

# Sustainable Saint Paul 2010 Annual Report



Mayor Chris Coleman and the Saint Paul City Council are committed to making Saint Paul "The Most Livable City in America" and a leader in sustainable urban living. The City is taking proactive steps to protect our City's air, water, and urban landscape by focusing on Carbon Dioxide (CO<sub>2</sub>) reduction activities in the areas of energy efficiency and conservation, clean energy supply, alternative fuels and transportation options, recycling and waste reduction, urban reforestation and natural resources management, and water resources management. Further, the City is working toward improving sustainability by encouraging green development, creating and improving green community spaces, encouraging green jobs creation, and reworking zoning laws. This year's key acheivements include:

- Securing \$2.7 million in federal stimulus funds through the Energy Efficiency and Conservation Block Grants and an additional \$2.53 million for solar installations from U.S. Department of Energy;
- Installing energy management and energy efficient lighting systems in five municipal facilities;
- Recycling and reusing over 21,000 tons of materials through residential recycling programs and neighborhood clean up events;
- Adopting a new green building policy for all municipal buildings and all new private construction receiving over \$200,000 in City or HRA funding;
- Restoring acres of shoreline and green space at City parks and installing peat (sphagnum moss) filters at Highland and Oxford pools and Great River Water Park to minimize the use of chorine;
- Working with community partners to receive over \$9 million in grant funding to promote green jobs and economic development initiatives;
- Receiving grant funding and developing strategies to promote alternative transportation options such as light rail, electric vehicles, and biking and walking;
- Developing innovative ways to manage stormwater, including installation of a green roof at the new Fire Department Headquarters, a rain garden near Como Lake, and development of a stormwater tree planter trench system along the new light rail corridor.

#### **Energy-Efficiency Projects**

- In November 2009, the City of Saint Paul was awarded \$2,767,000 of American Recovery and Reinvestment Act (ARRA) funding from the U.S. Department of Energy (DOE) as part of the federal Energy Efficiency and Conservation Block Grant (EECBG) program. The City is using the funds to improve the energy efficiency of municipally-owned facilities, to retrofit the City's streetlights to utilized light emitting diode (LED) technology, to invest in electric vehicle charging stations, to invest in the Saint Paul Port Authority's Trillion BTU Program, to provide homeowners loans to conduct energy audits and make energy efficiency improvements, and to provide sub-grants to community organizations to assist residents in reducing energy usage and greenhouse gas emissions.
- Energy management systems, including sophisticated programmable thermostats, were installed at several City buildings. The thermostats help City staff to better regulate the buildings' temperature depending on how and when the buildings are being used. Systems were installed at Linwood Recreation Center, resulting in a 28% reduction in electrical consumption and a 20% reduction in natural gas usage, at the Como Lakeside Pavilion, resulting in a 12% reduction in electrical consumption and a 32% reduction in natural gas usage, at the Phalen Golf Course Clubhouse, resulting in a 32% reduction in electrical consumption and a 72% reduction in natural gas usage, and at Langford Recreation Center, resulting in a

25% reduction in electrical consumption and a 24% reduction in natural gas usage. Additional energy management systems installations are underway at the Hillcrest Recreation Center, North Dale Recreation Center, Hallie Q. Brown Community Center/MLK Recreation Center, Battle Creek Recreation Center, Dayton's Bluff Recreation Center, Phalen Recreation Center, the Highland Maintenance Building, the Central Services Facility, the East Team Police Station, and the Central Library. Together, these projects will save the City over \$120,000 annually.

In March 2010, an energy efficient lighting system was installed at the RiverCentre Parking Ramp, resulting in a 47% reduction in energy usage – equal to an annual savings of \$66,000. Lighting replacement projects have been completed or are underway at a number of City facilities, replacing outdated lighting with new energy efficient fixtures. The projects are being conducted in conjunction with the



LED Street Light Pilot Area

Center for Energy and Environment and are funded in part by the Xcel Energy Conservation Improvement Program. The improved buildings include Linwood Recreation Center, Conway Recreation Center, Merriam Park Recreation Center, the Robert Street Parking Ramp, the Lowertown Parking Ramp, the Lawson Parking Ramp, the 7A Parking Ramp, the Public Works Garage service station and mechanics

