



STAKEHOLDER Connections

INDIAN CREEK WATERSHED PROJECT LTD.

www.indiancreekwp.org

Spring 2010

Help Us Save the GEM of the Indian Creek Watershed, Diamond Lake

Diamond Lake is a 154-acre glacial lake located near the center of the Indian Creek Watershed. It is the only glacially formed lake within the entire watershed. This means it is a natural lake that was formed when glaciers retreated across the great lakes region thousands of years ago. All other lakes in our watershed were man-made.

A perfect example of a multi-purpose lake; at any given time during warm weather you can spot water-skiers, wind-surfers, jet-skiers, kayaks, fisherman, swimmers, sunbathers, and birdwatchers somewhere on, or near the lake. Diamond Lake is the only lake in the watershed that offers access to the general public through the beach and separate boat launch. In the colder months snowmobiling, ice boating, cross-country skiing, and ice fishing are common on its frozen surface. The shoreline is a true snapshot of the local population with million dollar houses in some areas, while apartments, older cottages, and townhouses can be found elsewhere.

Unfortunately, under Diamond Lake's glistening surface, a number of issues are combining to endanger this valuable public resource. Since 1997 a decline in water quality has been noted with total phosphate concentrations increasing

dramatically, leading to Diamond Lake being placed on the IEPA's list of impaired water bodies. Phosphorus is most often the undermining nutrient for lakes in the Indian Creek watershed. Increased levels of phosphate speed up plant growth, lead to algae blooms and potentially to lake and beach closings for health reasons (particularly when toxic blue-green algae makes an appearance). The increased nutrient levels also lead to a cycle of increasing aquatic herbicides to control weeds.

The main source of this increase is runoff from lawns treated with phosphate containing fertilizer. There is a movement growing around the lake to get the local governing organizations to ban outright the use of the phosphate containing fertilizers.

But high phosphate levels are not the only threat to Diamond Lake. Eurasian milfoil, an invasive plant species, has been prevalent in the lake for a number of years and has been recently joined by another invasive species, the zebra mussel. These two invaders can be a nasty combination, as the zebra mussels clarify the water, the sunlight reaching the bottom will allow the milfoil to increase its density around the lake.

Last summer the Indian Creek Watershed Project (ICWP), was awarded an Illinois Environmental Protection Agency Section 319 grant for \$34,500 to improve areas around Diamond Lake and raise awareness of these issues (the IEPA is providing \$15,500 in funds to the ICWP's collective \$19,000 in match).

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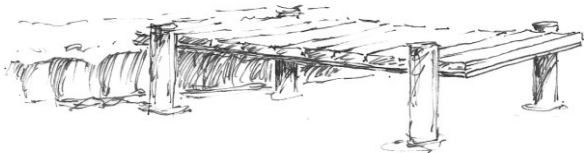


Cleaning up and burning at Weich Park last winter



Planting a rain garden at West Shore Park.

Preserve Your Lake Naturalize Your Shoreline



Indian Creek Restoration in Lincolnshire Recently Completed.

The Village of Lincolnshire is in the process of adding a new business area to its downtown corridor. Included in the project was the construction of a detention basin, or compensatory flood storage, and some improvements to Indian Creek which flows next to the new development.

The stream corridor improvements included removal of invasive species, resloping banks along the river, erosion control matting to preserve soils, and planting of deep rooted native plants to protect against erosion and filter out pollutants.

In addition an informational brochure was published in cooperation with the Indian Creek Watershed Project to explain the value of stream corridor restoration for riverbank stabilization, erosion and flood control, and improved habitat.

We thank the Village of Lincolnshire for their hard work and dedication by making these improvements in the Indian Creek Watershed.



Water has become a highly precious resource. There are some places where a barrel of water costs more than a barrel of oil.

Did you know that the confluence of Indian Creek, the place where it flows into the Des Plaines River, is in Lincolnshire at the Marriott Lincolnshire Golf Club?



