

Department of Public Works Annual Report 2013

The mission of the Department of Public Works is to provide the highest level of public service possible to Shorewood residents and to keep all Village property, pertinents, infrastructure and vehicles in proper maintenance and repair. This mission is accomplished through the judicious use of department personnel and equipment.

The mission of the Shorewood Sewer Utility is to protect the health, safety and environment of the Village of Shorewood through the cost-effective and efficient collection and conveyance of wastewater in accordance with applicable law.

2013 Facts & Figures

Capital Projects:

- *Sidewalk Program*
- *Village Hall Green Parking Lot*
- *3500 Block Maryland Watermain and Street Improvements*
- *NW Area Street Resurfacing Program*

Certifications:

WDNR Water Operator License

** Russ Falkowski*

** Leeann Butschlick*

Conferences/Training

- *WI Rural Water*
- *WI APWA*
- *APWA National*
- *WI Arborist*
- *Public Works Supervisory Academy*
- *MMSD Inspection & CMOM*

Familiar Faces, New Places

- Congratulations to Russ Falkowski, promoted to Craftsman in the Fleet & Facilities division.
- Congratulations to Trevor Robishaw, promoted to Forester II.

New Faces

- Welcome to Dan Hetzel, Route Collector, who joined our staff in January of 2013. Dan is a Shorewood resident who previously drove for Quad Graphics.
- Matt Streim, Mechanic, came to us in February. Matt previously ran the North Shore vehicle maintenance shop for David J. Frank/Leid's nursery. Welcome!

Good-byes

- Congratulations to Bruce Adyniec, Chief Electrician, who retired in November after nearly 29 years of service to the Village. We wish Bruce well but miss him greatly.

Operational Highlights

2013 was an unusually quiet year for the department – at least when compared to recent history. No significant weather events (neither too much water nor too little) and a relatively light construction agenda allowed us to really focus on our core mission and service delivery.

One of the primary accomplishments in 2013 was the completion of our Departmental Strategic Plan.

Metrics

Key measures of DPW and Utility operations are featured on the pages that follow.

2013 Facts & Figures

Total Refuse:
2,535 tons

*Average refuse
disposed per*

Shorewood resident:
384.4 pounds

Labor Hours:
3,601

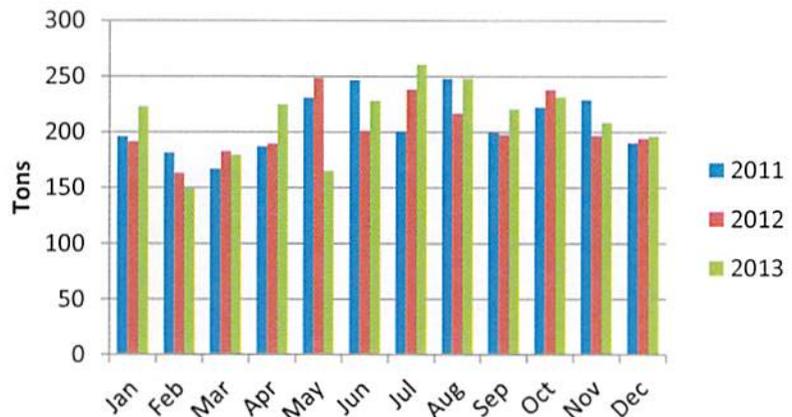
*Contracted per ton
disposal cost:*
\$30.93

Total Recycling:
1,276 tons

*Material recycled per
Shorewood resident:*
193.5 pounds

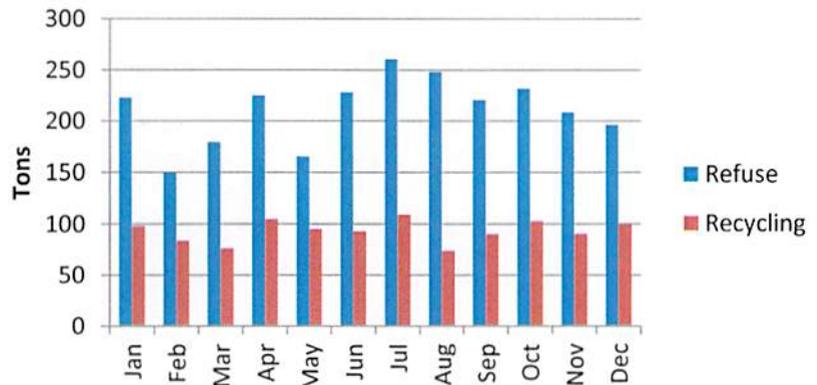
*2013 Recycling
Rebate:*
\$51,962.45

Refuse Collection 2011-13



Refuse collection services are provided weekly to one, two and three family residences curbside or via alley. The Village is divided into three refuse collection routes operated by three employee collectors Monday through Wednesday of each week.

**Total Material Collection
Refuse/Recycling**



Village residents currently landfill approximately 1.9 pounds of material for each pound of material recycled. We have a recovery rate of 33.48%. We can do better!

