

# Sustainability Report

CHANHASSEN 2013



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# 2013 Chanhassen Sustainability Report

The City of Chanhassen is committed to protecting our natural resources now and into the future. To ensure the continuation of this effort, the city endeavors to promote the development of sound policies, take advantage of new technologies, and use educational programs to engage the community on the topic of the environment. The goal is natural resources sustainability through protection, conservation and best management practices.

In 2011, the Chanhassen Environmental Commission was interested in knowing if our city was growing and functioning in a sustainable fashion. This report is the result of that curiosity. The City Council assigned the commission four key focus areas: Stormwater, Surface Water Quality, Urban Forestry and Water Conservation. In each of these areas, the group investigated the current goals established by the city's comprehensive plan. Then they selected the three most important goals from each area. They determined through interviews with city employees or publicly available information, the current status of those goals along with trends and improvements or challenges and any recent activities. Ultimately, the commission documented a baseline inventory for each of the topic areas.

This 2013 version of the Sustainability Report includes the ongoing goals and provides an annual update and recent activities. Information about these activities was collected from interviews with city staff and the Watershed District as well as publicly available information.

The report achieves the goal of educating Chanhassen residents in the Environmental Commission's focus areas.

Here is the 2013 Chanhassen Sustainability Report.

Surface Water



Stormwater



Water Conservation



Urban Forestry



# Surface Water

Chanhasen residents enjoy the many recreational opportunities available in city lakes. Maintaining not only healthy lakes, but also wetlands, rivers and streams is essential to the quality of life in Chanhasen. The city is also home to a rare and unique calcareous fen, a state-protected Scientific and Natural Area (SNA). Efforts to preserve all of these important natural water resources require partnerships between the city, county, watershed districts, Met Council, Minnesota Department of Natural Resources ( MNDNR ) and Minnesota Pollution Control Agency (MPCA).

## Goals

- Maintain and improve the water quality in city lakes, streams, and wetlands.
- Prevent or control aquatic invasive species.
- Provide information and educational resources to improve knowledge and promote an active public role in the management of water resources.



## Recent City and Community Activities



Riley Purgatory Bluff Creek Watershed District (RPBCWD) includes the majority of Chanhasen and the organization has worked with the city on Low Impact Development (LID) projects in the watershed surrounding Lake Susan. Projects have included raingardens, swales and catchments. In addition, Use-Attainability Analyses (the so called “fishable/swimmable” uses) are being completed for Lakes Lucy, Ann and Susan.



During the summer of 2012, the city and RPBCWD collaborated on a Stormwater Pond Protocol and Prioritization project designed to identify stormwater ponds that may be contributing excessive amounts of phosphorus to our natural waterbodies. Once identified, these high risk ponds may be rehabilitated to minimize the impact on our surface waters.



Chanhasen, Carver County, MNDNR and Met Council are currently studying the effects of development around the Seminary Fen SNA. Results of these studies will clarify the best course in developing a stewardship plan.



Local government units have been listening to concerned citizens and acting to control or prevent aquatic invasive species. This summer, Lakes Susan and Riley will be treated for curly-leaf pondweed. The watershed district installed an aeration system in Rice Marsh Lake to increase dissolved oxygen and prevent a fish kill in the winter. This activity should also discourage the establishment of non-native fish, like carp. The imminent threat of zebra mussels found in nearby Lake Minnetonka has spurred a boat inspection campaign. During the summer of 2012, the city, RPBCWD, MNDNR, Carver County and Lotus Lake Conservation Alliance collaborated to provide educational signage and boat inspections at Lakes Ann, Lotus, Susan, Christmas, Riley and Minnewashta. Inspections will continue and possibly be increased in 2013.



Sorenson Labs is a team of researchers at the University of Minnesota investigating aquatic invasive species controls. To date, they have harvested carp in Lakes Lucy, Susan and Riley in an effort to minimize populations of this abundant fish and encourage the reestablishment of native plant and fish populations.



The city utilizes county training resources and a private nonprofit, Metro Blooms, to provide community educational seminars. The city also disseminates information on surface water to its citizens through several means: brochures, the Natural Resources city web page, and the quarterly publication *Chanhasen Connection*. Additionally, the Environmental Commission has the directive of educating citizens on the surface water priorities set forth by the council.

# Stormwater


As precipitation runs over impervious surfaces such as rooftops, pavement and compacted lawns, it picks up pollutants. These pollutants can be oil, fertilizers, herbicides or pet waste, as well as trash and soil. Controlling this polluted water flow is crucial to preserving Chanhassen's natural environment and protecting our surface water resources. Installing flow control features that increase infiltration and reduce the volume of water runoff as well as protect water quality in surface waters are part of an ongoing stormwater management plan developed by the city.


## Goals

- Minimize soil erosion, sedimentation, and storm water runoff.
- Maintain primary responsibility for managing water resources at the local level but continue coordination with other agencies and organizations.
- Provide information and educational resources to improve knowledge and promote an active public role in managing water resources.


