

Saint Paul Public Works



Annual Report 2011



2011 Annual Report

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Dear Friends of Public Works:

There is an old Portuguese sailor's saying that goes "If you don't know where you're going, any gust of wind will take you there." But to know where we're going it's also important to know where we've been and where we're at now.



It is in this spirit that we offer the 2011 Annual Report of Saint Paul Public Works. For my part, I would like to highlight what I believe are a few of the achievements that stand us apart from other public works agencies, starting with our having earned accreditation from the American Public Works Association (APWA).

Accreditation by our fellow public works professionals is no small undertaking. The process involves a three year in-house review of an agency's operations through the lens of over four hundred best management practices. Upon completion of the internal review, a team of seasoned public works professionals audits the agency's compliance with these practices.

I am proud that not only did we pass the compliance audit with high marks, but that the audit team singled out fourteen of our existing operating policies as "model practices;" practices to be cited as examples for our sister agencies to follow.

With our accreditation last year, we became the first public works agency in Minnesota to earn this distinction. This makes us one of only seventy-five public works agencies nationwide to achieve accreditation.

Perhaps our single biggest challenge in 2011 came early in the year when Mother Nature besieged our city with the fourth snowiest winter on record. Despite the heavy toll the winter took on our staff, they rose to the test without complaint while sacrificing time with their families and kept the city's streets safe and passable.

Another highlight of the year came in the form of our newly minted snow operations plan. Partly in response to the blizzards of 2010-11 and partly in response to a desire to streamline our operations, our management team took a comprehensive look at our snow plowing/removal procedures and codified them into a single guide.

The new snow plan clearly spells out the responsibilities of everyone involved: managers, equipment operators, mechanics, administrative support, vehicle enforcement, public communications and information services.

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Similarly, our purchase of automatic vehicle location (AVL) technology for our snow plowing fleet was a welcome addition that will improve our response to snow events. Our equipment is now outfitted with AVL transponders that will provide our managers with real time information on our plowing operations, allowing us to better manage the use of our staff and equipment.

It's no secret that an older city often finds itself beset with an aging infrastructure, and ever shrinking revenues to rebuild its capital assets. Saint Paul is no stranger to this profile, especially when it comes to the condition of our sewer system.

As with most municipal public works agencies, we rely principally on the sale of municipal bonds to finance our sewer construction projects, which places a considerable premium on maintaining the highest possible bond ratings.

To that end, I am delighted to report that last year we maintained our Standard & Poor's AAA rating, and improved our Moody's rating from Aa2 to Aa1. These ratings mean that we'll be able to finance our sewer projects at the most favorable interest rates available.

On the following pages of this report, you will learn more about Public Works – not just last year's milestone achievements, but more about what we do day in and day out every year. I am both proud and fortunate to be associated with such an able and professional staff that does its best every day to serve the residents of Saint Paul.

We look forward to serving you in 2012.



Rich Lallier
Director, Saint Paul Public Works

Traffic & Lighting

Two words aptly describe what our Traffic & Lighting Division makes possible each day in Saint Paul: "safety" and "efficiency." Life in any urban setting would be a very different experience without a modern network of traffic controls, or an armada of 37,000 light fixtures to guide us, or 65,000 traffic signs to regulate traffic, bicycle and pedestrian traffic in a way that is orderly.

In 2011, the construction of the Central Corridor light rail line (CCLRT) kept our Traffic Division busier than ever before. The Traffic Division is purchasing, building up and supplying 46 traffic signal control cabinets to the project, as well as 500 streetlights.

Our staff was also involved in the day to day traffic, access and right of way management issues that arose during project construction. This work will continue as the CCLRT project enters its second year of construction.

Despite these departures from their normal routine, our staff still managed to implement the Centracs Central Traffic Signal Control Software and Hardware system. This new traffic control upgrade will make our system more reliable and quicker to diagnose malfunctions with the equipment in the field.

