

HENNEPIN COUNTY
MINNESOTA

Natural Resources Management

2016 accomplishments

Hennepin County
Environment and Energy
hennepin.us/naturalresources

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Introduction

Hennepin County has been providing conservation services to protect and improve the county's natural resources for more than a decade. More recently, the county has taken the lead role of fulfilling the delivery of soil and water conservation services in the county. Conservation programs and services provided by Hennepin County include:

- Protection and preservation of the county's nature resources through technical, financial and management assistance to landowners, local governments and other county departments.
- Maintaining and updating countywide natural resource and wetland inventories.
- Implementing environmental education and volunteer water quality monitoring programs.
- Pursuing and fostering internal and external partnerships to protect and enhance the county's natural resources.

This report highlights the county's accomplishments in the delivery of conservation services and management of natural resources in 2016.

Provided technical and financial assistance

Awarded county cost-share grant funds

Cost-share grant funds were awarded to eight projects totaling \$257,500 to implement best management practices that protect natural resources. The grants will install stormwater best management practices, promote stormwater reuse, and stabilize and enhance riparian areas. The county's natural resource grants leveraged over \$2.1 million of local, in-kind and cash-match funds.

Since the program was established in 2005, natural resources grants have provided more than \$880,000 in county cost-share funding to landowners and local governments to implement 68 programs and projects.



A pollinator planting established with a Hennepin County Natural Resources Grant.

Awarded environmental education grants

Green Partners environmental education grants provide support and funding to organizations for projects that engage and empower residents to take actions that protect and improve the environment. Funded projects focused on a wide range of educational activities including reducing solid and hazardous waste, increasing recycling, decreasing greenhouse gas emissions, and protecting air and water quality.

In 2016, 43 organizations that were awarded a total of \$445,800 started or completed projects. Since the program was established in 2012, 110 grants totaling more than \$1 million have been awarded.



Volunteers with the Green Partners grantee Alliance for Sustainability rake leaves out of storm drains to protect water quality.

Cleaned up contaminated sites

Environmental Response Fund (ERF) grants provide funding for a variety of environmental assessment and cleanup activities at contaminated sites where the added environmental costs hinder site improvements. In 2016, the program provided over \$2.3 million for 18 projects that addressed a variety of assessment and cleanup measures. This included soil and groundwater evaluation and cleanup of properties that are redeveloped for a variety of uses, including enhanced green space and residential, commercial and mixed-use properties. To date, Hennepin County has awarded 361 ERF grants totaling more than \$50 million.

Restored streams after flooding disaster

Disaster Recovery Assistance Program (DRAP) funds were used for a stream restoration project in the Nine Mile Creek corridor in Bloomington. DRAP provided \$70,000 of the \$254,000 project cost. The project repaired damage to five sites that required erosion control, restoration, trail repair, site grading and fill. Hennepin County was one of 37 Minnesota counties and three tribal governments that were declared flood disaster areas under DR-4182 after a series of intense rainfall events in June 2014. Two additional DRAP-funded projects were in various stages of planning and design during 2016 and will be completed in 2017.



A section of Nine Mile Creek in Bloomington that received DRAP funding to repair flood damage.

Provided technical assistance

County staff provided technical assistance to landowners and local governments through the review of 58 site plans and participation on technical advisory committees (TACs) for the Pioneer-Sarah and Elm Creek watersheds. Staff also participated on TACs and provided review and comment on county watershed plan updates, plan amendments and draft rules. In addition, staff conducted site visits and provided technical assistance to county residents on sustainable landscaping, riparian erosion, stormwater and floodplain management, and public and private ditch and culvert issues.

Prepared for implementation of the buffer law

The county prepared to implement Minnesota's buffer law by reviewing landowner compliance and working with watershed organizations to evaluate the buffer requirement map. The buffer law was enacted in 2015 as part of Governor Dayton's water quality initiatives.

County staff examined 16,000 parcels and identified 162 for further field review. These landowners received letters to initiate on-site meetings where county staff will stake out buffers or provide other technical assistance as needed to help landowners comply with the law.



An example of a buffer that will be required to help protect water quality under Minnesota's new buffer law.

Helped seal unused wells

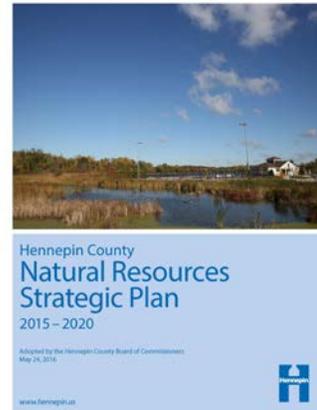
The county helped landowners seal 46 abandoned wells by providing more than \$45,500 from county and state funding sources.

