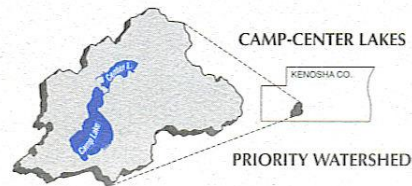


**~ 1994 July 19 1994 Watershed Project Team meets and discusses the Water Quality Appraisal Update submitted by Dan Helsel of DNR, Land resources inventory, and Information and Education Strategy by Dave Giza, Jon Hanken and Andy Yench. CCLWE-85, 72-84**

# CAMP-CENTER LAKES

## Watershed News

August 1994



## WELCOME TO THE WATERSHED PROJECT

### WHY ANOTHER STUDY?

Camp-Center Lakes have been the subject of many investigations and evaluations over the years. This summer and fall, another study is underway and you may be wondering why. The answer lies in the fact that the lakes continue to suffer from algae blooms, excessive aquatic weeds, poor water clarity, and too many carp—problems caused by *nonpoint source* or *runoff* pollution.

In response to requests from the Camp-Center Lake Rehabilitation District, the Town of Salem, and Kenosha County, the DNR identified Camp-Center Lakes as a Priority Watershed Project in 1993. State money and technical support are now available to solve the lake's runoff pollution problems. Camp-Center Lakes is the first priority watershed project awarded to Kenosha County.

### RUNOFF POLLUTION— EVERYONE'S PROBLEM

Runoff pollution occurs when rain and melting snow wash over the land, picking up pollutants and carrying them to nearby streams and lakes. Camp-Center Lakes are not the only places with runoff pollution problems. Runoff pollution is so common that the EPA considers it the greatest polluter of our nation's lakes, rivers, and wetlands.

The most common runoff contaminants are nutrients from lawn and farm fertilizers and sediment from eroding cropland and construction sites. Other examples include toxic automotive fluids like oil and antifreeze, yard wastes like leaves and grass clippings, animal wastes such as livestock manure and pet droppings, and seepage from failing septic systems.



Better fishing is one of the goals of the Camp-Center Lakes Priority Watershed Project.

Runoff pollution is difficult to stop. Unlike pollution from factories, which has largely been cleaned up, contaminated runoff comes from many sources spread over broad land areas. We all contribute to runoff pollution through our daily activities. Common examples include: over fertilizing our gardens and lawns; removing protective natural vegetation from our shoreline property; washing our cars on pavement where the soapy water can drain into the lakes; and dumping used motor oil onto the ground where it seeps down into our well water.

Alone, these examples don't amount to much pollution. However, their combined effect when repeated by hundreds of lake residents adds up to a big problem. The murky colored water in Camp-Center Lakes will become clearer when we all change our land use practices to reduce polluted runoff. Staff working on the priority lakes are ready to help.

## GET INVOLVED IN YOUR PROJECT

Effectively combating runoff pollution means change—on everyone's part. To make sure that all interested groups are represented, a Citizen Advisory Committee is helping watershed staff develop and promote the priority watershed project. The committee contains a diverse group of people who know the Camp-Center watershed.

Do you have some thoughts about improving the lakes' water quality? The Citizen Advisory Committee wants to hear them. The Committee will be holding an informational meeting for interested lake residents in the near future. Watch for an announcement of the time and place.





## WATERSHED INVENTORY IS UNDERWAY

By Randy Stowe, Environmental Planner

### UNHEALTHY WATERSHED IS SOURCE OF LAKES' PROBLEMS

Most investigations of Camp-Center Lakes have looked at the condition of the lake itself—things like water depth, aquatic plants, and fish populations. The priority watershed project inventory is different. This investigation is looking at the entire watershed, which includes all the land surrounding and draining into the lakes. (See map)

*"The watershed inventory is essential because it makes sense to first identify those watershed conditions that contribute to the in-lake problems." Randy Stowe*

Land use in the watershed influences the lake's health much like conditions in your personal environment influence your health. The priority watershed project is the first investigation to begin by identifying the land use practices that are the origin of the lakes' water quality and fishery troubles.

### DETAILED WATERSHED INVENTORY NECESSARY

To locate runoff pollution sources degrading Camp-Center Lakes, a watershed inventory is underway. A project team of trained resource managers is completing this work. Pamela Wallis, Kenosha County Land Conservationist, expects the inventory to be completed by the end of this year.

Currently the team is reviewing topographical maps, aerial photographs, and other historical documents that show how the watershed influences the lakes. Since runoff pollution comes from both agricultural and residential land, the project

Unlike most priority watershed projects, work on the Camp-Center Watershed Project was bid out to consulting firms specializing in environmental work. Kenosha County awarded the contract to Natural Areas Ecosystem Management (NAEM) from Harvard, Illinois. NAEM, in turn, is subcontracting part of their work to H<sub>2</sub>GEO from Madison.

NAEM will concentrate their efforts on collecting field data and H<sub>2</sub>GEO will convert this field data, with existing land records, into a Geographic Information System—a computer data base used to analyze the field data and display it on maps and in other easily-understood formats.

After completing their work, employees from NAEM and H<sub>2</sub>GEO will sit down with the Camp Lake/Center Lake Rehabilitation District, the DNR, Kenosha County, and the Citizen Advisory Committee to produce a strategic plan for improving the lakes' water quality.

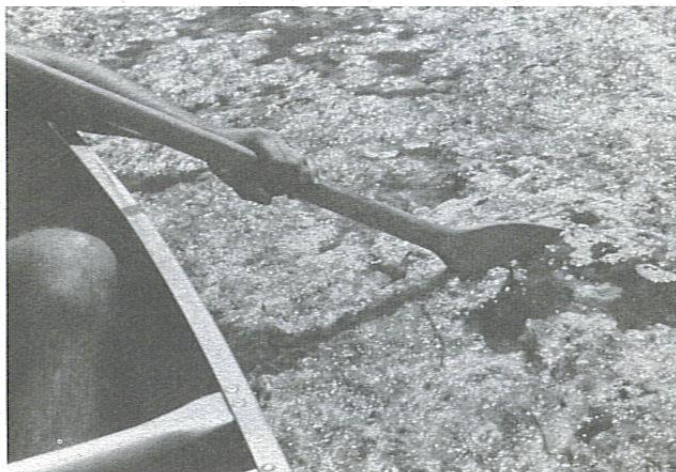
team is focusing equal attention in both areas. Their initial tasks include:

- Locating areas where runoff is eroding soil into streams and drainage ways.
- Locating areas where runoff is picking up excessive amounts of nutrients.
- Identifying practices that will treat and prevent the lakes' runoff pollution problems.
- Helping watershed residents learn about ways they can protect and improve the lakes' water quality.