As we head into 2012, we will look to replace the city's entire parking meter inventory with new, more customer-friendly multi-station meters downtown. Perhaps the most appealing feature from a user perspective is the credit card function; no more searching for coins to feed these meters.

"We are the keepers of the city's streetlights, traffic signs, traffic signals, parking meters, and the guardians of the public right of way. By making the city a safer place to drive, bike, and walk, we make Saint Paul more attractive to residents and visitors alike."

Paul St. Martin, Manager
Traffic & Lighting Division





Sewer Utility

Bruce Elder is justifiably proud of his division's work this past year – especially in view of their response to the 2011 spring river flooding period. Thankfully for the city, the initial forecasts for flood levels never occurred, but it did elevate the Utility's level of planning.

As one example, concern over the possible loss of sanitary service in the Lowertown area was addressed through the Utility's staffing of the emergency levee and pumping system at Kellogg and Broadway on a twenty-four-seven basis for five weeks.

Protection of Lowertown was of critical concern to the city because of all of the new construction underway and the influx of condominium residents. A conceptual plan has been developed for permanent protection; the city will seek state assistance in 2012 to construct a permanent floodwall to guard this blossoming area of commerce and nightlife.

But flood fighting was only one measure of the Utility's success in 2011. Stormwater is another major area of concern for Saint Paul residents.

By keeping a close eye on the quality of the city's stormwater, our Utility helps to ensure clean water for use in our drinking water supply, as well as cleaner lakes and ponds that are used for recreation and support the natural habitat of native wildlife.

To that end, Sewer staff successfully negotiated a new stormwater permit with the Minnesota Pollution Control Agency. Sewer staff took the lead in developing the stormwater management program that will ensure the city's compliance with the conditions set forth in the permit.

As our Utility staff looks ahead in 2012, several projects involving both the storm and sanitary systems will be undertaken:

- Begin the first year of work on the revised Stormwater Management Program;
- Add collection system improvements including the St. Anthony Park Tunnel Repair Phase 4;
- Construct the Minnesota Street Tunnel access shafts;
- Oversee three smoke testing projects to find inflow and infiltration sources; and
- Upgrade the Utility's electronic mapping system.

“Sewer systems are highly complex networks, requiring a wide range of professional expertise to design, operate and maintain. Our knowledge and experience results in a system that is very reliable, rarely troubled by service interruptions to the customer.”

Bruce Elder, Manager
Sewer Utility Division



Bridge Division

“Our role is twofold: We maintain the city’s bridges so that they remain safe and structurally sound, and when a bridge’s useful life has passed, we design a replacement that not only is a reliable asset for its users, but that compliments the structure’s surroundings.”

Glenn Pagel, Manager
Bridge Division

Over the course of a year, the Bridge Division often fields questions from concerned residents and visitors alike who, having looked at one of our older bridges, inquire about the bridge’s safety.

Glenn would like the users to know that complaints are researched immediately, and that more often than not, the bridge is sound and will remain that way for several years.

This is because, as Glenn succinctly explains, where a bridge’s structural soundness is concerned, “It’s not about what’s missing; it’s about what’s still there.”

This attention to the condition of the city’s bridges means that Public Works is ahead of the curve when it comes to managing the list of bridges with deficiencies.

With respect to the use of the word “deficiencies” Glenn offers these words of reassurance, “Many bridges across Minnesota and the U.S. are rated as ‘structurally deficient’, but this seldom means that a bridge is in imminent danger of failure.”

As one example, a bridge can be designated as “structurally deficient” for reasons unrelated to the structure itself, such as a misalignment between the section of the road that immediately approaches the section of the bridge deck. Other examples are too numerous to cite here, but our Bridge team wants Saint Paul residents to know that we do not take our responsibilities as bridge stewards lightly.

Recapping our bridge design work in 2011, we completed the design for the Wheelock Parkway Bridge that carries traffic over Trout Brook Creek and the Canadian Pacific Railway. Other design work included completion of plans for the Lexington bike/pedestrian bridge and the accompanying asphalt paths from Energy Park Drive and Minnehaha Avenue.