- bay, the Como Conservatory, the Como Central Service Facility, and the Como Zoo Marine Mammals, Large Cats, and Primates Buildings.
- The City is using part of its Federal Energy Efficiency and Conservation Block Grant (EECBG) funds to replace 900 globe-style streetlamp fixtures in downtown Saint Paul with new energy efficient LED lights.
- High-efficiency air conditioning units have been specified for Parks and Recreation facilities including the West Seventh Community Center and the Hazel Park Recreation Center and are expected to reduce energy use by 32%
- Parks & Recreation will install an exterior building information sign at the Oxford Community Center that
  uses LED lighting instead of a fluorescent lighting system. While the two systems provide very similar
  lumens per watt ratios, the LED system lasts for 50,000 to 100,000 hours, whereas the fluorescent bulbs
  need to be replaced after 10,000 hours of use.
- In May 2010, a "white roof" was installed at the Edgcumbe Recreation Center, which helps reduce solar heat gain in the building. The roof is expected to reduce energy use by 20%.
- Starting in 2009, the City partnered with the Neighborhood Energy Connection and Xcel Energy to provide "Home Energy Squad" audits to Saint Paul residents. The squads assess the home and make improvements such as programmable thermostats, weather stripping, showerhead replacements, and efficient lighting. The resident only pays for the cost of the materials – the audit and installation are free.
- The City has invested \$500,000 of EECBG funds in the Saint Paul Port Authority's Trillion BTU Program. The program creates a revolving loan fund to provide design and installation assistance and affordable financing for energy efficiency improvements to local commercial and industrial businesses
- All Saint Paul Fire Department buildings have switched to using compact fluorescent bulbs and the department has committed to purchasing Energy Star rated boilers, air conditioners, refrigerators, and other appliances whenever replacement is needed.
- In 2009, The City of Saint Paul received \$100,000 in energy efficiency rebates from Xcel Energy.

## Renewable and Clean Energy

- In early 2009, the Energy Innovation Corridor (EIC) launched.

  The EIC is a partnership of public, private, and non-profit organizations working together to advance clean energy and alternative transportation projects along the eleven-mile Central Corridor Light Rail route. The EIC and its partners are engaging local citizens to achieve goals such as achieving 50% higher energy efficiency savings than mandated by state goals, achieving 9.5 GWh of renewable energy supplied or generated, and advancing the deployment of electric vehicles.
- In October 2009, the City and District Energy St. Paul were awarded a \$1 million grant from the United States Department of Energy to install a solar thermal system at the Saint Paul



Solar Panels at Spruce Tree Centre, Part of the Energy Innovation Corridor

- RiverCentre. The federal funds will be matched by \$1.2 million from District Energy. District Energy is a 501(c)(3) nonprofit utility that heats and cools more than 80% of the buildings in Downtown Saint Paul and is committed to making substantial investments in renewable energy.
- In May 2010, Innovative Power Systems, Inc. completed site assessments for installation of solar power systems on nine Saint Paul buildings. The solar projects will be funded in part by grant money from the U.S. Department of Energy's Solar America Cities program and will take advantage of solar energy rebates offered by Xcel Energy.
- The City continued to work with the Saint Paul Port Authority, Xcel Energy, and District Energy to
  investigate a heat recovery and anerobic digestion biogas energy system for Rock-Tenn and other facilities
  in the Saint Paul Area.

#### **Contract and Analysis Services**

- In 2009, City departments purchased \$51,000 worth of environmentally friendly office products 15% of the City's total office supply purchases, excluding stationery and paper.
- To further support citywide sustainable building and development initiatives, CAS hired a new buyer who is
  a Leadership in Energy and Environmental Design (LEED) Accredited Professional. The LEED AP buyer is
  available to work with other departments on obtaining LEED certification for construction projects. The City
  now employs seven LEED Accredited Professionals.
- CAS coordinates a quarterly Clean-Up Event for all City departments to facilitate reuse or proper disposal of surplus computer equipment or accessories, office furnishings, and other equipment and supplies.
- Used fleet vehicles and much of the equipment gathered at the quarterly Clean-Up Events are posted for sale and ultimate reuse on <a href="www.PublicSurplus.com">www.PublicSurplus.com</a>. City departments are notified via email about items available for interdepartmental transfer and reuse. Not only does this reduce City costs, but it also diverts still-useful items from the landfill. In addition, auctions are conducted at the City's Impound Lot for unclaimed and impounded vehicles. Vehicles not sold at auction are sold for scrap recycling.
- CAS facilitates several avenues for departments to recycle empty inkjet and toner cartridges. It also
  encourages all departments to purchase recycled or re-filled cartridges.
- HREEO is developing a new policy on recycling and repurposing of used cell phones. Currently, it
  encourages all City departments to take advantage of recycling and repurposing options, including
  donating used cell phones through approved vendors and recycling phones through recycling vendors on
  Master Contract with the City or through cell phone company programs.
- In 2009, River Print, the City's printing, copy, and graphic design service, removed a camera/processor from service, thereby significantly reducing River Print's use of hazardous chemicals.
- Since 2008, River Print has used pricing incentives, presentations, and samples to promote the use of
  recycled-content office paper throughout all City departments. As a result, the use of 30% recycled paper
  continues to rise, especially in the offices that use smaller quantities of paper. Departments such as
  Environmental Health, Public Works, and the Mayor's Office have already switched to using 100% recycled
  content paper.

