



Missouri Department of Natural Resources

Water Quality Coordinating Committee Water Protection Program

Minutes

July 15, 2008



Missouri
Department of
Natural Resources

WATER QUALITY COORDINATING COMMITTEE

Department of Natural Resources Conference Building
1730 E. Elm
Bennett Springs Conference Room
Jefferson City, Missouri

July 15, 2008

10 a.m.

MEETING AGENDA

Escherichia coli survey of Lake of the Ozarks, Scott Robinett, Environmental Services Program, Department of Natural Resources

Lake Ozark Watershed Alliance Volunteers, Donna Swall, Lake Ozark Watershed Alliance

Rapid Watershed Assessment Update, Bill Kurtz and Chris Barnett, University of Missouri

Ill Effects of Feral Hogs, Rex Martensen, Missouri Department of Conservation

Other

Agency Activities

Meetings and Conferences

MISSOURI WATER QUALITY COORDINATING COMMITTEE

July 15, 2008

Department of Natural Resources
Elm Street Conference Center
1730 E. Elm Street
Jefferson City, Missouri

MINUTES

Attendees:

Bill Whipps	MoDNR, Water Protection Program	Mike Kruse	MoDNR, Water Protection Program
Paul Andre	MO Dept. of Ag	Bill Kurtz	Univ. of MO Extension WQ
Bob Broz	University of MO Extension WQ	Michael Hardy	Univ. of MO CARES
Donna Swall	Lake Ozarks Watershed Alliance	Ken Tomlin	MoDNR, Water Protection Program
Cindy DiStefano	MO Dept. of Conservation	Wayne Maresch	MoDNR, Env. Services Program
Greg Anderson	MoDNR, Water Protection Program	Candy Schilling	Env. Resources Coalition
Mary Clark	MoDNR, Water Protection Program	Anne Peery	MoDNR, Water Protection Program
Priscilla Stotts	MoDNR, Water Protection Program	Bob Kremer	USDA Ag Resources Service
Blake Cavender	MoDNR, Water Protection Program	Tim Banek	MO Dept. of Conservation
Randy Niemeyer	MoDNR, Environmental Services Program	Terri Brink	EPA, Region 7
Mandy			
Sappington	MoDNR, Water Protection Program	Pete Davis	EPA, Region 7
Trish Rielly	MoDNR, Water Protection Program	Sarah Fast	MoDNR, Water Protection Program
Stacia Bax	MoDNR, Water Protection Program	Darlene Schaben	MoDNR, Water Protection Program
		Charlie	
Chris Barnett	Univ. of MO CARES	DuCharme	MoDNR, Water Resources Center

Introductions were made.

Lake of the Ozarks E. coli Cooperative Study, Scott Robinett, Environmental Services Program, Department of Natural Resources, PowerPoint Presentation

Scott works in the Environmental Services Program in the Water Quality Monitoring Section. The Lake Ozarks sampling has been done by the Lake of the Ozarks Watershed Alliance, or LOWA, since 2006. Donna Swall is the Executive Director of LOWA. Using volunteers, they are getting 55-60 samples per month. This is not meant to be a comprehensive study but they are looking to see if there is a concern. This is a five-year project and is financed through a settlement agreement with AmerenUE. They are paying \$15,000/year for five years. Samples are taken from 25-30 coves each month (approx. 110-120 sites) with 6 sampling events/year (May-October). New coves are selected each year. Last year, they began at the dam and went to the toll bridge; this year will be from the toll bridge to downstream of Linn Creek cove.

Donna said that volunteers are trusting the department more now than in the past. They are asking to be trained to do sampling. Everyone wants to know what's in their water. Donna felt overall the Lake is very healthy.

Scott talked about how the coves and the sites within the coves were selected. There are about 350 permitted discharge plants on the lake. The department had some historic data from 1953 to present. Also, some data from Dept. of Health was available. Missouri adopted EPA's water quality standard of 126 cells/100 ml geometric mean. EPA suggests a single sample maximum of 235 cells/100 ml at designated swimming areas, which has not been adopted by Missouri. They use Idexx Colilert with Quanti-Tray 2000 for analysis. Each month they set up a temporary lab at the Lake in order to meet the six-hour holding time requirement.

Last year, they sampled 28 coves, 119 sites from the dam to the toll bridge. Only eight individual samples in four coves exceeded the 126 cell standard. Following EPA's suggested standard, only four samples exceeded the standard. Any of the coves that exceeded the standard last year are sampled again this year. They have not found any high numbers this year in those coves.

This year, there are eight teams sampling. They are sampling 29 coves, 108 sites, from the toll bridge to mile marker 29.5 and Grand Glaize Arm. There are two coves that are getting repeat sampling. So far, eight individual samples (6 coves) have exceeded the 126 standard and three samples (2 coves) exceeded the 235 standard. This information is shared with local health departments. Scott said that overall, in respect to bacteria, the lake is in pretty good shape.

