



City Of
Burnsville

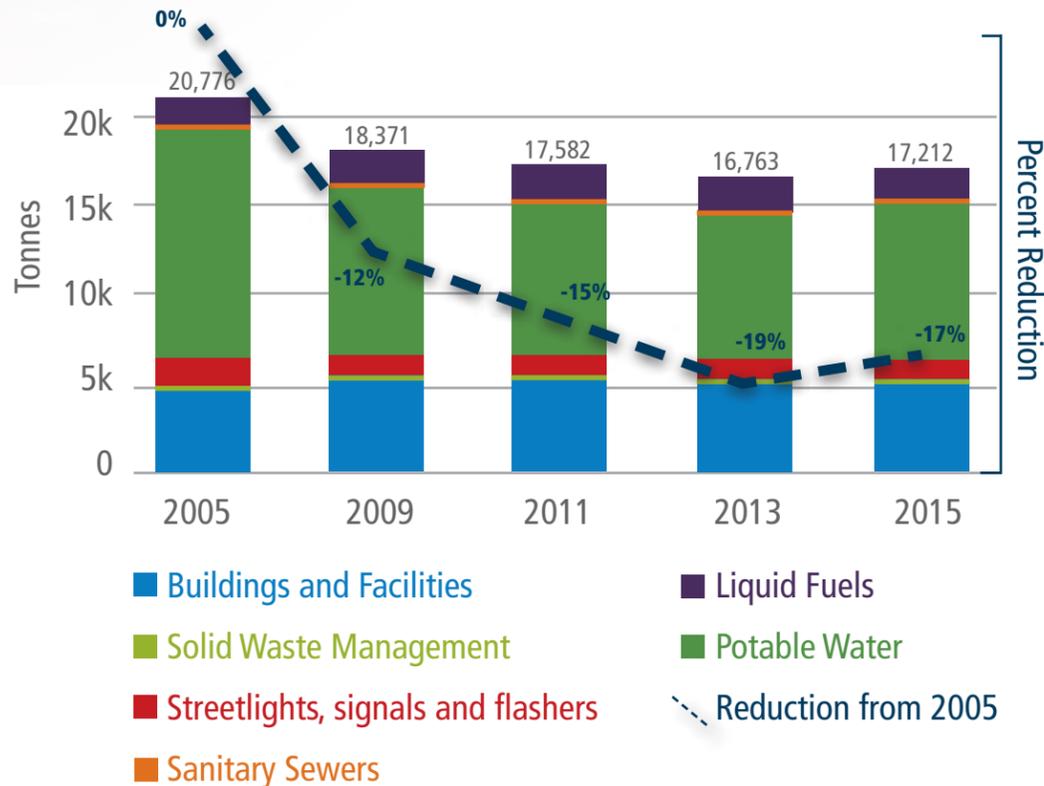
SUSTAINABILITY UPDATE FOR 2015

The City of Burnsville promotes development that maintains or enhances economic opportunity and community well-being while protecting and restoring the natural environment upon which people and economies depend. Sustainability meets the needs of the present without compromising the ability of future generations to meet their own needs.

Greenhouse Gas Reduction

The City of Burnsville set a goal of reducing GHG emissions that is in line with the Minnesota Next Generation Energy Act of 2007. The Act established nationally aggressive statewide greenhouse gas reduction goals, using 2005 as a baseline, of 15% by 2015, 30% by 2025, and 80% by 2050. The City of Burnsville exceeded the 2015 goal of a 15% reduction. Emissions for city operations in 2015 were 4,000 tonnes lower than in 2005, a 17% decrease.

