Natural Resource NOTES

SPRING 2008

ENERGY

10 Simple Ways to Save Energy (and Money)

1. **Use your windows.** Opening drapes and curtains on sunny days can help warm your home in the winter and opening windows at night can help cool your home in the summer.
2. **Cover your food.** Food cooks faster on the stove with lids, and refrigerators need to work harder to cool humid air from steaming food. Allow food to cool for a few minutes before you put it in the refrigerator.
3. **Replace and clean your filters.** Furnaces, air conditioners, and dryers all work harder and use more energy with dirty filters and lint traps.
4. **Insulate hot water pipes.** You'll save energy and use less water waiting for a hot shower.
5. **Repair water leaks.** Leaking faucets can waste up to 400 gallons of water along with the energy used to clean and heat it.
6. **Clean your refrigerator coils.** Dirty coils on the back of your refrigerator can cause the compressor to run longer and work harder.
7. **Use ceiling fans.** Most fans use about as much power as a light bulb, and fans that can be run in reverse actually can be used to pull warm air down from the ceiling in winter.
8. **Install a water heater blanket.** You can find them at most home improvement and hardware stores and they only take minutes to install.
9. **Use a programmable thermostat.** You can also adjust your thermostat manually when you leave for the day or at night when you are less active.
10. **Use compact florescent light bulbs.** They more than pay for themselves in energy savings and they last longer. Three-way bulbs or dimmer switches also can save energy by allowing you to choose only the amount of light you need.

5 EASY WAYS TO IMPROVE WATER QUALITY

1. **Keep paved surfaces clean.** Sweep grass clippings and rake leaves from the street and storm drain. Clean up spilled fertilizer, oil, and other chemicals and dispose of them properly.
2. **Turn your downspout onto your lawn.** Runoff directed down the driveway can pick up oil, yard waste, and other debris. Be a good neighbor and be careful not to redirect the water to a neighbor's property or to a highly erodible area.
3. **Reduce fertilizer use.** Have your soil tested before applying lawn fertilizer. Excess fertilizer can run off or leach from the soil and affects lakes creeks, and wetlands. Using a mulching mower can be roughly equivalent to one free fertilizer application per year.
4. **Wash vehicles on the lawn.** Many soaps and detergents contain phosphorus or other nutrients which may benefit the lawn, but run off readily from paved surfaces where they can negatively affect water resources.
5. **Capture and infiltrate runoff.** Install a rain garden or rain barrel. Reduce unnecessary impervious surfaces or replace failing surfaces with pervious pavers to help increase the amount of runoff absorbed into the ground.

One easy way to protect water quality – be sure storm drains are clear of debris.

QUALITY

DEBUNKING
Natural Resource Legends

Like urban legends and old wives' tales, some natural resource lore is accepted as fact by many people, to the detriment of their trees and landscape. Read on to learn the real truth about these musty myths.

Tree roots grow down like a carrot.

While it's true that certain species like oaks have a tap root when they are small saplings, the roots of established trees have a shape more like a wine glass. In fact, the majority of all tree roots are within the first three feet of soil, with most fine roots within the first foot of soil where oxygen exists. Trees have a root system that extends outward below ground at least as wide, and sometimes two to three times as wide, as the canopy above. Remember this and use caution when you are disturbing soil or driving heavy machinery under a tree's canopy – it's called the "drip line" of the tree and its preservation is crucial to the tree's survival.

Mature trees don't need to be watered.

Mature trees are just as susceptible to drought damage as young trees, especially if they are growing in a landscape without a layer of organic material to conserve soil moisture. In a typical lawn setting, trees endure chronic low-level stress. This occurs because soil has often been compacted – instead of tiny spaces in the soil for roots to grow through, root movement is restricted, making water uptake more difficult for the tree. When the situation is compounded by a drought, the soil becomes so dry that the fine roots of the tree also dry out and die. Fewer roots underground mean the tree has a decreased ability to support the aboveground portion of the tree. A mature tree already has a difficult time supporting itself because as the size of the tree increases, the relative proportion of "sugar making" tissue to non-sugar making tissues decreases. In order to maintain tree vigor, plan to water your mature tree with a drip watering hose or a hose on low flow, moving it around to the outer edges of the canopy.