Lake Ozark Watershed Alliance Volunteers, Donna Swall, Lake Ozark Watershed Alliance
PowerPoint Presentation; handout: LOWA brochure

Donna thanked Bob Broz for his support, assistance and guidance in getting LOWA started. It's important to keep the lake healthy, not only morally but for the economy too. In 2006, the department held three meetings with Lake Ozark citizens to see if they wanted to form a watershed group. At the third meeting, they had decided to form the group. They then developed a mission statement.

As far as E. coli testing, they identified that the department had a problem of not enough manpower to do all the sampling needed. There were 26 proposed coves, 5 sites per cove, which equaled 111 sampling sites. Scott let them know that there would be a limited number of cove samplings that the department could fund. So, the department trained several brave volunteers, even though it rained. Last year there were 28 volunteers, 9 teams, 650 man hours, 162 boat hours, 300 gallons of gas, and 350 samples taken. Mr. Jim Macy, the department's Field Services Division Director, presented LOWA an award "In Appreciation of Volunteer Efforts and Successful Completion of Water Quality Monitoring at Lake of the Ozarks - Summer 2007."

AmerenUE funded the printing of the brochure. Donna explained the eight elements of LOWA, which are in the brochure. They are working to get a recycling program going on the west side of the lake and place it on school grounds. LMVP assists with getting maps made and printed with the latest data, which the maps can also be found on LOWA's Web site (www.soslowa.org). The 319 minigrant project to do a septic pump out program for Camden County was very successful. They have other minigrant applications submitted for Morgan, Benton, and Miller counties to do septic pump outs. The brochure also includes phone numbers from around the lake area that may be helpful.

Anne congratulated LOWA on the initiative they've taken and have continued with. Donna said all the work that they have accomplished thus far has been with in-kind funding. She felt they could do a lot more with a little more funding.

Rapid Watershed Assessment Update, Bill Kurtz, UMC
PowerPoint Presentation; Handout: part of PowerPoint Presentation

As reported at the January meeting, this project was supported by USDA NRCS and conducted through UMC's Center of Applied Research and Environmental Systems, or CARES, and Extension's Water Quality Program. (Note: this is the new name for CARES.) They provided initial estimates of where conservation investments would best address landowner's concerns about water quality in a given area. This information will help landowners in setting priorities and determining actions to achieve their goals regarding water quality. This procedure was developed for NRCS to conduct watershed assessments in an efficient manner to provide a rough picture of resource conditions within Missouri's large watersheds, serve as a focal point for locally led identification of resource concerns and priorities, and provide an estimate of funding needs as well as potential sources of funding. UMC worked in four different watersheds – Lower Gasconade, Lower Osage, Sac, and South

Grand. They passed around for review the final reports for these four watersheds. NRCS also did watershed assessments on nine other watersheds. UMC's method was different in that they incorporated landowner input. NRCS just incorporated the profile and assessment matrix.

Bill focused this presentation on the South Grand watershed. He went over the watershed profile, which included the size, topography, and land use. He said this watershed has eight CAFO permits and nine streams and rivers are on the 303(d) list. Three landowners meetings were held. UMC obtained information about landowner conservation practices, cropping practices, grazing practices, pasture practices, and natural resource issues. At the third meeting they planned to report the findings. But, due to bad weather, the third meeting at five different locations was cancelled so the information was mailed.

In the South Grand watershed, producers identified 23 different conservation practices and 30 natural resource issues. The assessment matrix summarizes, in tabular form, current and future resource conditions and their qualitative effect on primary resource concerns. The matrix also summarizes future resource conditions by cost, including: installation, annual operations, initial and annual management, and technical assistance. Bill talked about the land use characteristics used in the assessment matrix development. The Assessment Information summarizes the practices at each treatment level, the quantities of practices for current benchmark conditions, and projected future conditions. The Conservation Systems are identified by different conservation practices within Treatment Levels. Baseline System represents those landowners who typically are not participating in conservation programs; Progressive System represents a level of conservation adoption that is leading to a full Resource Management System (RMS); and RMS represents a system of conservation practices that address all the SWPA resource concerns typically seen for this land use in the watershed. Current Conditions and Future Conditions, in terms of units of practices within the respective conservation systems, are shown for current benchmark conditions as well as for projected future conditions for each particular conservation practice that is identified within the resource concerns. He displayed an assessment matrix of system conditions for cropland. The matrix of total acreage at the RMS level showed the practices that would make an ideal situation for the South Grand watershed. He also showed a matrix of the summary of investment costs for USDA and Private associated by conservation practice. An assessment matrix was also done for forestland, grassland, and urban practices.

Bob said this helps to decide which practice to use in the watershed if you have limited funding. You have to know the ultimate goal in order to determine which practice gives the best result for the least amount of funding.

One question they got most at the meetings was –“if we do this, what good will it do and how can we use it?”

Chris said the reports are available online at: <http://www.nrcs.usda.gov/programs/rwa/index.html>. NRCS has four of their nine reports online.

