

# DCEC Newsletter

Environmental News for Door County



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## Trees Are Falling in Pot Park! Questions remain regarding public hearing

In a relatively intact woodland area adjacent to South Norway Road, at the south end of Potawatomi Park, a large forested area estimated at 25 acres is being selectively cleared out in preparation for a large group camping facility.

An unknown number of trees have been removed, so it is difficult to assess an accurate number of trees destroyed to make way for the two (2) group camping areas, and the needed amenities to serve these campers. Included are an area for tent campers and another designated for recreational vehicles, plus two vaulted toilet facilities, wells for fresh water, centralized fire pits and picnic tables.

The projected cost of this new camping facility is \$347,000, with part of the funding from *stewardship*

*funds* and the balance from federal land and water conservation funds.

Any construction by state agencies—including the DNR—fall under the criteria of the *Wisconsin Environmental Policy Act (WEPA)* which is the official watchdog over all state agency spending. Construction projects in excess of \$100,000 are grouped as Class II WEPA projects and **mandate a public hearing and notification to make the general public and affected individuals aware of the plans.**

The argument is being made that the public is asking for these facilities so they need to be in place to serve the public’s needs. It is interesting to note that a privately-owned similar camping facility is within 20 acres directly outside the Park boundaries. It would appear that these new park facilities will be in direct competition with a private enterprise offering similar services next door.

A trend seems to be emerging to change these and other publicly-owned lands into a means of generating income for the State of Wisconsin, forgetting the preservation and conservation ethic of the past.

***Is this the direction Wisconsin needs to pursue?***

You can access the 1987 Master Plan for Potawatomi State Park by going to:

[http://www.dnr.state.wi.us/Master\\_Planning/completed\\_archive/parks\\_trails/potawatomi](http://www.dnr.state.wi.us/Master_Planning/completed_archive/parks_trails/potawatomi)

~JMV



Entrance to group camp area off South Norway Road



DCEC Incorporated in 1971 under the laws of Wisconsin as a nonprofit, tax-exempt corporation

# FOCUS ON: Plastic Ingredients in Bottles and Cans

The problem? **B...P...A!**

The nasty chemical bisphenol A (BPA) is used in clear plastics, but not in opaque plastics.

You may never have heard of a chemical called bisphenol A (BPA), but odds are it's circulating in your body. It was in 93 percent of 2,517 Americans age 6 and over, tested by the *U.S. Centers for Disease Control and Prevention* in a study that was recently released.

How much exposure is acceptable is at the heart of a new debate over BPA, which is used in the manufacture of polycarbonate plastics, such as clear, hard water bottles and baby bottles. The chemical is also used in the making of resin coatings for the linings of cans.

A new report is expected by summer from the *U.S. National Toxicology Program*, and a congressional committee inquiry is under way into risks of BPA in canned infant formula and how much influence the plastics industry has had over previous research and conclusions.

With widespread use in cans and many plastic containers, the chemical enters the body when it leaches from those containers into food and beverages, although usually at very low levels. That can happen especially when products are heated. Whether this exposure poses significant risks to human health has been hotly debated.

The current daily upper limit of BPA that the *U.S. Environmental Protection Agency* calculates is safe is 50 micrograms per kilogram of body weight, but that standard is based on experiments conducted in the 1980s, before a flood of new studies emerged suggesting that serious health risks could result from much lower doses based on experiments in laboratory animals and in human cells.

Some studies showed adverse health effects from exposures of only 0.025 microgram per kilogram of body weight per day, yet a polycarbonate bottle with room-temperature water can leach 2 micrograms of BPA per liter. A 3-month-old baby

drinking formula from a polycarbonate bottle may be exposed to as much as 11 micrograms per kilogram of body weight daily.

The *European Food Safety Authority* recently concluded that the 50-microgram safety standard is sufficient. But a panel of 38 experts from around the world convened by the *National Institutes of Health (NIH)* disagreed. Their review of hundreds of studies over the past decade suggested a connection between exposure to BPA at levels typical in the U.S. to increased rates of breast and prostate cancer, reproductive system abnormalities, and, for exposure in the womb, problems such as attention deficit hyperactivity disorder, obesity, and diabetes.

