Results MINNEAPOLIS

Public Works

Departmental & Utilities

February 19, 2013

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Public Works (Departmental & Utilities)

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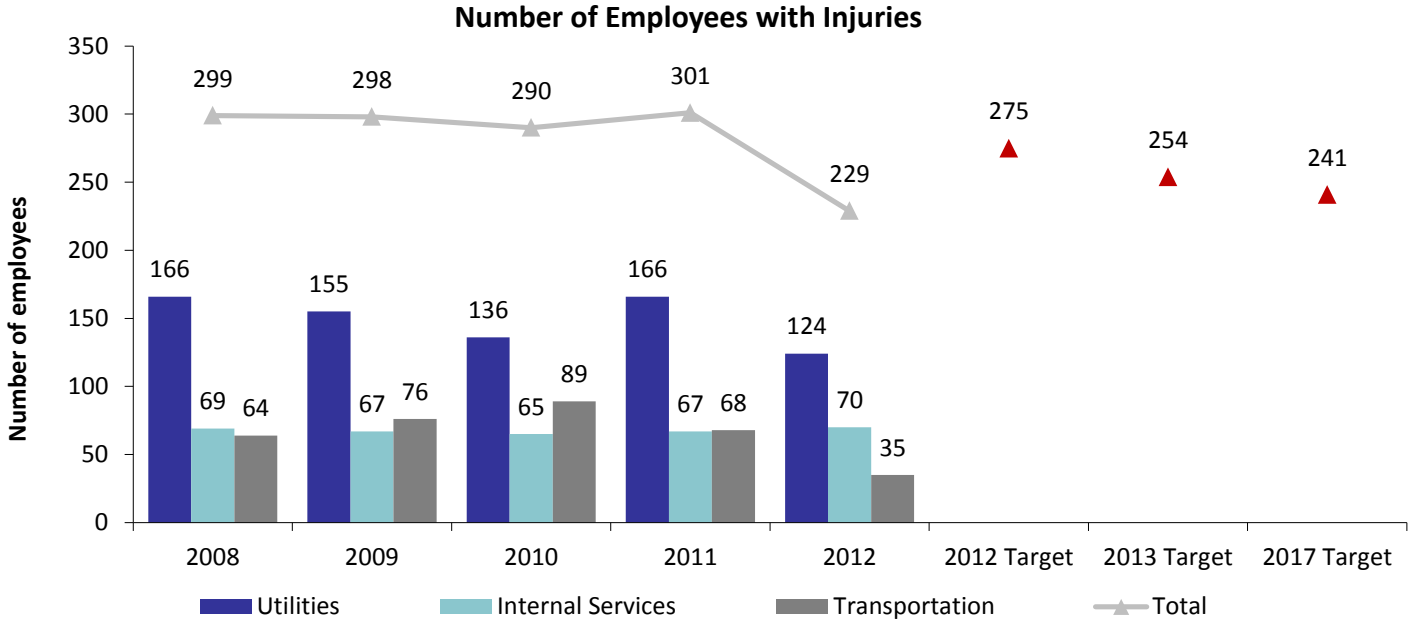
Department is responsible for this Sustainability Measure and Target. Measures are part of the City's 26 Sustainability Indicators. For more information please visit http://www.ci.minneapolis.mn.us/sustainability/indicators/index.htm

Note: The 1st *Results Minneapolis* session for the year will focus on Departmental & Utilities measures and the 3rd *Results Minneapolis* on Transportation & Internal Services measures; The 2nd & 4th *Results Minneapolis* sessions for Public Works will be on Special Topics.



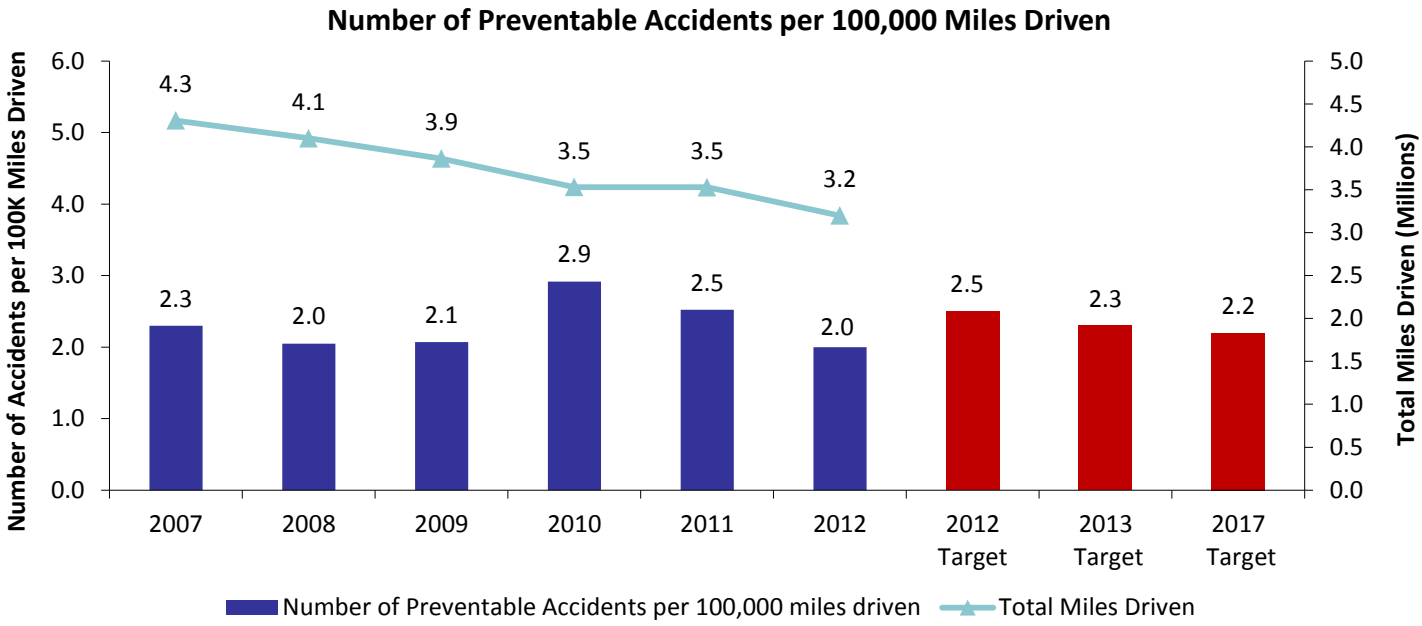
Note: Employee injury data compiled from information provided by Risk Management in the new system called Risk Masters. We are working with Risk Management to better understand all of the data that the City is collecting and reporting about injuries, so that Public Works can become proactive in our training approach.

Why is this measure important?

Recording and monitoring injuries is an important measure because it is an indicator of the status of health and safety in workplace. The measure can give an indication of trends, employee morale, training needs and problem operations or projects. Public Works Safety monitors this measure closely to help understand where the training emphasis should be incorporated into the "Safety Days" regimen. In 2012, we saw a 24 percent decrease in the number injuries across Public Works, the biggest decrease occurring in Internal Services with a decrease from 2011 of 49 percent.

What will it take to achieve this target?

As the workforce ages our work with the wellness team becomes more important. We are encouraging employees to use stretching techniques before they begin work and again after work is over, to complete the "health assessment" and "health coaching" through Medica and to take more time in working safely to prevent sprains and strains. In addition the Safety team will include discussions about wellness at all "Safety Days" and conduct a safety review with individual employees with repeat injuries, their direct supervisor, the Manager of Safety and other persons as appropriate to create a Safe at Work plan. Operational changes in the department, such as the conversion to One Sort recycling, will also reduce the number of injuries in Solid Waste and Recycling.



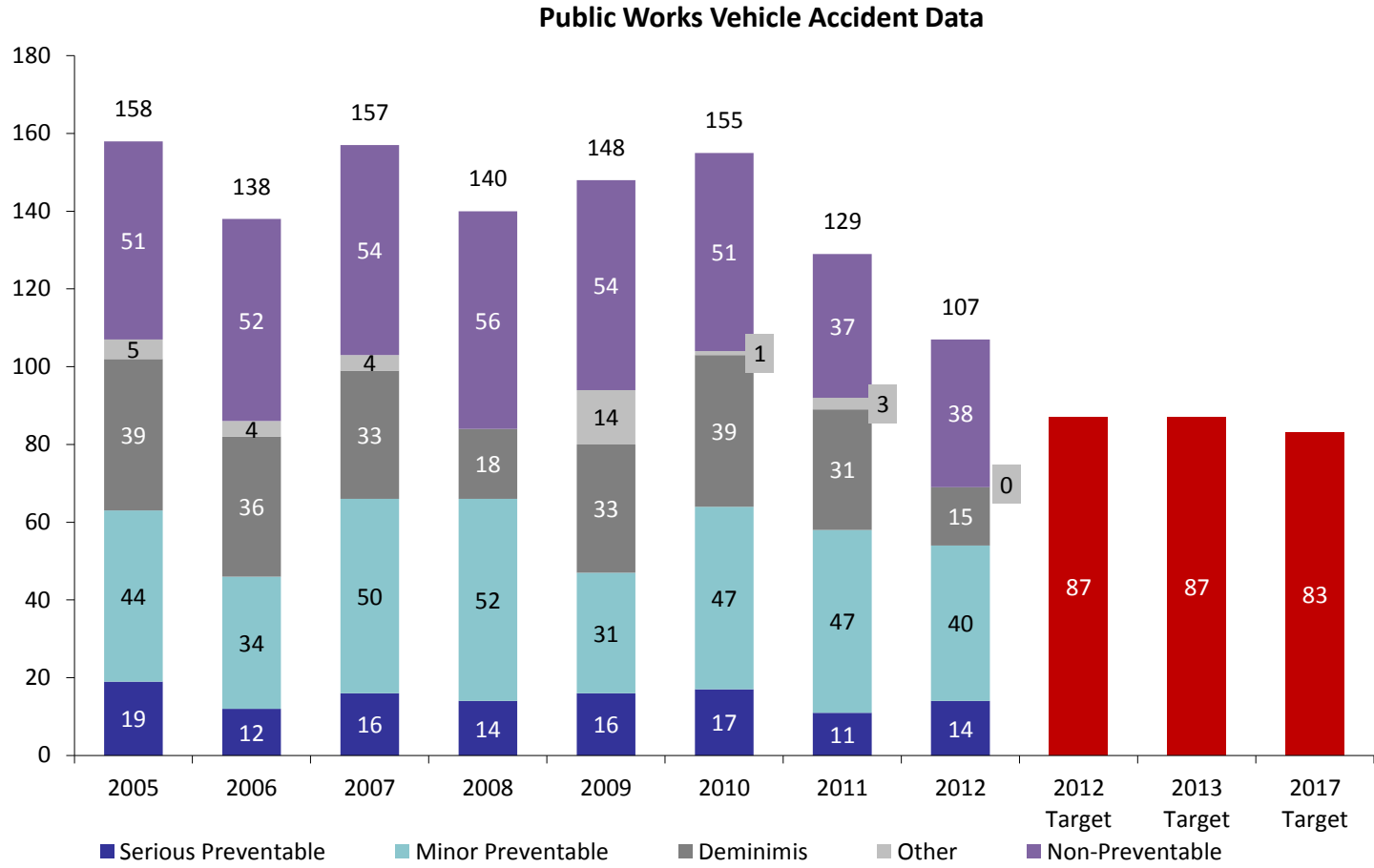
Why is this measure important?