Garlic mustard is not a problem on my property. I've only got a few plants.

A few garlic mustard plants can multiply exponentially and take over the herbaceous layer in shady woods and gardens in only a few years. Garlic mustard is a big problem in Minnetonka woods and natural areas. The best time to remove it is now! For more information on this very invasive European herb, its life cycle, and how to control it, visit ***eminnetonka.com***, or attend a garlic mustard workshop April 24 – see information in the workshop portion of this natural resource section.

Earthworms are good for the soil.

Earthworms are good fish bait and robin food. They're okay in your garden and lawn, but they are harmful to hardwood forest habitats throughout Minnesota. Nearly all of the terrestrial earthworms in Minnesota are non-native, invasive species from Europe and Asia. Earthworms cause harm to the woodland ecosystem by consuming the duff layer in the forest, which is essential for the survival of many species of wildflowers. Prevent their spread to new areas—don't dump fishing bait in the woods!

Low-maintenance landscape means no maintenance.

Native plants have been touted for years as being low-maintenance; and this is true, once they are established! When new plants are small or getting established, there's always competition for light and moisture by volunteer invasive plants and weeds. If you take the time to weed, mulch, and water around new plantings during the first few years, the annual work required will surely become low maintenance.

If you cut buckthorn, it goes away.

This could have been true 25 years ago if the fresh-cut stumps were carefully treated with the proper herbicide. Today, buckthorn has been around in most local woods for 15 to 45 years. Buckthorn can produce fruit with seeds as early as six years after germination, which means the seed bank in the soil has been building for many years. As the female trees grow larger, their annual fruit production grows exponentially. Buckthorn seeds remain viable in the soil for years; so now, when buckthorn is cut and the stumps are properly treated, thousands of seeds can germinate in the subsequent seasons. The trick to continued control after the larger buckthorn has been cut is to pull seedlings when the soil is moist, pull, replace the soil, be careful of the remnant native plants, mulch, and repeat for many years into the future! Visit ***eminnetonka.com*** for more information on buckthorn.

I have poison oak on my property.

That's not likely in Minnesota, since poison oak isn't native here. It grows in east coast states and southern states in the Texas/Louisiana/Arkansas region. We do have plenty of poison ivy in Minnesota. Poison oak and poison ivy are two woody perennial plants that are very closely related. They both have compound leaves-of-three and a "poison" oil called urushiol which causes an itching and blistering dermatitis on humans. Wildlife eats the plant and beds with the plant with no ill effects. As its name suggests, poison oak leaves can look much like the leaves of white oak while poison ivy can be a little harder to identify. Until you learn the key identifying characteristics and the many sizes and forms poison ivy takes, the best advice is: "leaves-of-three, let-it-be."

I don't need to worry about runoff or water quality because I don't have a wetland, creek or lake on my property.

We all effectively live on waterfront property. The runoff from your property will drain into the nearest lake, wetland, or creek even if you do not live directly on the water. Runoff that exits your property will carry with it any fertilizers, herbicides, oils, sediment, pet waste, yard waste, or any other material that can be dissolved or floated in the water. In addition, this runoff can pick up additional materials such as loose gravel, spilled chemicals, litter, or any other items it encounters on the way. Although we all contribute to the potential problems that affect our water resources, we also can contribute to the solutions. Keep paved surfaces clean, cover exposed soil, and use techniques to capture and absorb runoff such as planting or protecting areas of native vegetation, installing rain barrels and rain gardens, and preventing soil compaction during construction and landscaping projects.

The water in the storm drain is "treated" like the water from my home.

