

**Lake of the Ozarks Watershed Alliance (LOWA)  
9-21-2009 Old Kinderhook, Camdenton  
Minutes Public Meeting 6:30 pm**

LOWA Executive Director, Donna Swall, called the meeting to order at 6:30 with introductions all around.

**Scott Robinett and Tim Reilly, MDNR, LOZ cove Study**, thank the volunteers.

Project description included a 5 year monitoring project to characterize E. coli at the Lake of the Ozarks (LOZ). Each year, 6 monthly samples are taken in 30 coves per year (10-15 coves per sampling event since each set of coves is sampled every other month), with 3-7 samples per cove, 60 samples per event, and 120 samples per year. Generally, about 9 teams of about 3 volunteers per team use their own boat and provide their own gas. So far this year, 275 samples have been taken and 59 more will be taken in October. Laurie Hollow has had high readings and when resampled in 3-7 days, criteria were met. In 2009, E. coli readings have ranged from <1 to >2419 mpn/100 mL (This is read, 'have ranged from less than 1 to greater than 2419 most probable number of bacteria colonies per 100 milliliters of water.) In 2008, the E. coli reading ranged from <1 to >1986. For 2009 so far, the geometric mean has been 12.1 mpn/100 mL. There were high samples in May this year but the other months had very few high samples. Other years have been high in the spring and then dropping and leveling out. Three to five inches of rain preceded the May sampling event and was the likely cause of the many high readings throughout the sampling site for May as rain washed lots of substances into the lake. There was a question about the older septic systems around the lake also being part of the issue with water quality. Citizen suggested we clean up these older systems to try to address the problem of water quality going down after a rain. He suggests citizens start reporting these older failing systems when they see them. MDNR's lab also checks drinking water.

It takes time to check all the samples coming in, so the time it takes to get the data out will vary; but over the last two years, the average has been about 15 days. Bacterial results are very variable so when rechecking, one would expect different results. Bacteria are not evenly distributed through the water and they die over time and they adhere to soil particles and sink with the sediments. Educating people about streams and lakes and how they work is key. All bodies of water see similar rises in E. coli after a rain.

Why E. coli? It is an indicator organism that says other problems could exist with water quality when E. coli is present.

Is there any season you wouldn't get in the lake? No; just after a heavy rain he would be careful and he'd wash his hands afterwards.

**Donna** – from a citizen's standpoint, the mud and silt washing into the lake give the bacteria a place to latch onto and start growing. Her rule of thumb is if the Lake is murky or has debris floating around, they don't get in and in general, they wash up after swimming. No swimming with cuts or low immune systems. She has noticed that when sampling and the water is clear, the readings are low.

**Gaye Belloir – Recycling:** Hazardous Household Waste Reclamation Day is coming up October 10, 2010, 9am – 2pm. As a homeowner, you can control the amount of toxins you put in the water. MDNR Solid Waste District T provided funding for this event. E-waste will also be accepted, for example, old cell phones or telephones. Some examples of hazardous waste are paints, thinners, bleach, solvents, pesticides, etc. PSC Environmental will be collecting and disposing of the materials properly. With a big community turnout, we may well get a permanent HHW recycling place.

**Bob Broz – The Watershed Management Plan (WMP):**

The purpose of a watershed management plan (wmp) is to improve water quality through:

- Identifying state and local concerns;
- Identifying management practices that will control, reduce, or mitigate pollution in the watershed;
- Determining implementation times; and
- Determining how practices are going to mitigate or control pollution.

In the plan, one must introduce the watershed and then include the 9 elements:

- A. identify causes and sources of pollution that need to be controlled;
- B. estimate load reductions expected from management measures;
- C. describe management measures and critical areas where they need to be implemented;
- D. estimate amounts of technical and financial assistance needed;
- E. develop an information education component;
- F. develop schedule for implementing management measures;
- G. describe interim, measurable milestones;
- H. identify the criteria for determining the load reductions; and
- I. monitor the activities to see what milestones are being met.

Where are we on the WMP?

Watershed residents and businesses have helped identify pollutants and we've identified management practices that will help control or mitigate the pollutants.

What still needs to be done?

- Identify the amount of load from different sources;
- Determine the cost to implement practices;
- Identify ways to measure improvements in water quality; and
- Because every plan changes as the conditions and growth in the watershed changes, the plan needs to be continuously updated to meet the needs as they change.

Why is it so difficult?

No one group has all the expertise it needs, therefore groups need agency partners working with the citizens. Pieces need to fit together and watershed management plans help do this. Everyone needs to work together and the plan must be meaningful to the local citizens.

Why have a watershed group?: To address the issues of citizens and communities and to address community-based watershed management.

These 2 HUCs are about 20,000 acres (about 20,000 football fields). We had to focus down but the other areas aren't being excluded. This will also allow LOWA to put in more grants for more money later as we expand into the other HUCs of the Lake.

**Carroll Vogel – Lake Safety:** Carroll is LOWA’s liaison with the Lake of the Ozarks Water Safety Council and he explained the Designated Captain Program, which is now with the WSC. Fatalities on the Lake have gone down since the program was begun.

**Lake District Plan** is the Watershed Management Plan.

**Caroline Toole - Stream Team:** Caroline described her role in the Missouri Clean Water AmeriCorps Program as an AmeriCorps member teamed with LOWA. Stream Team is a part of AmeriCorps.

**Jim Rogers – Wastewater:** In 1994, MDNR circulated a suggested change in wastewater management and the counties let the state handle wastewater issues. The New Septic Onsite Treatment Law SB 446 grandfathered all existing systems but the existing systems are old and failing and non effective. So, a Lake Task Force hired HNTB to write Phase I of a Lake-wide plan. Retirees are coming to retire at the Lake and we need to address these systems that were not designed for full time residence. Phase II is in the process. It will not set up a central sewer district but rather an advisory lake-wide sewer authority. Phase II should determine where to build the “hubs” of a “hub-and-spoke system”. Question remains, what to do about systems too far from hubs? If one needs 120 feet of lateral line for every bedroom and the lines need to be 10 feet apart from each other and 150 feet from the Lake, few individual systems can meet these requirements. That’s why we need hub wastewater treatment plants. What about parking lot runoff and the carcinogens and toxins running into the lake? Also includes golf courses and yards and streets – the WMP will be looking at these also. Therefore, we need to educate people and bring about a mindset that it is socially unacceptable to allow pollution to reach the Lake.

**Greg Stoner – Water Quality:** Greg is a Fisheries Biologist at the Camdenton MDC Office. In the MDNR LOZ Cove Study, we sample coves for 6 months. Each individual cove site is sampled 3 times in alternating months. Is it safe to eat the fish? Yes. E. coli has no bearing on cooked fish. Zebra mussels were first found in LOZ June 2006. They’ve been found in Buck Creek, the mouth of the Glaize and from Bagnell Dam to as far up as the mouth of the Little Niangua. They were found in Pomme de Terre this year and will be throughout the Osage basin in the next couple of years. Putting leaves in the lake adds more nitrogen which increases algae and decreases the amount of oxygen in the water for the fish and other aquatic life, not only from the decomposition of the leaves, but from the decomposing algae as well. AmerenUE has regulations against dumping leaves in the lake.

**The next meeting will be in Laurie, at the Central Bank, on Nov 16 at 6:30.**

The meeting adjourned at 8:15pm.

These minutes respectfully submitted by C. King Toole, LOWA Recording Sec’y.

And approved by Donna Swall, LOWA Executive Director.