### FIELD WORK IS THE KEY

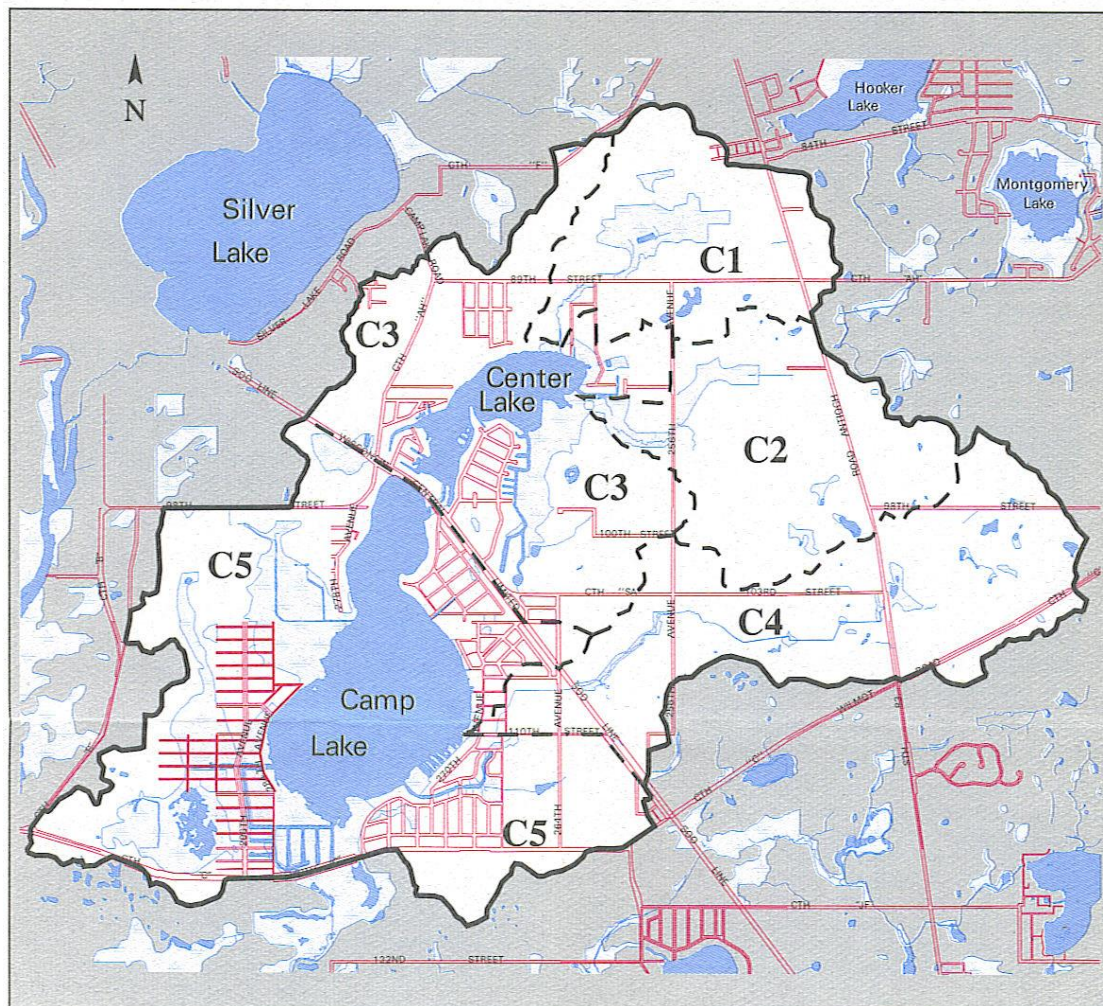
In cases where the maps and aerial photographs do not provide all the data the project team needs, field work will be necessary. Jeffrey Koziel and I will be conducting this part of the inventory. We will make every effort to avoid disturbing lake residents. However, in cases where a roadside inspection does not provide enough information, we will ask permission to enter private land. Cooperation from watershed residents will help ensure that we obtain accurate information and keep the project on schedule.

If you see us in the field and have an important question related to the watershed project, please ask. Jeffrey and I are happy to help.



Abundant aquatic weeds and algae in Camp-Center Lakes are symptoms of runoff pollution.





## CAMP-CENTER LAKES PRIORITY WATERSHED

### LEGEND

- Lake/Pond
- Wetland
- ~ Watershed boundary
- ~ Sub-watershed boundary
- River/Stream
- Road

### MAP PRODUCED BY:

- Natural Areas Ecosystem Management (NAEM)
- H<sub>2</sub>GEO Consulting

for the Camp-Center Lakes  
Priority Watershed Project

A watershed is the area of land that "sheds" its water to a stream, lake or wetland. Water quality in a body of water is a direct reflection of the land use activities that take place in its watershed.

This map shows the area of land that drains (sheds its water) to Camp and Center Lakes.

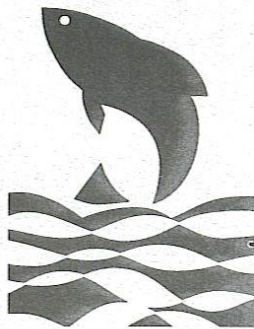
The numbers on the map indicate subwatersheds that are used for planning purposes:

- C1 Northern tributary drainage area to Center Lake
- C2 Eastern tributary drainage area to Center Lake
- C3 Direct drainage area to Center Lake
- C4 Eastern tributary drainage area to Camp Lake
- C5 Direct drainage area to Camp Lake

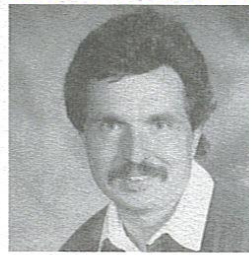
## Help Clean Up Our Lakes

A special clean-water program is underway in our area. The Camp-Center Lakes Priority Watershed Project is a state-funded, locally-administered effort to clean up and protect our waters. The Camp-Center Lakes Project joins more than 60 other priority watersheds around the state. All are designed to reduce the amount of nonpoint source or runoff pollution that causes our streams to run brown with sediment and our lakes to be choked with weeds and algae.

Read more about runoff pollution and the Camp-Center Lakes Watershed Project inside the newsletter.



## SOON-TO-BE FAMILIAR FACES ...



Randy Stowe



Jeffrey Koziel

Don't be surprised if you see Randy and Jeff in your neighborhood this summer and fall. They work for Natural Area Ecosystem management, a consulting firm hired by Kenosha County to conduct field work for the Camp-Center Lakes Watershed Project. Their field work will provide a solid foundation for an effective runoff pollution reduction plan. The goal is to improve the quality of our lakes—something we can all appreciate.