The report says people in developed countries typically have measurable blood, tissue, and urine levels of BPA that exceed the levels produced by doses used in the 'low-dose' animal experiments. Infants and fetuses may be especially vulnerable to any health effects from BPA.

The *U.S. House Committee on Energy and Commerce* is looking into the safety of infant formula cans lined with products containing BPA and is examining whether the proponents of BPA have paid consulting groups to engineer science that reaches predetermined conclusions.

A 2006 review published in the peer-reviewed journal *Environmental Research* showed that of 119 government-funded studies conducted as of July 2005, 109 found harmful effects from low-dose exposure in animals. By contrast, 11 industry-funded studies said that BPA causes no harm. (No surprise there!)

## What You Can Do.

While studies are under way, if you're concerned, here's what you can do:

- Identify which containers might have the chemical. Polycarbonate is usually clear rather than cloudy, although it may be colored. If the container carries a

*Please see "PLASTICS"—page six*



**Babies are at risk using BPA infused bottles**

## Controlling Airborne Mercury Emissions While Ignoring the Obvious

The *Wisconsin Department of Natural Resources* held public hearings during the month of April to limit mercury air emissions from coal-fired electric generating units in Wisconsin.<sup>1</sup> The Department is proceeding with this rulemaking to address Gov. Jim Doyle's 2006 directive to the department to develop a rule achieving a 90 percent reduction of mercury emissions from coal-fired power plants.

In addition, these revisions respond to a January, 2007 citizen petition that requested that the department and board conduct rulemaking proceedings to revise and adopt rules that require a 90 to 95 percent reduction of mercury to the air from coal-fired electric generating units in the state by Jan. 1, 2012. A mercury reduction of 70 percent must be achieved by Jan. 1, 2015 and beginning Jan. 1, 2018 another interim reduction of

80 percent is required.

After all the mercury reduction requirements in these proposed revisions become effective for small and large electric generating units almost 4,400 pounds of mercury air emissions will stop being emitted annually. These revisions retain the Jan. 1, 2010 mercury reduction requirement in the current state mercury rule.

Under this requirement the state's four major utilities, *Alliant Energy, Dairyland Power Cooperative, WE Energies* and *Wisconsin Public Service Corporation*, must reduce mercury emissions from their existing coal-fired electric generating units 40 percent from the baseline established under provisions in the current rule.

The revisions also propose that any new coal-fired

*Please see "MERCURY"—page six*

# The Hidden Jewel in Door County

Contributed by Gary K. Soule

The unique and mysterious *Horseshoe Bay Cave*, also known as *Tecumseh Cave* or *Alpine Cave*, located under the Town of Egg Harbor, was formed over 60,000 years ago. It is a surviving remnant of a larger cave system that was partly destroyed by the glacier that carved out the Bay of Green Bay and formed the Niagara Escarpment features that we see around us today. This glacier retreated 10,000 to 12,000 years ago, leaving us a naturally-formed river cave is still the **second longest known cave of over 400 caves found in Wisconsin**.

This cave, whose end is yet to be discovered, has been explored to an impressive 3,103 mapped feet of passageways. The main trunk passage alone extends 2,725 feet in length under Egg Harbor Town. Cave-divers have explored air and water filled passageways near the back of this major cave system. They report that after a submerged dive, the air-filled cave continues onward into an unknown and unexplored distance. At this point the natural cave passageway is very wide, but only a foot high, but its gravel floor would permit easy digging to allow for upright exploration.

The cave was known historically back as far as 1879, although no known or written documentation exists. Reportedly, Chief Tecumseh used the cave for refuge at one point while being pursued by another band of Indians. In 1899, this all changed when the local newspaper officially reported the discovery of this new cave.

An effort is currently under way to incorporate this major and unique subterranean cave into the Door County Park System. If successful, this cave would likely become the popular crown jewel in an expanding Door County Park System.

Members of the Wisconsin Speleological Society Bob Bultman and Buzz Davis, along with other active *spelunkers*, are

Photo by Gary K. Soule



**A group of high school teachers relaxing during a break in one of the large rooms in the cave.**

trying to have this privately-owned cave incorporated into the Door County Park System. The cave could then be preserved for educational tours, as well as being maintained as a public venue for local folks and tourists.