 HREEO continues to promote the use of recycled-content office paper by getting the word out about the very high quality of modern recycled paper products.

## **Economic Development**

- In January 2010, the City of Saint Paul, in partnership with the City of Minneapolis, received a \$4 million grant from the U.S. Department of Labor's Pathways out of Poverty program. The grant money will be used to develop training and green jobs pathways for low income individuals, veterans, and young adults lacking a high school diploma.
- Also in January 2010, the Cities of Saint Paul and Minneapolis, through the Minnesota Blue-Green Alliance, received a \$5 million GreenPower grant from the U.S. Department of Labor to train workers for jobs in the clean energy economy. One particular targeted group will be displaced auto workers, such as those affected by the closing of the Saint Paul Ford Plant.
- The Blue-Green Alliance and the Mayors' Green Manufacturing Initiative drew the praise of United States Secretary of the Treasury Timothy Geithner,

who came to Saint Paul in January 2010 to meet with Mayor Coleman, Minneapolis Mayor R.T. Rybak, and industry leaders.



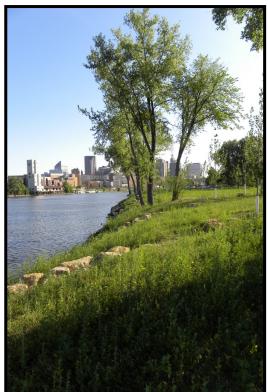
Workers at Rock-Tenn

- In February 2010, the Northwest Area Foundation awarded a \$75,000 grant to Employment Opportunities in Energy Conservation and Deconstruction program. The program trains low income workers for green industry jobs in energy conservation and building materials recycling. The initiative is a collaborative effort between the City of Saint Paul, Neighborhood Energy Connection, Better Futures Enterprises, and the Twin Cities Local Initiatives Support Corporation.
- Parks and Recreation was awarded an Americorps VISTA volunteer for the third consecutive year. The
  volunteer will continue work on the Horticulture Academy/EcoRanger curriculum and to create links for
  graduates to the local green industry for employment and career development.
- Environmental Services provided employment and education for 30 Youth Job Corps members in the Eco-Ranger program curriculum and, in partnership with the Minnesota Conservation Corps, provided direction for and additional 48 youth enrolled in the Youth Outdoors! program.

## **Green Community Space**

• The Design & Construction department of Parks & Recreation restored the shoreline at Pickerel Lake in Lillydale Regional Park from landfill condition to a natural lakeshore with native seeding.

- Harriet Island's new picnic area was designed with a large biofiltration system planted with native species.
   The site includes an oversized culvert and enhanced paving to cue the visitor to the process of water and its path through the park to the Mississippi River.
- Peat (sphagnum moss) filters have been installed at the Highland and Oxford pools and Great River Water Park to reduce by two-thirds the amount of chorine used to treat the water. The filters were developed by Sustainable Saint Paul Award winner Clean Water Solutions.
- Parks and Recreation installed a new community garden at the Conway Recreation Center.
- The Environmental Services division of Parks and Recreation, in partnership with the Summit Hill Association, installed a 700 square foot rain garden at the Linwood Recreation Center with assistance from community volunteers, the Minnesota Conservation Corps, the Youth Job Corps Program, and funding from the Capitol Region Watershed District.
- In May 2010, Parks and Recreation, along with the Saint Paul Public Schools, sponsored the "Exercise Your Right to Feel Better 5k Run/Walk." This was a green event and Ramsey County was present to provide education Harries and encourage recycling and composting of all materials and food waste.