For more information about the Camp-Center Lakes Priority Watershed Project, please contact:

Kenosha County  
Land Conservation 414/857-6560  
UW-Extension 414/857-6466

Southeast District  
Department of Natural Resources 414/263-8714  
UW-Extension, Water Quality Education 414/475-2877

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ii WatershedNEWSaug1994d

**~ 1994 August 4 1994 Commissioners Meeting Salem Town Hall, Center Lake Dam has been temporarily repaired with sand bags and that Salem Highway Department will sand bag, drain and repair it. Material costs to CCLRD and labor to Town of Salem. Also concluded that CCLRD needs to take ownership of BOTH dams; fingerlings are too small; If membership is interested, CCLRD would spend its own money; Rubin Gregory property ditch could create a possible erosion problem; Weed volume is indicating a second cutting**



and perhaps even a second cutter; Newsletter has been mailed out; Kenosha County Lakes Association is getting closer to being formed, possibly by January 1995 annual dues anticipated being \$100. CCLRDM-162, 163

~ 1994 August 16 1994 Watershed Project Team meets at the Kenosha County Office of Planning and Development to discuss the Information and Education Strategy Draft, and Land Resources Inventory and Water Resources Appraisal. CCLWE-87-90

~ 1994 October 26 1994 Watershed Project Team meets and discusses the newsletter, the first Citizens Advisory Committee meeting of today that will occur at 6pm, discussion of the open house scheduled for October 29th, the land resources inventory and priority watershed nutrient management pilot project and the water resources appraisal results. CCLWE-96, 97

~ 1994 October 29 1994 Waterhouse Open House at the Kenosha County Office Building. CCLWE-107

~ 1994 December 12 1994 Dan Helsel sends to the CCLRDM Project team the preliminary draft of the Phosphorus Reduction Goals which includes the supportive materials used to develop preliminary

phosphorus reduction goals for the two lakes. CCLWE-98-106

~ 1994 December 13 1994 the Watershed Project Team meets to discuss the open house report where 75 people attended the October 29th event, Newsletter draft that is expected to be mailed in mid-January. CCLWE-107

~ 1995 WDNR conducted study which revealed that 2996 tons of sediment enter the two lakes on an annual basis, 35% from agricultural runoff, 39% from stream bank erosion, 17% from construction sites, 8% from eroding shorelines and 1% from urban runoff. CCLRD1-242, 243

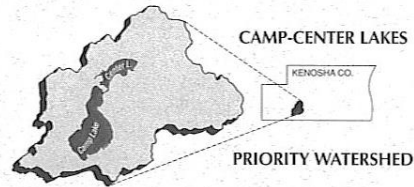
~ 1995 January 3 1995 CCLRD applies for Camp Lake dam ownership at Highway C and Center Lake dam at Highway SA. CCLRD1-198, 199

~ 1995 January 1995 Watershed News

# CAMP-CENTER LAKES

## Watershed News

JANUARY 1995



### Open House Held

## RESIDENTS LEARN ABOUT THE WATERSHED PROJECT

Curiosity has a way of motivating people—especially when it means learning about the new clean lakes project in your community.

That's what happened October 25, when 75 people attended an Open House at the Kenosha County Office Building to learn about the Camp-Center Lakes Priority Watershed Project.

With most members of the watershed's project team on hand, the open house was a great opportunity to ask questions and hear from the people working to protect the lakes. Videos, factsheets, and interactive land use models were also available to help people learn about runoff pollution. Some watershed residents reviewed maps of the project area to verify local land uses.



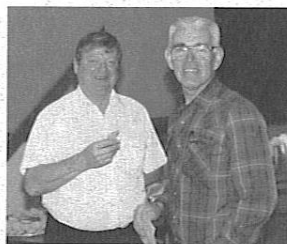
*Pointing out the watershed boundaries, Randy Stowe, Environmental Consultant, told the audience: "Removing weeds or dredging sediments makes little sense until we stop the runoff pollution that causes these conditions."*

### Halting Problems at the Source

Providing an overview of the watershed project and inventory work conducted to date, project team members Pamela Wallis and Randy Stowe told the audience, stopping runoff pollution is the "first step" toward long term lake improvements. Under the direction of Kenosha County, the watershed project plans to reduce the runoff pollution that adds sediment and causes too much aquatic weed growth in Camp and Center Lakes. Helping Pam and Randy answer questions was David Giza, Chairman of the Camp-Center Lakes Rehabilitation District. According to Mr. Giza, the District strongly supported the project's selection as Kenosha County's first Priority Watershed Project, and looks forward to cooperating with the County for better lake quality.

### ADVISORY COMMITTEE MEETS JANUARY 23

Do you want to learn more about the Priority Watershed Project? Would you like to be more involved? The Watershed's Citizen Advisory Committee is holding its second meeting, January 23, 7:30 p.m. at the Kenosha County Office Building. Interested watershed residents are encouraged to attend and share their ideas for improving the lakes. For more information please call Pamela Wallis, (414) 857-6560



*Citizen Advisory Committee Member Cloyd Porter (left) talks with a Camp-Center Lakes resident about the Watershed Project.*

### Fertilizer Planning

*for better profits, water quality*

If you grow crops in the watershed, your operation may be eligible for nutrient management assistance and planning. Contact Pamela Wallis (414) 857-6560 to learn what's available. These practices can help you operate more efficiently, as well as protect water quality.



We're Glad You Asked!

## ANSWERS TO QUESTIONS ABOUT THE WATERSHED PROJECT



### What's a watershed?

A watershed is the area of land that drains (sheds its water) to a stream, lake or wetland. For Camp and Center Lakes this area is about 9 square miles. Because the lakes water quality is a direct reflection of the land use activities in these 9 square miles, better lake quality won't happen without improved land management.

### How does the project affect me?

Much of the runoff pollution threatening Camp and Center Lakes comes from everyday activities around our homes and yards. Chores as seemingly harmless as washing your car, raking your leaves, or fertilizing your yard often have big impacts on the lakes. Becoming aware of how these activities affect lake quality—and doing something about it—is important. To succeed, the Priority Watershed Project needs lake residents to adopt “runoff-pollution-reducing” practices and behaviors.

### How about some action? Why not just harvest the lake weeds and dredge?

These measures are costly and temporary. Thick weed growth and sediment accumulation are caused by runoff pollution from the lakes' surrounding watershed. Removing weeds and sediment without stopping runoff pollution is like putting the lakes on a “get-thin-quick” diet. Just as the pounds return after the diet ends, the weeds and sediment come back after harvest.

### How long will the Priority Watershed Project last?

Because stopping runoff pollution takes a long term commitment, the project is expected to continue until 2004. Right now, members of the project team are studying the watershed to find where the runoff pollution comes from. When the inventory is finished, team members will work to stop the pollution sources they've found.

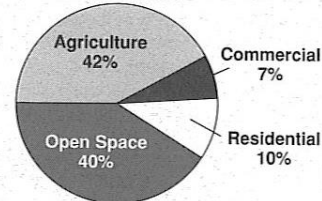
### Who's running the Priority Watershed Project?