This is important because Public Works not only has many vehicles on the road, but also has large vehicles with a potential for great liabilities (costs) when accidents occur. These liabilities include such things as equipment repair, employee injury (worker's compensation), employee replacement and costs associated with the damage claims or lawsuits of others. By reducing the number of preventable accidents the department may realize a reduction in these associated costs and liabilities. Preventable accidents are categories of vehicle accidents that can be influenced through comprehensive and recurring training and other means. The total miles driven continues to decrease as the department reduces the number of vehicles in the fleet and access to city-owned vehicles.

What will it take to achieve this target?

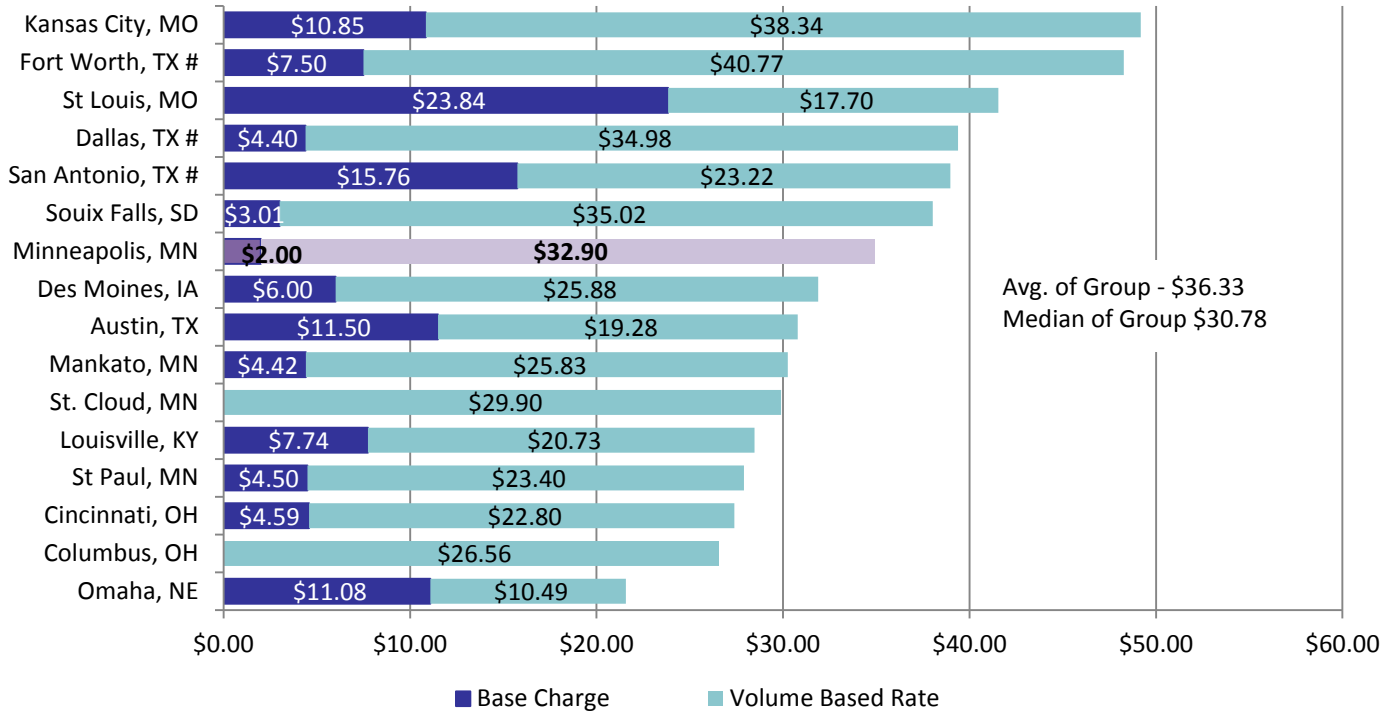
There were 69 preventable accidents in 2012, 18 below our target of 87 (see next page). Our strategy to meet our current targets will include the following:

- Work with Fleet Services and Solid Waste training groups to provide winter driving preparedness training, other recognized driver training and continue to research the industry established programs;
- Continue using the Incident Review Board (IRB) process which includes individual employee assessments and appropriate training recommendations for those with multiple preventable accidents;
- Continue the Safe Driver Award program, which rewards employees for accident free driving. In 2013, we will review the program for updates;
- Hold employees accountable when they are involved in preventable accidents through the IRB process and performance deficiency reviews; and
- Continue to review best practices in the industry to enhance the current safe driving program.

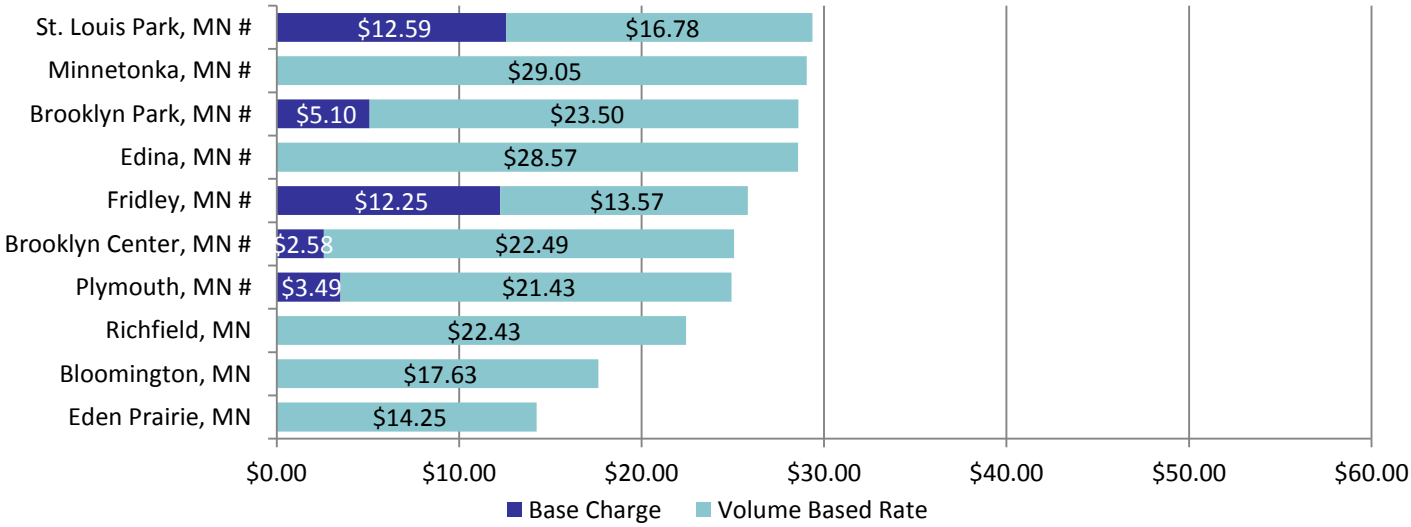


Note: Targets do not include other or non-preventable accident data.

2013 Comparison of Residential Monthly Water Charges (Surface Water) (Normalized for Softening)



2013 Comparison of Residential Monthly Water Charges (Ground Water) (Normalized for Softening)



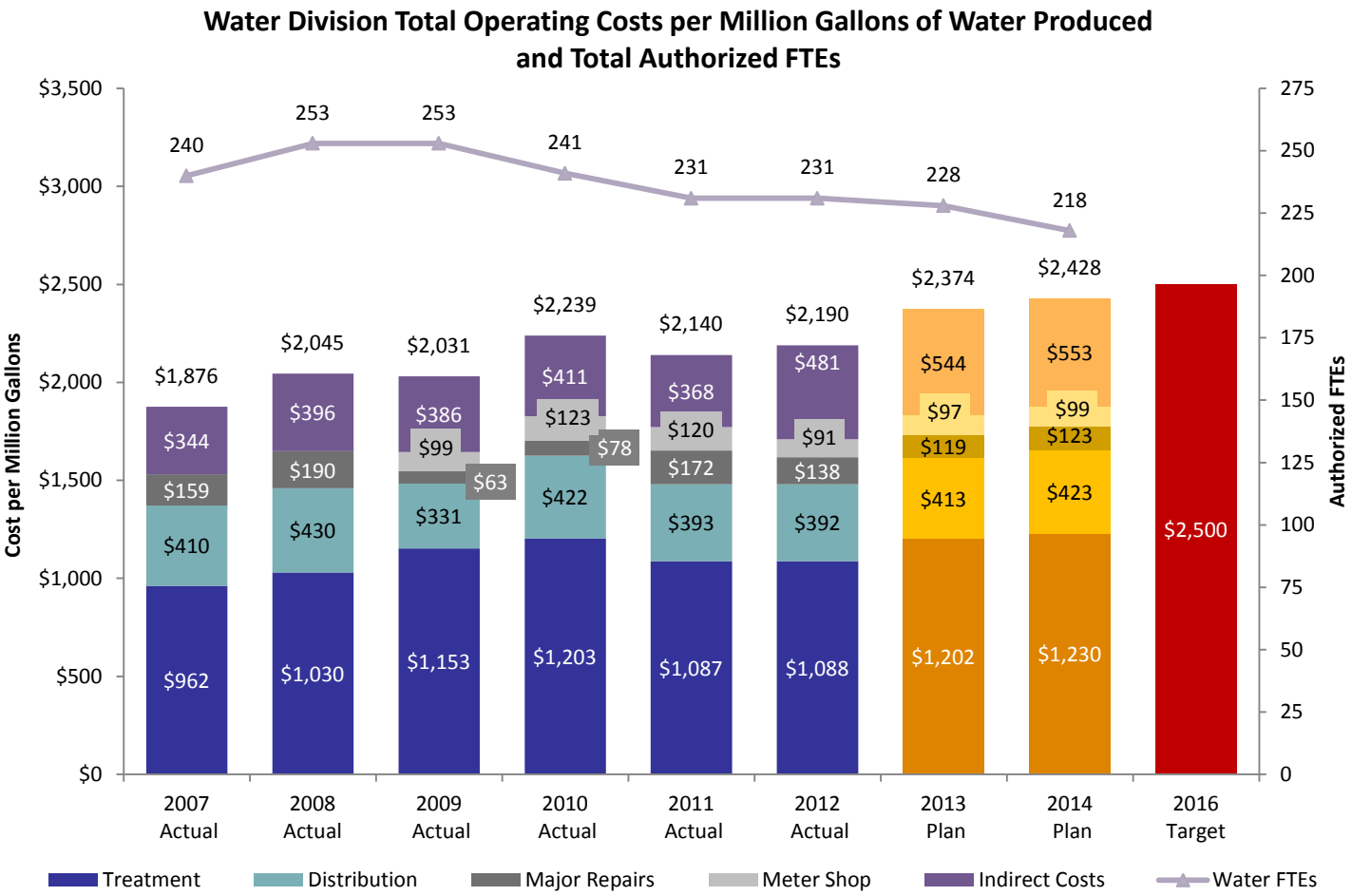
Notes:

1) Minneapolis receives it's water supply from surface water and is only reflected in the top graph.
2) Based upon a monthly consumption of 10 units of 100 cubic feet or about 7,500 gallons.
3) Cities were chosen to be on this list because they were drawing water from rivers in mid-western USA and/or they were near a larger city.
4) Normalized for those cities that do not soften the finished water: Our normalization for softening equates to $15.47per 7500 gallons. Of that $15.47, $8.33 is for depreciation of the home water softener, $3.92 is for salt, and $3.22 is the cost of additional water/sewer used for brining/rinsing/backwashing.

Narrative on Next Page…

Why is this measure important?
This measure is important in order to show how the cost of providing water in Minneapolis compares to other cities for sales of the same amount of water. Some of the cities with the lower charges are younger, smaller cities with little or no debt and minimal maintenance costs. Over time the charges in these cities will show increases. The cities on the top of the chart tend to be older cities that have had to re-invest in their water operations as the infrastructure ages.

What is the target for this measure?
Our target/goal is to be below the average rate for this grouping of cities by 2015, which will make us a more competitive water supplier and will be more satisfactory to our customers in Minneapolis and the suburbs. In the last two decades, Minneapolis has invested heavily to improve our treatment operations and to maintain our system.



Notes:

1) The increase of 13 FTEs in 2008, is the result of moving the design cost center back under Water.
2) The Meter Shop was moved from Distribution to its own cost center in 2009.
3) Sludge Hauling was moved from Major Repairs in 2008 to Treatment in 2009.
4) 2010 & 2011 FTEs includes 24 permit employees and 2012 FTEs includes 23 permit employees.

What is the target?

The target is to achieve a division total operating cost of less than $2,500 per million gallons by 2016. This results in an average growth of about two percent per year.

Why is this measure important?

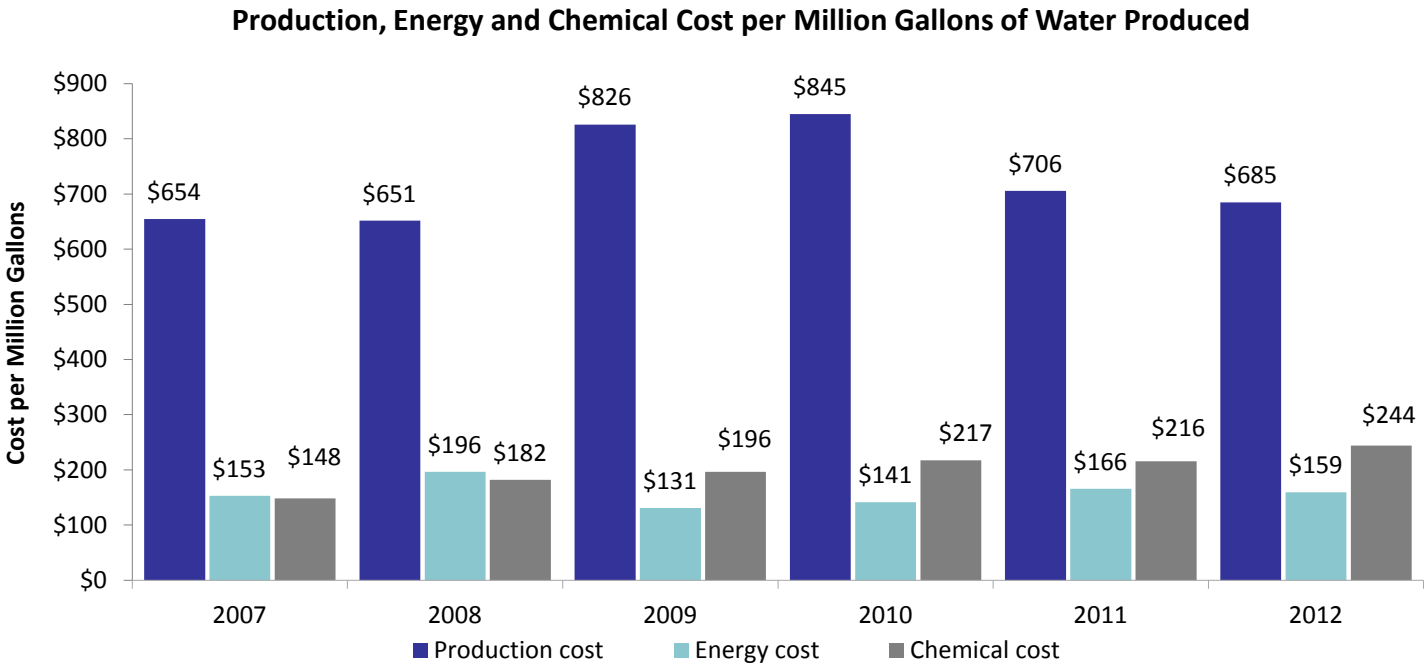
Since water utility revenue (and associated billing rates) needs to recover operating costs, it is very important that we track these costs, become as efficient as possible in all areas and be competitive with other cities. The graph above does not include debt service to the utility. Debt service and capital pay-as-you-go has been included to account for all of the costs that influence the rate (see next page).

Treatment and pumping costs are an indicator of the unit cost of water production. Some costs, such as chemical and energy, are dependent upon the volume of water produced. Other costs, such as employees' salary and fringe benefits, are not. The following graph shows the amount and percentage of Treatment & Pumping costs attributable to these three areas. Since 2004, the actual unit cost for chemicals has more than doubled (going from $114/MG in 2004 to $244/MG in 2012).

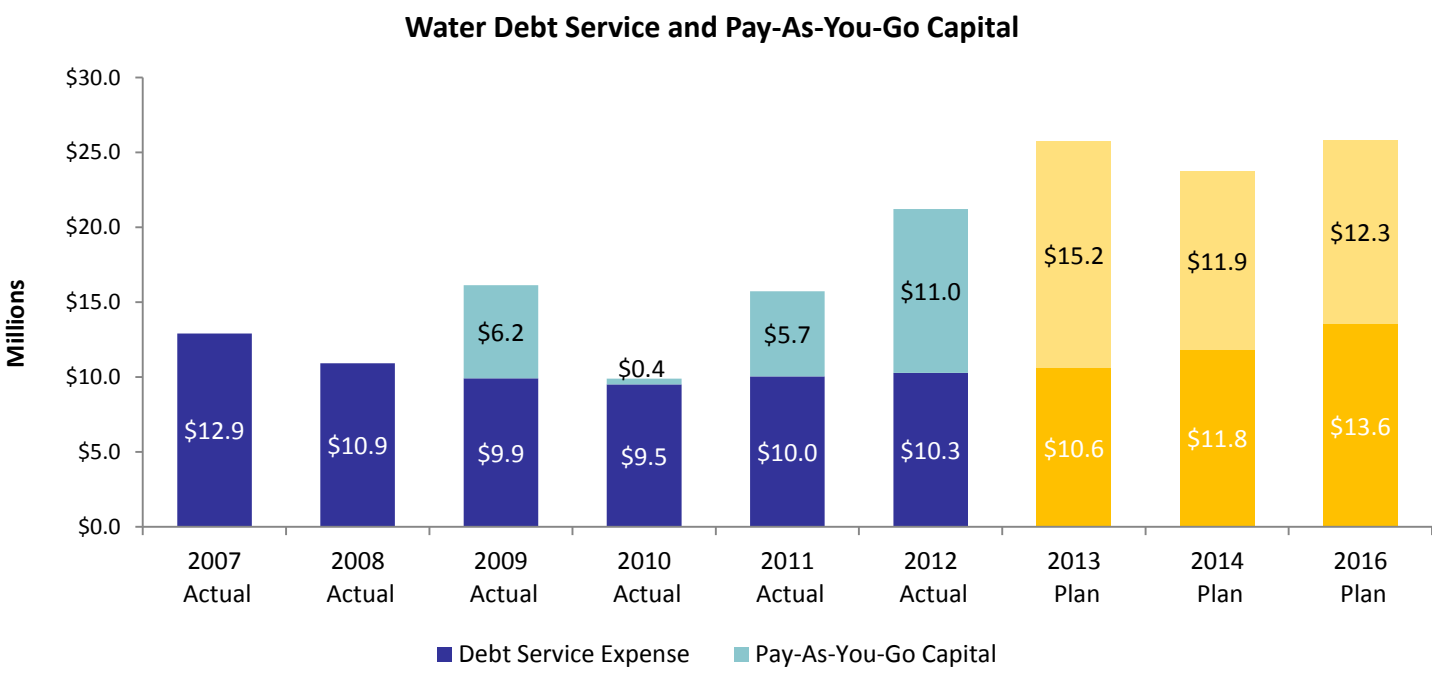
Additional Data and Narrative on Next Page...