Responded to drainage questions and complaints

The county conducted site visits and responded to questions and complaints pertaining to drainage, flooding, wetlands and ditch issues from cities, residents, and landowners.

Adopted the Natural Resources Strategic Plan

The Hennepin County's Board of Commissioners formally adopted a natural resources strategic plan on May 24, 2016. The plan will help guide the county in responding to natural resource issues and developing policies, programs and partnerships that improve, protect and preserve natural resources. This is the county's first comprehensive strategic plan focused on the protection and preservation of natural resources. The plan will serve as a foundation for the county's natural resources programming, in particular emphasizing partnerships and facilitating collaboration in natural resources management.



Protected and preserved natural resources

Prevented the spread of aquatic invasive species

The county worked to prevent the introduction and spread of aquatic and terrestrial invasive species by continuing to participate on regional and statewide invasive species task forces, educating the public on the actions needed, and using state funding, as available, to enhance efforts. Specifically in 2016, the county provided nearly \$200,000 in pass-through grants to 11 local partners for various projects and programs, such as increasing watercraft inspections, redesigning lake accesses, installing signage to encourage aquatic invasive species prevention actions, developing educational tools, and supporting research on hybrid watermilfoil and zebra mussels. The county also began a partnership with Wildlife Forever and CD3, LLC to design, develop and test self-service boat cleaning stations. Two of these stations will be installed at public boat launches on Lake Minnetonka in 2017.



A programmable message board that displays aquatic invasive species prevention messages was installed at the county-managed public boat access at Spring Lake Park on Lake Minnetonka.

Completed subwatershed assessments

The Lake Ardmore Subwatershed Retrofit Assessment, completed in 2016, identifies potential rural and urban best management practices that would reduce nutrient loading to Lake Ardmore in Medina. The county also continued to work with the cities of Greenfield and Independence, the Pioneer-Sarah Creek Watershed Management Commission, the Lake Independence Citizens Association, and the Lake Sarah Lake Association to find willing landowners to implement best management practices identified in the Dance Hall Creek Subwatershed Assessment.

Started wetland restoration at the county home school

To bolster the availability of wetland mitigation credits within Hennepin County, the county is in the planning stages of restoring a large wetland complex at the Hennepin County Home School in Minnetonka. Once established, the wetland mitigation bank could be used to replace wetlands lost in county projects or sold to promote no-net-loss of wetlands in the county and fund future wetland restoration and mitigation banking projects. Currently because of the limited amount of wetland mitigation credits available in the county, wetland mitigation often occurs outside of the county, resulting in a net loss of wetlands in the county.

Began an ecological restoration project at the county's public works facility

A project to restore 48 acres surrounding the Hennepin County Public Works Facility in Medina began in 2016. Restoration work included removal of undesirable woody vegetation, burning, herbicide treatment to control noxious and invasive plants, and planting of native grasses and flowers. The project also included establishment of no-mow fescue grasses and planting 27 trees in parking lot islands. The county received a Conservation Partners Legacy grant totaling \$49,610 from the Minnesota Department of Natural Resources for the ongoing project. When complete, the project will restore three small wetlands totaling 2.4 acres, control invasive species in 8.7 acres of remnant maple-basswood forest, reforest 5.5 acres, and restore 32 acres of tallgrass prairie.



A prairie burn was conducted as part of the restoration project at the public works facility in Medina.

Established a conservation easement program

The Hennepin County Board of Commissioners adopted criteria to guide the acquisition of future conservation easements under the Hennepin County Conservation Easement Program in May 2016. The remaining natural areas in the county will face increasing pressure in the coming decades as more land becomes developed, making it critical to protect those areas now. This program will improve the county's ability to secure external funding to help with purchasing easements. The program also formalizes the process by which the county evaluates easement opportunities as they arise through tax forfeiture or the interest of private landowners.