This lovely picture of the confluence was taken by Jamie Goldshalk, an ICWP board member.

Supporters who have helped during our IEPA 319 grant entitled "The Diamond Lake Area Cooperative Water Quality Improvement Strategy"

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 Mike Flynn, Asst. Vil. Admin.&
 the Village of Mundelein
 Dave Frost & crew
 James Landscaping & Nursery

Bill Grinnell & the Fremont
 Township Highway Dept.
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 Parks, Mundelein Park &
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 Larry Isaacson & Mike Firestein,
 of Michael Silver & Company,
 Accountants
 Doug Dewitt & Tallgrass
 Restoration Consultants

Other Supporters for this Newsletter
 Lincolnshire Garden Club
 The Volunteer Stewardship
 Network and the Nature
 Conservancy
 Gen Connor/ Prairiebug.com

Special thanks to Countryside
 Fire Department and Diana
 O'Kelly for their support of the
 Diamond Lake 319 grant effort.



Oak Terrace residents pose after a productive workday May 16, 2010



Fremont Township Highway Dept. (you guys are amazing!)

The Importance of Rain Gardens

Rain gardens help to filter out most of the pollutants generated by fertilizers, pesticides, oils, and chemicals that would contaminate the water reaching the lake.

- Rain gardens are aesthetically pleasing when using native plants that have thrived on this land for thousands of years.
- Native landscaping helps create a sense of place and provides native habitat for insects, birds, and toads.
- A rain garden can help prevent flooding downstream (see photos below)
- Prevents erosion on YOUR property by holding collected rain water for 3-4 days before dispersing underground.
- Does NOT promote mosquito breeding, as water disappears in a short period of time.



A rain garden such as this one in Mundelein is not only beautiful but very beneficial as well.



Shoreline on Diamond Lake early 1900's ...probably Lakeview Park looking towards what is now the Mundelein Park District waters.

Help Us Do More!!

**Donate to ICWP today in the enclosed envelope.
We have no administrative costs and your
donation will be used to fund projects
in the watershed!**

Diamond Lake flooding 5/13/10

Our lake cannot handle any more water. **Please add a rain garden to YOUR upstream yard.**

We have also requested that when IDOT expands Route 60/83 they create more detention areas upstream of the Diamond Lake Slough to stop sediment from constantly loading into Diamond Lake, we hope they will create areas to better capture and treat the water before it enters the lake.



