

# WaterWorks

## . . . To Yours

### Take Steps to Protect Our Lakes

#### Keep Rain on Your Property.

Direct downspouts away from hard surfaces to lawn and raingardens.

#### Limit Yard Pollutants.

Follow a low input lawn program for healthy turf with less fertilizer.

#### Keep Leaves and Grass Clippings Off the Street.

Phosphorus in leaves and grass clippings is valuable in the yard but makes algae thrive in lakes.



Minnesota DNR

**One pound of phosphorus added to surface waters equals 500 pounds of algae.**

—Minnesota DNR

## Sustainable Landscaping Resources

Consult these resources for rainwater design and low input landscaping.

[www.ci.maplewood.mn.us/nc](http://www.ci.maplewood.mn.us/nc)

[www.rwmwd.org](http://www.rwmwd.org)

[www.BlueThumb.org](http://www.BlueThumb.org)

### Grants Available

Most Twin Cities watershed districts have cost share programs to help residents install raingardens. Contact your district for more information.

Ramsey-Washington Metro Watershed District funding was key to WaterWorks project success.



### Our Mission:

*To enhance awareness and understanding of land, water and wildlife resources and to empower the community to become stewards of the environment.*



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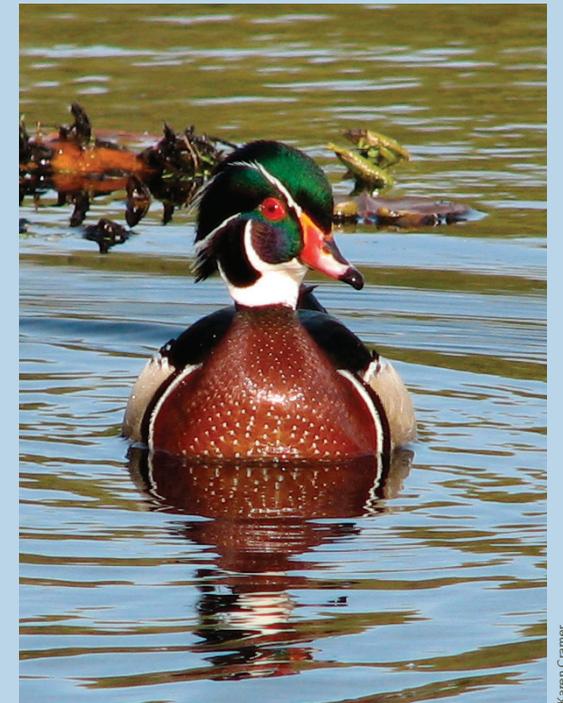
## Putting Rainwater to Work in the Yard



MAPLEWOOD NATURE CENTER  
& Neighborhood Preserves

## From Our Yard . . .

Let WaterWorks be your inspiration for putting rainwater to work in your yard.



Karen Cramer

### WaterWorks:

- Provides solutions to drainage issues.
- Lessens the impact of flooding and erosion, and reduces pollution of Green Heron Pond.



# WaterWorks

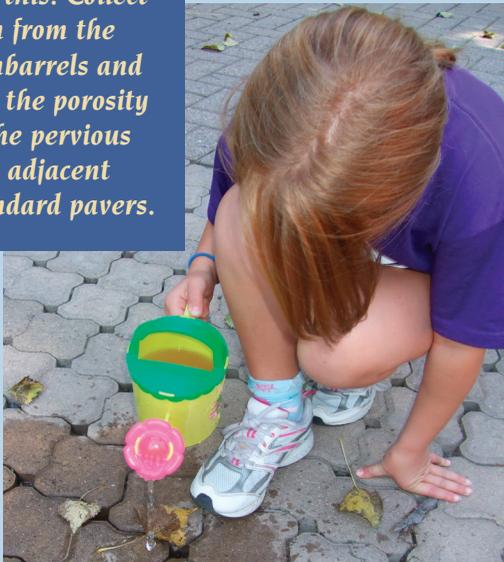
Rainwater features collect and direct rainwater to slowly infiltrate into the ground. WaterWorks tackles these site challenges:

- Standing water
- Icy walkways
- High water table
- Mostly flat site

**Pervious Pavers** infiltrate rain on site.

- Gaps between pavers drain rain to a 12" pervious gravel bed beneath.
- Safety issues resolved—no more standing water or icy pavement.

*Try this. Collect rain from the rainbarrels and test the porosity of the pervious and adjacent standard pavers.*



**Rain Chains** direct rain from the roof to the splash rock and the rain planter.

**Tiered Rain Planter** collects and slows rainwater.

- Stained concrete planter sustains plants.
- Rain infiltrates through planter's soil and sand bed into the ground.



**Trench Drains** carry overflow under walkways to raingardens. Metal grates provide a safe walking surface.



**Raingardens** are depressions that capture and filter runoff from lawns and hard surfaces. A well designed raingarden infiltrates within 48 hours, and contributes clean water to our groundwater supply.



**Native Plants** selected for raingardens in sun or shade offer these benefits:

- Deep-rooted natives absorb water and nutrients and maintain soil porosity.
- Many natives are adapted to fluctuating water levels.
- They provide habitat for butterflies and hummingbirds.



**Rainbarrels** store rain from the roof for use in the garden.

- Each custom steel barrel holds 160 gallons of rain.
- These barrels fill with every rainfall of 1/3 inch or greater.
- Together the barrels capture rain from 540 sq. ft. of area.



**The Rain Canal** carries excess rainwater from the rainbarrels to the raingardens. The stone-lined concrete canal prevents soil erosion.

*To calculate how much rain you can harvest from your roof, multiply the roof area draining to each downspout by 0.6 gallons. For example, 1 inch of rain on a 10 x 10 ft. area (100 sq. ft.) = 60 gallons.*