2013 Facts & Figures

Total Curbside Recycling:
1,115 tons

Total DPW Drop-off Recycling:
161 tons

Monthly cost per residence for curbside recycling:
\$2.28

Material totals:

Paper
711.9 tons

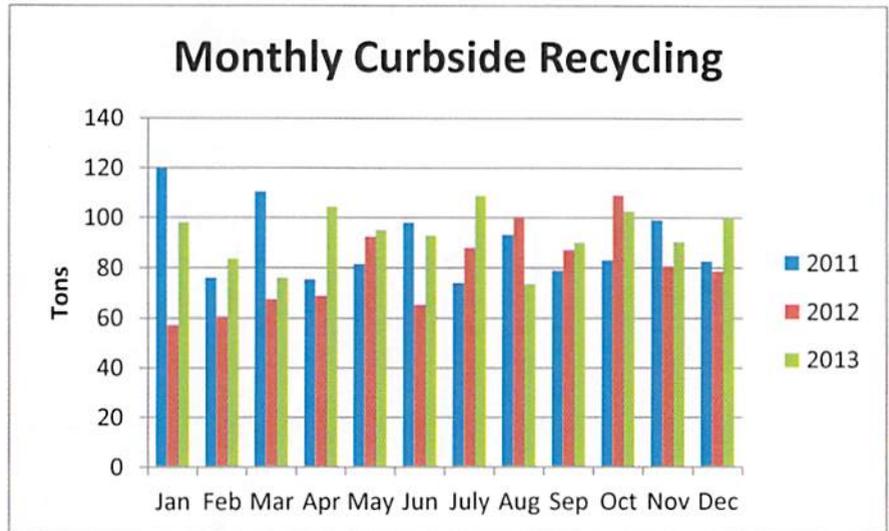
Glass
307.2 tons

PETE (#1 plastic)
41 tons

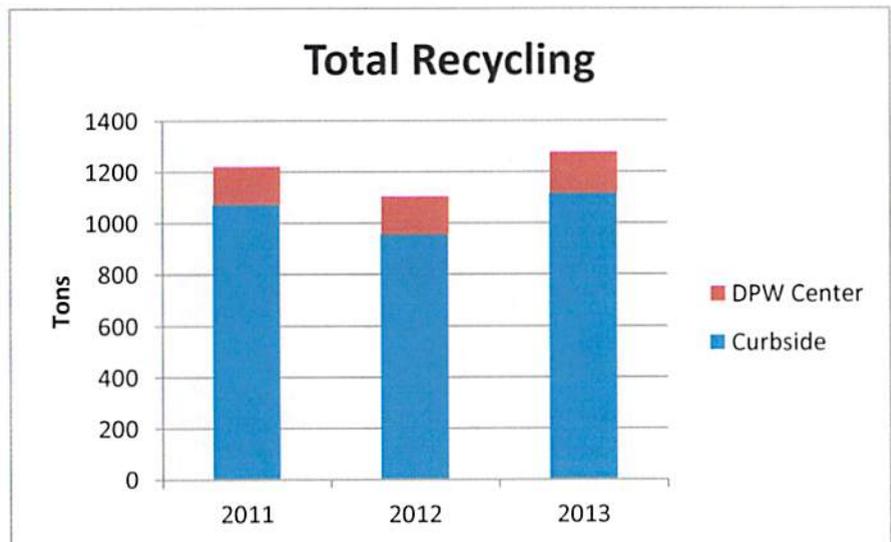
HDPE (#2 plastic)
13.7 tons

Tin
29.1 tons

Aluminum
12.4 tons



Curbside recycling collection is currently provided under contract with Waste Management. Under the current contract, the Village receives half the proceeds for the sale of materials collected curbside.



2013 Facts & Figures

Material Disposed:
2,179 tons

Total Labor Hours:
233 hours

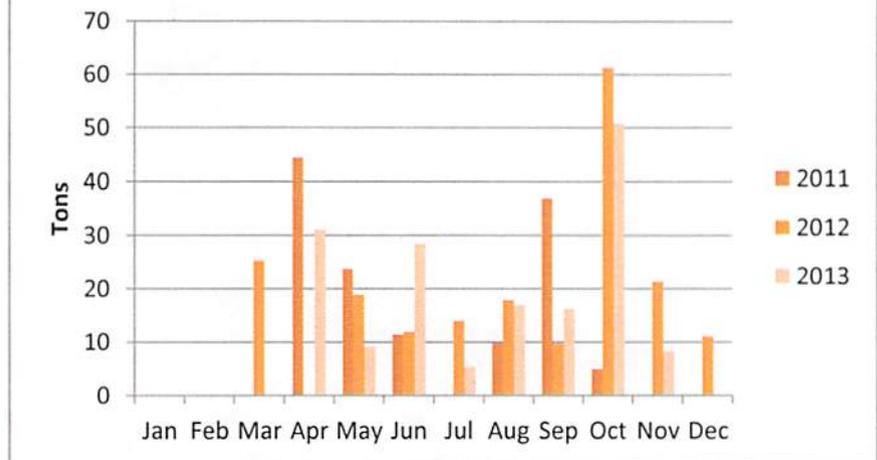
Shorewood jointly owns its 2012 Tymo vacuum sweeper with the Village of Whitefish Bay.