Established and managed conservation easements

The county continued to establish and manage conservation easements – including Reinvest in Minnesota (RIM) easements – to permanently protect critical natural areas. In 2016, county staff completed required inspections on 19 RIM easements, conducted routine inspections on 31 easements, met with new landowners to discuss boundaries and management on three easements, met with five landowners to discuss management issues on corresponding conservation easements, installed conservation easement boundary signs, completed vegetative maintenance activities, and distributed change-of-ownership information packets. Staff also finalized conservation easements on portions of tax-forfeit parcels in Rogers and Hanover to protect Cowley Lake and the Crow River. Work on these new easements included planting more than 100 trees to fill in gaps in the canopy, establishing 5 acres of native buffer and installing boundary signs.



New boundary signs installed on Hennepin County conservation easements.

Declared the county pollinator-friendly

The Hennepin County Board adopted a resolution that confirmed the county's commitment to pollinator-friendly practices. These practices include implementing sustainable landscaping and integrated pest management policies, limiting the use of systemic insecticides, and encouraging residents, schools, organizations and businesses to use pollinator-friendly practices. The resolution requires that new plants and trees installed on county property be free of neonicotinoids.

Developed sustainable landscaping guidelines

Sustainable landscape guidelines were developed to provide best management practices for plantings associated with all county projects. Guidelines were tailored to Hennepin County's Transportation, Facility Services, and Community Works projects. The guidelines provide direction on site selection and planting, vegetation, soils, water, materials selection, human health and well-being, implementation, maintenance, and education. Staff held individual meetings with Facility Services, Community Works, and various divisions within Transportation to discuss how the guidelines are to be used for future projects.

Protected and enhanced the tree canopy

The Hennepin County Emerald Ash Borer Plan, completed in 2016, outlines the county's plans to address the biggest current threat to the tree canopy. There are an estimated 1 million ash trees in Hennepin County that will be lost to the emerald ash borer. The county's plans including removing and replacing ash trees, preserving high-value ash trees, and assisting cities with inventories and removal and reforestation efforts.

To increase the diversity of the tree canopy, about 750 trees of 24 different species were planted in the county's gravel bed nursery at the Hennepin County Adult Corrections Facility. The gravel-bed nursery gives the county access to a wider variety of tree species for use on county projects and properties, helps the county proactively replace ash trees that will ultimately be infected with the emerald ash borer, and produces trees that have a higher survival rate than conventional nursery trees.

Gravel-bed nursery trees were transplanted to a variety of county projects and properties in 2016, including CSAH 81 in Crystal, Oxboro Library in Bloomington, the Hennepin Energy Recovery Center, and the Hennepin County Public Works Facility in Medina. Additionally, county staff worked with North High School to establish a gravel-bed nursery and replant trees on the school grounds and helped plant a fruit tree orchard at an unusable, tax-forfeited parcel in Minneapolis.



Hennepin County foresters worked with students at North High School in Minneapolis to replant trees that were grown in a gravel-bed nursery on the school grounds.

Participated in the enforcement of the Wetland Conservation Act

The county has a statutory role in wetland regulation under the Wetland Conservation Act (WCA) through the participation on Technical Evaluation Panels (TEPs) and writing of restoration orders relating to WCA violations. In 2016, the county participated on 54 wetland TEPs, wrote four restoration orders, and closed out four cases.

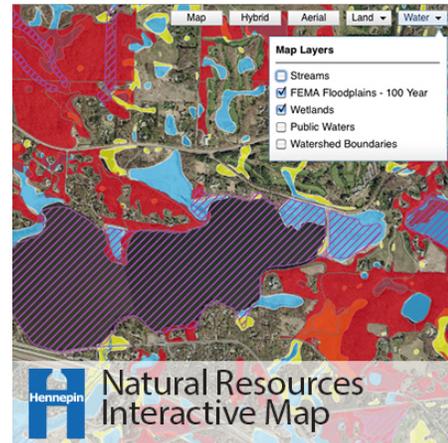
Prevented and controlled the spread of noxious weeds

Hennepin County administers and enforces the state's noxious weed laws and rules and provides education, training and outreach for professional land managers and local weed inspectors. In 2016, the county directly handled 38 new noxious weed issues and complaints and followed up on 26 sites handled in previous years. County staff also inspected county right-of-ways for noxious weeds and worked with cities to respond to complaints.

Updated and maintained natural resources data

Enhanced the county's natural resources inventory

The county's natural resources inventory and associated interactive map were maintained, updated and enhanced, including adding updated Minnesota Land Cover Classification and wetland inventory data. The inventory and interactive map help with the identification and protection of critical habitats and natural resource corridors and assist cities with the development of open space plans. FEMA floodplain maps were added to the Natural Resources Interactive Map in 2016, allowing the county to significantly streamline the process for helping residents determine their need for flood insurance.