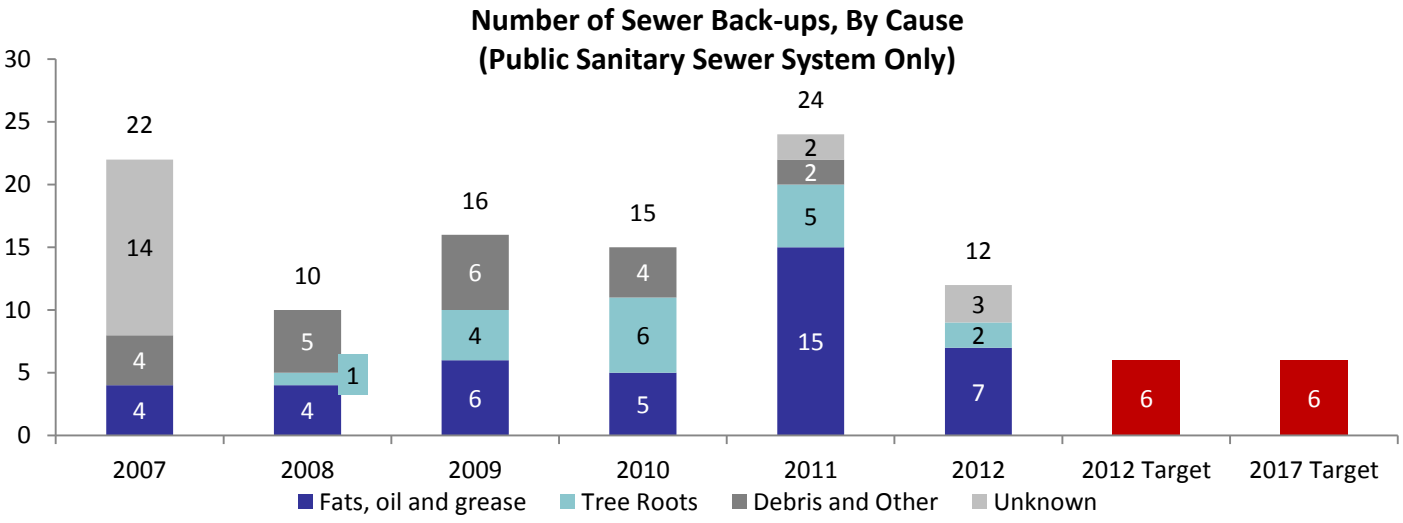
What will it take to achieve the target?

In order to achieve this target we will have to provide improved staff utilization and enhanced performance. We will also have to optimize the use of chemicals, tighten the specifications on the quality of chemicals and use better energy management practices. It is important to be able to project and track costs accurately so that the division will stay within its budget. We will also need to find ways to minimize the overhead costs to the water operation, as well as to be as efficient as possible in all aspects of the production of potable water and in our maintenance practices so that the City can both retain municipal customers and to limit the costs to our citizens and businesses.



Note: Water Production Cost are calculated by subtracting energy and chemical costs for more detailed data.



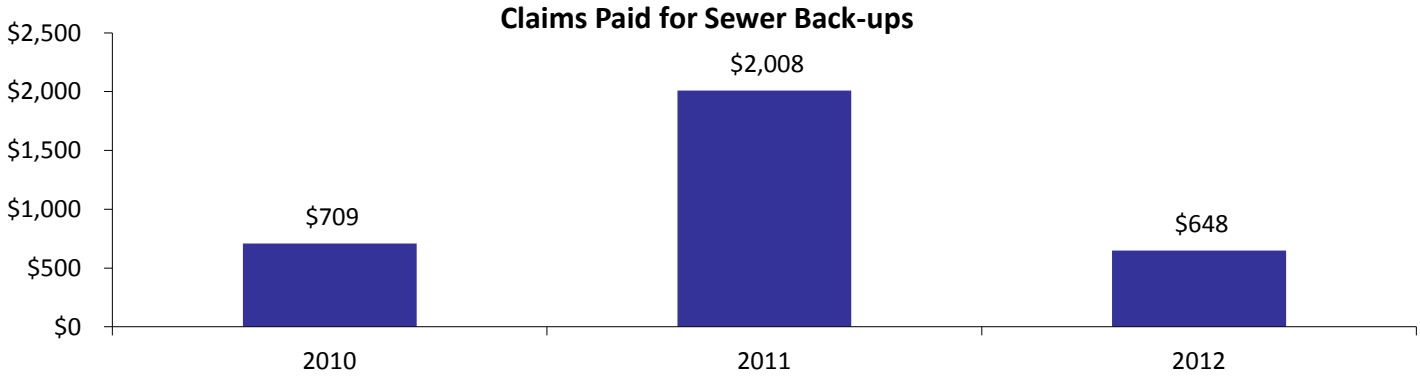


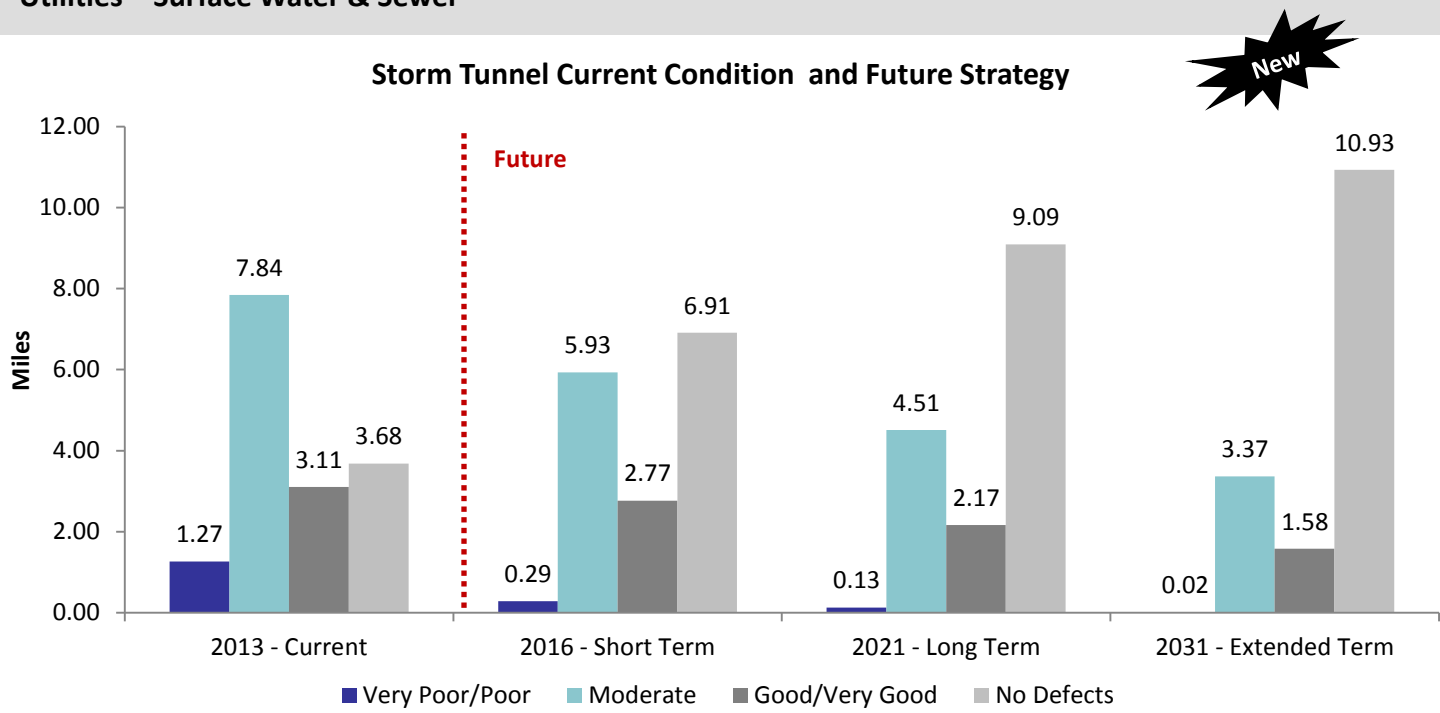
Why is this measure important?

The prevention of sanitary sewer backups in the public sanitary sewer system is a primary health and human services factor for providing a clean and livable city. Public sewer lines that cause backups onto private property are potential financial liabilities for the City by reimbursing residents for resulting damages. This measure can be used as an indicator of how well the City is managing its sewer system operation, maintenance and support activities. Important components include managing and regulating what is being discharged into the system and regular cleaning of the sanitary sewers, rather than cleaning them only if completely plugged. The City cleans sanitary pipes 15" or smaller in diameter on a regular schedule that varies from every six months to every two years, depending on history, size and type. Problem areas identified in the system that are related to fats, oil and grease (FOG), tree roots and original construction compromises in pipes are inspected and appropriately maintained on a regular interval.

What will it take to achieve the target closer to six backups per year?

Six backups per year has been selected as an achievable goal. To achieve success, we need to keep fats, oil and grease (FOG) and foreign material from entering the sanitary system, minimize stormwater and flow problems in the system, increase efforts for sewer cleaning, condition assessments and increase tree root removal efforts. To achieve this level of service, the City is in the process of implementing an asset management program that will help target needs, resources and monitor system operations. In addition initiating a FOG program to educate food service establishments on proper disposal, manage regulatory compliance on discharges, continue the capital program (sanitary pipe lining) and maintain or increase the operational budget are also necessary to meet or exceed the target.





Definition: PACP means "Pipe Assessment Certification Program" from National Assoc. of Sewer Service Companies (NASSCO)
Note: Minneapolis has 15.9 miles of storm tunnels that are comprised of tunnels in very poor/poor, moderate, good/very good condition or has no defects.