Total Diggers Hotline Tickets:
998

Estimated Labor Hours:
1,337

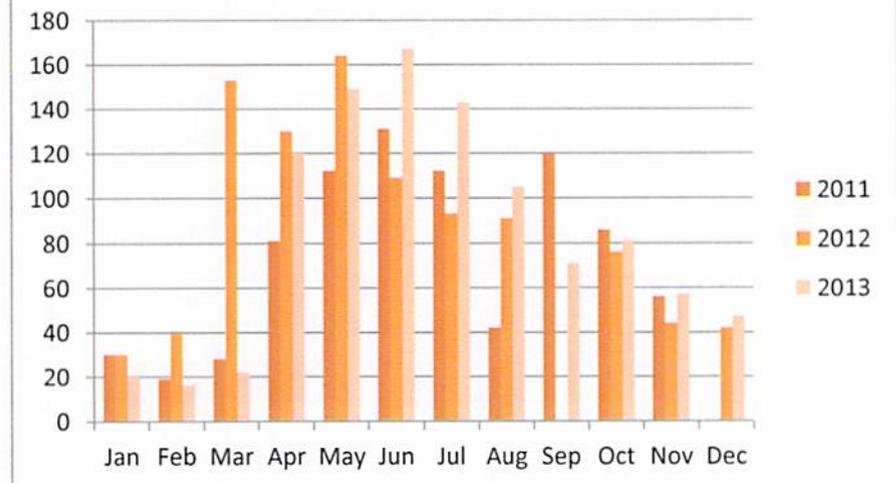
Hotline requests fluctuate greatly based upon the scope of public construction projects and economic conditions (private activity).

Street Sweeper



Regular street sweeping is required under the Village's NR 216 stormwater discharge permit. Sweeping is typically not done during the winter months as road salt is extremely damaging to the sweeper.

Diggers Hotline Tickets



Diggers Hotline is a necessary activity to protect the Village's underground infrastructure. Requests are made for projects ranging from fence installations to major sewer improvements. All requests, no matter the project scope, require the marking of water, street light and traffic signal locations.

2013 Facts & Figures

Total Gallons:
22,578

Total gasoline:
5,781

Total diesel:
16,797

% change 2012 to 2013:
24.7% increase

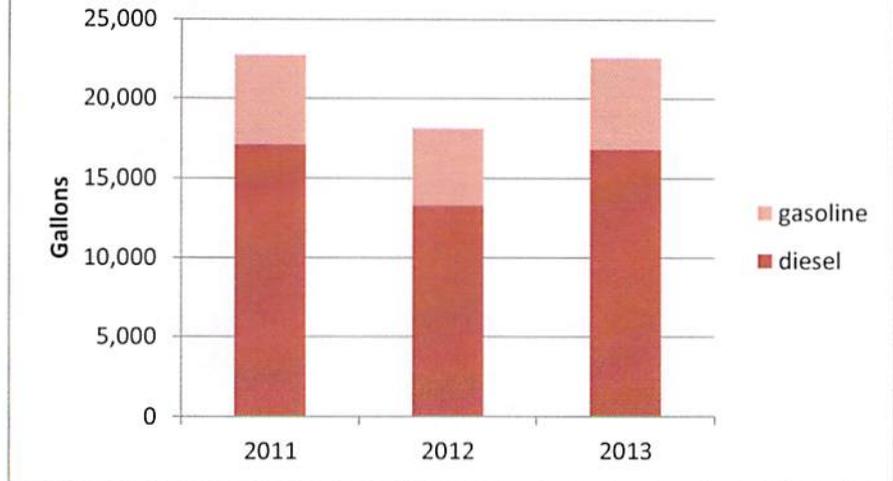
Total number of fleet vehicles:
45

Diesel vehicles:
32

Gasoline vehicles:
13

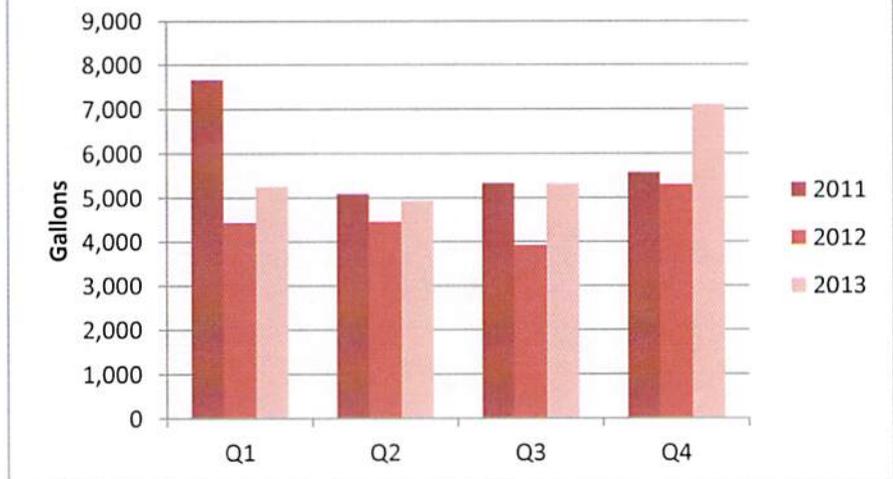
Total pieces of gas/diesel powered equipment:
26

Total Fuel by Type 2011-2013



Fuel consumption varies from quarter to quarter based upon a number of factors including the types of projects or tasks undertaken. The most significant impact, however, is typically seasonal. Annual fuel usage is directly proportionate to snowfall and snow event frequency.

