



**Missouri
Department of
Natural Resources**

WATER QUALITY COORDINATING COMMITTEE

DNR Conference Center
Roaring River Conference Room
1730 E. Elm Street
Jefferson City, Missouri

May 15, 2012

10:00 a.m.

MEETING AGENDA

CAFO Regulation Update, Keith Forck, Water Protection Program, Department of Natural Resources

Big River Watershed: Overview and Superfund Actions - Kathy Rangen, Hazardous Waste Program, Department of Natural Resources

Other

Agency Activities

Meetings & Conferences



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MINUTES

Attendees:

John Johnson	DNR, Water Protection Program	Dan Downing	UMC Water Quality Extension
Kathy Rangen	DNR, Hazardous Waste Pgm	Bill Whipps	DNR, Water Protection Program
Miya Barr	USGS	Jane Davis	DNR, Water Protection Program
Mike Alesandrini	URS Corp.	Mark White	MO Corn Growers, ERC
Kevin Perry	REGFORM	Meagan Henderson	Kennedy/Jenks Consultants
Chris Riggert	MDC – Stream Unit	Steven Hefner	USDA-NRCS
Bob Broz	UMC Water Quality Extension	Keith Forck	DNR, Water Protection Program
		Darlene Schaben	DNR, Water Protection Program

John Johnson chaired the meeting.

Introductions were made.

CAFO Regulation Update, Keith Forck, Water Protection Program, Department of Natural Resources PowerPoint Presentation; Handout of PowerPoint presentation

Keith is the Acting Chief of the Permit Section’s Agriculture Unit working with Concentration Animal Feeding Operation (CAFO) activities. The unit processes applications and issue permits. Keith has recently been working on revisions to the CAFO Regulations, 10 CSR 20-6.300, Permit Rule, and 10 CSR 20-8.300, Manure Storage Design Rule. The Manure Storage Design Rule is new but is an existing regulation placed into one rule, making it easier to follow. These are available on the Secretary of State’s web site. (10 CSR 20-6.300 - <http://www.sos.mo.gov/adrules/csr/current/10csr/10c20-6a.pdf>; 10 CSR 20-8.300 - <http://www.sos.mo.gov/adrules/csr/current/10csr/10c20-8.pdf>) Keith said stakeholder meetings began in 2008 with the rules becoming effective on April 30, 2012. The Department’s web page has been updated with this new information.

The major changes in the Permit Rule include definitions, animal units and class size, issue/review process for permits, permit types (NPDES & State no-discharge), buffer distances, and permit requirements. Keith showed a table with a breakout of the 2012 Animal Thresholds by Class Size. The new animal unit threshold for broilers, pullets, and turkey poults increased from 100,000 to 125,000; while the laying hens with a dry manure system increased from 30,000 to 82,000. Some current CAFOs may become Class II AFOs in the near future. These regulations are based on the operating level of an individual animal type. CAFOs must operate within its Class Size. Fluctuation of animal numbers at a site within Class Size is ok as long as it does not exceed storage capacities of the system.

Construction and Operating Permits can be issued concurrently if payment is received. NPDES permits will have a 15-day public comment period. An engineering certification is required before the operation begins and prior to a Construction Permit expiration.



There are now two permit types, NPDES (National Pollutant Discharge Elimination System) and State no-discharge. An NPDES permit will allow authorized discharges. This permit is available as a General Permit. A Nutrient Management Plan (NMP) must be submitted and must follow the Nutrient Management Technical Standard (NMTS). There will be a 15-day public notice.

Poultry and deep pit swine barns should consider the State No-Discharge Permit. This permit is also available as a General Permit. There is no required public notice. The operator must develop and implement a NMP. Any discharge will always result in a Notice of Violation.

The buffer distance will no longer apply to open feedlot areas; only barns and storage structures. Grandfathered CAFOs (prior to June 1996) are exempt from buffers on existing and all modification and expansions unless they exceed their class size. CAFOs must follow the NMTS and keep up-to-date NMPs to be in compliance with the permit.

The big change to the NMPs is that it follows the Natural Resources Conservation Service's 590 Standard. This requires soil testing, manure testing, fertilizer recommendations based on soil testing, field-specific phosphorus loss assessment, and recordkeeping requirements.