The Kenosha County Department of Planning and Development manages the project. Helping the county are some other key players. These include the Watershed Citizen Advisory Committee, the Camp-Center Lakes Rehabilitation District, the Wisconsin Department of Natural Resources, the University of Wisconsin Cooperative Extension, and the Wisconsin Department of Agriculture, Trade, and Consumer Protection.

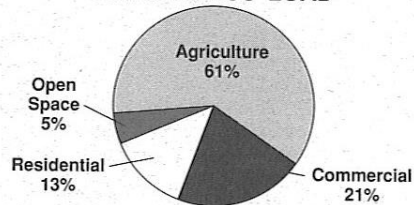
### Consultant's Corner

#### Land Use and Phosphorus Loads 1994 Estimates-Camp and Center Lakes

##### LAND USE



##### PHOSPHORUS LOAD



*Commercial includes commercial, industrial, roadway, parking and airport land uses. Residential includes homes, apartments, institutional, utility, railroad and recreational land uses. Open space includes woodlots, wetlands and undeveloped land.*



#### Citizen Advisory Committee Forms

### WORKING FOR CLEAN LAKES

Improving and protecting Camp and Center Lakes is a big job that just got much easier with the formation of the Priority Watershed Citizen Advisory Committee or CAC. Made up of people concerned about the lakes, the CAC provides a forum where citizens, interest groups, and participating government agencies work on lake issues together.

Besides facilitating public discussion, the CAC helps members of the project team "get-the-word-out" to local residents about what they can do to protect Camp and Center Lakes. You have an open invitation to the next CAC meeting on January 23. See page one for details.

*The Wisconsin Department of Natural Resources has named the following individuals to the Camp-Center Lakes Priority Watershed Citizens Advisory Committee. Pictured: First row; Pamela Wallis, Andy Yench, Cloyd Porter, Middle Row; Mike Marchuk, Barry Thomas, Robert Biebel, Kent Taylor, Back Row; David Giza, Jon Hanken, Tom Kerkman, Richard Prostko. Not Pictured: Jack Lameer, Tom Goriński, Ronald Schaetten, William Houtz.*

#### FOR MORE INFORMATION ABOUT THE CAMP-CENTER LAKES PRIORITY WATERSHED PROJECT, PLEASE CONTACT:

##### Kenosha County:

Pamela Wallis, Dept. of Planning and Development (414) 857-6560  
Jon Hanken, UW Extension (414) 857-6466

##### Southeast District:

Department of Natural Resources (414) 263-8714  
UW Extension, Water Quality Education (414) 475-2877

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Milwaukee, WI 53203

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**~ 1995 January 3 1995 Dam Ownership Transfer  
Application filed by Dave Giza to take title of the  
spillway structure on the South End of Camp Lake, the**

former owner Camp Lake Water Level Association is defunct. CCLRDM-164

~ 1995 May 1995 Kenosha County Center Conference Room A, Bristol Wisconsin, Commissioners Meeting with an emphasis on the Camp Lake Dam Project, James Joehnk of R A Smith, Gary Sipsma of Kenosha County Public Works, Chris DeRemer of DNR Water Manager, Bob Sonntag DNR Engineer and Dam Specialist, Pamela Wallis Land Conservation; Camp Lake Dam Project on going since 1990, interrupted because of the Priority Lakes Project, Camp Lake level is low due to the condition of the spillway, at the time of inspection the water was high and it was seen that water flows around the dam and embankments are needed to contain the flow of water where it should be; preference is such that it would be best to have the dam separate from the highway structures so that changes in either would not impact the other; the concrete slabs themselves are acting as a dam, the two culverts are downstream and the road embankment are part of the dam but not part of the dam itself; one of the culverts is open, the other appears to be blocked; Culverts are cleaned by the county only when a problem is reported; Replacing the culverts may be easier than to clean them out; The Camp Lake Water Level Association had the water level set at 741 but Sonntag said that 742.44 is the legal high limit between the lake bed and upland; 744



is the top of the road elevation and recommended a structure that has the flexibility to hold excess water without taking someone else's property. This number is possibly 742; Discussion on the placement of the dam is considered; R A Smith offers that a practical structure would be a concrete box that could be opened up to draw down the water level in a reasonable length of time; DNR would like to see a long enough spillway and does not prefer a box but a fixed crest with some sort of operable gate that can lift; if the dam is rebuilt it should not be in the right of way or far enough back to allow for a 4 lane road; and that the dam should be moved North; the property that the dam is on could be tax forfeited property; 100 feet of right of way should be provided for; it is clear that Sonntag and Joehnk are not in agreement on the best alternative for this location; Sonntag brought attention to another problem that we do not know what the bench mark elevations are with the continual raising of Hwy C. Center Lake is 10 inches lower than Camp Lake and whatever is decided should be fixed on piles so that there will not be a settlement problem; a sheetpile structure is effective. the present structure is on piles and may still be in place on the piles but for some reason the elevations do not check out very well. Mike Marchuk related that there was a bridge over the side which is shown in pictures in the 1940's and that they have had problems with peat fires, some lasting 5-6 years. Bob

Sonntag had pictures to show from 1913 showing the different structures. Sonntag relates that the DNR would not consider this a large dam and CCLRD would not have to comply with the 333 administration code that deals with large dams; 1995 Weed harvesting will be done by Midwest Aquatics in New London Wisconsin. CCLRDM-164-170

~ 1995 May 4 1995 CAMP/CENTER LAKES  
WETLANDS TOUR OPENS SOME EYES by Dee Jucius for the Bulletin article showing Shirley Boening, Dave Giza, Mike Marchuk participate in groundbreaking for the Wetlands Restorations Project. funded by the DNR Cleaner Waters and River Program. The first demonstration at 267th Avenue and 108th street and second the wetland scrap at 268th Avenue and 113th Street where there will be 5 ponds constructed averaging 5 feet in depth with sloped banks done by Stock Excavating Company Union Grove. CCLRD1-258, CCLRD2-141-143

## LOCAL NEWS

# Camp/Center Lakes Wetlands tour opens some eyes

By Dee Jucius  
For the Bulletin

Environmentally aware and concerned. This describes the more than 30 concerned citizens, including county, state and Salem Town Board representatives, who boarded a yellow school bus to tour the Camp/Center Wetlands Restorations Project.

On April 29, this group viewed the watershed and held a ground-breaking ceremony for the Wetland Restoration Demonstration Project. They observed troublesome sites with an explanation of how they would be rectified.

The project is funded by the Department of Natural Resources' (DNR), Cleaner Waters and River Program.

During the past 20 years, the DNR has spent billions of dollars cleaning up water pollution from sewage treatment plants and industries. The goal of this program is to reduce the remaining sources of pollution and make our water clean.