Storm drains capture water from roadways or depressions in the landscape to keep streets safe for travel and to help prevent the flooding of nearby homes and businesses. Once the water enters the storm sewer system, it's directed underground by large pipes or culverts to a nearby lake, creek, or wetland. Some storm sewers may release this water into a drainage pond first to help control the speed or volume of the water; however, this water will eventually pass into the lake, creek, or wetland once it rises to a certain elevation. Unlike the sanitary sewer connected to your home, water that enters the storm drain is not treated at a wastewater treatment facility. Consider adopting the storm drain on your street and periodically disposing of any leaves, twigs, litter, or other debris that you find collected around the storm grate. Throw out that debris with your trash or yard waste – don't push it down the storm grate!

Non-phosphorus fertilizers are harmless to water resources.

It's true that excess phosphorus can increase the presence of algal blooms that reduce water clarity, and can have other negative impacts such as an increase in the growth of exotic weed species. Minnesota banned the use of fertilizers containing phosphorus for established lawns largely due to the existing abundance of phosphorus in our soils and the impacts of phosphorus on water quality. Other nutrients in fertilizers, such as nitrogen, can encourage the growth of algae and noxious weeds, especially if phosphorus is already abundant in the water. Also, fertilizers may contain herbicides that kill vegetation. Always read the labels carefully and have a soil test before applying any fertilizer, including organic fertilizers, to your lawn. Use slow release fertilizers on areas where the potential for water contamination is high, such as sandy soils, steep slopes, and compacted soils.

My trees are too close together.

In a woodland environment, trees often will grow much closer together than if they had been planted in a yard. However, these trees have grown from seeds or sprouts and have adapted to the trees and shrubs growing around them as the woodland was formed. The overall health of your native woodland will not be improved by "thinning out" the native species. Instead, you may harm the remaining trees. Removing tall trees from the canopy or small trees from the understory may expose the soil below to the direct impacts of rain, increasing the potential for erosion. Removing the native understory also may provide an opportunity for buckthorn, a non-native invasive species, to become established. Heavy equipment used for tree removal may compact the woodland soils or wound the surrounding trees, potentially stressing and impairing their health. Most species will not form major branches along the trunk of the tree once they have developed; thus, you should not expect trees that have grown in a woodland setting to form a new, more rounded canopy once the surrounding trees are removed. If you have remnant trees from a native woodland in your yard, remember that it may have taken hundreds of years for this woodland to develop. Protecting it is the easiest and often least costly way to enjoy its beauty for years to come.

Piecing together the PUZZLE

Is this cottonwood a "weed" tree?

Cottonwoods get a bad rap and are often called "weed" trees. They grow rapidly, and are often found in low-lying floodplain forests, or along wetlands and other seasonally wet areas. Their root systems can withstand water, soil deposition and decreased oxygen levels that sometimes occur with standing water. In other words, there aren't too many other trees that are so well adapted to thrive in wet areas. If cottonwoods are the hare, bur oaks are the turtles of tree species. They grow slowly, living in mesic oak forests or prairie settings. They can withstand drought but hate "wet feet." They have a longer life span, and can remain in a landscape for more than 200 years. And where do sugar maples fit in? They are the moderate-growth-rate, shade-tolerant trees usually found in forests. They can grow slowly for decades in complete shade, enjoying the rich, moist forest soil, then enjoy a growth spurt when they find a spot of sunlight. Each tree species lives in a certain type of ecosystem, its biology perfected over thousands of years to help it survive in a special niche. Before calling a tree a weed, think about where it is growing and the unique adaptation it may have that another tree species may not possess.

Trees and water quality

Many of the benefits of trees are well known: they help save energy; increase property values; improve air quality; and provide a habitat for wildlife. A lesser-known benefit of trees, however, is improved water quality, a benefit that may come to the forefront as communities continue to increase in density. Why does increasing density threaten water quality? Generally, as development increases, the amount of hard, impermeable surfaces also increase. This means rain water is quickly rushing off roof tops, driveways, roads and buildings into storm drains–carrying chemicals, bacteria, animal wastes, and soil sediments without the benefit of filtration. And remember, the water that flows to storm drains is not treated or cleaned–instead, it's carried to the nearest water resource such as a pond or creek. Trees help reduce storm water runoff by catching water in their leaf canopy and drawing up water through their roots to store it. Water vapor is released through tree leaves, yielding a secondary benefit – cooler air. Trees are more efficient at handling storm water than a simple pond because their root system and associated micro-organisms are constantly working in the soil. This biological activity improves the structure, which maintains the "sponge-like" capacity of soil and traps or breaks down pollutants.