Route 60/83 flooding at Midlothian Road



Newly restored Wiech Park is deluged with sediment laden floodwaters

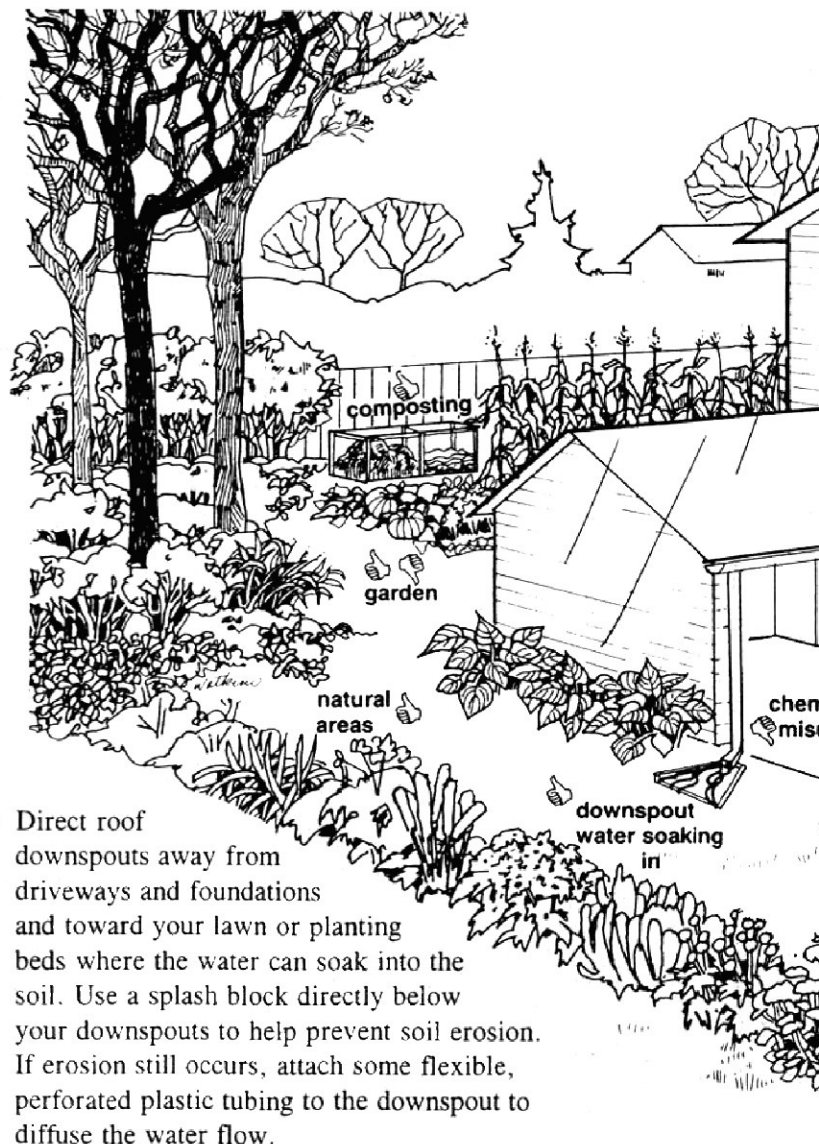
Simple Tips for Cleaner Lakes

Whether you live in the city or the country... whether your home is large or small... whether you have a lot of time and money to invest in your yard or just a little—there is something you can do to help improve the quality of your local lake. The following suggestions are ways that you can make a contribution to clean lakes and a healthy environment.

Around your home...

- ◆ Use lawn and garden chemicals carefully and sparingly. Utilize manual, mechanical, and biological pest control methods first before chemical pesticides.
- ◆ Many Illinois soils already contain sufficient quantities of phosphorus to support healthy lawns. Contact your County Extension Service agent for information on how to conduct a soil test of your lawn. If no additional phosphorus is needed, purchase only low or no-phosphorus fertilizer blends. The middle number on the fertilizer bag indicates the phosphorus content ("10-3-10" means the blend contains 10% nitrogen, 3% phosphorus, and 10% potash). Never apply more phosphorus than your lawn needs—your lawn won't grow any better, but the algae and weeds in your lake will!
- ◆ Choose appropriate types of turfgrass and groundcovers for your site's soil, sunlight, and water conditions to minimize maintenance and fertilizer and pesticide use.
- ◆ Keep your mowing height high. Set your mower blade at 3 inches to provide a "taller" lawn that holds water better, requires less irrigation, and helps shade out weeds.
- ◆ Mow often enough to leave grass clippings on the lawn, and use a mulching mower if possible. Grass clippings actually promote healthy lawns by recycling nitrogen nutrients back to the grass—for free! Alternatively, use clippings as a mulch or compost them with leaves.
- ◆ On waterfront property, grow a "buffer strip" of dense, native vegetation along the shoreline to filter pollutants, stabilize the shore edge, and provide important wildlife habitat.
- ◆ Seed bare soil and cover it with mulch as soon as possible to minimize erosion. For major construction projects and room additions, disturb no more ground than needed.
- ◆ Never burn yard waste along the lakeshore. The ashes are quite high in nutrients and are easily washed into the lake.