"Nonpoint Source" pollution occurs whenever rainfall and melting snow wash pollutants off the land into nearby waters. This is harder to see than the "point source" pollution that is discharged by pipes from industries and sewage treatment plants.

Each barnyard, street, field and lawn may only contribute a little polluted run-off, but it all adds up to a big problem in our lakes and streams.

Pamela Wallis, Kenosha County Department of Planning and Development, said, "In 1990, the Lake Rehabilitation District of Kenosha



(From left to right) Shirley Boenning, Salem town chairman; Dave Giza, chairman of the Camp/Center Lake Management Citizens Advisory Committee; John Collins, county executive; Mike Marchuk, chairman of the Citizen Advisory Committee's project team; and George Melcher, head of the Kenosha County Department of Planning and Development participate in ground breaking. (Bulletin photo by Dee Jucius)

together."

Mike Marchuk, chairman of the project team for the citizens advisory committee, provided a pamphlet on the tour, which stated that, to date, a comprehensive water resource appraisal has been prepared by Dan Helsel, a water resource specialist for the Wisconsin DNR, and the detailed land-use inventory. Both documents are the foundation for the analysis, which is now underway.

To evaluate the impact of land use on

have increased in established subdivisions. It is better to maintain growth within an established area, rather than constructing new ones. Erosion control is important at construction sites."

According to Stowe, who holds a BA in Business Finance and is working on a masters degree in Environmental Science, the first phase, planning the study, was done at a cost of \$55,000. The second phase, demonstrating the project, costs \$76,000. The implementation phase is expected to cost \$65,000.

The first demonstration project is

for from the grant money."

The scraping and bioengineering corrections will be completed by the end of June.

The problems discovered thus far are due to farmers doing fall tillage. The bare soil is prone to erosion throughout the winter. Cooperating farmers leave a stubble in the field; then when it is ready to plant in the spring, it is tilled. Low spots in the field are beneficial. With heavy rains, these depressions hold the water and trap the sediment. Water is filtered as it runs off.

Dairy farming and horse estates are great organic pollution centers. The land cannot assimilate the waste. Effective land management must be instilled by using large flat silos to hold these wastes. In spring it can be spread on the fields, cutting back on this kind of pollution.

The abandoned gas station on the corner of Hwy. C and 83 shows pollution of a leaking gas tank. This eventually will reach the lake.

Swale drainage that takes the run-off from highways into ditches are good filters if left with vegetation. Towns should preserve the swale system or the water would reach the lake sooner.

Septic systems were a problem for the lakes. The sewer system has greatly reduced the pollution. Parcels of land can now be developed without endangering the lakes with human waste.

Farmers adjacent to the wetland should keep 10 to 15 feet of the ground adjoining the watershed untilled, creating a buffer to trap sediment that would run off directly into the lake.

The railroads running throughout



sources of pollution and make our water clean.

"Nonpoint Source" pollution occurs whenever rainfall and melting snow wash pollutants off the land into nearby waters. This is harder to see than the "point source" pollution that is discharged by pipes from industries and sewage treatment plants.

Each barnyard, street, field and lawn may only contribute a little polluted run-off, but it all adds up to a big problem in our lakes and streams.

Pamela Wallis, Kenosha County Department of Planning and Development, said, "In 1990, the Lake Rehabilitation District of Kenosha County began studies in preparing for petitioning the DNR for an award of a watershed project."

The studies brought the fruition of the Camp/Center Wetland Restoration Program.

The bus tour was narrated by Randy Stowe, a consultant for Natural Areas Ecosystem Management. Stowe said, "The main purpose of this project is to identify where problems are, and to propose practices to prevent the pollution."

The watershed runs at irregular points from Hwy. 50 on the north, Hwy. C and 98th Street on the east, Hwy. C on the south and Hwy. B on the west. These outside boundaries of the watershed, and all the land in between them, drains into the Camp and Center lakes.

Stowe pointed out problem areas during the tour, including a stream running under 256th Street that turns it a 90 degree angle. This stream is eroding the bank.

"Reed canary grass," Stowe said, now growing on the banks, is a water-stabilizer with fair results. The roots are not deep and the earth beneath it is undercut, causing sediment to be carried away. This will be corrected by bio-engineering. Planting native grass with long, strong roots will hold the soil

together." together." project team; and George Melcher, head of the Kenosha County Department of Planning and Development participate in ground breaking. (Bulletin photo by Dee Jucius)

together."

Mike Marchuk, chairman of the project team for the citizens advisory committee, provided a pamphlet on the tour, which stated that, to date, a comprehensive water resource appraisal has been prepared by Dan Helsel, a water resource specialist for the Wisconsin DNR, and the detailed land-use inventory. Both documents are the foundation for the analysis, which is now underway.

To evaluate the impact of land use on water bodies, two computer-modeling programs are used: WINHUSLE, for the agricultural land, and SLAMM, for the urban land. The computer modeling analysis will assist in identifying critical management areas within the watershed. These areas are where best management practices will be recommended and funding provided: 70 percent being provided by the DNR and 30 percent by Kenosha County.

The data shows that, in an average year, cumulative soil erosion is approximately 2,397 tons. Of this tonnage, 779 tons actually leave the fields and 369 tons are deposited into the streams with 410 tons reaching Center Lake.

This sediment reduces water depth and would require expensive future dredging. Reducing pollution before it gets into the lake is a cost-effective way to prioritize the effects.

The white foam seen on the edges of streams and lakes is phosphorus, coming from the elements of soil; 2,622 pounds of phosphorus flow out of the watershed annually.

Ruth Johnson, a DNR coordinator, said, "Sixty percent of sediment is from construction sites that fill in lakes and rivers. Nine pounds of phosphorus equals one ton of sediment. This was a surprising statistic, even to me."

Stow commented, "Building permits

have increased in established subdivisions. It is better to maintain growth within an established area, rather than constructing new ones. Erosion control is important at construction sites."

According to Stowe, who holds a BA in Business Finance and is working on a masters degree in Environmental Science, the first phase, planning the study, was done at a cost of \$55,000. The second phase, demonstrating the project, costs \$76,000. The implementation phase is expected to cost \$65,000.

The first demonstration project is located at 267th Avenue and 108th Street. This site involves the removal of unstable fill material placed along the road embankment and minimal removal of trees and shrubs. It will involve the relocation of a portion of the creek's flow path by the installation of a meander to slow the velocity and restore a natural pattern.

The second demonstration will be a wetland scrape at 268th Avenue and 113th Street. This site involves debrushing for construction purposes and the installation of erosion control measures to reduce sedimentation of the channel during excavation of the proposed ponds. The wetland has been taken over by cattails, and the scrape areas will provide areas of open water, which will be beneficial for trapping transported sediment from the site's watershed.