Did you know herbicides kill weeds… and trees?

Trying to kill weeds in your lawn? Use caution when applying broadleaf herbicides around the drip line of trees and shrubs. Because trees and shrubs are broadleaf plants with a similar biology to weeds, they take up herbicides through their root systems. Woody plants may also be damaged when herbicide drifts from its desired location due to wind or human error. Herbicide chemicals can stunt growth, deform buds and kill trees.

Want to attract backyard wildlife? Here are some tips:

Turn over an old clay flower pot in the garden to provide temporary shelter for frogs, toads, or salamanders. Break an opening along the bottom edge so animals do not get trapped inside.

Some butterflies are attracted to overripe fruit. Hanging a bunch of grapes or other fruit from a hook or string can make an easy feeder. Compost or dispose of the fruit if it becomes moldy or spoiled.

Save your rotting trees

Trees may die for many reasons including drought, human-caused root disturbances, diseases, insects or old age. Each tree species has a unique life span, and a mature tree is defined as a tree living greater than or equal to 75 percent of its life expectancy. For a river birch tree, that may be between 30 to 70 years old, whereas a bur oak would reach maturity at between 80 and 200 years old. Unlike the rotting lettuce in the refrigerator's veggie drawer, a tree's death in the woods does not mean the end of its value!

Standing dead trees, also called snags, provide cavity nesting spots and cover for woodpeckers, wood ducks, bluebirds, owls, chickadees, squirrels, raccoons, and bats. Many of these animals not only prey on harmful insects, but also disperse the seeds of native plants.

Trees that fall to the ground will provide habitat and egg-laying sites for amphibians and reptiles. Branch tops of fallen trees near the ground will protect tree seedlings from early deer browse. As the tree decomposes, the stored nutrients will return to the soil, adding to the fertility of the site and allowing another tree to grow in its place. If a tree dies along a hillside, place it perpendicular to the hillside to reduce soil erosion.

There are a couple minor exceptions with regard to keeping dead trees. If the tree has been found to have Dutch elm disease, oak wilt, or another invasive disease or insect, follow the guidance of a professional with regard to removal. Also, consider removal if the tree could fall on a structure like a house or garage. Sometimes there are ways to keep the organic material in the woods, though, like chipping up the tree and placing the mulch on the ground.

Beef up the buffer

Most species that frequent aquatic habitats can't live on water alone. Upland vegetation, including trees, shrubs, and tall grasses, allows birds and other wildlife species to hide from predators; seek protection from the elements; rest; attract mates; lay eggs; and find food such as berries, nuts, and dry seeds that may not be available in the water. Native upland vegetation also helps prevent erosion; slows runoff; and helps absorb pollutants such as phosphorus. Native upland vegetation can also deter nuisance species such as Canada geese (and their droppings), because these birds prefer a clear view of their surroundings while they feed. Help be a good steward of the land and protect water resources by leaving a wide strip of vegetation rather than mowing to the water's edge. Adding brilliant native wildflowers and native grasses that provide attractive seed heads in the winter, as well as suitable native trees and shrubs, also can help add beauty, restore water resources, and increase enjoyment of these valuable resources.

Insecticide: an indiscriminate killer

Insecticides used to kill wasps can also kill honey bees, a very beneficial insect. Honey bees pollinate flowers and food crops, and their existence is threatened by exotic mites and human actions like pesticides. Other insects are needed as food sources for songbirds or as predators for other insects. Control insects at the weakest time in their lifecycle, and be careful when selecting chemicals – otherwise, beneficial insects that feed on the very insect targeted for eradication may be killed as well. Be sure to seek an expert's advice before spraying an insecticide.

Why are aquatic plants important?