Total Fuel Consumption 2011-2013



2013 Facts & Figures

Total Materials:
1,693 tons

Total leaves:
452 tons

Total brush:
133 tons

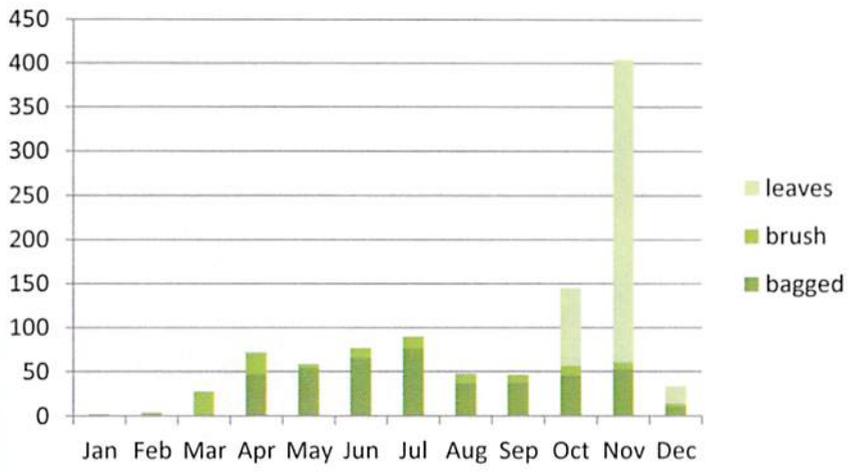
Total bagged:
1,108 tons

Estimated labor hours:
2,782

While the number of trees in Shorewood remains relatively constant, the volume and timing of leaf collection can vary dramatically based upon precipitation levels, temperature and other factors.

A wet fall season will significantly increase both weight totals and labor hours.

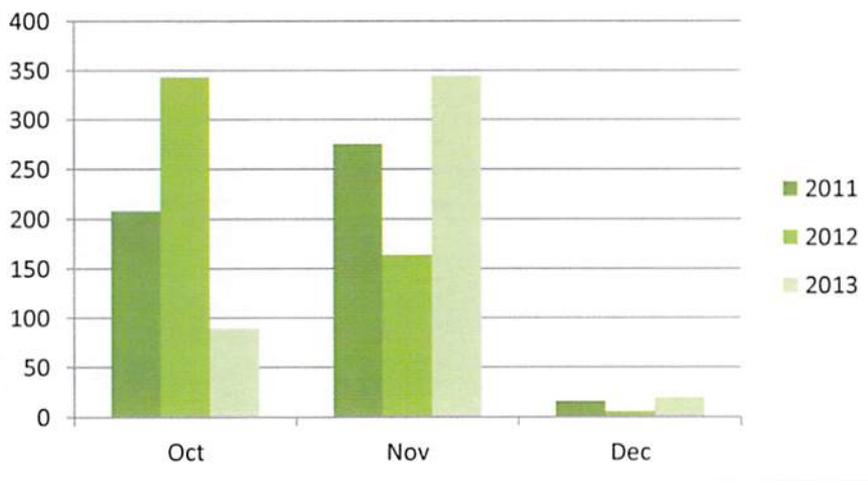
2013 Yard Waste - All Types



Bagged yard waste is collected on the same schedule as refuse. Yard waste routes parallel refuse routes and the material is collected in the afternoon following the regular routes in season.

Brush is chipped curbside on a monthly schedule.

Monthly Leaf Collection 2011-2013



Leaves are vacuum collected curbside on a day-certain weekly schedule between the third Monday in October and the first Friday in December of each year.

2013 Facts & Figures

Total Street Trees:
6,226

Planting labor hours:
841

Pruning labor hours:
867

Most common street tree species in Shorewood:

Maple

Ash

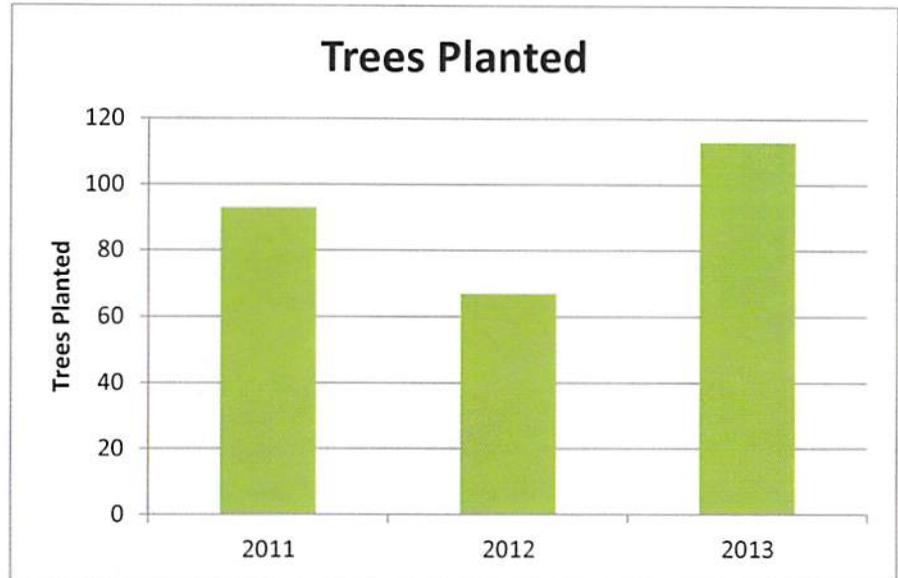
Honey locust

Linden

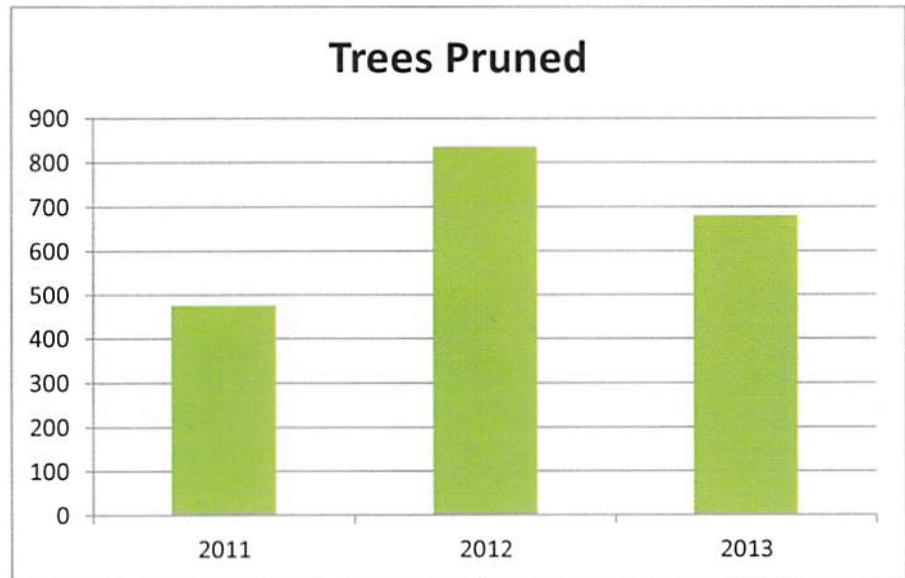
Elm

Hackberry

Tree pruning, trimming, or cutting is an ongoing process throughout the life of a tree. After selecting the right tree and carefully planting it, early pruning is the most important thing that can be done for a tree.



Currently the Village of Shorewood has 6,226 spaces within the street right-of-way which can support a street tree. At any given date, over 99% of those spaces hold a tree.



The number of trees pruned annually is often dictated by the staff time available. Weather conditions reduce the available window for pruning and snowfall frequency impacts staff time available as our forestry crew is typically among our first responders for winter maintenance activities.

2013 Facts & Figures

Total Ash Trees:
1,693

Labor hours:
291

Ash trees as a% of
total street trees:
28%

To qualify for the Growth Award, eligible communities must earn points for new or improved programs and projects across four eligible categories: education and public relations, partnerships, planning and management, tree planting and maintenance.

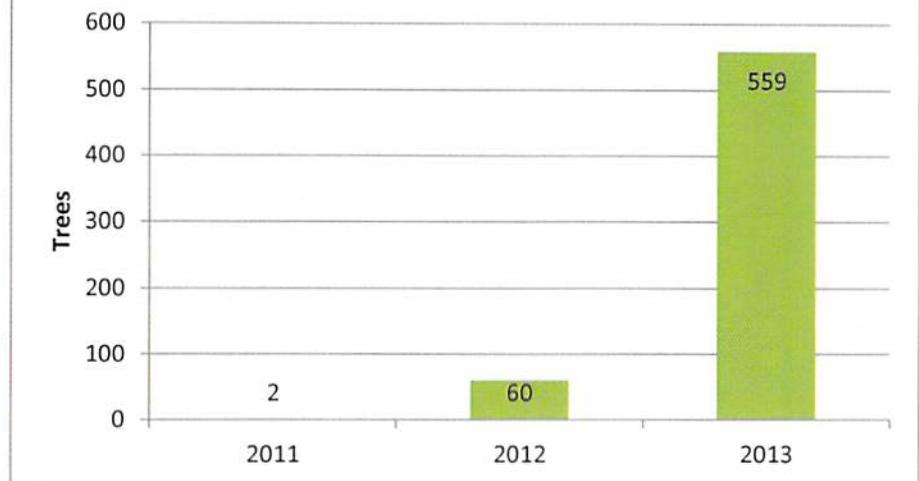
Shorewood's program included:

* Improved "caring for your new street tree" door hanger.