To that end, I approached George Pinney, the Director of Door County Parks, who reacted very positively to the concept of public ownership of Horseshoe Bay Cave. George is actively pursuing the possibility of Door County having its own county owned cave, and recently announced that the “Door County Parks Department is currently investigating the availability of land for sale near Murphy Park. The land of interest is a pasture property located south of the Horseshoe Bay Farm barns and may include access to the Horseshoe Bay Cave. Conversations with the owners are in a very early stage.”

It should be pointed out that this is an *ideal* cave at an

*Please see “CAVES”—page six*

## WDNR Board Bans ATV Trails in NHAL State Forest

MADISON, WI—

At its regular quarterly meeting, April 23rd, the *Wisconsin Natural Resources Board* adopted the recommendations of the *Department of Natural Resources* and voted to **prohibit the building of ATV trails** in the Northern Highland American Legion State Forest (NHAL) in Northern Wisconsin.

WDNR Secretary Matt Frank, in a memo dated April 11 gave several reasons for the department’s recommendation:

- that all of the land comprising the state forest was particularly ill-suited for use by ATV’s.

- the very strong public opposition to ATV trails being built in the forest.
- that on-going maintenance and enforcement challenges outweighed any positives to be gained.
- that trail development opportunities exist elsewhere that would be more cost-effective.
- NHAL does not lend itself to trails that meet conditions desired by ATV riders themselves.

So, it appears that all will remain well with the NHAL State Forest... for now.

# Created Wetlands for Homeowners

Through the years, there has been much confusion about the design and the merits of created wetlands, a relatively new technology for possible use in Wisconsin. This confusion is due in part because there is a significant difference between homeowner wetland systems and wetland systems used by progressive municipalities.

This story will attempt to address only *created (engineered) wetland systems* for use by individual and grouped homeowners to replace outdated or failed systems presently in place. Wisconsin now allows use of these wetland systems for homeowners, on a site-specific basis, which means much preliminary work needs to be done to gain approval to utilize this technology.

To visualize how a homeowner *created wetland system* is constructed and to learn about its operation, we will need to begin with a conventional septic tank that has been approved for continued or new use. The effluent, that normally would exit the septic tank into a drainage field, is piped (under a controlled flow) to a newly constructed wetland cell that is engineered to allow large native plants to grow on the surface. These surface plants will have roots extending downward to absorb the nutrients and moisture from the effluent as it slowly migrates through the wetland cell. If the cell is designed large enough there will be very little water leaving at the far end of the cell(s).

The “cell” is constructed in any reasonable configuration; square, rectangle or long/narrow and is sized to accommodate the household being served. The “cell” begins as an excavated level area with a .5% slope toward the exit end and with a berm around the perimeter. The depth usually will be about 24” depending on volume needed and the amount of soil that can be excavated and the berm can be utilized to establish the necessary depth.

The size is variable with a suggested size of the cell for an average home at 2,000 square feet; (40 X 50) or almost any configuration is possible. This is then lined with an *impervious liner* (permanent and sealed) to prevent leakage. With the entrance and exit piping in place, the cell is then filled with pea-sized gravel to a depth of 18”.

This is then covered with a pervious covering to allow plant root penetration, with another layer of topsoil placed on top to support the plant growth. The entire cell (now at or above ground level) is planted with non-invasive high nutrient-consumption plants that are maintained for the life of the cell.

These plants establish root systems down into the pea gravel layer and utilize the nutrients and liquid from the effluent. There will be no discharge to the surface and you would be able to properly maintain the vegetative cover and remove the weed growth that may occur.

At the far end of the “cell” an effluent control device monitors any outflow that may occur and directs it to either be recycled to the “cell” or to an approved discharge area.

In Wisconsin a DNR *PDES (Pollution Discharge Evaluation Study)* is not required unless the system discharges more than 12,000 gallons daily. The average home would probably discharge less than 10% of that amount to the wetland.



Photo by Jerry Viste

**A created wetland cell at Riveredge Center in Newburg is almost unnoticeable!**

If the wetland is properly sized there should be very little discharge occurring, as the wetland plants will absorb the moisture and nutrients. Any discharge will have to be utilized in a dispersal field or additional wetland structure or into a natural wetland area or returned to the cell itself.