- ◆ Use yard waste on-site as mulch or compost, or dispose of it properly off-site. Don't dump yard wastes along a lake or tributary stream.
- ◆ Keep fallen leaves out of the ditch or street gutter.
- ◆ Clean up pet wastes to prevent nutrients and bacteria from washing into the lake.
- ◆ On icy pavement, use sand or chip the ice off when possible. If using salt, apply it sparingly.

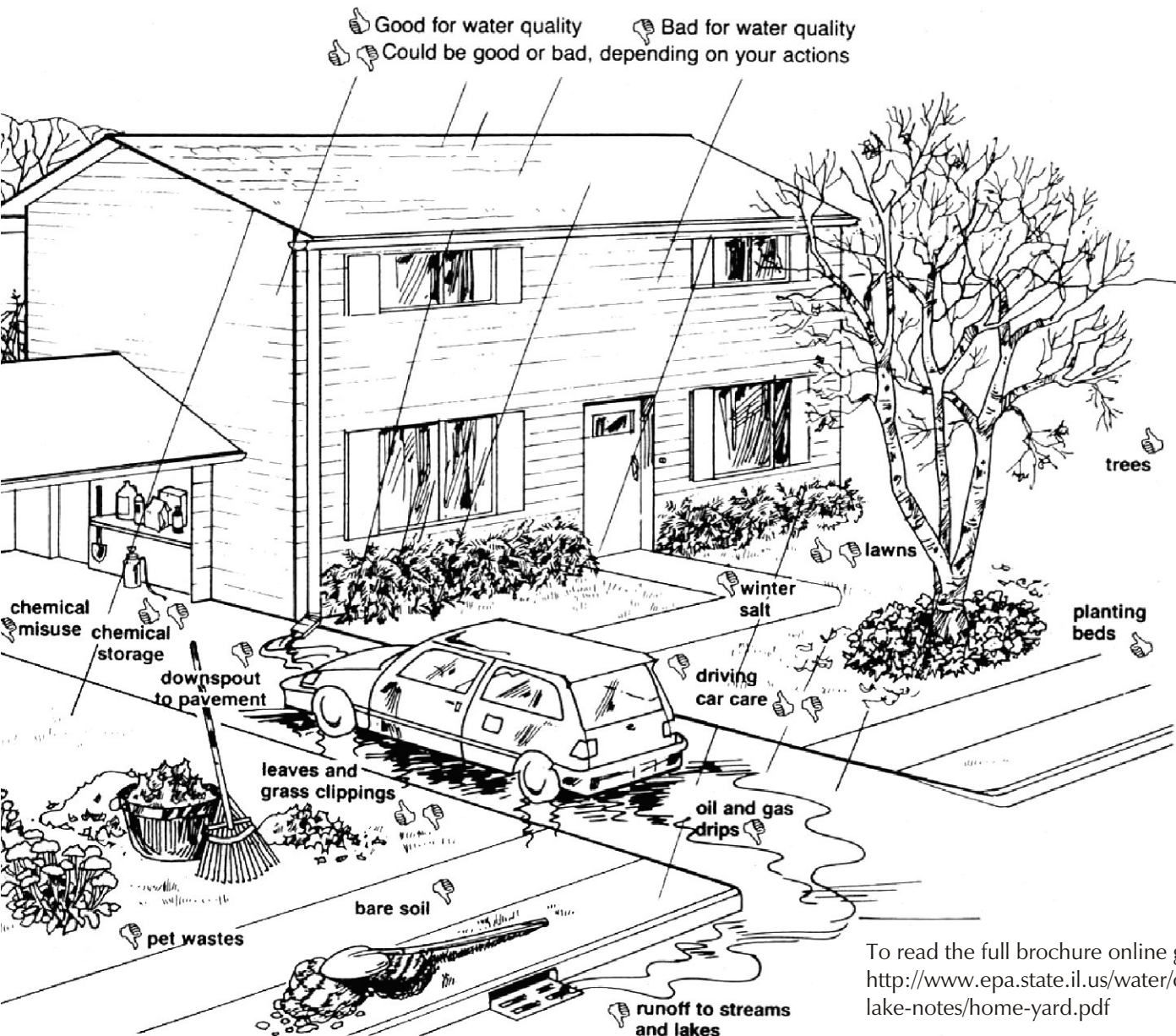


- ◆ Direct roof downspouts away from driveways and foundations and toward your lawn or planting beds where the water can soak into the soil. Use a splash block directly below your downspouts to help prevent soil erosion. If erosion still occurs, attach some flexible, perforated plastic tubing to the downspout to diffuse the water flow.

- ◆ Wash cars with a no-phosphate detergent on the lawn so soapy water can't quickly drain toward the storm sewer and into your lake.
- ◆ When it's time to drain your pool, let the water sit a few days without chlorine before draining. This can prevent localized chlorine contamination of your lake and other surface waters.
- ◆ If you have a septic system, inspect it annually and have it pumped out regularly—at a minimum every two to three years. Conserve water, and use water saving plumbing fixtures to maximize the septic system's efficiency.
- ◆ Limit your overall use of toxic or hazardous products. Keep them away from drainage ditches, storm sewers, streams, and lakes.
- ◆ Check for drips under your car and repair leaks immediately to keep oils off pavement. When you can, walk, bike, or take public transportation.
- ◆ Properly dispose of (or better yet recycle) used motor oil and other automotive products.
- ◆ Check underground fuel storage tanks for leaks. Can you smell fuel oil or gas? Can you see oil on the ground or the lake surface?

Home Hot Spots for Water Quality

Around every home are areas and activities that affect lake water quality. This illustration shows some of them. Take a look around your home with an eye on lake water quality.



To read the full brochure online go to:
<http://www.epa.state.il.us/water/conservation/lake-notes/home-yard.pdf>

Spread the Words: Stencil Storm Drains!