Greenhouse Gas Emissions by Fuel and Waste Sources, 2005 to 2015



ENERGY EFFICIENCY

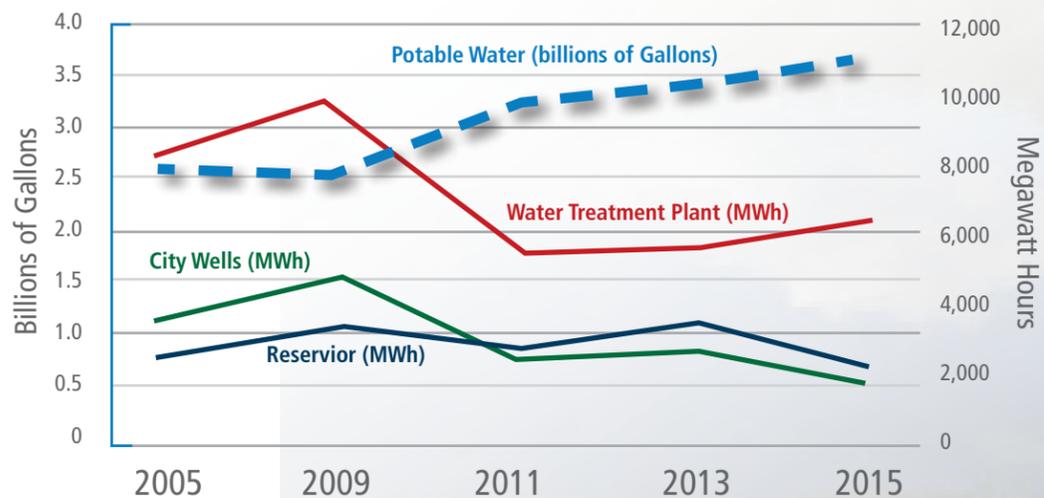
City Property Conservation Measures

Obsolete and worn-out equipment is being replaced with the most energy efficient equipment available. The return on investment for the equipment varies from six months to three years. In 2015, the city received \$21,805 in utility rebates on a total investment of \$156,592. Projected savings over 10 years, from 2012 to 2022, is more than \$330,000.

	2012	2013	2014	2015	Total
Light fixtures replaced or permanently removed	142	841	327	412	1,722
Annual kilowatt hours saved	91,423	171,834	77,587	115,276	456,120
Annual cost savings	\$6,763	\$13,459	\$5,613	\$11,103	\$36,938

Production and Distribution of Potable Water

The Water Treatment Plant, with the wells, pumps and reservoirs necessary to produce potable water, is the largest single consumer of energy (predominantly electricity) and source of GHG emissions. The City's Water Treatment Plant expansion in mid-2009 enabled it to increase its production of potable water by 25% in 2011. By making substantial facility upgrades and utilizing energy efficient equipment, the amount of electricity required at the plant decreased.