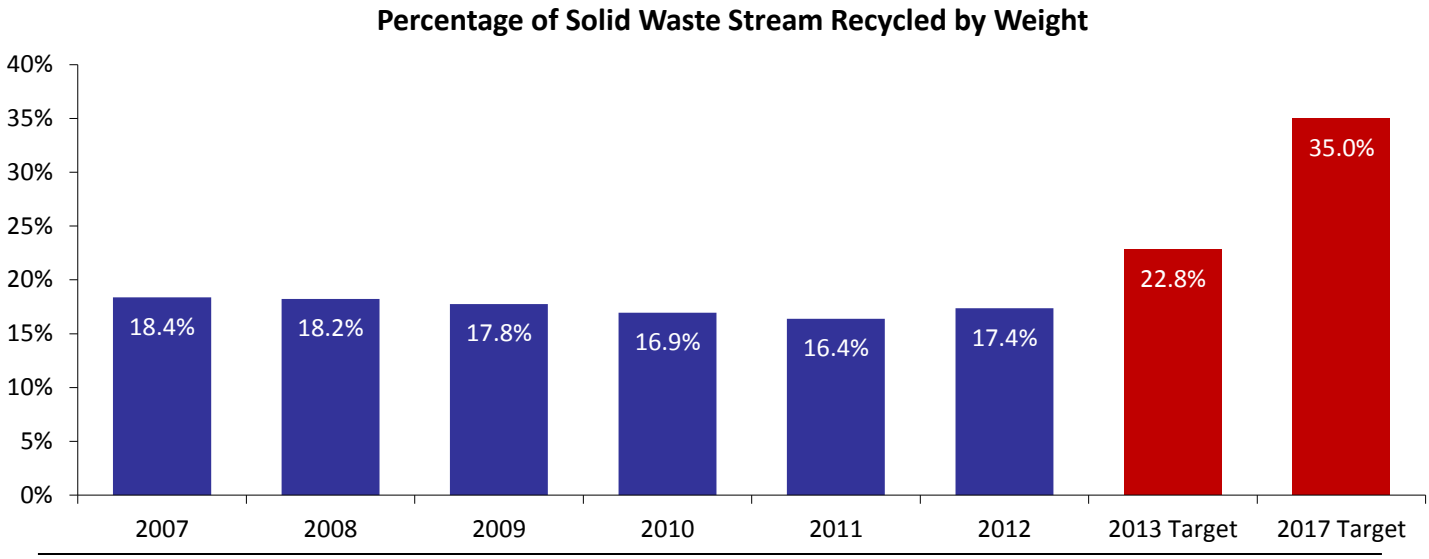
Why is this plan important?

The City of Minneapolis has 15.9 miles of storm tunnels that drain roughly 15 percent of Minneapolis. These tunnels were built between 1882 and 1999 and designed to handle stormwater. Since Minneapolis has developed, the volume of stormwater runoff has increased and now often exceeds the capacity of our system. As a result, the condition of our storm tunnels has been affected. In 2011, PW staff completed a comprehensive condition assessment of the entire tunnel system. We have found segments of the Central City Tunnels (downtown), St Mary's Tunnel and the 10th Ave SE Tunnel systems needed repairs within the next five years. It is important to make timely repairs and keep our systems in moderate or better condition to avoid failures. The capital improvement program funds cover the design and construction costs associated with improving the condition of the infrastructure. Funding has significantly increased in the past two years and is projected to continue at an elevated level for the next eight to ten years while work continues to improve the condition of the tunnel systems.

What will it take to achieve the plan?

Staff will need to continue to perform regular inspections, assessments and risk analysis of the tunnel segments. The frequency will generally be based on the tunnel condition and rainfall events. We will look for opportunities to reduce the stormwater runoff or manage the rate as well as opportunities to modify the system to add capacity or even parallel systems. These options will reduce the pressure that is occurring in the tunnel systems and maintain their condition. Identifying appropriate funding and obtaining City Council and Mayor approval will be key in addressing identified concerns and shifting towards a proactive program.

Tidbit: The surface area in our tunnels is equivalent to 15 miles of a 2-lane road (24' wide), or the equivalent of a 2-lane road that follows 35W from the East Hennepin Ave to the Minnesota River.



Why is this measure important?
The percentage of the solid waste stream that is recycled (tonnage) is important because it indicates the extent to which Minneapolis Solid Waste customers actively participate in recycling programs and also assists in identifying areas that may require additional education efforts.

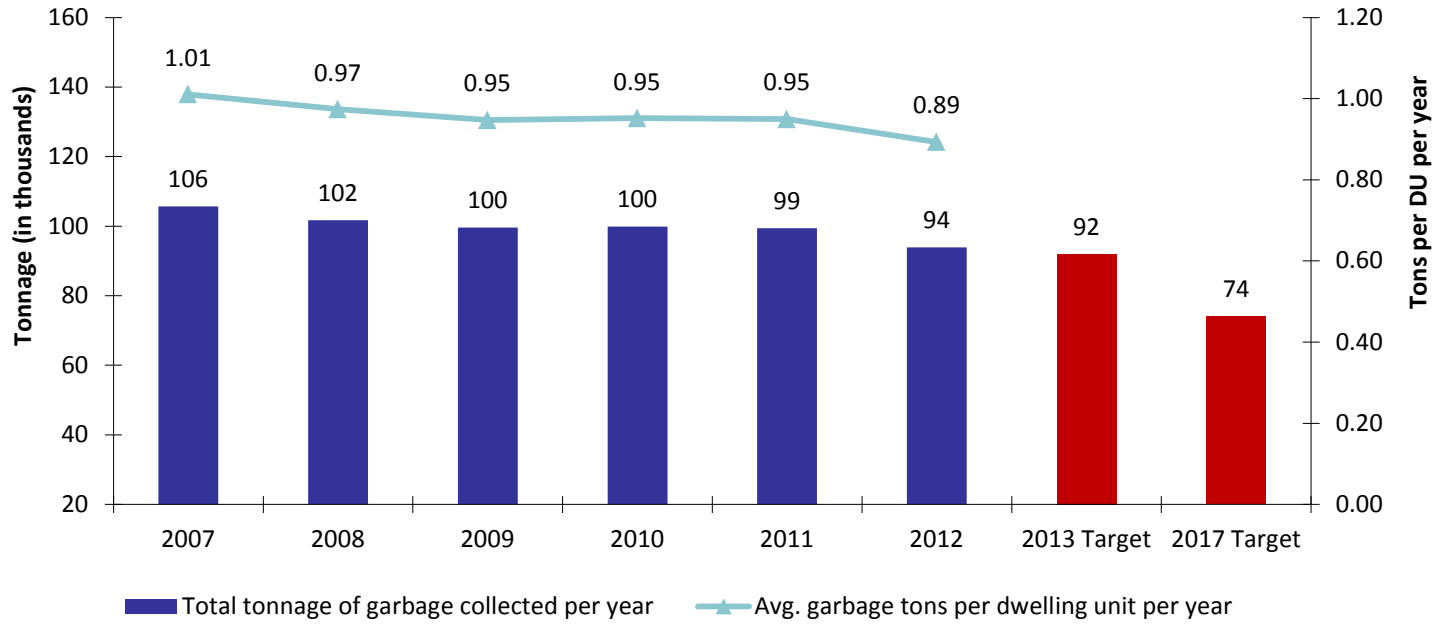
What will it take to achieve a target recycling percentage?
As anticipated, volumes increased in 2012 due to the mattress recycling program and the ability and promotion of adding aseptic containers and additional plastics to our current recycling program. Also, the roll-out of a one-sort, single stream, collection method to approximately 30 percent of our customers has made recycling easier for our residents, resulting in a noted increase in material volume. Continuing to roll-out the single stream program to our remaining customers by Summer 2013, will result in a significant increase in recycling volume by the end of 2013 (see below).

In addition to the above methods, the targets will be achieved through an aggressive educational plan in partnership with Hennepin County. Further recycling initiatives will be expanded to include commercial businesses, construction and demolition debris recycling efforts and mandatory recycling at special events.

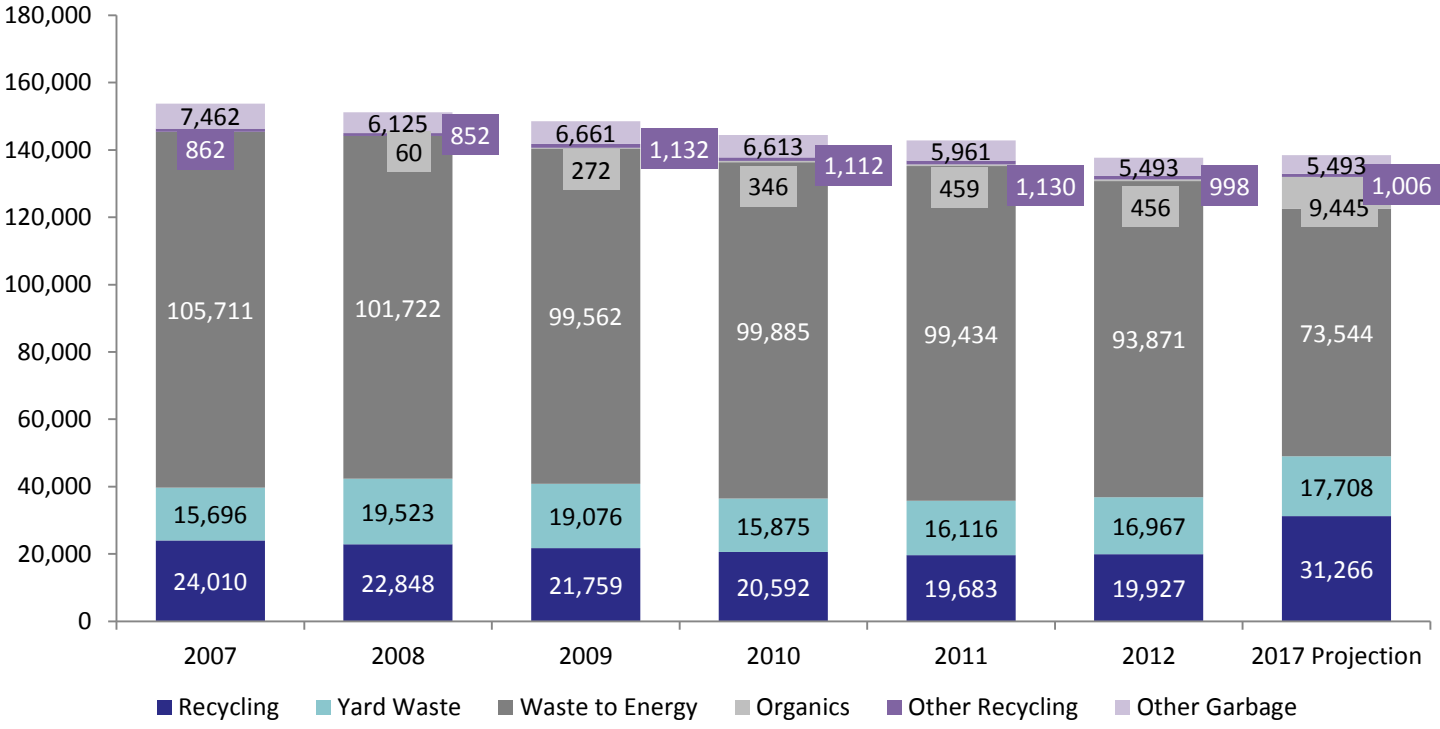
The decrease in tonnage is due to the adoption of better consumer habits in discarding all types of refuse. The one-sort recycling program may result in a better than projected decrease in garbage tonnage by 2017. This will be closely monitored and updated accordingly.