Harriet Island Shoreline

Parks and Recreation was awarded \$218,000 in funding from the Legislative-Citizen Commission on



Como's Polar Bear Odyssey

- Minnesota Resources (LCCMR) to develop and construct the Como Woodland Outdoor Classroom beginning in fall 2010.
- In June 2010, The Como Park Zoo and Conservatory opened its new Polar Bear Odyssey. The exhibit is in keeping with the Zoo's conservation effort and meets or exceeds the most recent versions of the USDA Marine Mammals Act, the Association of Zoos and Aquarium's Polar Bear Standards and the Canadian Polar Bear Protection Act. These three standards

provide detailed requirements for all elements of the care and management of polar bears, including square feet of

habitat space per bear, height of habitat barriers, opportunities for bears to display natural behaviors, type of water, filtration systems, and the size of the bears' holding space. The exhibit also contains educational stations relating to the effects of climate change and environmental degradation on polar bear habitats.

#### **Green Development**

- In December 2009, The City Council and Housing and Redevelopment Authority (HRA) unanimously adopted a green building policy for all municipal buildings and for all new construction that receives at least \$200,000 in City funding. The policy requires projects to meet either Leadership in Energy and Environmental Design (LEED) Silver, Green Globes 2 Globes, Minnesota Buildings, Benchmarking, and Beyond (B3), or Saint Paul Port Authority Green Design Review standards. The policy becomes effective July 1, 2010. This is the culmination of over two years of planning, which were funded in part by a grant from the Minnesota Pollution Control Agency.
- Starting in January 2010, all single-family residential rehabilitation that receives Neighborhood Stabilization
  Program funding is required to participate in the Xcel Home Performance with Energy Star program. The
  program utilizes specially-trained contractors to assess the home's energy efficiency and recommend
  improvements.
- The City initiated an Energy Smart Homes program using \$550,000 in DOE's EECBG funding. The
  program allows homeowners to receive an interest-free loan of up to \$6,500 to make energy efficiency
  improvements to their home, such as insulation, air sealing, or installing a new furnace or boiler. The City
  anticipates funding improvements to approximately 150 homes.
- The City also initiated a "Cold Cash for Cold Clunkers" program using \$50,000 in EECBG dollars. This program provides \$200 rebates for apartment building owners to replace old, inefficient refrigerators with new Energy Starrated models.
- The Department of Public Works led the City's
  use of the state-mandated B3 building efficiency
  database. This list will be used to identify and
  retrofit buildings that use more than 150% of the
  energy they should be using.



- The new Fire Department Headquarters building is being constructed to LEED Gold standards and incorporates energy efficiency features such as a green roof, lighting controls, occupancy sensors, and day lighting.
- In September 2009, Eastside Heritage Park, off of Phalen Boulevard, was planned and constructed to adhere with the Minnesota Sustainable Building Guidelines (B3). The features are consistent with LEED Silver Certification, and include permeable concrete parking, water infiltration areas, and recycled-content materials.
- In February 2010, the Saint Paul City Council adopted the City's new <u>Comprehensive Plan</u> relating to land use, transportation, parks and recreation, housing, water resources management, and historic

preservation. The Comprehensive Plan has a significant focus on sustainability and contains icons indicating how each policy relates to economic, social, and environmental sustainability. The Comprehensive Plan will guide City development for the next ten years.

#### **Recycling and Waste Reduction**

- In 2009, over 21,000 tons of materials were recycled and reused through residential recycling and neighborhood clean-up events conducted in conjunction with Eureka Recycling, resulting in tremendous greenhouse gas emissions reductions and natural resource and energy conservation. The reductions and savings are equivalent to taking 7,927 cars off the road, eliminating emissions from 3,938 homes, and saving 302 acres of standing forest.
- Overall, 41% of the materials (equal to 305 tons) brought to neighborhood clean-up events in 2009 were
  recycled or reused. The clean-up events are scheduled within each community council district from May to
  October. These events capture large and problem refuse items, appliances, scrap metals, electronics,
  tires, and a variety of household goods for reuse.
- In July 2009, Sustainable Saint Paul Award Winner RiverCentre/Xcel Energy Center initiated an industry leading waste management approach to its operations – called 50-50 in 2. The program's goal is to reduce the trash generated at the RiverCentre, Xcel Energy Center, Roy Wilkins Auditorium, and 317 on Rice Park by 50% while increasing recycling by 50% within two years. To reach these goals, RiverCentre/Xcel Energy Center completely redesigned its waste infrastructure, including new behind-the-scenes and public space recycling plans, increased collection bins, revamping of waste