Nonpoint source pollution is an issue in both urban and rural watersheds. One form of nonpoint source pollution in urban watersheds is the dumping of pollutants down storm drains. Automotive fluids, paints, fertilizers, and other chemicals dumped into storm drains go directly to the nearest lake, river, or stream. Most storm drains **do not** go to the nearest sewage treatment plant.

Local volunteer groups can become involved in protecting their watersheds by participating in a storm drain stenciling project. A basic project consists of stenciling a message next to the street drain such as **“Dump No Waste Drains to River (Lake, or Stream)”** with the image of a fish or a faucet. Stenciling is then followed up by reminding local homeowners what they can do to protect water sources.

Current planning for storm drain stenciling is underway for some areas of Indian Creek Watershed including West Shore Park and Oak Terrace communities near Mundelein. There are other areas in the watershed that can really benefit from this program. Individuals, Scout groups, neighborhood associations, and school groups can all participate in our storm drain stenciling program. You can do a lot of good on a sunny weekend with a few people, some spray paint, and a stencil.

Mark your calendars for upcoming events

Thursday June 3, 2010

Indian Creek Watershed Committee meeting. Lake County Stormwater Management Commission (SMC) will discuss potential 319 grants with area stakeholders. 1:30 pm, Village Board Room, Village of Vernon Hills, 290 Evergreen Drive, Vernon Hills

Friday, June 25, 2010

Final IEPA 319 grant proposals due to SMC, contact Julie Mauer at jmauer@lakecountyil.gov by the end of May to set a time to discuss your project. SMC has a new address - 500 W. Winchester Road, Suite 201, Libertyville, IL 60048. Phone is 847-377-7700.

Saturday, September 18, 2010

It's Our River Day – Help your local stream system by cleaning up garbage along local waterways and roads.

Wednesday, September 29, 2010

First ever Diamond Lake networking meeting will take place in the late afternoon – from 4:30 to 7pm – at Countryside Fire Department, upstairs board room, 801 S. Midlothian Road, Mundelein.

