As noted in the October edition of *Health and Safety News*, this issue is a continuation of the topic of drinking water. In researching this important subject, I found that the United States Environmental Protection Agency’s website (EPA) contains a treasure trove of valuation material related to several aspects of the safety and quality of the water we drink and use on a daily basis. Therefore, this issue will use that website (http://water.epa.gov/drink/) to highlight some of the topics covered. However, I do strongly encourage the viewing of the site for more detailed and additional information.

For topics in blue, right click on the mouse and select Open Hyperlink to read more.

**Protect Your Drinking Water for Life**

People who travel abroad know the familiar problem with unsafe drinking water. At home, we scarcely give it a thought. Usually, we are right. But the sources of our drinking water are constantly under siege from naturally occurring events and human activities that can pollute our sources of drinking water.

**Did you know?**

- In the United States, water utilities treat nearly 34 billion gallons of water every day.
- In the United States and Canada, the total miles of water pipeline and aqueducts equal approximately one million miles—enough to circle the globe 40 times.
- Americans drink more than one billion glasses of tap water per day.
- Children in the first six months of life consume seven times as much water per pound as the average American adult.
- For some statistics on public drinking water systems and more, see the following
Safe drinking water relies on all of us. Do your part to get to know it and protect it.

Be Informed!

Be Informed with these Links!

- Your Drinking Water Quality!
- Surf our Kid's Page
- Check out Drinking Water From Household Wells (pdf file)
- Order your copy of the Protecting America's Drinking Water Poster
- Drinking Water and Health Basics
- Have more questions?

- Read the annual Consumer Confidence Report provided by your public water system, sometimes referred to as a Water Quality Report.
- Use information from your state's Source Water Assessment to learn about potential threats to your water source.
- Has your state identified all shallow disposal wells?
- Does your state have total maximum daily loads for those contaminants that may pose risks to drinking water?
- Find out whether the Clean Water Act's water quality standards for your drinking water source protect your tap water, in addition to aquatic life and swimmers.
- If you are one of the 15 percent of Americans who has your own source of drinking water, such as a well, cistern, or spring, you are responsible for protecting your water supply. Find out what activities are taking place in your watershed that may impact your drinking water; talk with local experts, test your water periodically, maintain your well, and close it properly.
Be Observant!

Be Observant with these Links!

- Surf Your Watershed Index of Watershed
- Explore the EPA's Source Water Protection
- Check out EPA's Water Efficiency Program

Have You Heard?

- Look around your watershed and be alert to announcements in the local media for activities that may pollute your source water.
- If you see any suspicious activities in or around your water supply, please notify the local authorities or call 9-1-1 immediately and report the incident.

Be Involved!

Be More Involved with these Links!

- Read It's Your Drinking Water: Get to Know It and Protect It!
- Groundwater Guardian EXIT Disclaimer) is a program by the Groundwater Foundation that supports, recognizes, and connects communities protecting groundwater.
• Read local newspapers to stay informed.
• Attend public hearings on new construction, storm water permitting, and town planning.
• Keep your public officials accountable.
• Ask to see their environmental impact statement.
• Ask questions on any issue that may impact your water source. What specific plans have been made to prevent the contamination of your water source? Notices about hearings often appear in the newspaper or in government office buildings.
• Participate with your state or tribal water system as they make funding decisions.
• Volunteer or help recruit volunteers; participate in your community’s contaminant monitoring activities, and encourage testing water upstream of your drinking water supply.
• Help ensure that local utilities that protect your water have adequate resources to do their job.

Don’t Contaminate!

Help Prevent Contamination!

• Check out the Office of Pesticides' Citizen's Page to Pest Control and Pesticide Safety
• Learn some Quick Things You Can Do to protect source water
• Check out the Citizen's Involvement in Source Water Protection

• Reduce paved areas: Use permeable surfaces that allow rain to soak in, not run off, like wood, brick and gravel for decks, patios and walkways.
• Reduce or eliminate pesticide application: Test your soil before applying chemicals, and design your lawn and garden with hardy plants that require little or no watering, fertilizers or pesticides.
• Reduce the amount of trash you create: Reuse containers, recycle plastics, aluminum, and glass.
• Recycle used oil: A single quart of motor oil can contaminate up to 2 million gallons of drinking water; take used oil or antifreeze to a service station or recycling center.
• Take the bus instead of your car one day a week: On average, you will prevent 33 pounds of carbon dioxide emissions per day. Be careful what you put into your septic system: Harmful chemicals may end up in your drinking water.
• Keep pollutants away from boat marinas and the waterways: Keep boat motors well-tuned to prevent fuel and lubricant leaks; select nontoxic cleaning products and use a drop cloth, and clean and maintain boats away from the water.
So, what happens in Northwest Arkansas?