Five ponds with a depth of five feet will be constructed in a serpentine manner. The banks will be sloped to allow overflow from one pond to the next. This provides the sediment to filter and deposit before entering the channel to the lakes. Salem Town Chairman, Shirley Boenning, said, "The scraping will be done by the Stock Excavating Company, from Union Grove. The cost of \$28,400 will be paid

will of a leaking gas tank. This eventually will reach the lake.

Swale drainage that takes the run-off from highways into ditches are good filters if left with vegetation. Towns should preserve the swale system or the water would reach the lake sooner.

Septic systems were a problem for the lakes. The sewer system has greatly reduced the pollution. Parcels of land can now be developed without endangering the lakes with human waste.

Farmers adjacent to the wetland should keep 10 to 15 feet of the ground adjoining the watershed untilled, creating a buffer to trap sediment that would run off directly into the lake.

The railroads running throughout the area were once a source of pollution. Railroad workers sprayed weeds along the rail with a noxious chemical. Fortunately they have become much more selective in this practice.

With problems identified, the next job is to educate the citizenship. People living in, out and around the wetland will be a sounding board, and should consider the suggested practices. What occurs in one wetland will, in time effect the adjacent wetland. Farmers, towns, horse estates and the homeowners must be convinced to use cost-wise environmental control of their property.

A future endeavor will have children from local schools becoming involved in environmental concerns by helping to plant prairie grasses and wildflowers in conjunctions with the towns and county, to save pieces of this land, which is an educational need for future generations.

Home owners are needed to demonstrate these practices on their property. Learning what and how can be beneficial for the homeowner and the environment.

Anyone interested in participating can contact Randy Stowe or Pamela Wallis at 857-1895.

ii may41995B bulletin

~ 1995 May 15 1995 Westosha Report Part 2  
Watershed Project ceremony held for two projects.  
CCLRD2-144



County Executive John Collins speaks to the group gathered at the ground-breaking ceremonies for the Camp/Center Lakes watershed project. (Photo submitted)

## Watershed project ceremony held

Two sites in Salem township are the benefactors of a watershed project on Camp and Center lakes.

Site one, at 267th Avenue and 108th Street, involves the removal of unstable fill material placed along the road embankment and minimal removal of trees and shrubs for construction of the A-jacks at the bottom of both the east and west banks of the creek.

The project also involves the relocation of a portion of the creek

flow by installation of a meander to slow the velocity and restore a natural pattern.

Site two involves debrising for construction purposes and installation of erosion control measures to reduce sedimentation of the channel during excavation of the proposed ponds. The wetland has been taken over by cattails and the scrape area will provide areas of open water which will be beneficial for trapping

transported sediment from the sites watershed. Projects such as this within the watershed will be identified as the plan progresses.

A tour of the areas involved was given by Kenosha County Executive John Collins and local politicians. Lunch followed at the Community Library, Salem.

Data gathered from the project will result in improvement in water quality to both lakes.

ii 05151995WestoshaREPORTwatershedprojectceremonyheldDAVEgiza

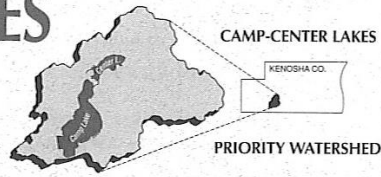
~ 1995 Summer Watershed News



# CAMP-CENTER LAKES

## Watershed News

Summer 1995



### Rain, Rain, *Don't* Go Away!

#### WATERSHED CITIZENS' COMMITTEE TOURS THE LAKE BASIN

A light rain that fell on April 29 was welcomed by 25 members and friends of the watershed Advisory Committee as they toured the Camp and Center Lakes' drainage basin. The tour was arranged by the committee so they could see first-hand where runoff pollution comes from, and what the county-managed watershed project is doing to stop it. Many members were actually hoping for more rain so areas prone to runoff problems would be flooded and easy to point out.

Roadside ditches, intermittent stream channels and cropland drainage systems all carry runoff – loaded with soil, fertilizer, and other pollutants – into Camp and Center Lakes.

To learn more about the demonstration, or how to get involved with the citizen's committee, contact Pamela Wallis, Kenosha County Planning and Development, at (414) 857-6508.



*Tour participants gathered at 8:30 a.m. in the Salem Public Library, where Randy Stowe, the project's watershed consultant, updated the group on the watershed inventory. He explained that different land uses cause different kinds of polluted runoff. For example, runoff from residential areas is different than farmland runoff. Stowe has classified land uses in the watershed to help predict where pollution problems are coming from.*



*Local residents board the bus for the watershed tour.*



*This eroding stream-bank along 267th Ave. is the site of a watershed demonstration project.*



*Members prepare to witness the groundbreaking for a wetland restoration at the intersection of 113th St. and 268th Ave. From left to right: Shirley Boening, David Giza, John Collins, Michael Marchuk and George Melcher.*

ii watershednewssummer1995

**~ 1995 August 21 1995 the Watershed Project Team will meet to discuss inventory findings, define the work needed to complete a preliminary management strategy and make final preparations for the watershed information fair on Saturday August 26th**



to be followed by the Citizens Advisory Committee meeting at 6:30 that same evening. CCLWE-126, 129, 130

~ 1995 August 25 1995 SEVENTH ANNUAL CCLRD MEETING Salem Grade School, Membership approves the ownership of Camp and Center Lake Dams; levels in Camp Lake cannot be raised over 740.6 without impacting other houses; Box vs. Fixed spillway is presented to the membership; budgeting \$40,000 for weed harvesting equipment; Camp Lake Dam replacement cost will be \$15000 and an additional \$1,500 to repair the existing dam; Restocking the lake with Large mouth Bass and yellow perch did not draw interest. CCLRDM-171, 172

~ 1995 September 21 1995 CCLRD begins the process of planning the purchase and operation of weed harvesting equipment on Camp and Center Lakes. Considerations in addition to the purchase and the operation are storage during winter, mechanical repairs, corresponding dump truck, disposal site. CCLRD1-207

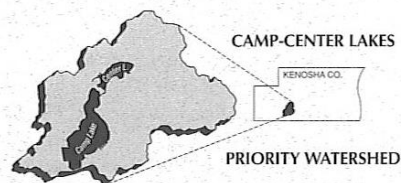
~ 1995 September 26 1995 Kenosha News by Jim Rohde, Salem Accepts Sewer Bids Lake District Asks for help with weed Harvester purchase; Bids totally \$2,100,000 were accepted Monday by the Salem Town Board for renovation work at the Salem Sewer

