

# ❖ The Water Line ❖

Newsletter for the Lakes of Missouri Volunteer Program

Volume 3

Number 2

May 1999

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## RIVERS AND STREAMS CONFERENCE UPDATE

The Missouri Stream Team is 10 years old and will celebrate at a conference June 11-13. The conference is open to all and offers a wide variety of subject matters that non-Stream Team people may find interesting and informative. What follows are brief descriptions of the topics that will be presented.

\*\*Watershed issues such as chip mills, confined animal feed operations and urban sprawl.

\*\*Volunteer programs from neighboring states and a round table discussion of volunteer based programs.

\*\*Organizing and revitalizing Stream Teams and alternative activities.

\*\*Watershed associations, partnerships with industry and government programs.

\*\*Advocacy, working with local decision makers and state water quality standards.

\*\*How educators can expand their use of the Stream Team Program.

\*\*How to access water quality data from the Internet.

\*\*How Stream Team data has been utilized by the DNR and by volunteers within their communities.

\*\*The federal Government and water quality, Clean Water Action Plan and TMDL's (Total Maximum Daily Loads).

\*\*How to design a web-site.

The conference will be held in Columbia at the University of Missouri campus. The registration fee is \$25 for adults if postmarked by May 28. Other activities include a picnic on Friday (\$8), talent show, Interact Session where volunteers will present data they have collected, a bar-b-que Saturday evening (\$13 per adult) and an auction. If you would like to have any additional program information contact:

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The Lakes of Missouri Volunteer Program will be at the conference and we urge all of our volunteers to consider attending.



*If any LMVP volunteers would like to present data they have collected, please contact the LMVP office at 800-895-2260*

## POINT vs NONPOINT SOURCES

In 1961 Rachel Carson's book *Silent Spring* brought attention to the effects that uncontrolled polluting was having on our environment. What followed this new found awareness was important regulations such as the Clean Water Act. We have come a long way in cleaning up our environment since then but interestingly we have done it by focusing only on half of the problem, point sources.

Point sources are simply those pollution sources that are easily identified and measured. Effluent from a pipe coming from a sewage treatment plant or a factory is the best example. Early in the fight against water pollution these point sources were focused on and regulated. In many cases reducing what was coming from the pipe led to great improvements in water quality.

Over the last decade or so we have come to realize that all of our problems have not been solved. In fact, we have only dealt with the easy part, the point sources. We have learned that the non-point sources, those not easily identified or measured can also have a large impact on water quality. Nonpoint sources include, but are not limited to, erosional runoff from fields and construction sites, seepages from faulty septic systems, runoff from feedlots, and runoff from excessive fertilizer, pesticide and herbicide applications. These sources can be substantial and because they are difficult to measure we often do not realize the impact associated with them. Besides being hard to quantify nonpoint sources are also hard to regulate.

With the acknowledgment of non-point source pollution as a threat to the water quality of our lakes has come the

concept of watershed management. By reducing the nonpoint sources throughout the watershed we can better reduce impacts on a lake or reservoir. The key to success is reducing impacts from all parts of the watershed. This is best done by educating people about how they impact the lake, the consequences of their impacts and how they can reduce these impacts.

A lake truly is a reflection of its watershed. Addressing both point and nonpoint sources in the watershed is the best approach to protecting the lake. It makes more sense to address the potential problems before they impact the lake. This pro-active approach is often cheaper in the long run. The first step is educating yourself and others.

If you would like more information on nonpoint sources or learning about funding opportunities to address this problem contact the Department of Natural Resources Non-point Source Program at: (573)751-7428.

### QUALITY CONTROL INFORMATION FOR VOLUNTEERS!!!

This sampling season volunteers will be asked to duplicate a nutrient bottle from one of their sample collections. This extra nutrient bottle will act as a lab duplicate and will be one of our Quality Assurance/Quality Control checks. All you have to do is rinse and fill two nutrient bottles as you process one of your samples. Make sure you fill out the pertinent information on both bottles (site and date). We will analyze both bottles as we normally do and then compare to see if there are any problems associated with the nutrient bottles we are using or if volunteer processing is a source of contamination. We will get everyone extra nutrient bottles during the mid-season pick-up.

*Nonpoint sources include, but are not limited to, erosional runoff from fields and construction sites, seepages from faulty septic systems, runoff from feedlots, and excessive fertilizer application.*



## ATRAZINE

Atrazine is a word commonly heard in the Missouri clean water debate. Atrazine is a broadleaf herbicide applied by farmers during the spring planting of corn and sorghum. This herbicide provides farmers with a cheap and effective way to control weeds. Instead of having to manually remove weeds, application of atrazine at planting time controls these nuisances throughout the growing season. Atrazine first came on the market in 1958 and since then nothing has been developed that works as effectively and cheaply.