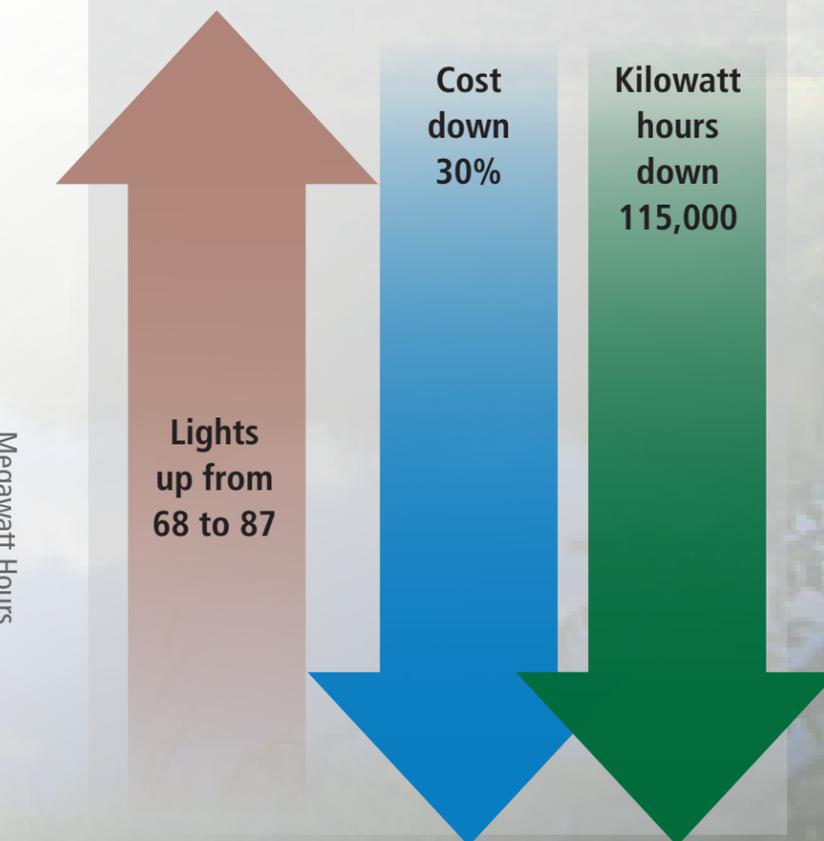
Case Study

Heart of the City Parking Deck

In 2014 the City of Burnsville enlarged the parking deck at the Heart of the City by 30%. Originally, there were 68 lights at the parking deck and the cost to light the deck annually was \$10,110. In late 2014 the 68 lights were updated to LED lights and an additional 19 LED lights were added to the expanded parking area. Even with a substantial increase in lighting fixtures and parking space, the change to LED technology reduced the total parking deck lighting budget to \$7,130, a 30% reduction. There was a reduction of 115,000 kilowatt hours from 2014 to 2015.



Parking Deck increased by 30%



SUSTAINABILITY ACTION

City of Burnsville awarded MN GreenStep 1, 2, 3, and now Step 4

Minnesota GreenStep Cities is a voluntary challenge, assistance and recognition program to help cities achieve their sustainability and quality-of-life goals. Launched in 2010, the program had three levels of recognition for city actions, now it has four.

- Step 1:** City council commits to work on implementing sustainability best practices through a city resolution.
- Step 2:** Implementation of 8 best practices.
- Step 3:** Implementation of 16 best practices and completion of a handful of specific high-impact actions.
- Step 4:** Beginning in 2016 the GreenStep program challenges cities to measure and report – with numbers – the aggregate, quantitative results of taking multiple actions. Called city performance metrics (or sustainability indicators), these Step 4 measures attempt to present to community members the ‘state of sustainability’ achieved by a city.



Healthy Urban Forests

For the past three years, the City has been implementing its plan to deal with the invasive species, the Emerald Ash Borer (EAB). EAB, which will kill every unprotected ash tree in the city, is the most destructive and economically costly forest insect ever to invade North America.¹

The City’s EAB Management Plan incorporates the most cost-effective and environmentally sound strategies by preemptively removing low-quality public ash trees (40% of the ash trees) and protecting the high-quality trees (60% of the ash trees). Compared to the outdated strategy that relied solely on tree removal and replacement to manage the infestation, studies have shown that the City’s science-based approach can lower public costs over a 20-year study period by 40% while preserving twice the economic and environmental benefits.²

¹ Aukema JE, Leung B, Kovacs K, Chivers C, Britton KO, et al. (2011), “Economic Impacts of Non-Native Forest Insects in the Continental United States,” *PLoS ONE*, 6(9): e24587. doi:10.1371/journal.pone.0024587, <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0024587>

² A Proposal to Create the Minnesota Ash Tree Preservation Program, Jeffrey M. Hafner and J. Michael Orange, September 2014.

What’s Next?

COMPREHENSIVE PLAN

Burnsville’s long-range plan for development, redevelopment, parks, public utilities, transportation, natural resources, city facilities, housing, youth and neighborhoods incorporates sustainability into each area to provide guidance for through the year 2040. The Comprehensive Plan establishes the foundation for community development and sets the stage for future improvements.

FLEET MANAGEMENT SYSTEM

The new Fleet Management System fully integrates the fleet maintenance software, fueling system and GPS tracking system. It allows the City to increase Fleet efficiencies, improve the productivity by tracking the usage of vehicles, and get the necessary information to right size the fleet. It also will reduce fuel usage and emissions by monitoring vehicle condition, limiting idle time and monitoring vehicle usage.

WATER METER READERS

The Automated Meter Infrastructure (AMI) will allow the City to better analyze water sold versus water pumped from the Quarry and ground water wells. Meter readings will be transmitted daily with alarm parameters set so we can immediately spot properties with issues. This will help conserve water.

COMMUNITY SOLAR GARDENS

The City Council approved awarding twelve contracts for solar energy production with community solar garden developers for approximately 47% of the energy provided to City of Burnsville facilities by Xcel Energy. Developers are working with Xcel Energy and hope to be producing solar energy in the 4th quarter of 2016.

97.6% of housing is within ¾ mile of transit routes

99.9% of housing is within ½ mile of parkland

The average MPG for city-owned gasoline fleet is 24.9 mpg

Environmentally preferable purchasing policy enacted

Green Team of employees from all departments

For more information on the MN GreenStep program and Burnsville’s performance metrics go to <http://greenstep.pca.state.mn.us/steps.cfm>