The owner of the CAFO is responsible only for land application of manure on land that he controls. If manure is transferred, the NMTS should be given to the owner in order to follow best management practices. Manure transfers include manure sold off the farm, manure spread on land with no direct control on production, and manure spreading on agreement land. When CAFO generated manure is transferred, the permittee must provide the recipient with the most current nutrient analysis and must keep records of the date, recipient name and address, and approximate amount transferred.

Letter of Approvals are no longer administered and have been deleted from the rule.

The Manure Storage Design Rule creates a "CAFO-only" design and engineering standard; will apply to all newly constructed barns, structures, etc.; includes more restrictive design requirements for lagoons; minimum "days of storage" for lagoons; includes compaction requirements for poultry barn floors; and no open stockpiling of manure around barns.

Keith can be contacted for more information or questions at the Water Protection Program's Agriculture Unit at (573) 751-1300.

Big River Watershed: Overview and Superfund Actions, Kathy Rangen, Hazardous Waste Program,
Department of Natural Resources
PowerPoint Presentation

Superfund was enacted by Congress in 1980. It is the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, aka Superfund). This law created a tax on chemical and petroleum industries and provided broad Federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health of the environment.

CERCLA established prohibitions and requirements concerning closed and abandoned hazardous waste sites; provided for liability of persons responsible for releases of hazardous waste at these sites; and established a trust fund to provide for cleanup when no responsible party could be identified.



Superfund process involves sites getting on the National Priority List (NPL). To get sites on the list, states use EPA's Hazard Ranking System to score sites, states designate one top-priority site regardless of score, or if it meets these three requirements: 1) The Agency for Toxic Substances and Disease Registry (ATSDR) of the U.S. Public Health Service has issued a health advisory that recommends removing people from the site; 2) EPA determines the site poses a significant threat to public health; and 3) EPA anticipates it will be more cost-effective to use its remedial authority (available only at NPL sites) than to use its emergency removal authority to respond to the site.

The Superfund process includes preliminary assessment/site investigation, NPL listing process, remedial investigation/feasibility study, record of decision, remedial design/remedial action, construction completion, post-construction completion, NPL deletion, and reuse of land.

Big River is currently at the remedial investigation/feasibility study step of the Superfund process.

The Superfund cleanup process is implemented by EPA and is a complex process. State oversight must be included. Both state and EPA have Remedial Project Managers for each site. Once sites are placed on the NPL, appropriate cleanup plans must be established and implemented. This is called the remedial process and is a long-term plan. However, short-term removal actions may be done where immediate action needs to be taken. But this is not considered part of the remedial process.

The Big River Watershed is located within the Old Lead Belt District. There are three Districts in Missouri. There is still some mining in the Viburnum Trend. The majority of mining ended in the 1970s. Big River drains almost 1,000 square miles, starting in Iron County through St. Francois, Washington, and Jefferson counties to Meramec River near Eureka, flowing approx. 138 miles.

The legacy of lead/metals mining in Missouri has left behind large amounts of hazardous waste. Potential sources of contamination include: residual mill tailings/chat piles; old mining/milling/smelter structures and surrounding areas; transportation infrastructure; railroads (haul and ballast) and truck haul routes. Primary constituents of concern: lead, cadmium, zinc, and other metals.

The Superfund sites in the Big River Watershed are the Washington County Lead District, Big River Mine Tailings/St. Joe Minerals Corp. in St. Francois County, and the Southwest Jefferson County Mining. The Washington County Lead District has four remedial sites (Old Mines, Potosi, Richwoods, and Furnace Creek); two removal sites (Palmer and Pea Ridge) and four Operable Units (residential yards, groundwater, mine waste, and surface water and sediment). The St. Francois County Mining Areas (aka Big River Mine Tailings Site) has eight designated mining area with residual tailings and/or chat from the lead mining process. The eight sites are Bonne Terre, Desloge, Doe Run Lead Company site, Elvins/Rivermines, Federal (aka St. Joe State Park), Hayden Creek, Leadwood, and National Lead Site. Kathy talked about the dates of when each site was stabilized. There are three Operable Units in the St. Francois County Mines Areas. The Southwest Jefferson County Mining site has six Operable Units; one being unconsolidated mine waste in the Big River Watershed.