* Walking tour of significant street trees.

* Sidewalk construction policy.

Ash Trees Injected for EAB



An intern position was created in the Forestry department for 2013. The primary duty of the position was to assist with trunk injections of ash identified in the Village's EAB Readiness Plan.



On May 20th the Village was presented with its first Tree City Growth Award. Shorewood has been named a Tree City each year since 1996.

2013 Facts & Figures

Total length of collection system:
45.7 miles

Combined sewer:
18.9 miles

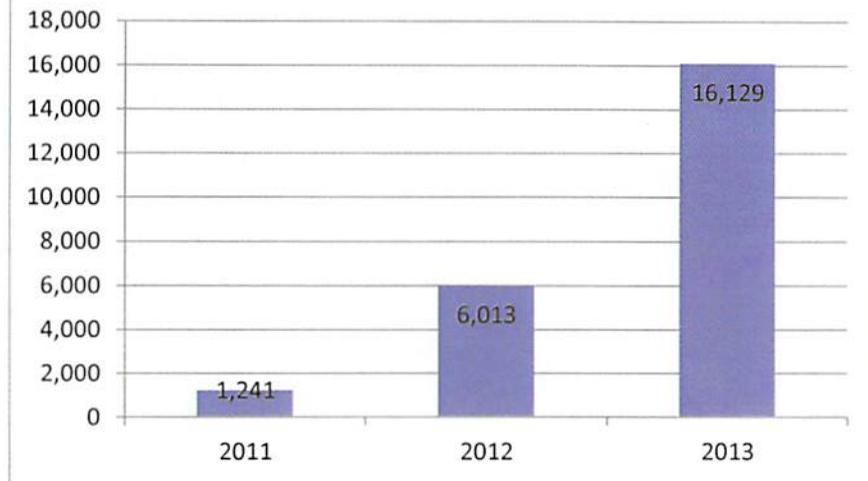
Sanitary sewer:
11.48 miles

Storm sewer:
15.31 miles

The Village is a member community of the Metropolitan Milwaukee Sewerage District.

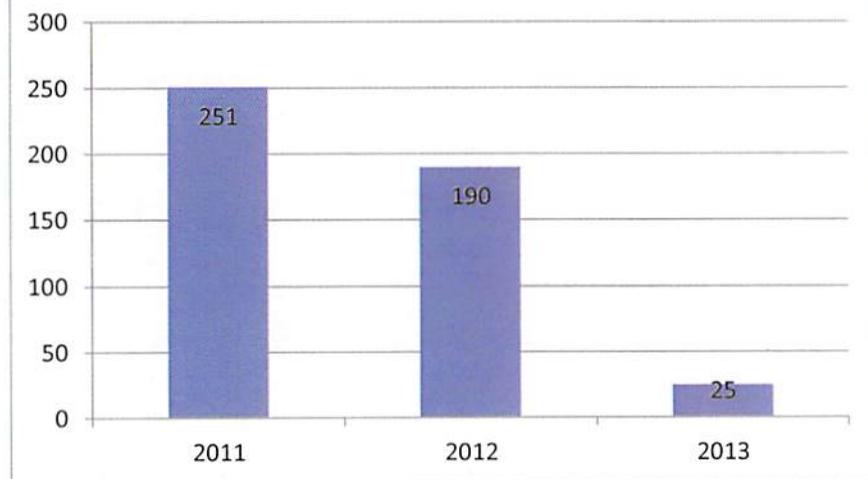
2013 manhole inspections were down significantly due to a delay in the implementation of the GIS manhole inspection tool.

Sewers Cleaned/Inspected



Shorewood's CMOM (Capacity, Management, Operations and Maintenance) Plan outlines a goal of inspection 14% of the Village's mainline sewer system annually. This equates to 22,629 lineal feet each year.

Manholes Inspected 2011-2013



The Village's CMOM Plan outlines a goal to inspect 20% of the Village's sanitary manholes annually. This equates to an inspection of 212 of the 1,062 system manholes each year.

2013 Facts & Figures

Mainline lining program contract cost:
\$162,764

Lateral lining program contract cost:
\$445,892

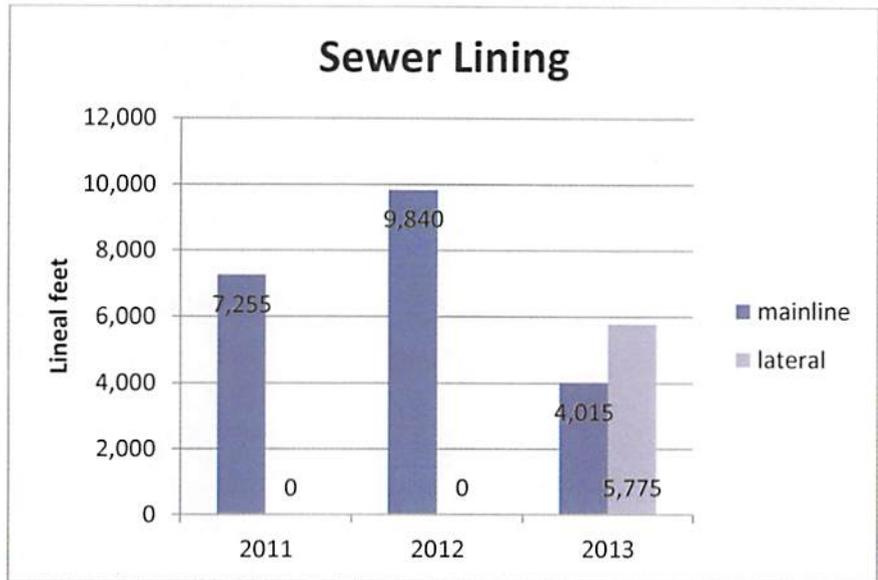
Total number of private laterals rehabilitated:
90