Recycling at Xcel Energy Center

- transport, and restructuring of the holding areas in the loading docks beneath the building. The new design also includes the collection of organic waste for composting. So far, trash production has decreased by 46% and the recycling rate has increased by 38%. The program's goal is to eliminate 1.2 million pounds of trash annually.
- Public Works continues to implement Saint Paul's Climate Change Action Plan, the Environmental-Economic Partnership Project (E-EPP), which was initiated as part of the Urban CO2 Reduction Project. The Plan's objectives are to reduce carbon dioxide emissions while improving public health and safety, improving the City's fiscal performance through energy and water cost savings, generating employment, and reducing urban sprawl.
- The 2009 spring parks clean-up and neighborhood litter campaign was a zero-waste event that removed 3.1 tons of trash and included 946 community volunteers performing 1,908 volunteer hours.

 The Public Works Department, together with Ramsey County and Eureka Recycling, continued to work toward improving recycling opportunities within the Courthouse, City Hall Annex, and other municipal facilities. The Department's goal is to have a uniform recycling system in place at all municipal buildings,



Recycling at Como Zoo

- including maintenance facilities, libraries, and police and fire buildings, by the fall of 2010.
- In December 2009, Eureka Recycling completed a recycling pilot study in partnership with the City of Saint Paul and Public Art Saint Paul which focused on public space recycling initiatives at the Como Park Zoo and Conservatory, Mears Park, and a few park pavilions. The Como Zoo project incorporated new equipment, recycling containers, and educational strategies. The Mears Park project was funded using City Cultural

STAR Grant, Public Art Saint Paul, and Public Works funds and focused on the design and implementation of superior and

aesthetically pleasing recycling receptacles for use in the park. Following completion of the pilot program, the final report and recommendations will be reviewed to develop expanded public space recycling opportunities to maximize environmental benefits while balancing costs and community participation.

- Parks & Recreation demolition projects at the Prosperity Recreation Center, the Sylvan Recreation Center, and the Front Recreation Center included a requirement that a minimum of 75% of the demolished materials be recycled. The contractor estimated that over 90% of demolished materials were ultimately recycled. The demolition also included salvaging wood beams and structural decking for reuse in the replacement restroom buildings.
- The City continues to work with Ramsey County and Green Gatherings (<a href="www.mngreengatherings.org">www.mngreengatherings.org</a>) to promote recycling and reduce waste at community events such as Grand Old Day, Cinco de Mayo, Rondo Days, and the Irish Fair. Green Gatherings helps events of all sizes find their own "shade of green."

#### **Sustainable Saint Paul Awards**

- In 2006, Mayor Coleman established the annual Sustainable Saint Paul Awards program to honor outstanding achievement of individuals, businesses, and organizations that are protecting and restoring the environment in Saint Paul.
- Mayor Coleman and the Saint Paul City Council
   recognized awardees at the 3<sup>rd</sup> annual Sustainable Saint Paul
   Award Winner City Academy
   Awards Ceremony in April 2010 in the Saint Paul City Council
   Chambers. The ceremony was well-attended and was broadcasted on cable access television.



 This year's winners were: Skidmore Garden Group – Clean-up and Beautification Award; RiverCentre/Xcel Energy Center – Waste Reduction and Recycling Award; Como Woodlands
 Outdoor Advisory Committee – Greening Spaces Award; City Academy – Environmental Education and Awareness Award; Twin Cities Habitat for Humanity – Green Building Residential Design Award;

#### <u>Transportation Options – Alternative Fuels and Vehicles</u>

- In November 2009, the City of Saint Paul secured Energy Efficiency and Conservation Block Grant (EECBG) funding from the federal stimulus package to construct electric vehicle plug-in charging stations and to purchase electric vehicles.
- In January 2010, United States Transportation Secretary Ray LaHood visited Saint Paul to announce that
  the federal government would provide funding for three additional light rail stations along the Central
  Corridor at Western, Victoria, and Hamline Avenues. In May 2010, the Central Corridor project received
  permission to enter final design, the last step before full funding is awarded.
- In May 2010, the City Council approved the Bike Walk Central Corridor Action Plan, which is designed to