Additional Data on Next Page…

Total Garbage Tonnage Collected Annually per Dwelling Unit and Citywide

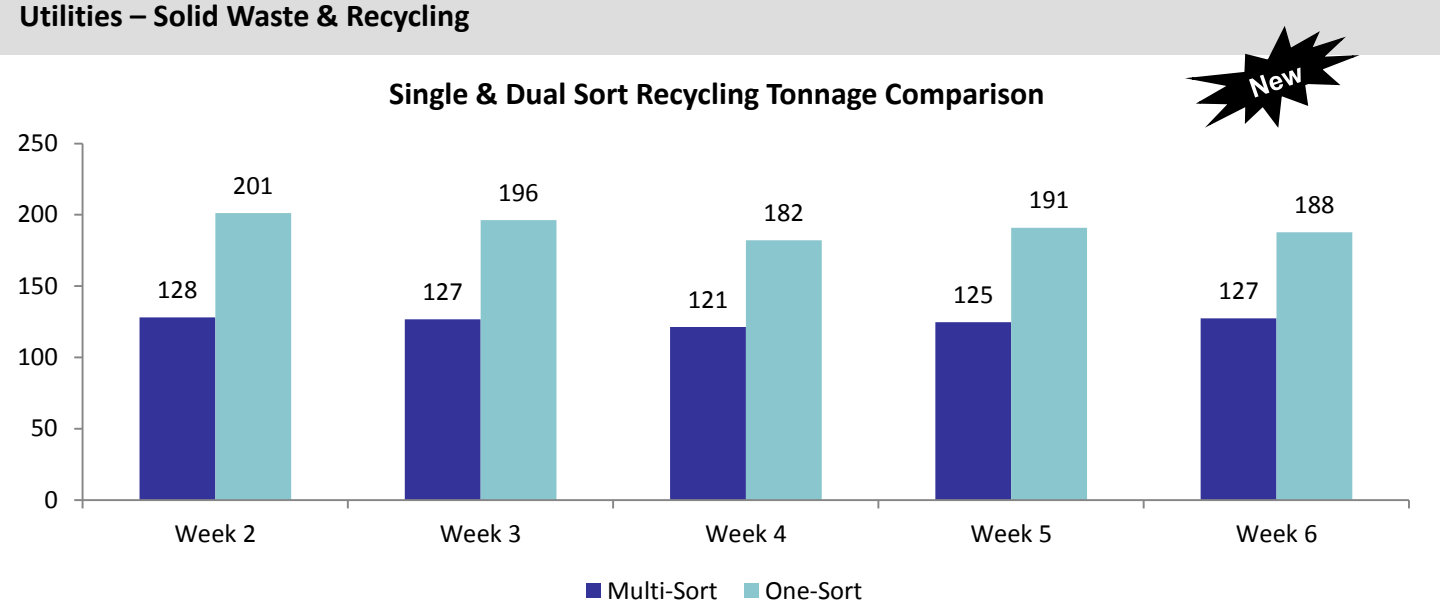


Tonnage of all Solid Waste Collected

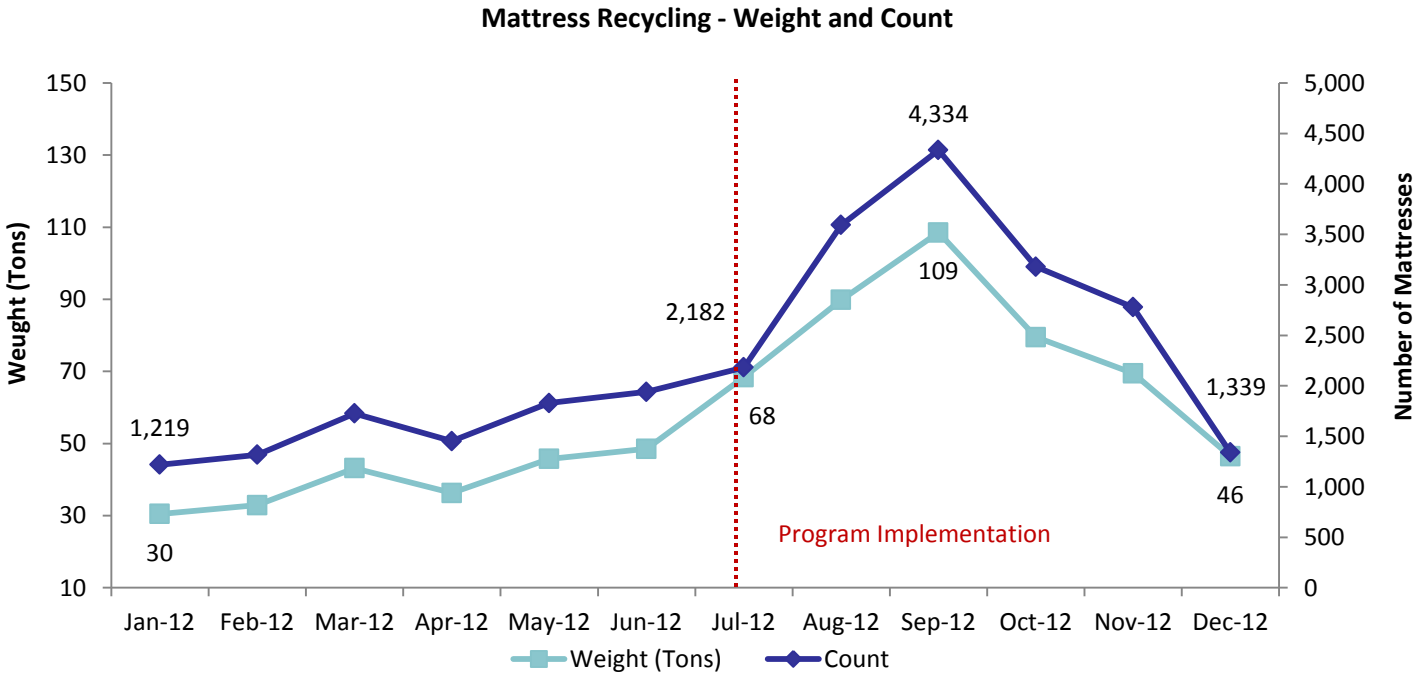


Note: For all charts except for Clean City Graffiti removal services, most Solid Waste & Recycling services are reflective of services provided for only residential customers. That is for buildings with 4 or fewer dwelling units.

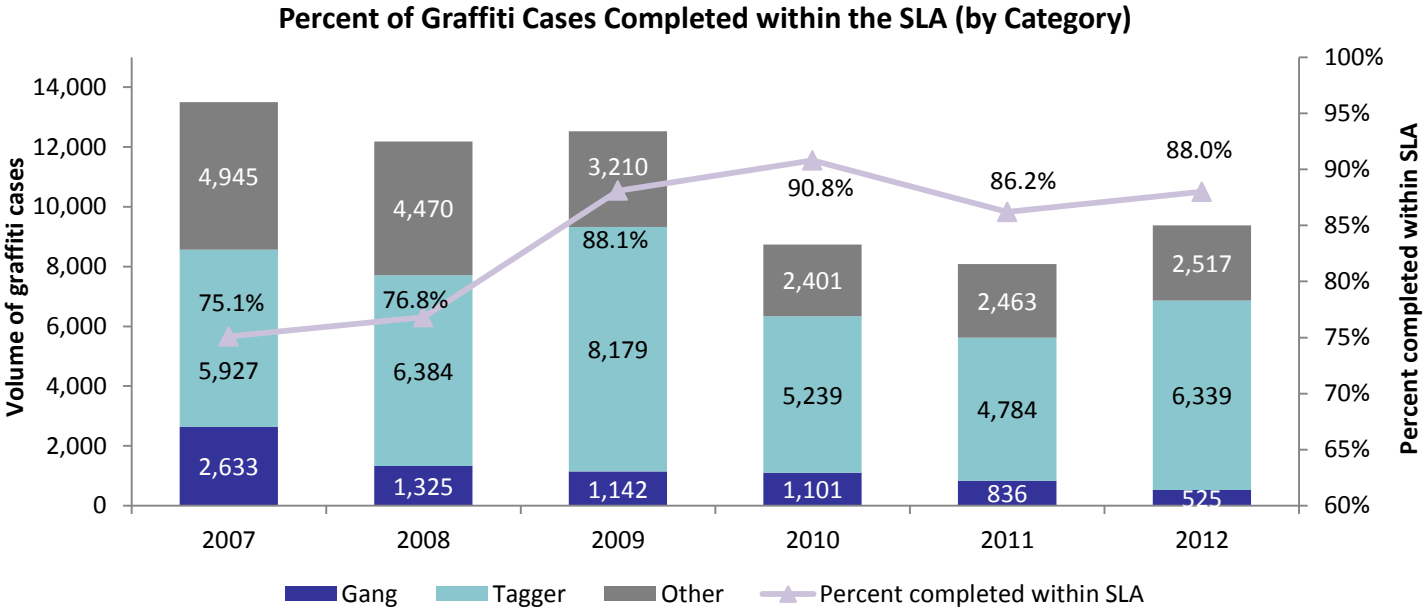
Additional Data on Next Page…



Note: The above chart represents the tonnage collected during the first weeks of the One-Sort collection program, beginning 12/03/2012 compared to the Multi-Sort tonnage from the same period one year ago. Week One consisted of three City One-Sort routes and has been removed for comparison purposes. The One-Sort tonnage has been compared to Multi-Sort tonnage from the same period a year ago. Week Two and beyond consists of three City and one MRI One-Sort routes.



Note: The City-wide Mattress recycling program began in late July of 2012, following a mattress recycling pilot program. As of July 23, 2012 all mattresses set out for City collection are dismantled and recycled by commodity and no longer burned for energy at the Hennepin Energy Recovery Center (HERC). In 2012, 26,892 mattresses were collected for recycling. The average cost for this service was $17.71/per mattress, totaling a City cost of $282,081 for this program in 2012.



Why is this measure important?