A question often asked is will these systems function in wintertime when the plants are dormant, or will they freeze enough to stop the process? The plants are dormant above ground and the capacity of the cell should be such that it will accommodate needed discharge volume over winter with minimal exit liquid.

The plants have considerable above-ground volume. When combined with the continual bacterial action going on in the cell, there should be no freezing problems. The necessary piping is underground at the same depth as other conventional systems, mounds and traditional seepage fields.

DCEC has been involved in examining these systems for six years, with field trips to the existing wastewater facility at *Riveredge Nature Center* near West Bend (Newburg) and in discussion with the proponents at the *Kettle Moraine Lutheran School*, where there is a recycling closed system in place.

*Crossroads at Big Creek* has a segment of the demonstration project, which was engineered by Baudhuin Inc. of Sturgeon Bay, functioning as a small created wetland.

A properly created wetland system would be a very cost-effective way for a neighborhood of failed system owners to solve their wastewater problems. By working together in a cooperative manner to find a suitable location for a large enough created wetland, they could meet all of their wastewater needs into the future with minimal impact on the local environment.

These new engineered pseudo-wetland systems are especially adaptable to locations where the soil is shallow (preventing a conventional drainage field), where soil *types* do not permit adequate seepage, in limited lot sizes and locations, for poorly drained locations, or saturated areas from a previously overloaded or failed drainage field. They make a lot of sense!

JMV



# MERCURY—from page two

electric generating unit install mercury control technology, which achieves a minimum mercury reduction of 90 percent when it commences operation.

**The prospect of mercury and other toxic pollutants getting into our surface waters by means other than airborne is basically being overlooked.**

At the *Wisconsin Public Service* (Pulliam Plant) coal-fired generating facility in Green Bay, it's possible to see a mountain of fly ash and scrubber sludge that has been accumulating for decades. While a considerable amount of the waste material is used in construction and concrete as an aggregate, or in some instances is marketed as synthetic gypsum, the rest remains in a huge depository adjacent to the plant.

There is no visible containment berm around this dumping area. The distance to the waters of Green Bay is less than 1000 feet. A dense growth of phragmites is the only barrier against water run off into the Bay.

An argument is made that this waste material is inert and harmless, but there is scientific proof to the opposite—several hazardous metals and chemical residues remain in the fly ash and scrubber sludge. Scrubber sludge is the residue that remains after the electro-static precipitators collect particles from the inside wall of the large smoke-stack. It's then washed down with water to create a sludge mix.

This material, then combined with fly ash, is trucked to the nearby collection site, creating a small mountain of stored toxic materials which have been condensed in the burning process. Studies have shown that this toxic mix contains: lead, arsenic, barium, chromium, plutonium, and mercury. With direct access to the waters of Green Bay, any possible leaching from this storage facility can only add to the other dangerous threats already apparent in our surface waters.



Photo by Jerry Viste

**The mountain of toxic sludge at the Pulliam Power Plant in Green Bay  
Note the water-filled ditch in the foreground of picture**

Last year, DCEC joined litigation with other statewide groups to force Wisconsin Public Service Corporation to follow already mandated air-borne emissions controls, which—being *unused*—had caused the utility to be in violation continuously since 1999.

***Must we again take legal action to protect the surface water from still another threat that is occurring needlessly?***

It's all about making money for stockholders, with a seemingly passive concern about direct affect on our precious surface waters.

~JMV

<sup>1</sup> The State Implementation Plan developed under § 285.11(6), Stats. is also being revised. In May 2007, preliminary public hearings were held on revisions to chs. NR 440 and 446, Wis. Adm. Code.

# CAVES—from page three

*ideal* location for public interpretation. Eventually a visitor or karst geology center could be a valuable asset for our community, and could serve as a base of operations for guided public cave tours.

Many grant sources will need to be located. Other hurdles will have to be overcome to make this a reality and preserve this unique and wonder-filled asset for public enjoyment into the future.

Calumet County and Manitowoc County already have significant caves within their county park systems with public tours scheduled at various times. These fascinating caves are extremely popular with students and tourists alike, thanks to the wisdom of those with the foresight to create and hold them as a county entity.

This wondrous cave system is a significant amenity that Door County should not lose to private enterprise. *Contact your County Board Representative* and express your support for this unique feature of our County to become a permanent part of our park system.

