costs.

- Action Item: Manage compliance with NFPA 1911-1914 standards for Fire Pumpers. Comply with Illinois Department of Transportation safety inspection requirements, aerial equipment testing and certification,
- Action Item: Manage the replacement of Public Works generator 7.
- Action Item: Manage the installation of two heavy vehicle lifts in the Fleet facility.
- Action Item: Manage the construction of a new fueling facility at Public Works.

Environmental Sustainability

- Goal: Reduce vehicle emissions and comply with regulations without compromising service levels
- Action Item: Purchase vehicles and equipment with continued emphasis on fuel savings and environmental impact
- Action Item: Develop specifications, assist in applying for grant funding, and manage construction of electric vehicle charging stations if the City is awarded grant funding.
- Action Item: Manage compliance with EPA emissions inspections and State Fire Marshal fuel dispensing and storage requirements and regulations for two locations. Properly dispose of shop waste.

WATER DIVISION

Financial Stability

- Goal: Ensure fairness, accuracy, and consistency of billing for water use.
- Action Item: Field test and calibrate 2-inch and larger non-disc meters according to testing schedules.
- Action Item: Read customers' water meters on a consistent monthly cycle.

Enhanced Infrastructure

- Action Item: Replace water mains in accordance with the recommended replacement schedule of the 2013 Water Distribution System Hydraulic Analysis.
- Action Item: Replace Reber St. standby generator to maintain

emergency pumping operations.

- Action Item: Continue on-going program of fire hydrant inspection, pressure-testing, and replacement to ensure adequate availability of water for firefighting purposes.
- Goal: Remove lead Public and Private Water Services
- Action Item: Increase the number of public and private lead service lines replaced.

Responsive and Efficient Services

- Action Item: Continue to collect GPS information and develop GIS maps to improve efficiency of water distribution system maintenance activities.
- Action Item: Continue staff education at training courses, conferences, and seminars.

Community Safety

- GOAL: Continue to prioritize the health, safety, and welfare of the community
- Action Item: Evaluate strategies to reduce Non-Revenue water to comply with the Illinois Department of Natural Resources' lake Michigan water allocation requirement of maintaining non-revenue water below 10%.
- Action Item: Compile information and publish Water Quality Report by July 1st, in accordance with Illinois Environmental Protection Agency requirements.
- Action Item: To protect water consumers through the cross-Connection Control Program, check for crossconnections in an effective manner.
- Action Item: Maintain 100% of distribution water samples reported bacteriologically safe to comply with Illinois Environmental Protection Agency Coliform Rule requirements.

Environmental Sustainability

- Action Item: Investigate green initiatives/alternatives and implement if feasible.
- Action Item: Continue recycling of used cast iron, steel, and brass materials.

SUSTAINABILITY INITIATIVES

ANNUAL
REPORT
2022

SCRAP METALS RECYCLING

The Public Works Department tries to recycle any materials that are able to be recycled. In 2022, 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 \$6,110.99 in reimbursement funds.



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



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 2022, the Department recycled 1,790 pounds of crushed bulbs, 3,240 pounds of holiday lights, 130 tires, and 275 gallons of used vegetable oil.

1,790	3,240
pounds of crushed bulbs	pounds of holiday lights
275	130
gallons of vegetable oil	vehicle tires