The following are a few basic steps to conduct a stenciling project:

- ▶ Call local officials for permission.
- ▶ Consider safety of participants.
- ▶ Prepare materials.
- ▶ Stencil in appropriate weather warm, dry, and calm.
- ▶ Call the media.
- ▶ Work in teams.
- ▶ Follow up with door hangers, explain your efforts.
- ▶ When preparing materials, consider making up kits that can be easily accessed and distributed to volunteer teams.
- ▶ A kit may contain the following materials:
 - Cans of spray paint
 - Reflective or brightly colored safety vests
 - Storm drain stencil
 - Traffic cones
 - One wire brush
 - One whisk broom
 - Gloves
 - Brochures, door hangers, fliers, etc.



Please help us help our lakes by lessening your impacts on area water bodies and follow some simple rules:

- Do not mow or fertilize within 10 feet of the lake.
- Get rid of invasive plants around your yard and shorelines.
- Install a buffer of deep rooted native plants along your shore or stream corridor to help trap pollutants and tie shorelines together.
- Minimize your use of salt and phosphorus in your home and yard (buy phos-free laundry/dish soap, fertilizer, etc)
- Clean up pet waste before a rain.
- Keep leaves and grass clippings away from drainage areas.
- Read the IEPA's Home and Yard pamphlet included in this newsletter on pages 4 and 5
- Hold floodwater on YOUR Property and help filter runoff with native plants, install a rain garden.

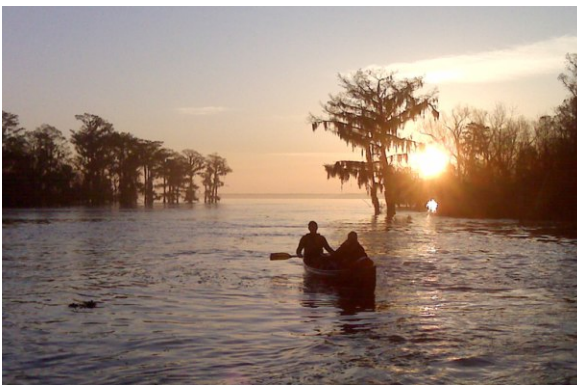
A local watershed hero with a big vision

One of Libertyville's own, **Kristian Gustavson**, has become a dedicated advocate of cleaning up the Mississippi River. He has traveled the Mississippi on multiple trips in his own canoe cleaning garbage as he paddled his way from Illinois to the gulf.

Kristian and other dedicated activists from his group **BelowtheSurface.org** were accompanied by a documentary writer from Reader's Digest during their recent expedition in February 2010 when they traveled the Atchafalaya River in Louisiana. The Atchafalaya River branches off from the Mississippi River and flows 150 miles through one of America's largest swamps before reaching the Gulf of Mexico. As it flows through wetlands and swamps the process cleanses waters from the polluted Mississippi River by naturally filtering it. It stands as a model of how the natural function of a river can improve water quality if given the chance. **Read about Kristian's trip in the June 2010 Reader's Digest.**

Kristian has worked locally too as he has sponsored lake cleanups for Butler Lake for the past two years. Butler Lake is in the Bull Creek watershed which is a neighbor to Indian Creek. Kristian's group is currently working in the Gulf of Mexico to help during the disastrous BP oil spill.

Kristian you are our hero!



Left: Below the Surface exhibition reaches the Gulf.
Above: Jared and Kristian reveal a section of the very polluted Tijuana River.

Are you fertilizing more than your grass?

Phosphorus turns lakes and rivers green by stimulating algal growth. **A pound of phosphorus can generate 350 pounds of algae!** This interferes with plant growth and reduces oxygen available to fish. A common cause of excess phosphorus is runoff like from lawns, gardens, and fire pits. So, if you buy fertilizer with phosphorus and apply it before a rain you are contributing to algal growth in our local lakes and streams.