# PLASTICS—from page two

recycling code, it will be marked with the number 7 or the letters "PC," or both. No. 7 bottles made with BPA-free polyethersulfone (PES) won't have the PC marking. Other BPA-free plastic alternatives include polyethylene, which may be marked with recycling codes 1 (PET) or 2 (HDPE), and polypropylene, 5 (PP).

- For baby bottles, glass or BPA-free plastics such as polyethylene are the safest choices, as *Consumer Reports* has advised in the past.
- For those who reuse water bottles frequently and want to avoid BPA, consider polyethylene, stainless steel, or aluminum with BPA-free liners.

Condensed from congressional report. ~JMV

# My Door County Water in 10 years?

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## dcec membership application

- \$25 Individual       \$35 Family       \$50 Sustaining  
 \$100 Donor       \$\_\_\_\_\_ Other       \$15 Student/Limited

*This amount would really help! Thanks!*

Name(s) \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Door County voter? ( ) yes ( ) no

Township or Municipality: \_\_\_\_\_

Email: \_\_\_\_\_

*Summer mailing address, if different:*

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_

**Please mail to:** DCEC, P.O. Box 114, Fish Creek, WI 54212

### Not If You Can Help It!

*If you're not already a member, please consider joining DCEC today. Help preserve the quality of the peninsula we love for now and for generations to come.*

*Thank You.*

### Annual Memberships Now Due

REMINDER: Your membership in DCEC runs with the calendar year with renewals happening every January. New members joining at or after our Annual Summer Program in August get their following calendar year's dues included with their membership.

### Your Elected Officials

#### GOVERNOR **James Doyle**

115 East State Capitol, Madison WI 53702  
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#### STATE SENATOR **Alan Lasee**

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#### US SENATOR **Herb Kohl**

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#### US CONGRESSMAN **Steve Kagan**

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*[Ed. Note: visit <http://www.vote-smart.org> if you don't vote in Door County Just enter your zip code and they'll display all of your elected representatives with links to detailed fact sheets and contact information about every one]*

### DCEC'S Leadership

#### **PRESIDENT**

Eileen Andera, Sturgeon Bay

#### **1st VICE-PRESIDENT**

Jon (Fritz) Renner, Gibraltar

#### **2nd VICE-PRESIDENT**

Phyllis Ingwersen, Sister Bay

#### **TREASURER**

Bernice Shumway, Sister Bay

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**Carol Sills, Liberty Grove**

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#### **STAFF**

##### **Executive Director**

Jerry Viste, Sturgeon Bay

##### **Membership Coordinator**

Ray Kostiuk, Fish Creek





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## ***More Campers or More Trees? See Page One***

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### ***In Memoriam***

#### **Janice Stiefel**

*Janice will be remembered as an accomplished naturalist, wildflower photographer, writer, gardener, and dedicated to the preservation of our precious resources. Through her fifty-year marriage to John, and following her farm days in Pittsville, Wisconsin, to Milwaukee and eventually to their dream home in Door County, Janice firmly believed that she could and would "Be the best at whatever you are."*

#### **William Kellman**

*Bill's appreciation and knowledge of birds and wildlife began as a boy in Madison, playing along the shore of Lake Mendota. Mrs. Koehler, his mentor in Boy Scouts and an avid birder, fostered his interests. Hiking and viewing the special places in Door County gave him great pleasure and many opportunities to share his knowledge with his friends and family. Bill believed that "We should walk the Earth with gratitude and wisdom."*

### **The DCEC Endowment Fund**

THE *DCEC ENDOWMENT FUND* EXISTS to fund the activities of the Door County Environmental Council far into the future.

Every year that the fund grows is one year sooner that DCEC can devote our efforts exclusively to protecting our county's beautiful environment.

You can help this important fund grow even faster by remembering DCEC in your estate. (Please note that the law allowing you to contribute unused portions of your IRA tax-free expired at the end of 2007.)

So, whether you can contribute now or later, please make a point of supporting the *DCEC Endowment Fund*.

Legacies, memorials and direct gifts are all deeply appreciated. Please call, or have your advisor call, Jerry Viste at (920) 743-6003 for further information. Donate directly online at <http://www.dcec-wi.org> the official website of DCEC.

***...and, after you read this newsletter, please pass it along to a friend.***