Aquatic plants play an important role in protecting waters and providing habitat for wildlife.

Aquatic vegetation may include the pondweed found just below the surface, the lily-pads floating on the surface, or the cattails growing through the surface. It also may include marsh marigolds, blue-flag iris, sweetflag, broad-leaved arrowhead, lake sedge, and any number of species found growing in Minnetonka's waters. With its extensive root system, aquatic vegetation can help prevent erosion by holding the soil in place and absorbing wave energy on windy days. They also can help increase water clarity by absorbing nutrients from the water that would otherwise promote algal blooms, and by slowing the movement of water so that sediment can settle to the bottom. In addition, aquatic vegetation releases oxygen in the water to help fish "breathe." Because aquatic vegetation is vital to the health of wetland, lake, and creek ecosystems, the city and state have regulations regarding the removal or planting of vegetation within these water resources. Before altering existing vegetation near a neighboring water, contact the city first to find out what is permitted.

I spy…purple loosestrife?!

Purple loosestrife is yet another invasive species, but good news! Loosestrife-eating beetles are on the loose, released through a cooperative effort between the city of Minnetonka's natural resources division and Groveland and Scenic Heights elementary schools. The beetles are collected from wetlands that have an established population, then propagated and raised on net-covered, potted loosestrife plants in a kiddy pool. In mid-summer beetles and young larvae, together with their host plants, are transferred to a new loosestrife population. The beetles eat only loosestrife plants. After seasons of much feeding and multiplying, the beetles cause the plants to quit flowering and sometimes die. Both of these conditions render the plant "under control," because it is no longer propagating itself. Control of invasive species by other organisms is called "biological control."

We are making a difference!

Awareness and care for our environment is on the rise. There's much we can do, and in the city of Minnetonka we're making good progress. The city has a well-established city-wide forestry program and a habitat restoration program conducted in five large community parks. In addition, the city continues to work to protect and improve the quality of water resources. Minnetonka residents donated more than 1,300 volunteer hours to plant trees, work on restoration and rain garden improvement projects, monitor the health of wetlands and lakes, and assist in the control of purple loosestrife. Together we are making a difference!

With help from volunteers, the city is fulfilling its commitment to managing and improving Minnetonka's natural resources in a sustainable program. Thank you to all the residents, teachers, students and others who volunteered their time for Minnetonka's natural resources. We couldn't have done it without you! If you'd like to get involved in a volunteer activity, call Janet Larson at (952) 988-8423. Ongoing projects this spring involve cutting small buckthorn interminged with native woody plants and installing protection fencing around individual and small groups of high-value plants. Critical hand-pulling of garlic mustard in specific high-value natural areas will be from late April through late May. To learn more about garlic mustard, plan to attend the April 24 workshop, described elsewhere in this month's newsletter.

WITHOUT A DOUBT, MINNETONKA RESIDENTS TREASURE THE CITY'S NATURAL RESOURCES, RATING IT YEAR AFTER YEAR IN THE ANNUAL COMMUNITY SURVEY AS ONE OF THEIR TOP REASONS FOR LIVING IN MINNETONKA.

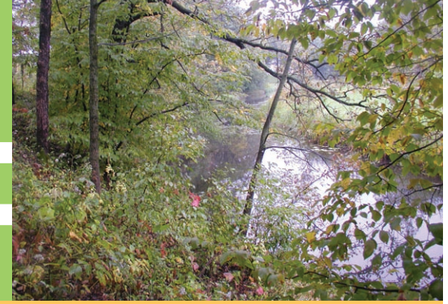
HOWEVER, VALUING THE NATURAL ENVIRONMENT DOESN'T ALWAYS TRANSLATE INTO UNDERSTANDING THE INTERCONNECTEDNESS OF ELEMENTS WITHIN THAT ENVIRONMENT. FOR EXAMPLE, MOST PEOPLE EQUATE TREES WITH SHADE FOR YARDS AND HOMES, AN OXYGEN SOURCE, AND A PLACE FOR BIRDS TO NEST. WHAT MANY PEOPLE DON'T KNOW ABOUT TREES IS THEIR ROLE IN PROMOTING AND PROTECTING THE WATER QUALITY OF LAKES AND WETLANDS WHILE REDUCE THE IMPACTS OF STORM WATER RUNOFF.