Laboratory studies have shown atrazine to cause cancer in certain female rats and is now listed as a potential carcinogen. Public drinking water suppliers in the watershed of some farming communities have found atrazine in their drinking water reservoirs. Part of the problem with atrazine is that it stays in the soil for 30 to 50 days and is water soluble. With heavy spring rains it can be washed off of the fields and into drinking water supplies. In 1994 the Environmental Protection Agency set a maximum level of atrazine at 3 µg/L (micrograms per liter), or 3 parts per billion in drinking water. Some drinking water facilities in the state have detected up to 20 µg/L or more of atrazine in their raw drinking water. Most water treatment facilities with atrazine problems use powdered activated carbon to soak the atrazine out of the water like a sponge. St. Louis spends up to \$700,000 per year for treatment of atrazine in drinking water they get from the Missouri and Mississippi Rivers. So the debate continues as to why the water treatment plants should have to shoulder the financial burden of protecting the public from this potential carcinogen.

Some farmers have been trying to change their practices to help reduce the

amount of atrazine that runs off their fields. Some have reduced the amount of atrazine they spread by up to 50%. Others have tried other alternative chemicals and have also mechanically mixed the atrazine into the top two inches of soil rather than spraying it over the fields. This mechanical mixing has been shown that it can reduce atrazine runoff an average of 25%.

The debate also continues on the toxicity of atrazine. Novartis, the company that produces atrazine, announced that the International Agency for Research on Cancer has reclassified atrazine from a possible carcinogen to a noncarcinogen. Novartis would like the EPA to allow a higher level of atrazine in drinking water supplies.

But most people feel that pesticides should not be found in our drinking water supply. Efforts are being made to increase awareness of this problem, to develop alternative farming practices, better water treatment facilities and educate people about what is happening in their drinking water reservoirs' watersheds.



### Missouri Clean Water Commission Meeting

The Lakes of Missouri Volunteer Program staff attended the meeting of the Missouri Clean Water Commission held in Jefferson City on May 12, 1999. Proposed effluent regulations for the Table Rock Lake watershed were discussed at the meeting. These regulations focused mainly on the amount of phosphorus allowed in the effluent from waste water treatment facilities in the area. Officials from some of the cities that will be effected by the new regulations spoke and were generally supportive but there was some concern about how these new regulations would be financed. There was concern about the wording "as soon as possible but no later than" a specified period (4 or 8 years depending on volume of effluent). The city of Springfield felt that "as soon as possible" was somewhat arbitrary and asked the commission to remove this wording. Also supporting the new phosphorus removal regulations was a representative of the Missouri Chapter of the Sierra Club. Everyone was in agreement that Table Rock Lake is an important natural and economic resource in the area and needs to be protected.

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▪ **The Missouri House Doesn't Act on the** ▪  
▪ **Clean Lakes Act** ▪  
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The legislative session ended on the 14th of May with a flurry of activity. One of the bills that did not survive the session was HOUSE BILL NO. 597, also known as the Missouri Clean Lakes Act. This bill would have created a funding source that could be used by private lakes in Missouri for restoration and preservation projects.

The program would have been administered by the Clean Water Commission through the Missouri Department of Natural Resources. Money for the program would have come from boat certificate fees that are presently collected by the Department of Revenue. It is estimated that the annual funds would have been approximately \$1,697,000.

All lakes at least 15 acres in size would

have been eligible except those that are owned by the state or federal government, a public utility, or an electric cooperative. There are approximately 350 lakes that meet this criteria in Missouri. Applications for funding would be prioritized according to; 1) Technical merit, feasibility and lake improvement potential; 2) Extent of recreational use of the lake; 3) Extent of additional uses such as drinking water supply; 4) Extent of public access; 5) Local support of project, including the ability to meet financial needs of future management; and 6) Availability of other government funding for the project.

The money would have been allocated in the form of local-match grants or low-interest loans. Lakes would receive up to 50% of the cost of a diagnostic and feasibility study, not to exceed \$75,000. Funds would also have been available for restoration and preservation projects again at up to 50% of the project cost, not to exceed \$300,000. Lake owners would be responsible for the remainder of the cost and for repaying the amount of any loan.

The creation of such a fund would give communities and cities who own lakes a way to finance studies on water quality in their lake. The money could also be used to correct current problems and avoid future problems. Thorough studies on water quality and management of lakes and their watersheds is a costly endeavor. The Missouri Clean Lakes Act would have helped Missourians clean-up and care for their lake resources.

The session is ended and the bill has died.....Why are we telling you all of this information now, when it is too late? This bill has been introduced before and there is a good chance it will be reintroduced in the next session. If enough people support this bill and let their representatives know they support the bill it may live through the next session! If you would like a copy of the bill as it was presented to the 90th general Assembly (this last session) call the LMVP office at 800-895-2260 we will send you a copy.

....LET YOUR VOICE BE HEARD, IT IS THE STRONGEST TOOL YOU HAVE.