Users of the Edgumbe Bridge in Highland Park can expect construction of the replacement bridge to begin in 2012, following our completion of the historic review process necessitated by the age of the original structure.



Technical Services

One task not referenced in Paul's introduction of his division, though, was the oversight and coordination of the department's completion of the American Public Works Association Best Management Practices (APWA) accreditation process.

Paul was responsible for tracking the progress of each Public Works' division as they made their way through the various steps associated with compliance of each of the practices.

Paul's stewardship of the compliance effort culminated in November when a team of seasoned APWA analysts met with each of the divisions and pronounced us either in full or substantial compliance with over four hundred best management practices.

Technical Services also leads the way on coordinating the city's capital improvement budget (CIB). Assembling the CIB is a deliberative process that assesses the city's needs for a range of Public Works projects: streets, sewers, lighting etc. Charting the department's capital spending over two years requires a sound planning structure, a structure that was recognized by our peers at APWA as a "model practice."

Visitors to the Technical Services web page will also find a wealth of information on the city's recycling programs. No matter where you live in the city you can find out how and where to recycle almost anything as the city makes its way to a zero waste goal.

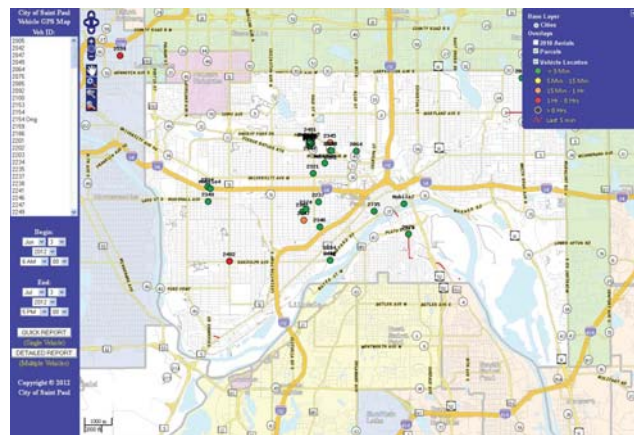
In 2011, residents combined with the city and its recycling provider to recycle over twenty thousand tons of paper, glass, plastic and aluminum.

By recycling to this extent in 2011, we had the effect of taking 8,557 cars off the road, conserving over five million gallons of gasoline and thereby leading to a substantial reduction in green house gases. Our recycling conserved the equivalent of all of the energy consumption of over four thousand homes.

Navigating ahead to 2012, we hope to finish the implementation of the department's automated vehicle location (AVL) project. This GPS-guided system will track the status of over two hundred vehicles in our operations fleet, helping our managers to identify problems and make more efficient use of the city's snow plowing and street services fleet.

"Our traditional role has been to support the other divisions within Public Works through our work in record keeping, document management, mapping, software development and capital planning. That role expanded somewhat in the past two years with the addition of the management of the city's recycling programs."

Paul Kurtz, Manager
Technical Services Division





Street Maintenance

The winter of 2010-2011 will never be forgotten by Kevin Nelson and his staff. Heavy snow, sometimes in record amounts, came very early last year, and then was compounded by temperatures that stayed in the single digit range for days on end. All told, Street Maintenance responded to nine snow emergencies – a record for Saint Paul

Over one period last winter, Street Maintenance crews were deployed for continuous twelve-hour shifts over thirty-one days. Despite this threat to morale, our crews remained steadfast in performing their duties – everyone from administrative staff to dispatchers to plow drivers – surrendering precious time with their families.

With the memory of such a winter still fresh, the division then embarked on a months-long effort to write a snow plowing and snow removal plan that brings uniformity and contingency planning to its snow operations.

Our warm weather construction season brought a few challenges of its own, namely a July that was recorded as the fifth warmest on record – with over twenty-five days of temperatures of 85 degrees or higher. Nevertheless our staff continued to fill potholes at the same level of service as in previous years, despite fewer staff positions.