ON THIS PAGE, FEATURING LONE LAKE, GAIN SOME INSIGHT INTO HOW THE NATURAL RESOURCES PUZZLE FITS TOGETHER, WITH EACH PIECE PLAYING ITS OWN IMPORTANT PART.

MINNETONKA'S

ECO-SERIES:

Academy of Walks and Talks



Want to learn more about garlic mustard or native woodland plants? Want to walk in wetlands, and learn more about these spongy environments? Then join one of the following workshops or participate in a volunteer opportunity and expand your knowledge of the natural environment.

Tree Planting Clinic

Earth Day, Tuesday, April 22, 6 p.m.

Attend a free, city-sponsored tree planting clinic on Earth Day, Tuesday, April 22, from 6 to 8 p.m. at Big Willow Park. Meet in the Minnetonka Public Works parking lot, 11522 Minnetonka Boulevard, then walk to the planting site in the park.

If you're purchasing a tree through the city tree sale, or are just curious about new advances in young tree care, this clinic is for you. Learn how to prepare a containerized tree for planting; how to look for key indicators of good root and tree health; and how to plant the tree at a depth to ensure its long-term health. Learn when it is appropriate to prune a new tree, and how certain pruning practices during a tree's infancy can be critical to the tree's future.

Registration is required for this event and limited to 30 people. For more information or to register, call (952) 988-8400.

Got garlic mustard?

Thursday, April 24, 6:30 p.m

Learn about the very invasive woodland herb at the second annual garlic mustard workshop Thursday, April 24, 6:30 p.m. at the Minnetonka Council Chambers, 14600 Minnetonka Boulevard. Enjoy a slide show and talk from 6:30 to 7:30 p.m., then from 7:30 to 8 p.m. walk in the Civic Center woods to take a look at the real thing. Learn about the plant's life cycle and its many stages of growth, as well as control methods and the most critical period for removal before the plant goes to seed. Handouts provided. Registration is required – call (952) 988-8400.

Garlic mustard

Celebrate Arbor Month

May 13, 5:30-7:30 p.m.

Celebrate Arbor Month at Lone Lake Park, 5624 Shady Oak Road, Minnetonka, and help reforest areas where trees have been lost in the last few years to storms and disease. Enjoy digging in the soil, learning how to plant a tree and enhancing the environment in this community park! Snacks and planting supplies will be provided. Participants will receive a Tree City USA t-shirt, tree seedlings, and tree care information packets. Dress for the weather and bring gardening gloves, questions and fresh spring air enthusiasm! This event is free of charge and all ages are welcome. Enter the park from Shady Oak Road then take a left down the hill to the lower parking lot. For more information call Emily Barbeau, city forester, at (952) 988-8400.

A few young planters helped at last year's Arbor Month event.

Did you order a tree? Pick up is May 2 and 3!

If you ordered trees through the city tree sale, be sure to pick them up on May 2 or 3! You may choose either date to collect your pre-ordered trees. If you will be out of town or do not have an appropriate vehicle, someone else may pick up the trees on your behalf, but be sure to give them your confirmation post card to present to city staff. Confirmation post cards will be sent to participants two weeks prior to the event as a reminder.

If we have a warm spring, and you notice that trees in your yard are already leafing out, be sure to bring a tarp or sheet to cover the canopy of your new trees. This helps prevent water loss through the leaves as they travel down the road in an open truck bed or trailer.

Pick up trees at Minnetonka Public Works (not Minnetonka City Hall), 11522 Minnetonka Boulevard. Follow the signs to the east driveway (recycling drop-off center). Pick-up times are Friday, May 2, from 9 a.m. to 2 p.m., or Saturday, May 3, from 8 a.m. to noon.

Questions? Call Emily Barbeau, city forester at (952) 988-8400.