Average cost of private lateral rehabilitation:
\$4,939

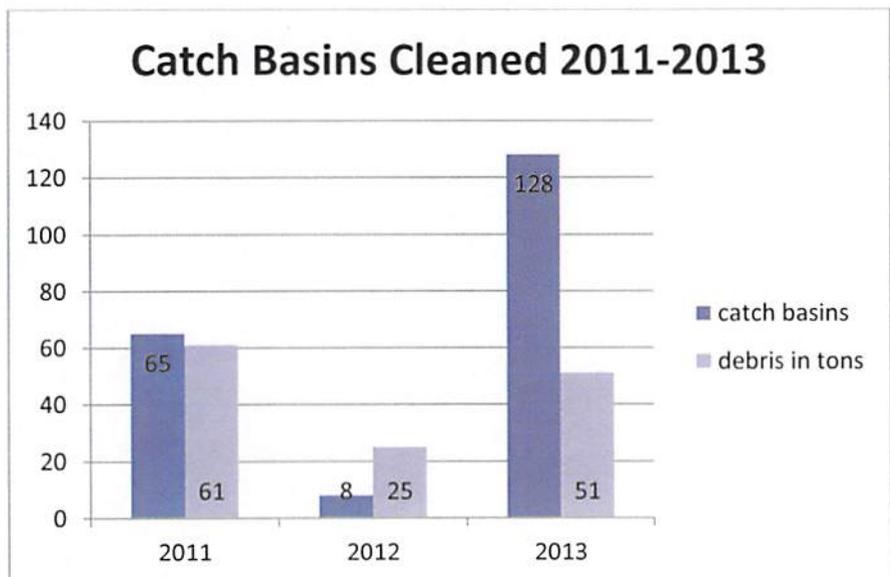
Storm Inlets:
450

Catch basin:
480.

Unlike inlets, catch basins are designed with a sump which removes debris and particulates from the storm water before it is discharged through the system to the lake or river.



The Village has performed an annual mainline sewer CIPP lining program since 2001. Lining improves the structural integrity of the pipe, protecting it from failure or collapse. It also provides significant inflow and infiltration reduction benefits. Shorewood implemented its second lateral lining program in 2013 under MMSD’s PPII (Private Property Inflow and Infiltration) program. A pilot program which also included the installation of sump pumps was first undertaken in 2005.



2013 Facts & Figures

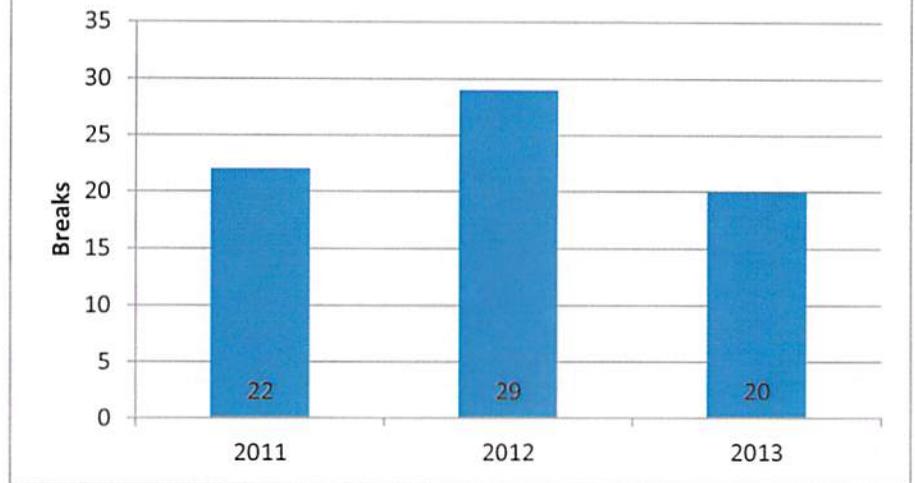
Total length of distribution mains:
38.1 miles

Main break repair labor hours:
291

The Village is a wholesale customer of the Milwaukee Water Works, purchasing water while owning and maintaining the distribution system within its municipal boundaries.