This measure reports the number of graffiti service requests overall and the number completed by the Clean City crews, citizens or the building owners within a Service Level Agreement (SLA) of 20 working days. This SLA was established in July of 2007. In 2012, the SLA target of 94 percent was not reached due to the need to allocate Clean City resources to assist in other Solid Waste and Recycling initiatives such as the yard waste plastic bag ban, recycling pilot changes, one sort recycling roll-out and the start of our mattress recycling program

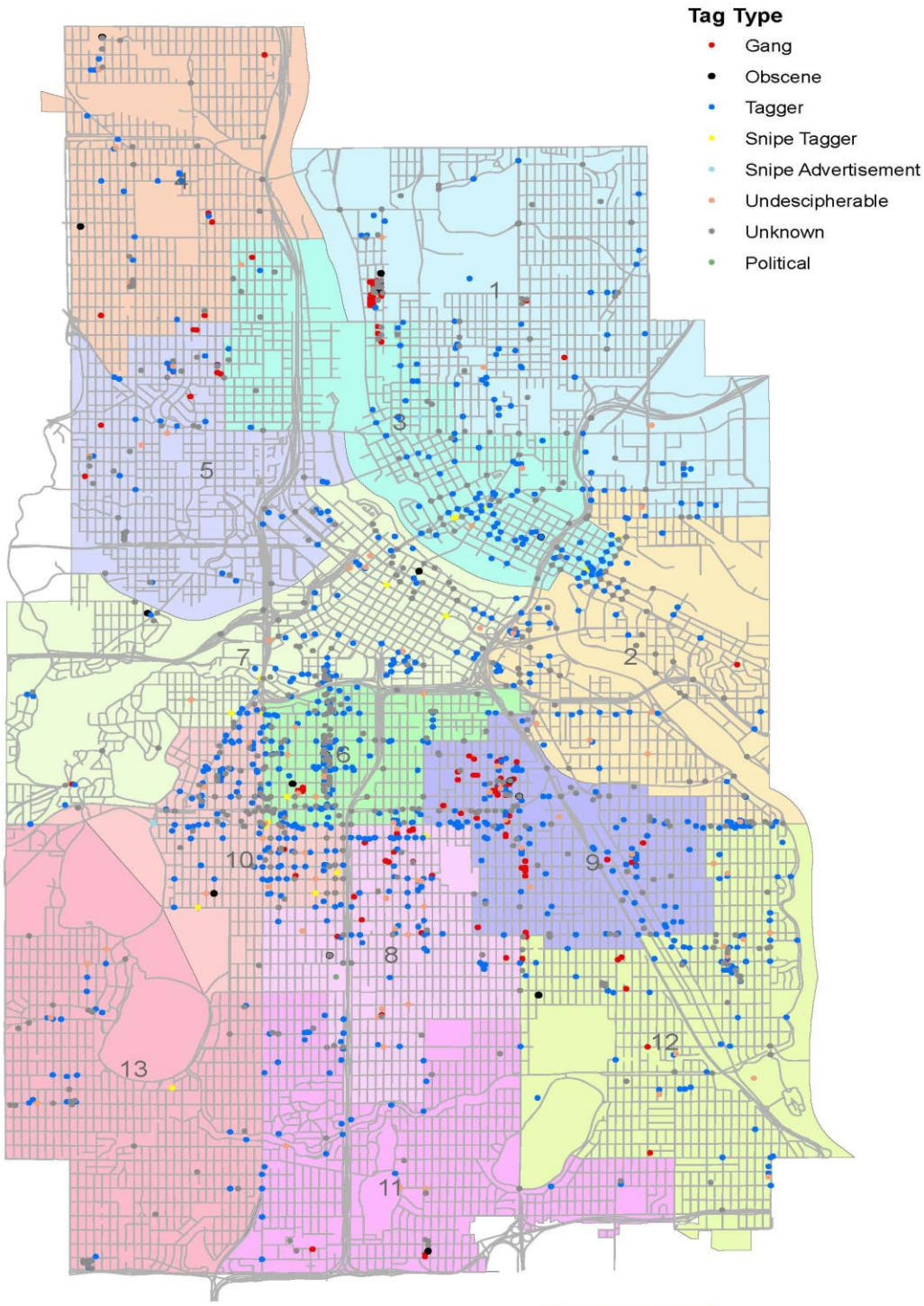
What will it take to reduce graffiti incidents?

Graffiti vandalism is a crime. Cooperative efforts are required between the police, citizens, the courts and Clean City to reduce graffiti incidents. Consistent graffiti enforcement, prevention and deterrent efforts have historically produced a reduction in graffiti levels. Enforcement, prevention and deterrence measures include rapid abatement of gang related graffiti, an active Graffiti Investigator (MPD) and grass-roots graffiti prevention initiatives through the Innovative Graffiti Prevention Micro-Grant program. Continuing the rapid abatement of graffiti by property owners and Clean City combined with permanent graffiti prevention installations, such as growing vines, trellis systems, murals and mosaics and regular anti-graffiti education will continue to reduce levels of graffiti in Micro Grant and other committed areas. Innovative Graffiti Prevention Micro Grant program statistics have shown that educating residents about the negative effects of graffiti and by installing physical graffiti prevention measures results in a measurable decrease in the number of graffiti occurrences. In 2007 there were 13,507 graffiti cases, as compared to 12,107 in 2008, 12,477 in 2009, 8,523 in 2010, 8,097 in 2011, and 9,381 in 2012.

Why aren't more graffiti service requests resolved?

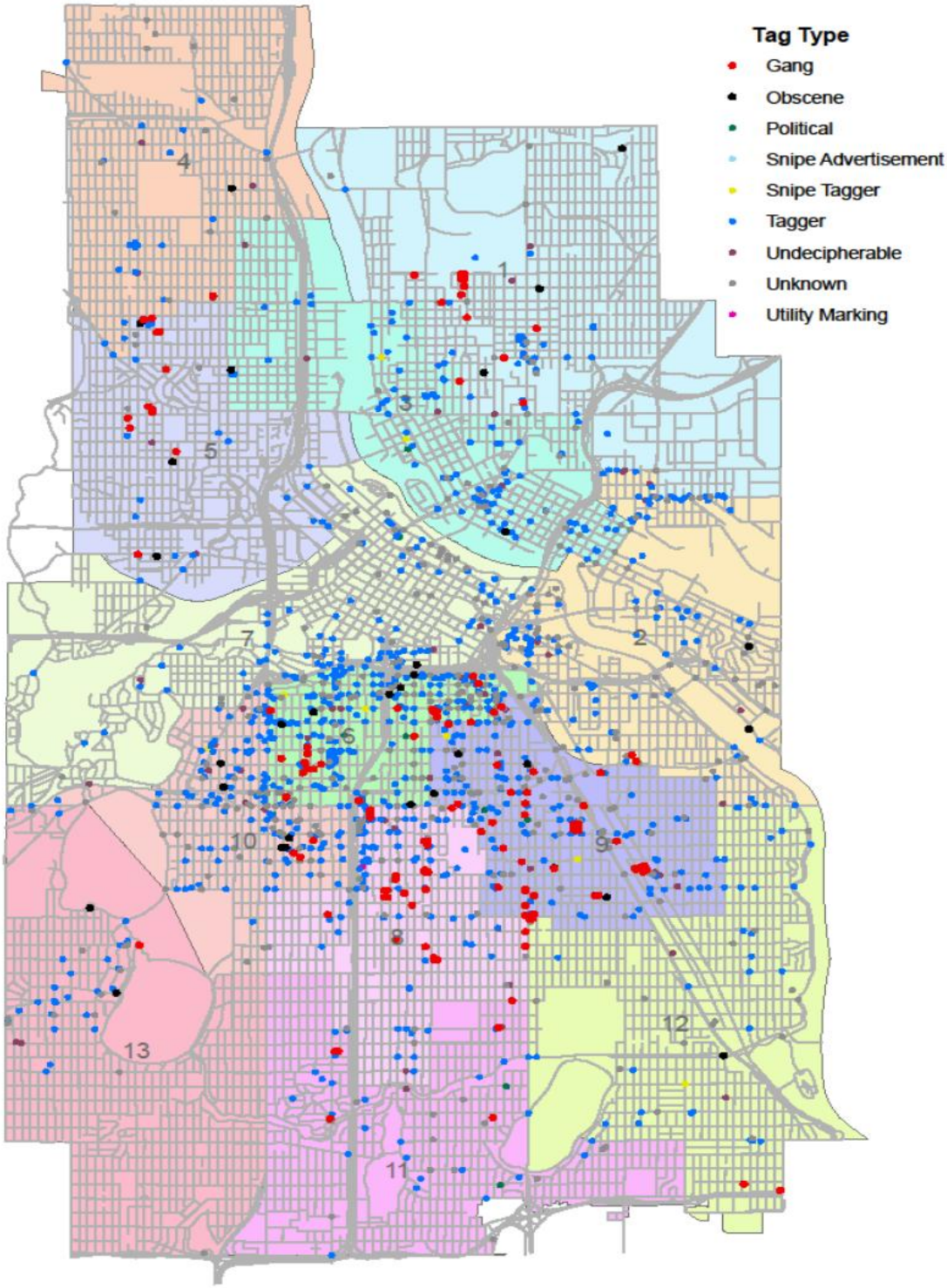
A graffiti case is completed when the City either has abated the graffiti or handed the case off to another entity, such as the U.S. Postal Service, Hennepin County, and MnDOT who are responsible for abating graffiti on their property. Abatements completed by the City are weather dependent; periods of cold, wet or snowy weather can delay this process.

