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SUMMER 2009 NEWSLETTER FOR THE PEOPLE OF

Union Grove Lake

One Piece of the Union Grove Lake Jigsaw Puzzle: Household Sources of Phosphate

As you know, Union Grove Lake was placed on Iowa's 2004 impaired waters list because of four limitations: pH, bacteria, algae, and turbidity. Together, each of these multi-faceted impairments fit together and make up the overall "jigsaw puzzle" of Union Grove Lake and its watershed.

It is important to remember that each of us who live, work, and play in and around Union Grove Lake hold several pieces to the puzzle.

As in most of Iowa's lakes, Union Grove is high in phosphate, so algal blooms in the lake are common. This also makes phosphate a common thread that ties all of Union Grove's puzzle pieces together.

Luckily, each of us can help reduce the amount of this nutrient available for algal growth in the lake.

There are several likely sources of Union Grove Lake's high phosphate levels: household sources, animal contamination, fertilizers and natural sources.

This issue of the Union Grove Lake Watershed Project's newsletter will examine the first of these sources: our homes.

As consumers, we have a great deal of control over what products are in,

around, and exiting our homes.

While most laundry and hand-dishwashing detergents are phosphate-free, did you know that many other products we use in our homes are not?

One of the biggest culprits is dishwasher detergent. Most brands contain relatively high levels of phosphorus, but phosphate-free options such as Palmolive's Eco+ and Cascade With Baking Soda are readily available at stores in the Tama/Marshall County area.

Household and toilet bowl cleansers can also contain phosphorus. Union Grove Project's coordinator, Melody Bro, switched to environmentally-friendly cleansers from harsher cleaning products several months ago. "I find that plant-based cleaners work just as well, smell better and don't contain anything I'm afraid to add to our septic system. The eye-opener was when I realized the toilet cleaner I'd been using previously contained hydrochloric acid. I've learned—Read the label!" she says. "Plant-based cleaners are easy to find locally."

The cleansing action of household items such as baking soda and vinegar are quite useful also. Take caution not to mix the two together, however.

Another potential household source of phosphate is a home's septic system. The effects of untreated wastewater are obvious, but a septic system that is only partially treating waste poses a hazard also.

Partially-treated effluent leaching through sand or limestone adds phosphate directly to our surroundings. Many of Union Grove's lakeside homes are built upon shallow and fractured limestone, so effluent has the potential to go directly to the lake.



Smart yard management can also reduce the amount of phosphorus introduced. Fallen tree leaves contain a high concentration of the nutrient and should be raked and composted. Mowing grass clippings into watercourses should also be avoided.

Lastly, washing your vehicle on the grass helps to filter phosphate out also.

Project Website:

www.iowadnr.gov/water/watershed/uniongrove/

Want to receive the Watershed's quarterly newsletter electronically? Contact melody.bro@ia.nacdn.net.

Union Grove Lake Watershed

Tama Soil & Water Conservation District

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Union Grove Lake Serves Community as Water Source for Local Fire Departments

Ever wonder what the odd-looking pipe is near the west end of Union Grove Lake's dam? It's a "dry hydrant."

Tragic fires can occur anytime and anywhere. Having ready access to an ample, reliable water supply is critical in such emergencies.

Thanks to foresight by the Gladbrook Fire Department, a dry hydrant is ready to serve the community surrounding Union Grove Lake.

The hydrant is available for use by fire departments from Gladbrook, Garwin and other departments

supporting them during fire calls.

In any area without water mains and domestic fire hydrants, a dry hydrant can provide a simple, cost-effective solution to the need for rapid access to a water source.

A dry hydrant is an important time-saver during a rural fire emergency. As a local water source, it eliminates the need to shuttle water to a fire from distant municipal sources. Private wells seldom provide the necessary flow for firefighting.

Only one section of suction hose is needed to hook up to the dry hydrant. Also, the strainer is permanently

attached, saving even more time. Fewer people are needed to hook up to a dry hydrant compared to making a conventional direct drafting hookup.

Union Grove Lake's dry hydrant was relatively inexpensive to install and has provided the Union Grove community a great service with a minimum of maintenance.

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Did you know? Union Grove Lake holds about 230 million gallons of water.