III Effects of Feral Hogs, Tim Banek, MDC

PowerPoint Presentation; Handout: Feral Hogs brochure

Tim is the Invasive Species Coordinator for the Department of Conservation. (Rex Martensen had a scheduling conflict.) Tim said in the 1990's people started to have an interest in hunting wild boars so feral hog populations began to increase. Tim read the definition of feral hogs from state statute, 270.170 RSMo. He said they are more active at night and eat just about everything. They are very adaptable to terrain and climate. These hogs are also found in Hawaii, Manitoba, and Detroit. Sows can have up to two litters per years so their populations can grow quickly. He talked about some of the signs they leave in areas they travel. Tim showed a map of Missouri that identified where the hogs have established populations. There are also some isolated sightings where it was assumed that people have been releasing them for hunting opportunities. Others releases may have come from released pets, accidental escapes, or game ranches.

Feral hogs can do damage in agricultural areas. In Texas, they estimate there are 2-3 million feral hogs, which are causing \$52 million in agricultural damage. Florida also has a large population. Hogs can carry several diseases that can affect people, livestock, pets, and wildlife. They can carry foreign animal diseases (like hog cholera, African swine fever, foot & mouth disease), future influenza, and current diseases (like brucellosis and pseudorabies). Disease testing kits are provided free of charge to hunters if they want to test the hogs they kill. (Available at the USDA office.) Tim said the testing kits are expensive.

Soil erosion, siltation, and sedimentation from erosion are some of the damage to water quality that hogs can do. Tim obtained information from the Plum Creek Watershed Protection Area in Texas to show potential contribution of E. coli by source. The range for feral hogs was 11-58% for contribution where cattle contributed 16-60%. They were determining what potential BMPs could be implemented based on sources of water quality issues. Other natural resource damage includes wallowing that causes erosion; eating amphibians, deer fawn, acorns, any ground nesting birds.

Tim said they are trying to eradicate the hogs in Missouri. Trapping has been the most effective way to capture them. He talked about other methods that are used as well. In order to maintain the population at 'no growth rate,' they need to control 70% annually. They will have to use all resources over an extended period of time to eradicate them.

Governor Matt Blunt signed an Executive Order for a Governor's Task Force. This is a 10-member Task Force with the Departments of Conservation and Agriculture as co-chairs to address the feral hog issue. This cooperative statewide effort will engage all stakeholders and the public; explore tougher penalties on liberalizing feral hogs to the wild; work on better cooperation between private landowners and public agencies; getting funding to work on direct hog control; continue disease monitoring; receive hog sighting reports; and to never give up. Currently, releasing hogs into the wild is a misdemeanor; they are recommending it be a felony. Each hog that is captured is tested for disease. They have found brucellosis and pseudorabies in some.

Missouri citizens can help by supporting stricter laws and appropriation of funds, report sightings promptly, and discourage illegal releases. The number for Operation Game Thief is 800-392-1111. Information about feral hog control can also be found on the Web site at: www.missouriconservation.org.

Tim said that a hunting permit is not required nor is there a limit to the number that can be killed. He noted there are some restrictions though. People cannot hunt during some seasons, such as deer and turkey seasons.

Agency Activities

Sarah Fast said there would be no WQCC meeting on August 19 since the Water Protection Forum is scheduled for Wednesday, August 20, in Columbia at the Courtyard Marriott. She encouraged everyone to attend. An agenda will be sent when it becomes available. The next WQCC meeting will be Sept. 16. Ron Dent, MDC, will speak about current research projects; Duane Gellnar will discuss the Farm Bill in relation to water quality.

Paul Andre said Dept. of Agriculture has a new director.

Bob Broz announced a Rural Professional's Land Issues Workshop will be held on July 23, 2008, at three different locations (Kirksville, Palmyra, Moberly), to discuss rules and regulations dealing with fencing laws, on-site sewage systems, private wells, trespassing, liability concerns, trash disposal, burning, and noxious weeds. The cost is \$30; contact Putnam County Extension office if questions.

As part of the 319 grant they are hosting several Watershed Management Plan training workshops. The next three dates and locations are July 25 in Montrose; July 29 in Vienna; and August 13 in Unionville.

Greg Anderson said the 319 RFP should be available in September. The EPA Targeted Watersheds Grant opportunity is now available. Darlene sent out the announcement to the WQCC list. The target is on hypoxia and water quality trading.

Charlie DuCharme said the Water Resources Center continues to expand their water monitoring efforts. Precipitation gauges are being placed along several of the USGS stream gauge sites. This data can be found on the USGS stream gauge Web pages.

Chris Barnett reminded the group of CARES name change. It was previously called the Center for Agricultural Resource and Environmental Systems; now it's called the Center for Applied Research and Environmental Systems. The change was made to reflect their activities better.

Anne Peery said the UAA for recreational use is still open for public comment through July 21. She said it may get extended. They are trying to urge people to go online to complete a survey to show how a water body is used.

Meeting Adjourned.