Treatment Plant including disinfection and sludge storage facilities and accepted the low quotes of C D Smith Construction of Fond du Lac for general construction, J F Ahern Fond du Lac mechanical work and delta Electric Racine for electrical portion of the project. Karen Van Maldegian chairman of the CCLRD appeared before the board to see if the town could help the district as it prepares to purchase a weed harvester in 1996. "We've been voluntarily taxing ourselves for the past five years in order to purchase the harvester." Asked about the town considering winter storage for the equipment; the district anticipates hiring three workers during the summer; The township commented that they would not provide a dump truck for hauling the harvested weeds nor a dump site.CCLMD-18-19

~ 1995 November 1995 Watershed News

# CAMP-CENTER LAKES

## Watershed News



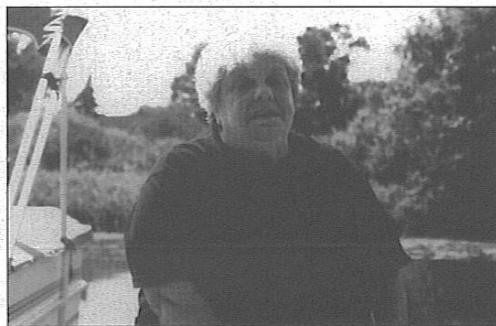
November 1995

### THE LAKES' GUARDIAN ANGEL

## For Lois Rebicek, protecting Camp and Center Lakes has been a life long mission

By Beth Heinecamp  
DNR Water Resources Specialist

From ice harvesting to jet skiing, activities on Camp and Center Lakes have changed over the years. Lois Rebicek, who grew up on Camp Lake, has seen most of the changes. "When my brother was 14 he had a job delivering ice for the Jefferson Ice Company," she explained. Ice from the frozen lake provided the basis for a thriving industry, until the advent of "electric iceboxes" we now call refrigerators. Lois also recalls how the sound of the leopard frogs was almost deafening. Clams and snails were abundant, as were meadowlarks, bluebirds, and red-headed woodpeckers. As development on the lakes increased, however, water quality and wildlife diversity suffered.



Lois Rebicek

### **"The lakes still need our help"** Long time lake resident Lois Rebicek

In the early 1960s, Lois, her late husband Richard and other residents founded the Center Lake Conservation and Sportsman Club. One of the club's first goals was to prevent northern pike spawning areas from drying up. Lois explained how during periods of low rainfall the water level on Center Lake would naturally decrease. Also, water from Center Lake has a tendency to drain into Camp Lake because Camp Lake is at a lower elevation. To slow the drainage, the club dammed the channel between the lakes.

#### **White House Hot Line**

Lois was the first woman elected to Supervisor of the Salem Board. One of her outstanding achievements was obtaining the funds to build a sewer system for homes around Camp and Center Lakes. Until 1980, each home had its own private septic system to process household wastewater. But with the passage of time, many of the

systems simply failed. Often, septic seepage beds were constructed fairly close to the lakes, where peat and clay soils predominate. Because these soil types have a tendency to hold water, household sewage was often not completely broken down and bacteria accumulated to unhealthy levels.

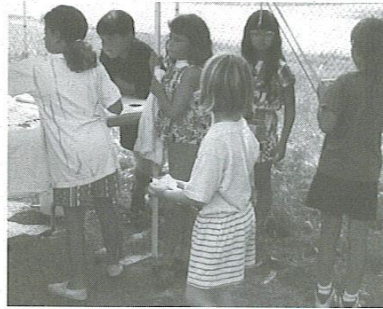
To solve the sewage problem, Lois and a fellow Salem board member traveled to Washington, D.C. to lobby for sewer aid. Lois recalls that finding money for the project wasn't easy. Through the assistance of Congressman Les Aspin and Senator Proxmire she obtained some aid, but not enough. Close to her goal, Lois wrote a letter to President Carter requesting help. Just when the sewer project seemed doomed, the board of supervisors received a call from the President. "Yes, the White House called Salem Town Hall," Lois said with a smile. The President provided additional funding through the Farmer's Home Administration, and sewer construction began in 1980.

Currently Lois is on the Camp and Center Lake Priority Watershed Citizen Advisory Committee. It's very evident she cares about the future of the lakes. "The lakes still need our help," she says.

## Fun, Food, and Information Come Together at Camp–Ce

Having fun was the theme of the day on Saturday, August 26, when over 200 people attended the Camp–Center Lakes Watershed Fair at the Salem Grade School. Displays, food, and childrens activities greeted visitors at this community event sponsored by the Watershed Project's Citizen Advisory Committee. Committee Chair Mike Marchuk said, "the strong turnout shows that people want to protect and clean-up the lakes." For more information about what you can do to help Camp and Center Lakes, call Pamela Wallis at the Kenosha County Planning and Development Department, (414) 857-1895.

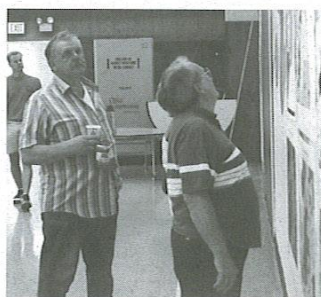
*Photos contributed by Jon Hanken,  
Kenosha County UW Extension*



*Future stewards of the lakes found plenty of fun at the fair.*



*Painting t-shirts with stencils and animal track stamps took some concentration and a little grown-up help, but resulted in cool shirts and happy faces.*



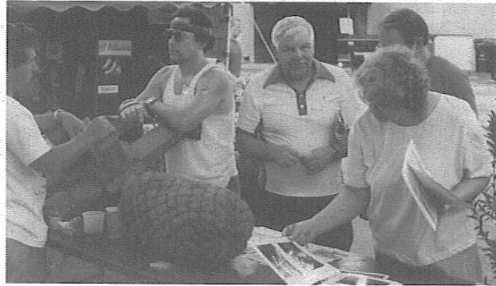
*Advisory Committee Chair Mike ("the Bratmeister") Marchuk takes care of business while two gentlemen check the display of watershed land use maps.*



*A machine designed to simulate runoff problems experienced technical difficulties, but still drew curious onlookers.*



## ater Watershed Fair



Watershed consultant, Randy Stowe (far left), answers a question about shoreline stabilization. Other conservation practices explained at the fair included composting yard waste (including the ashes from burn piles), controlling soil erosion from new home construction and farm fields, and recycling used oil.



Extension Horticulture Agent Tom Kalb (right) listens to questions. . .



. . .while DNR watershed planner Kent Taylor (above) talks to a local resident about the project.

### Community Support!

It's what nineteen local businesses demonstrated by donating prizes to the Camp-Center Lakes Priority Watershed Fair. Without support from the businesses and organizations listed below, the fair would not have happened.