- create a safe and inviting bicycle and pedestrian environment around the Central Corridor.
- In fall 2009, PED began work on a Transportation
  Demand Management (TDM) Plan, surveying most
  City employees about their commuting habits.
  Smart Trips developed a list of TDM strategies
  based on the survey results and the Sustainable
  Saint Paul team will be advancing implementation
  of the recommendations in 2010.

Como Shuttle

- Most new light-duty City fleet vehicles are now being equipped with tire pressure monitoring systems to ensure proper tire pressure and maximize fuel economy.
- The Municipal Garage has been working with the Minnesota Pollution Control Agency to install diesel oxidation catalysts (DOCs) on City-owned heavy trucks. The DOCs reduce the harmful effects of diesel exhaust and have been installed on 25 vehicles so far.
- The City's Fleets Department uses recycled oil in its vehicles, cleans and reuses many vehicle air filters, uses washable rags whenever possible, and recycles used oil, hydraulic fluid, batteries, and scrap metal.
- The Como Park Zoo and Conservatory's Como Shuttle service was introduced in 2009. In an effort to
  improve service and quality and reduce green house gasses, the City used a \$1.6 million federal grant to
  purchase three low-emission shuttle busses and rent additional shuttle busses. The shuttles were in
  continuous operations on weekends from May through September and saved 22.39 metric tons of carbon
  dioxide.

### **Urban Reforestation and Natural Resources Management**

- In 2009, in coordination with partnering organizations, the Environmental Services program of Parks and Recreation secured over \$66,000 of in-kind professional labor to maintain natural areas in Saint Paul and engaged approximately 3,000 community volunteers in project work for a total of 7,500 volunteer hours.
- More than 2,000 native grasses and forbs were grown from local ecotype seed collected from remnant oak savanna sites in Saint Paul parks. These plants were then installed within the remnants to expand their footprint. This ongoing project was made possible through a Minnesota DNR Metro Greenways grant.
- In 2009, Environmental Services managed 22 acres of natural areas utilizing prescribed burning.
- Parks and Recreation removed 39 acres of biomass, including buckthorn and other invasive or diseased plants, from city property in 2009. The plants were ultimately converted into heat and electricity by District Energy. Funding for the project was made possible by the Minnesota DNR Division of Ecological Resources, the Woody Biomass Removal Project, and the Ramsey-Washington Metro Watershed District.



Prescribed Burning

- Parks and Recreation was awarded a \$125,000 Conservation
   Partners Legacy grant from the Minnesota DNR for restoration of high-quality oak woodland along
   Mississippi River Boulevard and at Crosby Farm Regional Park.
- In September 2009 Parks and Recreation's, Forestry section received an Urban Forestry Specialist through the MN Pollution Control Agency's new GreenCorps program. The UFS has done excellent work for St Paul by creating an updated Street Tree Master Plan and assisting with the citywide boulevard tree inventory.
- Forestry applied for and received a \$21,000 grant through the Minnesota Department of Natural Resources' Community Conservation Assistance Program to complete a land cover assessment of Saint Paul. The work-to be completed by the University of Minnesota's Remote Sensing Department will determine the percentage of canopy coverage and help Forestry direct future urban forest policy.
- In January 2010 Forestry was awarded \$722,600 by the Minnesota Department of Agriculture from money
  made available through the Outdoor Heritage Fund to manage emerald ash borer. Forestry has completed
  over half of the work detailed in the grant and will likely be able to do more work than promised with funds
  available.

#### **Water Resources Management**

- In 2009, the City Council established the City of Saint Paul Water Resource Working Group to develop an
  inter-departmental team to collaborate and provide guidance on City's water resource management
  programs;
- City staff worked in partnership with local residents to implement innovative water quality and infiltration
  practices on city street projects including, but not limited to, installation of a large rain garden at the
  intersection of Como Boulevard and Victoria Street near Como Lake.
- The City of Saint Paul worked with Metropolitan Council and other local partners to develop the proposed design for incorporating one of the world's largest stormwater tree planter trench systems along both sides of University Avenue as part of the Central Corridor Light Rail Transit project. From the surface, the trees will look like they are individually planted, but they are actually connected by a large underground trench designed to manage runoff. The stormwater enters the trench through a special inlet and is stored in gaps in the trench where it slowly irrigates the trees.
- In 2010, City of Saint Paul partnered with the City of Minneapolis and the City of Saint Cloud to form the Upper Mississippi Source Water Protection Project program to improve source water quality along the Upper Mississippi River. The City also worked with the Vadnais Lake Area Water Management Organization to improve source water quality throughout the East Metro.