Developed a GIS app to inventory trees

A GIS collector app was developed to inventory all trees on county properties and within right-of-way corridors. County staff inventoried more than 2,000 trees in 2016.

Provided environmental education and volunteer opportunities

Conducted water quality monitoring programs

The Wetland Health Evaluation Program (WHEP) engages teams of adult volunteers in monitoring the quality of wetlands throughout the county. In 2016, WHEP volunteers evaluated the quality of 33 wetlands.

River Watch is a hands-on environmental education program in which school classes and youth groups assess the health of local streams. More than 750 students from 15 schools collected data on macroinvertebrates and habitats at 16 sites in 2016. An online, interactive map allows students to compare the data they collect to historical data for their stream site and learn about how land use may impact water quality.



WHEP volunteers collecting water quality data.

Provided environmental education programs

The county supports environmental education by helping to plan and implement NatureFest and the Metro Children's Water Festival, offering NEMO watershed game presentations, and providing community engagement expertise to the Master Water Stewards program. County staff gave four NEMO watershed game presentations, including one as part of the 2016 Water Management Workshops for Local Leaders put on by the University of Minnesota Extension.

NatureFest is an environmental education field day offered in partnership with the Three Rivers Park District. Over three days in September, 460 fifth graders visited the Coon Rapids Dam Regional Park to learn about nature and actions they can take to protect the environment. NatureFest received an achievement award from the National Association of Counties for providing environmental education opportunities for mostly underserved populations of youth.

Promoted conservation services and actions to protect natural resources

Conservation services that the county provides and efforts to protect natural resources were promoted to partners and residents through websites, newsletters and social media. The county also supported the relaunch of Clean Water MN campaign, which is a campaign of the Metro Watershed Partners. The campaign tells the stories of water-friendly actions being taken by area residents in order to educate people about water issues and inspire them to take action.



A Clean Water MN story featured salt use reduction.

Fostered partnerships to meet common goals

Facilitated collaboration and coordination

The Hennepin Natural Resources Partnership promotes collaboration and coordination among watersheds, cities, county departments and state and regional natural resources agencies. The partnership includes meetings that promote collaborative land and water management efforts on issues transecting political and hydrologic boundaries such as stormwater reuse, reduction, and replenishment. The partnership encourages sharing of resources and information, increases opportunities to leverage resources, and provide a venue to address countywide policy issues.

Participated in regional partnerships

The county relies on strong partnerships with a variety of entities including cities, water management groups, neighboring soil and water conservation districts, local, state and federal agencies and non-governmental organizations to further our ability to deliver technical assistance, provide educational activities, and leverage funds for the protection of natural resources. The county was a participating member in numerous multi-entity cooperative groups such as the Metro Watershed Partners, Metro Conservation Districts, Minnesota Association of Soil and Water Conservation Districts, the Crow River Organization of Water, and the West Metro Water Alliance. The county also helped four watershed management organizations certify funding to implement water quality projects under MN Statute 103B.251.

Participated in watershed planning processes

The county served as an advisory committee member for the pilot North Fork of the Crow River One Watershed One Plan planning process. The final outcome for the project will be a comprehensive water management plan for the entire North Fork of the Crow River that crosses political boundaries. The plan will be "prioritized, targeted and measureable" to ensure that resources from all project partners are being dedicated to activities and causes that can show the greatest impacts in the watershed.

Prioritized staff development

To best provide services to residents and manage the county's natural resources, county staff is committed to staying current on natural resources management issues and needs as well as expanding their knowledge base of state-of-the-art management methods and analytical tools. Staff does this through attending workshops and conferences and participating in ongoing educational opportunities.

In 2016, staff participated in ArcGIS workshops, Clean Water Summit, Climate Adaptation Conference, Minnesota Erosion Control Association Native Plant Workshop, Minnesota Shade Tree Conference, natural resources partnership forums, Plain Language for Effective Communication course, State of Minnesota Brownfields, Urban Water Quality Monitoring Course, University of Minnesota Plant Health Care Workshop, University of Minnesota Sustainable Forestry Education Review, University of Minnesota Tree and Shrub Diagnostics Course, Water Reuse Seminar, the Watershed Game training, several field days, and numerous webinars on a variety of natural resources management topics.

Contact

For more information about Hennepin County conservation services and program, visit hennepin.us/naturalresources, or contact:

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