In Lake County, nine municipalities and several lake associations (Vernon Hills, Long Grove, Countryside Lake Association are among them) have taken positions to ban phosphorus by ordinance or as a community position until a soil test proves it is needed. If you must fertilize your lawn, **PLEASE** minimize treatments and buy fertilizer **without phosphorus** (the middle number should be a zero).



Salem Lake has one of the worst phosphorus problems in our watershed. Notice all the green algae growth.

Between earth and earth's atmosphere, the amount of water remains constant; there is never a drop more, never a drop less.

Help Us Save the GEM of the Indian Creek Watershed...continued from page 1

This grant gives us an opportunity to improve lake water quality conditions. It will be finished in December 2010 and includes the installation of three rain gardens (to increase filtration of storm water runoff), in the communities of West Shore Park and Oak Terrace, the restoration of two streamside parks (Wiech Park owned by the Mundelein Park District and Hanson Park in Oak Terrace), and storm drain stenciling to warn people which drains lead directly to the lake.

The ICWP board has coordinated efforts to bring all parties together on this grant project. Our group

appreciates the project support of Fremont Township Highway Department, Mundelein Park District, the Village of Mundelein, the West Shore Park and Oak Terrace Improvement Associations, and the contract support of Tallgrass Restoration.

Diamond Lake, like all the other lakes in our watershed, is under pressure from its neighbors: the homes, yards, roads, streams, parking lots and highway traffic that surround it. Route 60 is due to be widened within the next 5-10 years. The ICWP has been working with the Illinois Department of Transportation to minimize damage to the lake.

Sylvan Lake Water Quality Improvements

In partnership with Fremont Township Highway Commission and Bill Grinnell, Sylvan Lake Improvement Association has been awarded a matching IEPA Section 319 grant for \$47,800.

The project includes work to install three storm sewer catch basins designed to trap sediment and oils before discharge into the lake. One of those for the beach area will be a pre-fabricated stormwater treatment structure to be installed at the curb line in place of an existing small inlet structure. This special drain will accept surface and piped runoff from two major streets and various private properties. The current runoff is piped directly to the lake. The new structure is designed to remove total suspended solids (TSS) and free oil (TPH) effectively from stormwater.

Also, check dams will be installed in the Hiawatha Terrace drainage ditch to reduce erosion. A 100 yard bio-swale will be installed at Valley View Terrace after a new access path has been completed for future maintenance needs.

Additionally, Fremont Township will install and or replace storm sewers at Wildflower and Hiawatha Terraces.

Total for all projects, including match: \$95,600.00



Sylvan Lake beach area

About 1400 gallons of water are used to produce a meal of a quarter-pound hamburger, an order of fries and a soft drink.

Our Mission Statement

The Indian Creek Watershed Project is comprised of watershed stakeholders dedicated to the preservation, protection, and improvement of the Indian Creek sub-watershed of the Des Plaines River.

Our mission is to realize a long-term vision for a healthy watershed and an educated citizenry.

Our goal is to educate while building partnerships to improve water quality, reduce flooding, and preserve and restore wetlands, woodlands, and other natural resources for future generations.



A watershed planning effort initiated under the Upper Des Plaines Ecosystem Partnership
Serving portions of Mundelein, Vernon Hills, Lincolnshire, Long Grove and other areas in central Lake County

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The amount of water is constant and recycled throughout time; actually, it is possible to drink water that was part of the dinosaur era.

The Indian Creek Watershed Project, Ltd. is a non-profit 501(c)3 organization formed in the summer of 2000 to promote water quality education and improve conditions in the Indian Creek watershed of northeastern Illinois.

Newsletter content produced by Tori Trauscht. Photos taken by Tori Trauscht, Greg Denny, Countryside Lake and Vernon Hills representatives. Layout by Genevieve Connor/Prairiebug.com.

All the water that will ever be is, right now.