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**AUGUST 2010 Volume 64 No. 4**



**A photo looking from the clubhouse down the 18th at White Eagle Golf Club shows how a water can become a key feature of a golf hole design.**

**FRONT COVER**

The best water is the water we can control through our delivery systems. Every course I visit has some water feature that is an integral part of the design or the irrigation supply system. 2010 has been a year of uncontrollable water for many area courses.  
*Photo credit: Luke Cella*

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The Midwest Association of Golf Course Superintendents (MAGCS), founded December 24, 1926, is a professional organization whose goals include preservation and dissemination of scientific and practical knowledge pertaining to golf turf maintenance. We endeavor to increase efficiency and economic performance while improving and enhancing the individual and collective prestige of the members.

The MAGCS member is also an environmental steward. We strive to uphold and enhance our surroundings by promoting flora and fauna in every facet in a manner that is beneficial to the general public now and in the future.

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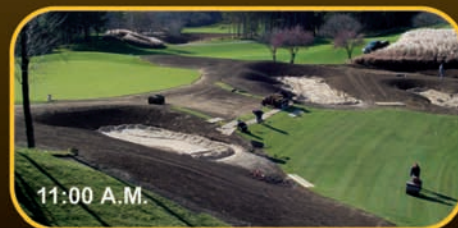


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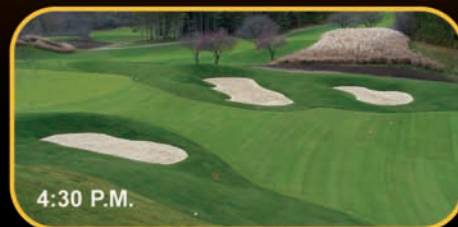
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## ON COURSE WITH THE PRESIDENT

Scott Witte, CGCS, Cantigny Golf Course



# Speak Up

*There is a lot of talk about "Green Golf" now days, and I'm sure there are differing opinions on the matter. Personally, I think that GREEN is GOOD for golf, and it is up to all of us to get the message out!*

If you're like me, you've probably stumbled into an awkward conversation with a patron who was convinced that golf courses cannot be maintained in an enviro-friendly fashion. Many questions continue to circulate about golf's overall impact on the ecosystem. However, we are fortunate that the members of the MAGCS are extremely well educated and trained in modern green keeping. This should spur us to get the message out about golf's positive impact on the environment. Whenever the opportunity presents itself, we need to educate the skeptics and win them over one at a time.

A quick review of golf's environmental positives will provide you with plenty of talking points.

### **Golf Courses:**

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- Improve air quality and moderate temperature.

- Educate golfers and the general public about the "NATURE" of the game, and promote environmentally-sound management programs.

I am a firm believer in these core principles, laid out by Audubon International, and I think it is important for the golf industry to take ownership of them. We should be prepared to talk about these principles at our facilities and stress the importance of sound environmental programs. The most important aspect of any successful promotional campaign involves great communication. We can't afford to sit back on our heels and expect the world to just magically become aware of golf's environmental opportunities. We need to speak up! Any time you have a chance to get the message out, seize it. The MAGCS membership should be a collaborative group of ambassadors for golf, and our message is a good one. Let's keep telling our story. Golf can be great for wildlife and the environment. Golf is great for the economy, and golf is great for the physical and mental well being of all those who enjoy the game. Let's help get the word out. Join me in talking up your facility's finest attributes. Be an ambassador for golf at your facility and be a part of the educational process. You have a great story to tell, you just have to Speak Up! **-OC**

*Scott teaching Geneva High School science class about sustainable golf.*







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## FEATURE I

Kevin Dahm, *Environmental Aquatic Management LLC*



# THE NPDES Permit System: What Does It Mean to Our Industry?

*The National Pollution Discharge Elimination System will very shortly be part of our aquatic weed and algae control industry. Water pollution degrades surface waters making them unsafe for drinking, fishing, swimming, and other activities. As authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters. In most cases, the NPDES permit program is administered by authorized states. Since its introduction in 1972, the NPDES permit program is responsible for significant improvements to our Nation's water quality*

The Environmental Protection Agency (EPA) is under a court mandate to implement a nationwide NPDES permit system for the discharge from the application of pesticides, known as the Pesticide General Permit (PGP).

This permit system will cover all waters of the United States—both public and private. The EPA must have a final NPDES permit completed by the end of the 2010 calendar year. The states are required to complete and enact a state NPDES permit system of their own by April of 2011.

The NPDES permit system may have a dramatic effect to the aquatic plant management industry by significantly increasing costs to both sides of the industry (land owners and operators). This NPDES permit will track approximately 5.6 million applications made by 365,000 applicators using over 400 different pesticides in over 3500 product labels. These numbers estimate the use patterns of aquatic weed and algae control, mosquito and other

flying insect control, aquatic nuisance animal control and forestry canopy pest control – all use patterns that fall under the draft permit.

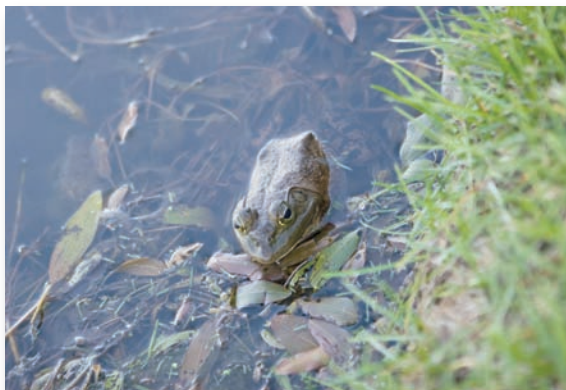
The current draft permit will require all aquatic weed and

algae control operators to comply with the “Pesticide General Permit” (PGP). The land owners that reach the annual treatment threshold will also be required to apply for a Notice of Intent (NOI) NPDES permit. The annual treatment threshold for aquatic weed and algae control is 20 treated acres annually. For example, applying pesticides twice a year to a ten-acre site will be counted as twenty acres of treatment area.