Of course, roadwork of a more permanent kind is also part of our operation, and 2011 was no exception. Our ten year seal coating plan – used on residential streets -- was bolstered through the use of a new granite aggregate chip that provides a longer lasting surface.

Our mill and overlay program -- used on arterial streets that carry heavier vehicles and greater traffic volumes -- was planned for the next five years. Last year, over 100,000 square yards of asphalt was used along varying lengths on no less than ten arterials.

It is no secret that safety is on the minds of all our staff. Accordingly, the division established a safety committee that is given discretion to make changes to equipment, to replace equipment and also coordinates a safety training program.

The safety committee succeeded in establishing seven new safety practices, resolved a total of no less than twenty-seven safety concerns, and arranged for hundreds of hours of safety training.

Turning our eyes to windward for the coming year, we will continue to build trust with our residents and visitors. An intangible goal to be sure, but one that holds the most value for our Street Maintenance Division and the residents we serve.

“We are always paying attention to the 1,900 lane miles of streets we are charged with maintaining. While it’s never been our practice to wait for service requests when the streets need our attention, we do appreciate the help that our residents provide by alerting us to a road condition that warrants our response.”

Kevin Nelson, Manager
Street Maintenance Division



Administration

“Public Works exists to provide essential services on, under and above the streets of the city. Providing those services would not be possible without a strong core of people behind the scenes, making sure that our design and maintenance staff members have their financial, technological, personnel, public information and equipment needs met. Our support services are nearly as diverse as our more visible services, and I’m very proud of our Administration team.”

Bruce Beese, Manager
Administration Division



As Bruce notes in his introduction, Administration is no stranger to a variety of services provided to the public and the other divisions of Public Works.

Consider that every two weeks, our payroll staff has to enter, revise, track and audit a payroll for nearly 400 employees. Similarly, our accounting team pays and collects all of the department’s bills, while helping our other divisions to record, monitor and project our revenues and expenditures.

Both of these teams operate with an aging finance system, which is now undergoing replacement. The new system will result in a host of efficiencies in the city’s budgeting, purchasing, revenue collection and payroll processes. Still, a transition period means that, for a time, our staff must spread themselves between two systems.

Our finance team points with pride to news from the city’s bond rating firms. We maintained our AAA rating from Standard & Poors for our sewer bonds and also, improved our sewer bond rating with Moody’s from Aa2 to Aa1. What this means is that we’ll be able to continue to borrow money for our construction projects at better rates.

Administration is also home to the department’s health and safety program. Among other duties, our safety officer is charged with identifying potential safety concerns, coordinating safety training for our staff, and accident investigation. These and other initiatives have paid off in recent years with dramatic reductions both in the incidence and cost of work-related injuries.

One of the highlights of our safety program for 2011 is the launch of on-line availability of the Material Safety Data Sheet (MSDS) archive, making it much easier for our staff to gather necessary information about the products we use in the course of providing our services.

Municipal Equipment

As Ron explains, managing and servicing a rental fleet of heavy equipment and passenger vehicles numbering 525 units can be a considerable challenge. "We find ourselves frequently asking, 'What is the city's priority today?'"

Street Maintenance remains ME's biggest customer, and depending on the weather or the season, may require Ron's staff to drop what they are doing should there be an abrupt change in the weather.

For example, during the late autumn, Street Maintenance is busy with its street sweeping program, and yet an early snow storm would mean that ME would have to react quickly to ready the city's fleet of sanders and snow plows.

One job that will soon fall the way of ME is that of the planned fleet conversion. Over the next five years, Public Works will replace some 81 vehicles in its existing fleet. This will happen as a result of the purchase of 61 new trucks over this period.

Unlike our older equipment, the new trucks can be easily converted from summer to winter use, giving Public Works a leaner, more versatile fleet. This trend will carry over to some of our other equipment as well, where older trucks will be replaced with multi-use vehicles.

We continue to examine our fuel use for cleaner alternatives, in keeping with the Mayor's desire to make Saint Paul a greener place to live and work. And what we pay for our fuel is substantially less than what the average motorist pays at the pump, thanks to our participation in the State of Minnesota's fuel contract.