## Other City & Community Activities




 A Total Maximum Daily Load (TMDL) Management Plan for Bluff Creek was approved by the MPCA and adopted by the city. A Bluff Creek ravine stabilization is planned for 2013 and includes an impairment repair implementation plan.

 The city utilizes cutting edge technologies in treating stormwater runoff. These technologies, developed at the St. Anthony Falls Laboratory (SAFL) at the University of Minnesota, are well-suited for northern climates and represent the best management practices of our time. During street reconstruction in the Greenwood Shores neighborhood, the city utilized manhole baffles developed by SAFL to catch sediment inflow from stormwater. The "Minnesota Filter" Iron Filing Filtration System was installed during street upgrades in the Lake Minnewashta watershed. This system should reduce phosphorus loading into the lake. The city also coordinated with an Eagle Scout and his troop to plant the Minnewashta Heights neighborhood raingardens.

 City staff continued to educate and encourage neighborhood groups about LID installation opportunities, such as raingardens and rain barrels, and their benefits.

 The city and Metro Blooms will provide education in 2013 on environmentally sound landscape practices, such as permeable pavers and shoreline buffers.

 Community volunteers continue to annually install storm drain markers on neighborhood storm drains.








# Water Conservation

Chanhassen's water distribution system is comprised of 13 wells, 3 reservoirs and a water treatment facility. The distribution system also contains over 148 miles of watermain and serves over 7,000 residential and nearly 300 commercial accounts daily. Pipelines and physical facilities, such as wells and reservoirs, are geographically distributed throughout the city including a new water tower recently built near Minnetonka Middle School West. Water conservation education is our best economical action to manage fresh water as a sustainable resource for current and future human demand.

## Goals

- Encourage conservation through structured water rates and watering restriction hours.
- Promote residential water conservation programs through city education and seasonal publications.
- Partner with commercial entities to conserve water.

## City & Community Activities

-  The city has a tiered billing system in place to incent water conservation. City code limits the use of the city water supply system for lawn and garden sprinkling, irrigation, car washing or other non-potable uses to odd-even days.
-  The city provides education and promotes water conservation and stewardship with various local municipal publications.
-  The city enforces ordinances regarding treescaping for new developments. Trees shade turfgrass and reduce evapotranspiration and therefore prevent or reduce the need for irrigation.
-  Chanhassen partners with the U.S. Environmental Protection Agency in their WaterSense program. This program seeks to protect the future of our nation's water supply by offering people a simple way to use less water with water-efficient products, new homes, and services.
-  Rain barrel and compost bins are offered for sale through Carver County Environmental Services.
-  The Chanhassen Environmental Commission published an entertaining article in the *Chanhassen Villager* encouraging water conservation on June 28, 2012.
-  Chanhassen offers irrigation system audits, free of charge, to Homeowners' Associations, businesses, and other organizations as a way to promote water-saving best management practices. The audits are performed by a WaterSense-certified city utility department employee.



# Urban Forestry

Trees provide our city with countless benefits. From increased property values and curb appeal to decreased energy costs and cleaner air, trees pay us back annually. Recently, a study published by the American Journal of Preventative Medicine documents the measurable negative effect on human health in the eastern US, due to the significant loss of ash trees. Additionally, research has also shown the quantifiable effects of trees on decreasing stormwater runoff. The beneficial effects of trees cross economical, social, medical and environmental lines, providing our community with a plethora of returns on our planting investments.

## Goals

- Increase tree cover throughout the city using diverse tree species.
- Preserve contiguous forests and facilitate greenways.
- Develop urban forestry management plan.



## City & Community Activities



A public tree inventory is nearing completion. All park trees have been inspected and recorded in a GIS map that includes data on species, size, condition, location, etc. Street trees are in the process of being completed. The information will be used to make short- and long-term urban forest management decisions.



The annual Arbor Day tree planting project continues to add diversity and canopy coverage at the city's most popular parks. The additional trees planted each year serve as future replacements for old or vulnerable trees and allow community members to participate in creating a lasting public legacy.



The city promotes tree planting each spring during the month of May, which is Arbor Month in Minnesota. The city offers either a tree sale or tree coupons to city residents to encourage tree planting throughout neighborhoods.



The city and Environmental Commission sponsor an annual Arbor Day Poster Contest for local elementary schools. The program provides education on the importance and benefits of trees in our community and recognizes local 5th graders who best communicate the sentiment "Trees are Terrific..."



Chanhassen continues to be designated as a Tree City USA by the National Arbor Day Foundation. The program is important because it increases public awareness about the benefits of trees, adds to community pride and can give preference over other communities when state grant money is distributed for tree-related projects.



The city is in the initial planning stages of developing a management plan for the emerald ash borer. The insect is confirmed in neighboring Hennepin County and it is only a matter of time before its presence in Carver County and Chanhassen is confirmed. The city is also preparing outreach materials for residents on how to manage their ash trees.



The city continues to incorporate boulevard tree plantings and replacements in neighborhood street reconstruction projects, saving trees along streets where possible and replacing them when not. All street trees within the targeted neighborhood are inspected for preservation or removal prior to any construction activities.