ECO-SERIES

Spring Plant Walks

Take a guided plant walk in a Minnetonka park where native habitat restoration is underway. Walk with the city's restoration specialist and identify wildflowers. Learn about restoration practices used by the city and how to identify the invasive "bad guys." Wildlife benefits of some native trees and shrubs will be included. RSVP is required and limited to 15 for each walk. Call Minnetonka Public Works at (952) 988-8400.

- Rain or shine. Wear appropriate outdoor clothing and sturdy footwear.
- Recommended: water bottle, binoculars, and notebook.
- Children are welcome, but must be accompanied by an adult.
- Meet on-site at location specified in table.

Park	Date	Time	Meeting Place
Big Willow	Tuesday, April 29	5:30 – 7:30 p.m.	Big Willow parking lot at Minnetonka Public Works, 11522 Minnetonka Boulevard
Purgatory	Thursday, May 8	5:30 – 7:30 p.m.	Picnic parking lot , 17315 Excelsior Boulevard
Lone Lake	Thursday, May 15	5:30 – 7:30 p.m.	Lower parking lot by swings, 5624 Shady Oak Road
Jidana	Thursday, May 29	5:30 – 7:30 p.m.	Parking lot, 3333 Jidana Lane

Low-impact landscape and yard care workshops

Low-impact landscape workshop
April 24, 6 p.m.
Learn to create a low-impact landscape using native plants, rain gardens and rain barrels. Rain barrel installation demo at workshop.

Organic lawn care
May 22, 6 p.m.
Create a healthy, organic lawn with the help of Organic Bob. Learn to rebuild your lawn from the soil up, while protecting the quality of your water and keeping lawns safe for children and pets! Free soil test kits available at workshop

Both workshops are held at the South Shore Center, 5735 Country Club Road, Shorewood. Reservations are encouraged – RSVP to the city of Shorewood at (952) 474-3236 or to jlandini@ci.shorewood.mn.us. Each workshop will offer 25 rain barrels to attendees - $40 for Minnehaha Creek Watershed District residents and $60 to others. Co-sponsored by the cities of Minnetonka, Shorewood, Deephaven, Tonka Bay, Excelsior and Chanhassen.

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Coming in May...

Watch the May *Minnetonka Memo* for information about an upcoming frog and turtle talk.

Help monitor Minnetonka's wetlands

If you've ever wanted to wade in a wetland, get your hands muddy, and discover the plants and animals that live in the murky shallows, we want you! The city of Minnetonka has partnered with Hennepin County for the seventh year to implement the Wetland Health Evaluation Program within the city. This project uses biological criteria to identify the health of different wetlands within our community.

Adult volunteers work in the field on a team with other city residents to study the biological health of Minnetonka's wetlands. You do not need a science background or any previous monitoring experience to participate. Volunteers work under the direction of a team leader and receive training on the wetland monitoring protocols as well as plant and insect identification. The time commitment is approximately a total of 40 – 50 hours from May through August. This includes training, fieldwork, and lab work. All equipment (except waders) is provided. The data collected by the volunteers can be used by the city to help determine the health of our water resources.

If you are interested in volunteering for the Minnetonka Wetland Health Evaluation Project contact Aaron Schwartz, natural resource specialist, at (952) 988-8422 or by email at aschwartz@eminnetonka.com. You may also attend an introductory meeting Thursday, April 24, at the Minnetonka Community Center, 14600 Minnetonka Boulevard. Hear a brief overview of the program, share photos from last year, and meet members of the Wetland Health Evaluation Program.

WHY should I...

We're all surrounded by tips on going green and being kinder to the environment, but it's not always clear WHY we should be doing these things. Here's some explanation for a few of those tips:

Put mulch around trees and shrubs?

A shredded wood-based or organic mulch conserves soil moisture for trees and shrubs. This is especially important because as soil temperatures rise from global warming more water is lost from the soil. Mulch is crucial during summer and times of drought when water is a limiting factor for growth. Researchers have found trees have more fibrous roots and faster growth rates when surrounded by mulch, as compared to grass. In addition, two to three inches of mulch over bare soil can prevent invasive weeds from establishing, reducing the chance they will spread their seed and outcompete native plants.