To find the answer to that, take a look at the Beaver Water District’s website (http://www.bwdh2o.org/).
Beaver Water District

Mission
Our mission is to serve our customers’ needs by providing high quality drinking water that meets or exceeds all regulatory requirements and is economically priced consistent with our quality standards. (Updated May 19, 2011)
History
Nearly 50 years ago, visionary community leaders got together to discuss the need for a long-term supply of clean, safe water for Northwest Arkansas. With an eye to the future and knowledge that a large lake was the best source of water, these citizens worked to establish Beaver Lake Reservoir. Beaver Water District was created to pay for the drinking water supply allocation of the lake. The dam that created Beaver Reservoir and the first water treatment plant were completed in the mid-1960s. Since that time, the District has expanded facilities and improved to keep up with increased water demand and stricter drinking water standards. In addition, three other water utilities have been created to provide drinking water from Beaver Lake.

Protecting Our Water Quality

Philosophy of Source Water Protection

Long term thinking by area leaders such as Joe Steele and Hardy Croxton in the 1950s ensured that Northwest Arkansas now has an ample supply of fresh clean water. That water is consumed every day not only by the people who live here, but also by the industries that rely on an uninterrupted supply of affordable water for food processing and other manufacturing and production purposes.
Today, Beaver Lake is an outstanding resource, with water quality meeting all Arkansas Department of Environmental Quality standards. But we cannot expect it to stay that way if we are not proactive in protecting our resource.

It is our responsibility as citizens and leaders of the Northwest Arkansas community to continue the tradition of long-term thinking and protect the resource that past visionary leaders provided for us. It is that resource that has raised our standard of living and improved countless lives, making possible a sustained economic prosperity unlike any in the United States.

The Lake is a reflection of its watershed. That is, the quality of the water in the reservoir is dependent upon what is being done in its tributary area. If land use is thoughtful, we will enjoy the Lake and its blessings for generations to come. If our use of land in the watershed is careless, then the quality of the water in the Lake will suffer and become degraded.

Beaver Lake’s watershed is rapidly changing. Economic forecasters predict that more than 800,000 people will populate Benton and Washington counties by the year 2025, and as many as 1.2 million people will be living in Northwest Arkansas by 2050. With growth comes increased pressure on the watershed and the lake. Forests are cleared to make way for development. Roads are built to accommodate new subdivisions. More waste water is produced. Storm water runoff increases as does non point source pollution.

We know from current research that the upper third of Beaver Lake has an overabundance of algae. Because of algae, Beaver Water District experiences episodic taste and odor events in the drinking water. We know that we are experiencing an increase in disinfection byproducts precursors. When chlorinated, these precursors form potentially carcinogenic disinfection byproducts. We know also that during certain seasons, the bottom layers of the lake are depleted of oxygen. We know that the lake becomes extremely turbid after storm events. And we know from monitoring that the nutrient supply to the reservoir far exceeds the lake’s needs. Our lake cannot take care of itself.

Beaver Water District is committed to taking a leadership role in protecting Beaver Lake. But we want to make it clear that taking care of Beaver Lake is a community effort. All of us are part of the problem and all of us must be a part of the solution. It will take the combined efforts of children, adults, teachers, developers, engineers, accountants, farmers, politicians and all citizens to accomplish this vital task. That is, to maintain the quality of Beaver Lake.

Source water protection is not about telling people what to do. It’s about everyone doing what is right for our common good. If we work together, we can find a way to make it happen.

Beaver Water District, along with other stakeholders in the watershed, is dedicated to the long-term protection of the watershed. We are working daily through our public education programs, media contacts, speaking engagements, and our website to educate the public, children, business people, and policy makers about how the lake can be protected. Beaver Water District also sponsors monitoring and research on water quality in the watershed and on the lake. We have committed funds to securing conservation easements on critical properties in the watershed. And, we will take whatever actions are necessary to help watershed residents protect our common resource.
This is not just about drinking water. This is about our legacy; this is about the kind of Beaver Lake we want to leave for our sons and daughters, our grandchildren and their grandchildren and their grandchildren’s grandchildren. It is about swimming and boating and fishing, or just sitting and enjoying the water. It’s about leaving a clean environment for future generations. As our Board President John Lewis says, “It’s about building something sustainable where water can always be taken out of the lake for drinking.” (The late John Lewis served on the Beaver Water District board of directors from 1975 to 2007.)

The Beaver Lake Watershed
Click on the map to view the streams, rivers and topography of our watershed.

Source Water Protection Position Paper
Click on the image to read the Water District's position on source watershed protection.

Note: The information above was taken directly from the Beaver Water District’s website.