#### Thanks to Our Watershed Fair Contributors

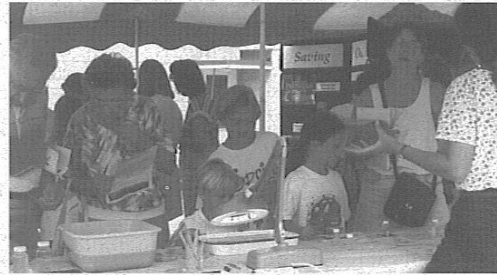
Advantage Bank  
Agatha T's Restaurant  
Breezy Hill Nursery  
Colony House Restaurant  
County Cupboard  
Floral Acres  
Gander Mountain  
H2 GEO Consulting  
Hartnell Chevrolet  
McK-s Construction

Meier Decorating  
Ranch Sweet Shop  
Razor's Edge Barber Shop  
RC Electric  
Salem Auto Service Station  
Salem Grade School  
Simpson Airport  
Stage Stop Restaurant  
Wilmot Auto Service Station  
Wychwolde Jewelry and Art

## We're Listening to You!

More than 200 people attended the Watershed Fair in August, and thirty-nine people took time to fill out a survey about the watershed. Here's what you told us:

- You know about the Watershed Project. Everyone surveyed had heard about the watershed project—mostly through this newsletter or direct mailings.
- About 25% of you feel water quality in the lakes is good or excellent. The other 75% believe water quality is fair or poor, or aren't sure.
- You believe there are a variety of pollution sources threatening Camp and Center Lakes. You are most concerned about shoreline erosion, lawn fertilizers and pesticides, farming, and leaves left in road ditches.
- Almost all of you are already taking steps to protect water quality. Nearly 70% of you recycle used oil, about 56% use no fertilizers or pesticides, and 54% compost yard waste.
- You like the newsletter, particularly our features with maps.



*The Watershed Fair provided fun and information for people of all ages. For more pictures of your friends and neighbors, see inside the newsletter.*

Results from this survey will help us provide you with the information you need to help protect Camp and Center Lakes. For more information about the survey, or to tell us your own thoughts about the watershed project and this newsletter, call Jon Hanken, Kenosha.

### **FOR MORE INFORMATION ABOUT THE CAMP-CENTER LAKES PRIORITY WATERSHED PROJECT, PLEASE CONTACT:**

#### **Kenosha County:**

Pamela Wallis, Dept. of Planning Development (414) 857-1895  
Jon Hanken, UW Extension (414) 857-1945

#### **Southeast District:**

Department of Natural Resources (414) 263-8714  
UW Extension, Water Quality Education (414) 475-2877

University Center  
161 W. Wisconsin Ave. Ste. 6000  
Milwaukee WI 53203

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ii watershednewsNOV1995d

**~ 1996 completed 2.5 acres of wetland restoration detention ponds. CCLRD1-261**

**~ 1996 April 30 1996 Summary for Nonpoint Source Pollution Control Plan for the Camp-Center Lakes Priority Watershed Project by the Camp-Center Lakes Citizens Advisory Committee, a 10 page document ("NSPCP") which presents Introduction, General Watershed Characteristics, Sources of Water Pollution, Water Quality, Pollutant Reductions Goals, Management Actions, Funds Needed for Cost Sharing, Staffing and Educational Activities, Project**

**Implementation, Information and Education, and  
Project Evaluation and Monitoring. NSPCP**

**~ 1996 June 8 1996 Commissioners Meeting Salem  
Community Library Meeting Room, Harvester, Conveyor  
and truck will arrive June 11, 1996 and transporter  
June 17th; 3 personnel will be trained on Tuesday;  
County has drawing of the Camp Lake Spillway and  
they will file for the permit from the DNR which will  
take 30 days to road and east spillway box for a 2 to  
4 week period. Anticipated completion is September  
1996; Gerald L Hebard is introduced as the district  
conservationist from the US Department of  
Agriculture Conservation Service and he will implement  
the Non-Point Source Project; Shirley Boening  
announces that the five Ponds are now complete!  
CCLRDM-174-176**

**~ 1996 June 27 1996 Commissioners Meeting 27044  
95th Place, Trevor Florence Malizola's home, CCLRD  
donates \$250 to the Kenosha County Underwater  
Rescue and Recovery Squad for the removal of a  
submerged fishing shack on Camp Lake; Shirley will  
take the information and consult with the DNR and  
the Town of Salem for recovery of some of the money  
from the owner of the shack; Commissioners would like  
to house their records at the Town Hall and Shirley  
will investigate the cost of this. CCLRDM-177**



ii JBoening 2004 Trash from CCL1

**~ 1996 July 1996 Watershed News**



# Camp-Center Lakes

## Watershed Newsletter

July 1996



### Watershed Faire

You're Invited!  
Camp-Center Lakes  
August 24th — 11 a.m. to 2 p.m.  
Salem Community Library Grounds  
Corner of Hwy. 83 and AH

#### Visit the Educational Displays!

Lake Ecology, Erosion Control, Symptoms and Sources of Runoff Pollution, Common Lake Weed Identification, Carry Creek, Natural Landscaping Displays, Watershed Maps. Learn if you are eligible for cost-sharing dollars.

#### Bring the Kids and Enjoy Yourself!

Decorate T-shirts, make your own watershed pin, do face painting, see what's under our microscopes, enjoy hot dogs and soda. If you like, bring a non-perishable dessert like cookies or brownies to share at our pot-luck table.

#### You Can Win Prizes!

Register and you will be eligible to win prizes donated by local merchants. Drawing will take place about 1:30 p.m. You DON'T need to be present to win!

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## Second Annual Watershed Fair

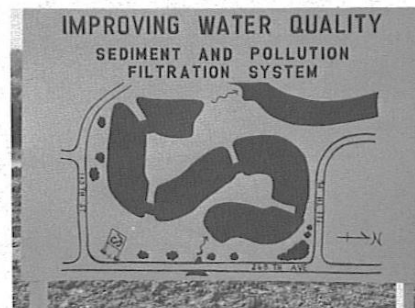
When: Saturday, August 24th, 11 a.m. - 2 p.m.  
Where: Salem Town Library  
What: Food, Fun, Kids' Activities, Prizes, Clean Lake Info  
(see other side)

*Im-ple-ment:* To put into practical effect (*American Heritage Dictionary*, 1991 edition)

Your life may not seem any different, but a monumental event has occurred. The Camp-Center Lakes Watershed Project is now in implementation. This means the project has the official okay from the state of Wisconsin to fund actions like shoreline stabilization and farm conservation.

If you own land near the lake's shoreline, or you farm land above the lakes, chances are you'll soon hear from project manager Jerry Hebard. Jerry will answer your questions about the project and explain the different ways you can get involved. Meet Jerry and other members of the project team at this year's Watershed Fair.

For more information about the Camp-Center Lakes Priority Watershed Project, please call Jerry Hebard at 414/878-1243.



*Have you seen our first demonstration project along 268th Avenue? The series of wetland ponds will filter runoff before it flows into Camp Lake.*