This is over the annual threshold

(20 acres for aquatic weeds and algae) and will require a permit. The NOI will be available online and will require some specialized knowledge and time to complete. The NOI form provides EPA with the information necessary to determine an operator's eligibility to discharge under this permit, and enables EPA to

*(continued on page 7)*





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better match up permittees with other reporting requirements and to prioritize oversight activities.

The NPDES Permit is mandated by law and will be in effect in April 2011. As aquatic weeds and algae continue to grow, applications will need to be made to control these plants. There will be another step involved in order to comply with the permit process. It will be a fact of doing business in aquatics and impact the golf course industry. Aquatic plant and especially algae outbreaks will be more difficult to control because NOI permits will have to be in place ten (10) days prior to treatment where thresholds are exceeded. The economic impact is going to increase as the permitting process will take manpower resources not currently used by our industry. Some of these costs will be passed onto the landowner causing an increase in treatment fees.

Operators know the increased regulatory and permitting requirements will take a large portion of permittees time. All activities are regulated under the authority of the EPA and are subject to penalties of \$37,500/day or more. The public comment period has ended and the EPA intends to issue a final general permit by December of this year. When planning for treatments in 2011, know there may be some changes coming from up river.

Please take a look over the draft permit, ([epa.gov/npdes/agriculture](http://epa.gov/npdes/agriculture)) and familiarize yourself with what will most likely become law in 2011. -OC





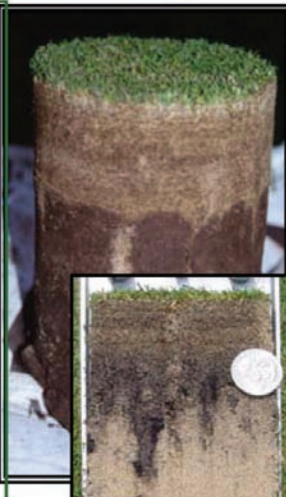
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# Water on the WEB

*To any golf course superintendent the role of water is well defined and critical to almost every daily task. Sometimes it is easy to forget that water is just as important to everyone else, and the same sources we use to get the water required to maintain golf courses is the same that citizens use for drinking water, bathing, and to water their lawns.*

The Chicago area has the great advantage of being situated in close proximity to the fifth largest lake in the world. Lake Michigan has 1,180 cubic miles of water within its basin, by volume it is the second largest lake in the world (All together, the great lakes combined contain 21% of the world's fresh water supply). The proximity of this massive body of water has always given the city of Chicago an understandably cavalier attitude about water. In fact, some 65% of the Chicago homes do not even have water meters installed—they pay a flat fee and use as much water as they like. But things are starting to change. The amount of water that Chicago can take from Lake Michigan is now set by treaty and agreement at 3,200 cubic feet of water per second. Large diversions have to be approved by a long list of shareholders, and communities surrounding Chicago no longer consider their water supplies sufficient forever. This shift in how water is perceived in this region will eventually lead to increased regulation of all water users—including the golf community.

There are volumes of information available on the World Wide Web regarding water use. From water quality monitoring, to water use data, to future consumption plans and conservation efforts, there are reams of information available on the web. The purpose of this article is to give a high level overview of the sources of information available, with emphasis on water use and regulation. The hope is to get you to the trailhead and then let you explore from there. A future article will highlight some of this data and discuss the manner in which the golf industry is portrayed in terms of water use. In reality the golf industry is a low level water user, but unlike some other user groups, the golf industry has a very high percentage of groundwater use. Since the availability of lake water is now limited, groundwater

supplies are under increasing pressure in the area. Some residents view golf as “luxury” use of valuable water. One superintendent I spoke with explained that it is a local city regulation that dictates when and where he waters. Just like politics it seems that water regulation can best be described as a local issue, and many times these regulations consist of nothing more than an “understanding” with local officials. Having a good handle on local water regulation efforts is perhaps the best way to assure that the interests of the golf industry are served.

Although this list is far from comprehensive, hopefully the information herein can give some information and context on local, regional and national water regulation as you confront these issues.



## ONLINE WATER RESOURCES Federal and International

USGS (<http://water.usgs.gov>)

The United States Geological Survey is “.....dedicated to the timely, relevant, and impartial study of the landscape, our natural resources, and the natural hazards that threaten us.” The USGS maintains a web-page called “USGS Water Data Discovery” that is an excellent place to begin any water search. It can be found at <http://water.usgs.gov/data/>. Within the USGS are 48 Water Science Centers (WSC) whose mission is to “collect, analyze, and disseminate the impartial hydrologic data and information needed to wisely manage water resources for people of the United States and the State of Illinois.” Each state has its own website wherein their respective WSC posts data related to water quantity and quality (<http://water.usgs.gov/watuse/>).

United States EPA ([www.epa.gov](http://www.epa.gov)) The United States Environmental Protection Agency is primarily responsible for pollution of surface waters. Under the clean water act the EPA

(continued on page 11)



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