In May 2010, Saint Paul Regional Water Services

lighting.

began working with the University of Minnesota's

Technical Assistance Program to identify potential
energy efficiency strategies relating to heat pumps, heating, and



Shoreline Restoration

- The City of Saint Paul worked with Capitol Region Watershed District and others to develop a 9,000 square foot Green Roof Interpretive Center and Garden Classroom atop of City's new Fire Department Headquarters building on Randolph and West Seventh. The Green Roof has over 80 species of native and ornamental plants, as well as a vegetable garden and several educational stations. The roof further incorporates a supplemental stormwater reservoir layer to maximize stormwater storage capacity and reduce runoff. The educational stations were funded by a \$32,000 grant from the Capitol Region Watershed District.
- City staff worked with the Minnesota Pollution Control Agency and other local partners to develop a conceptual green development / <u>sustainable stormwater strategy</u> for the Ford Plant site. The group studied the conditions at the site and made recommendations for best practices for future redevelopment.
- The City of Saint Paul adopted the Water Resources Management Plan as a part of the 2010 Saint Paul Comprehensive Plan. The Plan contains significant sustainability language and makes a number of recommendations of ways to improve water quality in Saint Paul, including coordinating with the State and

- local governments to develop and implement a source water protection plan, reducing erosion into local water bodies, reducing the negative impacts of roof runoff, and creating a wetlands management plan.
- The City worked to develop a stormwater /water quality protection overlay standards for the new City Sustainable Building Policy.
- The Public Works and Parks & Recreation departments worked together to create a new cooperative stormwater resource management policy between the two departments.
- Public Works completed the Stormwater Modeling, Volume Reduction Inventory, and 2010 RSVP Project
  Areas Stormwater Study. This project will generate valuable technical information that City staff can use to
  manage stormwater cost-effectively.
- Saint Paul Regional Water Services utilized several strategies to reduce water consumption, including
  developing a seasonal-based rate structure that discourages excessive water usage during summer months,
  operating a leak detection unit that identifies and locates leaks to reduce water loss, and replacing water
  meters to ensure accurate accounting of water use.
- The City participates in the Watershed Partners' "Minnesota Water Let's Keep it Clean" Campaign. In 2009, the campaign included public service announcements on Comcast, Channel 45, Minnesota Public Radio, Saint Paul Saints TV, radio, and billboards.

## **Zoning and Livability**

- In 2010, the Department of Planning and Economic Development (PED) initiated work on Wind Energy
  Conversion System Zoning Amendments, which will help make it easier for those who live and work in
  Saint Paul to take advantage of new renewable energy technologies.
- PED also initiated work on zoning amendments related to local and sustainable food to help facilitate a
  healthy food network for the City of Saint Paul.
- In December 2009, the Saint Paul City Council revised the City's policy regarding signs with dynamic displays. The changes include a ten-fold reduction in the signs' maximum illumination level and prohibit signs in certain areas from being operated at night. These changes will advance "dark sky" principles and reduce energy usage.
- In spring 2010, PED began a Traditional Neighborhood 4 (TN4) Zoning Study. Currently, there are three Traditional Neighborhood zones. The study will create a new zoning district that will permit higher density development in addition to new urbanist principles encouraging sustainable characteristics such as walkability. Increased density is a more efficient use of land and is more environmentally friendly than sprawl.
- After a year long study, the City Council recently approved new off-street parking regulations to simplify the parking code, enhance parking lot design and consolidate and reduce requirements for all uses. This is the first overhaul of the regulations since they were introduced in 1975. The new requirements will better align parking requirements with demand to reduce oversupply of parking, allow denser development that better supports transit, walking and biking, and increase environmental stewardship by reducing blight, urban heat island effects, and detrimental impacts on water quality from large surface parking lots.

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