



Wisdom From the Past... For the Future

"The growth of Minneapolis and St. Paul into one great metropolis is as certain as the existence of the vast wealth lying in the regions beyond... If you have faith in the future greatness of your city, do not shrink from securing while you may such areas as will be adequate to the wants of such a city. Do not be appalled at the thought of appropriating lands which now seem too costly, simply because they are far out of proportion to your present wants..."

Look forward a century, to the time when the city has a population of a million, and think what will be their wants. They will have wealth enough to purchase all that money can buy, but all their wealth cannot purchase a lost opportunity, or restore natural features of grandeur and beauty, which would then possess priceless value, and which you can preserve for them if you will but say the word and save them from the destruction which certainly awaits them if you fail to utter it."

From Horace H.W. S. Cleveland's "Suggestions for a System of Parks and Parkways for the City of Minneapolis," dated 1882

Minnehaha Creek Watershed District

18202 Minnetonka Blvd.
Deephaven, MN 55359

952-471-0590

www.minnehahacreek.org

Protecting Land...For Water's Sake

How the Land Conservation Program works

Minnehaha Creek Watershed District (MCWD) works cooperatively with private landowners, municipalities, counties, and other agencies and organizations to ensure that we protect our water, wetlands, and wildlife as our communities grow. MCWD's land conservation program:

- provides technical assistance to municipalities, landowners, and others on land conservation and restoration options
- works with a variety of organizations, agencies, and programs to deliver a comprehensive, integrated set of conservation and restoration options for landowners in high priority conservation areas
- protects and restores key natural resources by taking full advantage of the various options available.

Through partnerships, creativity, and leverage, we work together to conserve and restore water resources for future generations.

The water quality - land use connection

The health of a water body is a reflection of the land use in the area of land that drains to it, or its watershed. Studies show that as the intensity of human land use rises, water quality goes down and habitat is degraded. This is primarily due to polluted runoff, or nonpoint source pollution. It's the number one water quality problem in the US, and communities are increasingly finding themselves responsible for cleaning it up as federal and state regulations mandate increased levels of protection for water resources.

In undisturbed landscapes, trees, shrubs, and tall grasses protect water quality. This is because they: 1) transport water into the ground, replenishing aquifers; 2) use large quantities of water, increasing evaporation; and 3) work with the soil to naturally filter and break down pollutants. These 'free services' offered by nature are revoked when human land use replaces native vegetation with row crops, parking lots, homes with suburban lawns, strip malls, and industrial complexes.

With development comes an increase in hard surfaces (rooftops, roads, parking lots, etc.) that prevent water from soaking into the ground. This causes an increase in the amount of stormwater that goes downstream as well as an increase in the speed with which it gets there. Along the way, watercourses and shorelines are eroded, and properties are flooded. What's more, this increased volume of water carries with it a suite of pollutants, including phosphorus, sediment, toxic contaminants, pathogens, and debris.

The net effect of these impacts on the land is the loss of healthy ecosystems: lakes, rivers, streams and wetlands. With that loss, the soils, plants, and animals associated with these ecosystems no longer function together as they should. This has implications for human health, community character, and overall quality of life.

Protecting open space as a water quality tool

The Minnehaha Creek Watershed District is committed to a leadership role in protecting, improving, and managing surface waters and affiliated ground water resources within the District, including their relationships to the ecosystems of which they are an integral part. In fulfilling its mission, MCWD is looking to use every available tool to protect and enhance water resources.

Traditionally, water quality protection tools have operated at the end of the pipe: just before polluted water reaches its destination (lake, river, stream, or wetland). By strategically protecting land at critical watershed drainage areas, (the beginning of the pipe, not the end), we can reduce the need for expensive infrastructure. The result is a *green infrastructure* of open spaces and natural areas that takes advantage of the free water resource protection services provided by nature, along with other benefits such as habitat protection.

Other benefits of land protection

Open space – forests, wetlands, grasslands, contributes greatly to our quality of life. They not only protect water resource health, but they help keep our air clean by filtering pollutants, they provide habitat for thousands of species, and they give us opportunities to play outside and connect with nature.

What's more, open space provides economic benefits. According to the Trust for Public Land, small businesses rank open space/parks/recreation the number one factor in choosing a new business location.¹ In 1996, outdoor recreation provided an estimated \$40 billion to the U. S. economy.²

Public support for taxpayer funded land protection

Elected officials and the public are taking note of fast growth and the need to protect land before it's too late. Nationally, voters approved 72% of the 919 proposed referenda on open space funding in the last five years. Local examples include:

- Dakota County's Farmland and Natural Areas Protection program will raise \$20 million over 10 years to save critical areas in the county. The program is funded with a tax of \$17 per year for the average homeowner.
- Minnetonka voters approved \$15 million in 2001 for parks and open space.
- Voters in Wayzata passed \$3.1 million to conserve their last tract of Big Woods.

Voters consistently show a willingness to pay extra taxes to conserve open space. In fact, 83% of Twin Citians said that local governments 'should have an ongoing program to purchase, restore, and maintain natural areas.'³

1 Crompton et al., as cited by The Trust for Public Land in the Economics Benefits of Open Space

2 Outdoor Recreation Coalition of America as cited by the Trust for Public Land in the Economic Benefits of Open Space.

3American Viewpoint, Inc., 2000. Twin Cities Metropolitan Natural Areas Survey

Land Conservation Program

Protecting Land... For Water's Sake

In California, floods during the winter of 1997 have prompted the rethinking of floodplain management, to shift from dike and dam to wetland buffer. Flood control managers are recognizing that protecting wetlands and buffer zones, by slowing runoff and holding water for recharge, directly reduces the potential for flooding. (Protecting The Source, Richard M. Stapleton, The Trust for Public Land, 1997).

The Trust for Public Land and the American Water Works Association found that "approximately 50 to 55 percent of the variation in [drinking water] treatment costs can be explained by the percent of forest cover in the source area. For every 10 percent increase in forest cover in the source area, treatment and chemical costs decreased approximately 20 percent." (Land Conservation and the Future of America's Drinking Water, Protecting the Source, The Trust for Public Land and The American Water Works Association, 2001)

According to the MCWD, high quality stormwater detention costs up between \$15,000 and \$80,000 per acre foot, plus about \$20,000-\$50,000 for an outlet structure. Wetland and floodplain reclamation, on the other hand, is estimated at \$11,000—\$20,000 per acre. (Painter's Creek Feasibility Study, February 2004).

New York City spent an estimated \$1.5 billion to buy watershed lands to protect upstate drinking water supplies. The alternative was to spend \$6 billion to \$8 billion on a water filtration plant. (The Economic Benefits of Open Space, The Trust for Public Land)