Prune trees in the winter?

Pruning trees exposes their living tissue to the elements. When pruning cuts are made in the winter, insects are not active and will not be attracted to the wounds, thus reducing the chance a disease will enter through the fresh cut. The general guideline for most trees is to prune from November through March in Minnesota, but the later in the winter you prune, the more efficiently the tree will seal off the pruning cut. Faster wound closure means a lower chance that decay organisms (which break down the structural integrity of the wood) will inhabit the pruning cut.

Pick up litter and monitor my neighborhood storm drain?

The picking up the litter part is easy: plastic bags, pop bottles and cigarette butts are unsightly and give the appearance of an area being unkempt and dirty. Litter can also be harmful to wildlife. But, did you know that the storm drain (catch basin or grate) located at the curb line in the street conveys all the water, organic debris (like grass clippings and twigs), litter and sediment into your neighborhood pond or wetland? Removing any debris from around the storm drain prevents flooding and protects water quality.

Keep soil in place?

Topsoil is valuable, and many times overlooked. Did you know that any exposed soil is highly susceptible to erosion, especially on a slope? Any soil disturbance, from pulling invasive plants and weeds to off-road vehicles, disturbs the soil cover such as plants, leaf litter, or duff. When rains come, the soil is off and running—down the slope into ponds, creeks, lakes and wetlands. When pulling invasive species, shake off the soil and tamp it back is place. Limit vehicle traffic in the woods, or restrict it to winter when the ground is frozen.

Leave dead wood in the woods?

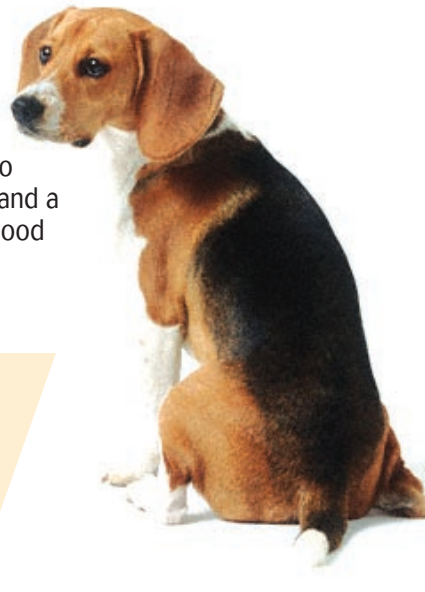
When dead wood of any size has soil contact, it's helping to retain soil moisture and prevent erosion. Dead logs provide habitat for small animals and a host of organisms in the food web. Rotting wood breaks down into organic matter that builds the soil, so think twice before removing it all. If it looks too messy for your taste, consider chipping the brush and returning it to the woods.

Pick up after my pet?

You've heard it before, and hopefully you know you should do it, but we all need a reminder now and again. Pet waste left on lawns, sidewalks, and even in the woods can wash into lakes, creeks, and wetlands, carrying bacteria and nutrients with it that can promote the growth of weeds and algae and pollute waters. If you don't pick up after Fido when you walk him or if you let him roam over the ice in winter, this waste will melt into the water in the spring. As pet waste decays, it also consumes oxygen and may release compounds and microorganisms that can harm aquatic life.

SCOOPing is easy. Just follow these five simple tips:

- **S**tock up on small plastic bags.
- **C**arry the bags in your pocket whenever you are with your pet. Tie them to the leash or buy a doggie-bag dispenser.
- **O**pen the bag and invert it over your hand to avoid contacting the deposit directly. The squeamish can use a scooper. A small bottle of sanitizer can easily fit in your pocket to help clean your hands.
- **O**nly dispose of the waste in household garbage or in a proper waste receptacle. Never throw it down a storm drain.
- **P**icking up after your pet is also about being a good neighbor and a responsible pet owner. Set a good example for others to follow.



WHY