"Our work gives us a less visible profile than the department's other divisions within Public Works, but our work isn't limited to the servicing of Public Works equipment. We also provide maintenance for several other public agencies, including Regional Water, Parks & Recreation, the St. Paul School District and Ramsey County."

Ron Mundahl, Manager
Municipal Equipment





Street Engineering & Construction

As Dan Haak looks back on his early years with Public Works, he recalls a time when community involvement in street construction projects was minimal. Today is a different story, however.

As Dan notes, "Residents get more of what they want today. This happens because they see the city as a partner in improving their streets, and have developed relationships with our staff that have furthered their interests."

Looking over our shoulder at 2011, we saw the completion of four Residential Street Vitality Program (RSVP) projects. Launched in 1996, the RSVP program is a twenty-five year plan to reconstruct the city's residential streets, many of which are aging and have reached the end of their useful life.

But RSVP is also an excellent opportunity to replace the aging infrastructure under and around these streets: water and sewer lines, gas and other utility services. Sidewalks are reconstructed and old streetlights replaced with ornamental fixtures, giving the surrounding neighborhood a much more contemporary look, while still retaining the area's historical character.

As foretold three years ago, every division of Public Works will be involved with the Central Corridor light rail line in some fashion, and Street Design is no exception.

In response to business concerns about improved access to business locations, Street Design, working in concert with the Department of Planning and Economic Development (PED), we will mill and overlay the alleys that abut these commercial properties.

We will also oversee the construction of a "sidewalk infill" program along the corridor in those areas where gaps in the pedestrian walkway exists. This will allow for better pedestrian access to the LRT platforms and create a more welcoming pedestrian environment along the route.

"We plan, design and oversee the construction of the city's streets and sidewalks, many of which are aging and in need of replacement. We strive to reach out to residents not only to explain this work, but to gather feedback to help our decision-making as a project moves toward completion."

Dan Haak, Manager
Street Engineering & Construction Division



Transportation Planning

“Our division has been a feature of Public Works for over twenty years. We engage in long range planning for roads, bicyclists, pedestrians and environmental needs, thus bringing a city-wide perspective to transportation planning.”

Mike Klassen, Manager
Transportation Planning



Calendar 2011 year got off to an auspicious start with the hiring of the city's Sustainable Transportation Planner. A new position for the city, it traced its genesis to Mayor Coleman's stated goal of making Saint Paul a more sustainable, and more livable place.

With our planner's guidance, the city would earn the coveted distinction of a Bicycle Friendly City (BFC). The designation as a BFC reflects the city's efforts to evaluate itself and then engage in a planning process that started the city on a path to making physical improvements in its infrastructure, forming partnerships and then promoting its achievements among the public at large.

The BFC designation will pay substantial dividends for Saint Paul, both as a destination for recreational bicyclists eager to try out our scenic trails, and as a city that continues to add safety measures for bicycle commuters.

Mike also highlights his staff's work with the city's Transportation Planning Committee, helping it to blossom as an established planning body. As the Committee acquires experience and expertise, the city's decision makers will come to rely on its leadership and recommendations for transportation projects.

Transportation Planning also played a significant role in shaping the master plan for the creation of the Great River Passage, a twenty-year vision for an integrated system of parks, trails, and restored habitats, arrayed over three thousand acres and seventeen miles of the Mississippi River.

The role for Mike's staff was to identify access points for those desirous of using the Passage in future years. As Mike explains, "If the Passage is to fulfill the city's vision, convenient access must be part of the master plan. Thanks to our staff, the physical challenges to the Passage were identified and addressed in the final plan."

As 2012 unfolds, Transportation Planning will continue to represent the city's interests and share its expertise with its sister agencies. Project work will include oversight of MnDOT's replacement of the Cayuga Bridge, completion of the West Side Flats/Harriet Island Boulevard, further progress on the city's Complete Streets and Bike plans, and to finish the alternative analyses on the Gateway Corridor Plan.



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