City of Minneapolis 3rd Quarter 2011 Graffiti Service Requests



Data plotted represents Graffiti service requests cleaned in the 3rd Quarter of 2011.
This map is intended to show graffiti distribution only.
Map created by Public Works, Administration

City of Minneapolis 3rd Quarter 2012 Graffiti Service Requests



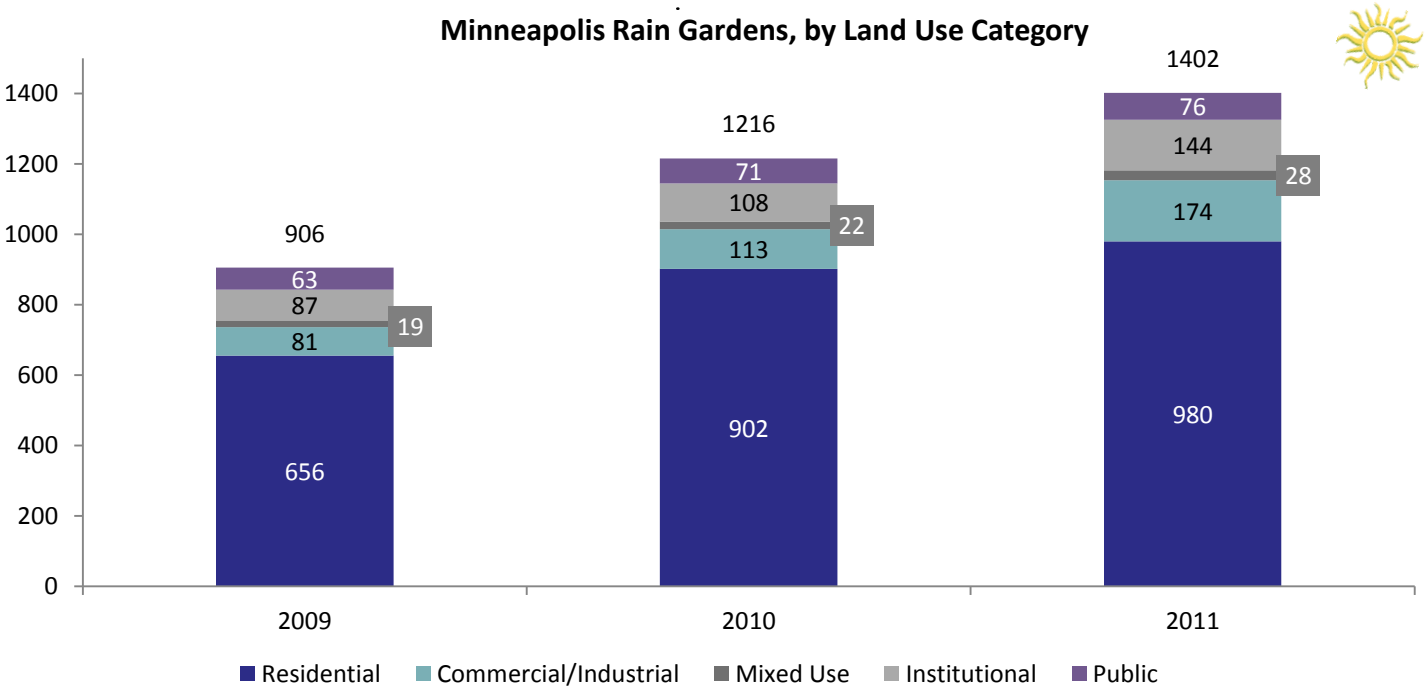
Data plotted represents Graffiti service requests reported to Public Works via 311 and the web from 7/1/12 to 9/30/12.
This map is intended to show case distribution only.
Map created by Public Works, Administration

Appendix

Top 25 Service Requests 2011 & 2012
Percentage meeting Service Level Agreement

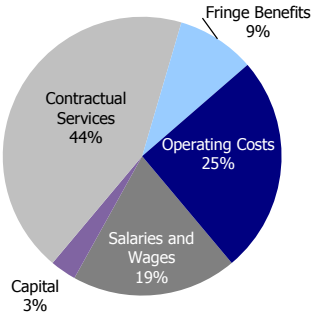
			2012			2011		
Rank	Request Type	SLA	Case Count	On Time	Pct. On Time	Case Count	On Time	Pct. On Time
1	Graffiti Complaint / Reporting	20 Days	9,442	8,215	87%	8,083	6,849	85%
2	Exterior Nuisance Complaint	15 Days	7,217	7,000	97%	7,322	7,096	97%
3	Sidewalk Snow & Ice Complaint	21 Days	5,210	4,552	87%	3,920	3,190	81%
4	Parking Violation Complaint	14 Days	4,728	4,672	99%	4,464	4,141	93%
5	Abandoned Vehicle	5 Days	4,708	4,703	100%	4,771	4,717	99%
6	Residential Conditions Complaint	50 Days	3,761	3,700	98%	3,492	3,442	99%
7	Animal Complaint - Livability	11 Days	3,391	3,288	97%	3,356	3,225	96%
8	Zoning Ordinance Question	4 Days	2,192	2,106	96%	1,992	1,981	99%
9	Rental License Follow-up	2 Days	1,861	1,858	100%	1,667	1,666	100%
10	Plan Review Callback	3 Days	1,854	1,741	94%	2,105	2,040	97%
11	Animal Complaint - Public Health	4 Days	1,687	1,603	95%	1,743	1,631	94%
12	City Attorney Callback Request	3 Days	1,536	1,419	92%	1,046	968	93%
13	Traffic Signal Trouble	7 Days	1,195	1,115	93%	1,161	1,136	98%
14	Parking Meter Problem	3 Days	1,143	1,071	94%	2,197	2,098	95%
15	Pothole	12 Days	1,103	904	82%	5,400	3,400	63%
16	Street Light Trouble	12 Days	1,053	860	82%	951	782	82%
17	Other Issue - Open311	5 Days	939	931	99%	New		
18	Traffic Signal Timing Issue	5 Days	824	628	76%	851	736	86%
19	311 Police Report Callback	3 Days	768	733	95%	1,042	969	93%
20	Complaint	5 Days	767	736	96%	704	675	96%
21	MECC/911	10 Days	764	243	32%	315	186	59%
22	Snow & Ice Complaint	3 Days	754	662	88%	1,565	898	57%
23	Residential Conditions Complaint HOD Tenant	15 Days	736	634	86%	726	659	91%
24	PPU Callback	3 Days	731	635	87%	215	185	86%
25	Suspicious Activity	7 Days	691	553	80%	607	583	96%

PW service requests

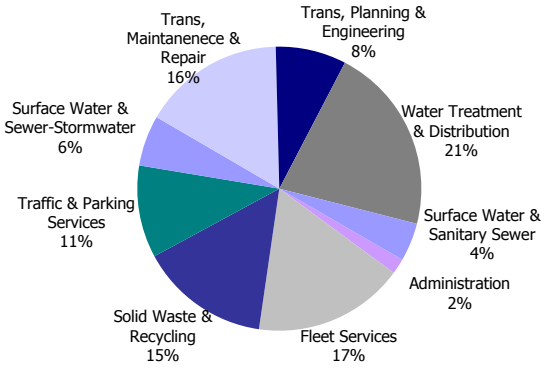

Minneapolis Rain Gardens, by Land Use Category
1400
1200
1000
800
600
400
200
0
906
63
87
81
19
656
1216
71
108
113
22
902
1402
76
144
174
28
980
2009
2010
2011
Residential
Commercial/Industrial
Mixed Use
Institutional
Public

Management Dashboard: Public Works

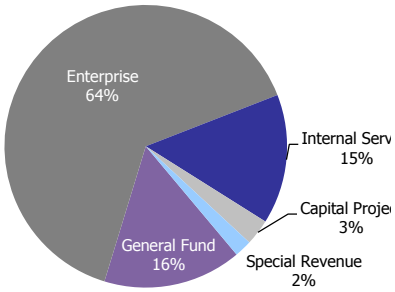
2013 Expenditures by Category: $299.6 million

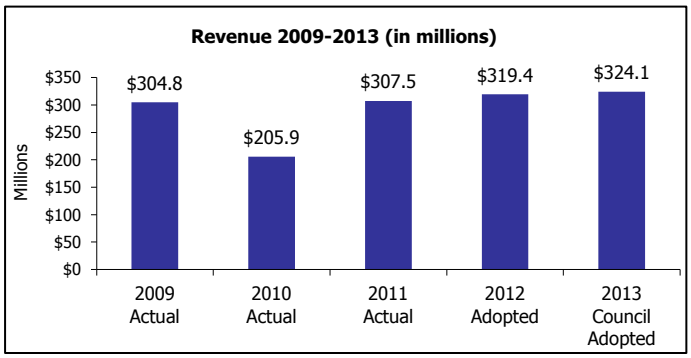


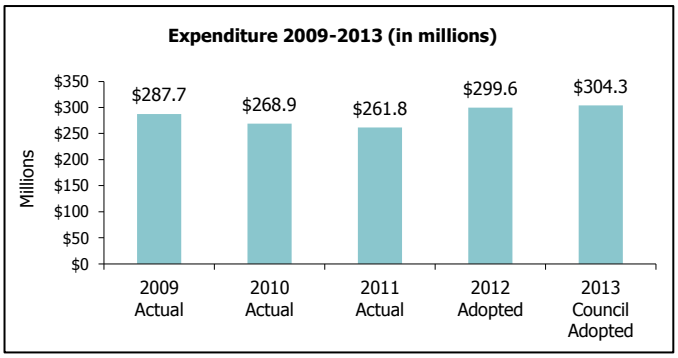
2013 Positions by Division: 907.08



2013 Expenditures by Fund: $299.6 million







Loss Prevention Data					
Year	2008	2009	2010	2011	2012
Workers Comp	$3,095,791	$2,518,247	$3,161,815	$2,584,712	$2,364,007
Liability Claims	$232,874	$270,508	$114,084	$190,133	$123,896

Average Sick Days Taken per Employee						
Year	2007	2008	2009	2010	2011	City Avg.
Days	8.3	8.7	9	8.4	8	8.4

Workforce Demographics			
Year end	12/31/2003	12/31/2011	12/31/2012
% Female	16%	15%	15%
% Employee of Color	16%	20%	19%
# of Employees	1,221	1,016	942

Overtime Costs					
Year	2008	2009	2010	2011	2012
Hours	40,425	48,466	57,532	62,378	47,776
Cost	$1,458,839	$1,779,880	$2,228,238	$2,484,204	$1,903,775

Employee Turnover and Savings					
Year end	2008	2009	2010	2011	2012
Turnover	7.43%	6.35%	6.25%	6.13%	11.16%

Positions Vacancies					
Year end	2008	2009	2010	2011	2012
Percent of Total	19.7%	19.8%	7.0%	10.0%	11.0%

Performance Reviews Past Due in HRIS	
15-Feb-13	78%

Retirement Eligibility											
Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Number	81	32	24	37	30	36	37	30	25	42	30
Cumulative % Employee	16.2%	19.6%	14.5%	9.9%	9.7%	10.9%	10.9%	10.9%	9.8%	10.3%	10.3%

Data current as of 2/15/2013

Notes:

Average Sick Days taken per Employee

A) Based on the payroll calendar year not the calendar year
B) Does not include employees who were in a suspended ("S") Pay Status at the end of a given payroll year
C) Includes employees who are in a paid ("P") Leave of Absence status and an unpaid Leave of Absence status ("L")

Overtime Costs

A) OT amount - Fiscol Reconciled with CRS and Data ware house queries
B) Hours - based on HRIS management reports with payroll data

Workforce Demographics

A) Includes employee counts at year's end for 2003 and 2011
B) Includes active FT regular and seasonal employees

Retirement Projections

A) The projected time an employee is eligible to retire is based on service time in HRIS. For employees who received pension service credit in other organizations, the actual year of retirement eligibility may be sooner than the projections show.

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