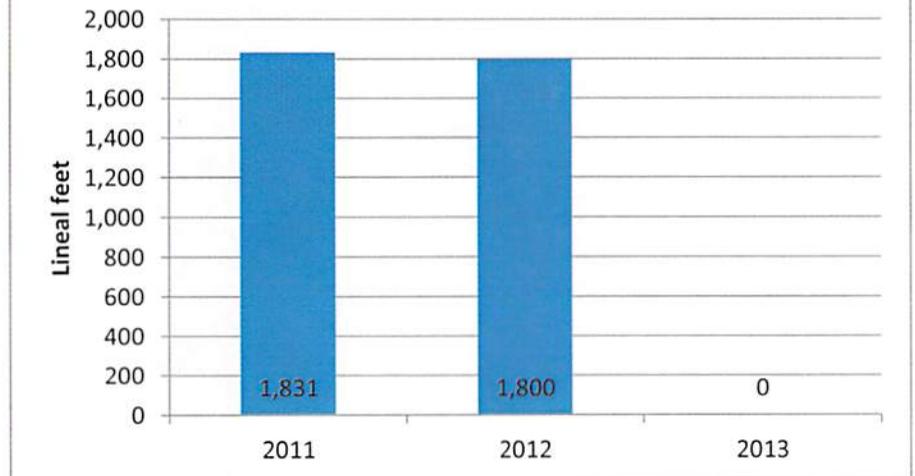
Percent of distribution system replaced in three year reporting period:
1.8%

Water Main Breaks



Water enters the Village at two locations: a connection at the intersection of Edgewood and Oakland and a connection at Downer and Edgewood Avenues. Two pressure regulating valves in the Downer pit were replaced as an emergency repair in the spring of 2013, greatly reducing the number of pressure-related main breaks.

Water Main Replaced



2011 watermain was replaced as a part of the Downer Avenue Reconstruction project. 2012 watermain was replaced as a part of the Basin 6 Phase I Sewer Improvements.

2013 Facts & Figures

2013 per ton salt

cost:
\$51.03

2012 per ton salt

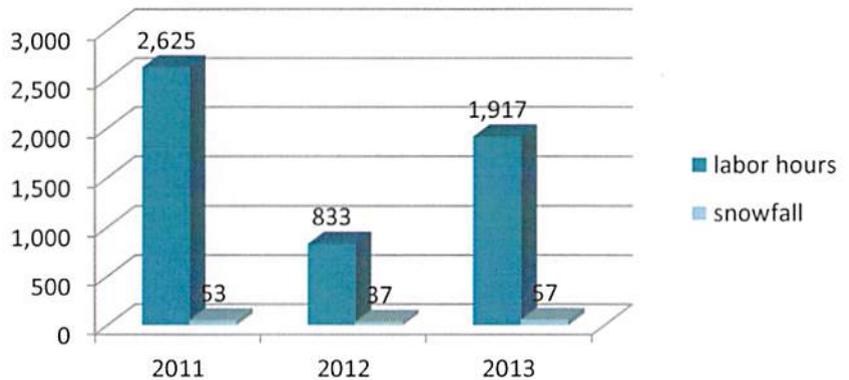
cost:
\$51.42

2011 per ton salt

cost:
\$50.76

A number of equipment improvements have been made in recent years with the intent of reducing salt use. While the chart at right wouldn't appear to reflect that at first glance, there were significantly more storm events in the 2013-14 season but only minimally increased salt usage.

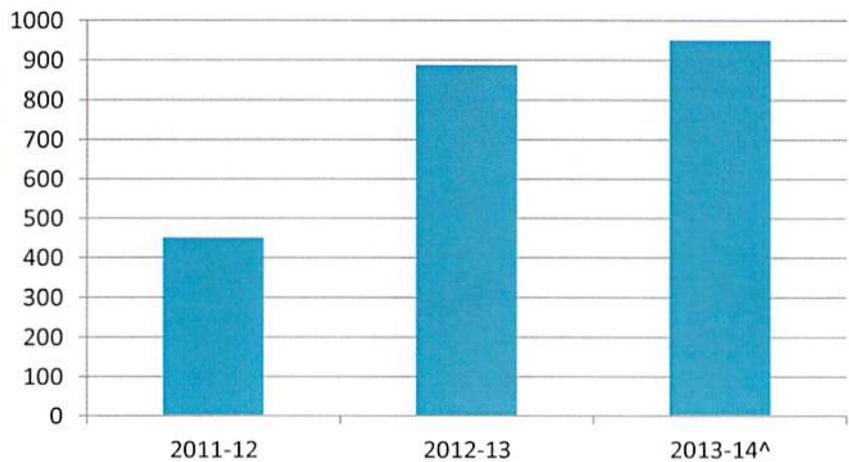
Winter Maintenance Labor Hours (to total annual snowfall)



Winter maintenance includes the following snow-related tasks: salting, plowing, sidewalk clearing, bus stop clearing, “bumping corners” (clearing snow from corners at all intersection to improve pedestrian access) and snow removal from the business district.

Comparing these hours to the annual snowfall does not give a true picture of efficiency as several consecutive light snowfalls will often require as many or more labor hours and salt usage as one larger storm.

Seasonal Salt Usage



^ through March 15, 2014

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