Kathy showed maps of the areas and some photos. She said all three of these Superfund Sites are contained within the Big River Watershed. They have impacted the Big River due to chat/tailings being transport. The mine/mill wastes are impacting the river due to heavy metals contamination, as well as surface water quality and sediment contamination. People living/working the land in the floodplain are being affected.

Big River sediments are contaminated from Leadwood to the confluence with the Meramec River near Eureka (~92 miles) with lead and other heavy metals. The occurrence of chat is largely limited to channel segments between Leadwood and Bonne Terre. However, tailings have traveled further downstream. There is approx.



**Missouri
Department of
Natural Resources**

3,700,000 cubic meters of contaminated sediment stored in the channel. Approx. 86,800,000 cubic meters of contaminated sediment are stored in the floodplain, about 63% being in Jefferson County.

For the next steps, the Remedial Investigation/Feasibility Studies (RI/FS) need to be completed for respective Operable Units for each site. A Proposed Plan needs to be written to explore all alternatives including no action. There will be a public meeting and comment period (30 days). A Record of Decision (ROD) is made from the Proposed Plan and public comments. Remedial Design, then the Remedial Action can begin. These steps need to be taken for each of the three counties. To assure comparability and eliminate duplication of efforts for each of the Remedial Actions, a Master Plan will be created for the entire watershed.

In 2010, all three counties signed an agreement with URS Corporation to develop a Master Plan for the ~92 mile stretch of Big River (Leadwood to Eureka). This section of stream is known to be contaminated because of previous studies conducted by U.S. Fish & Wildlife Service (USFWS), U.S. Geological Survey, Missouri State University, and DNR's Environmental Services Program. The watershed groups meet on a regular basis in each of the three counties to discuss concerns/issues. The URS Corporation has three primary objectives. 1. Develop/identify/support infrastructure in each of the counties to participate in watershed management discussions with the agencies. 2. Engage the agencies, elected officials, and other interested parties in meaningful and sustainable lines of communication. 3. Develop the Master Plan. This document will assimilate and articulate the intentions of the agencies and collective interests, needs and perspectives of the local/county stakeholders.

The tentative timeline for completing the Interim Master Plan is mid-2012. The Restoration Plan is planned for late 2012 or early 2013. Kathy was unsure of the date for the Final Master Plan. The Restoration Plan will be written by the Natural Resource Trustees, which includes USFWS and DNR Superfund's Natural Resources Damages Program. The Remedial Design will be expected around 2015.

If you have questions about the sites in St. Francois and Washington counties, contact Kathy at (573) 751-8393 or kathy.rangen@dnr.mo.gov. For questions about the sites in southwest Jefferson County, contact Evan Kifer at (573) 751-1990 or evan.kifer@dnr.mo.gov. Mike Alesandrini, URS Corp, can be contacted regarding the Big River Watershed Group meetings at (314) 753-2416 or mike.alesandrini@urs.com.

In answer to a question, Kathy said the soil that is removed from residential sites is being taken to the chat piles. Large rock is placed on top of the soil as a way to cover the pile. In St. Joe State Park, special material is being used on the trails.

Dan Downing mentioned that through Section 319 projects University Extension tried to organize community groups over four-five years. These are some of the groups that Mike Alesandrini is working with. Some things that are not very apparent are the immediate human health concern of inhalation of particulates, volumes of chat and tailings move downstream as plumes after a rainfall event, and the physical properties of the water with fine sediments have documented a traumatic impact on fresh water muscles in that ecosystem. As you move down channel, the impacts are magnified. The plumes have moved down river and are at the mouth of St. Francois and Meramec rivers. Mike mentioned the restoration plan has moved 2-3 years ahead of the ROD. EPA is talking of possibly doing an interim ROD. They are still figuring out how the agencies will work this out.

Agency Activities

Keith Forck mentioned a stakeholder and permitting meeting to be held on May 23, 10:00 a.m., at the Lewis & Clark State Office Building.



**Missouri
Department of
Natural Resources**

Steve Hefner said he has been working on two initiatives. One is the Mississippi River Basin Initiative (MRBI). They currently have approx. 60,000 acres under contract for volunteer conservation practices. They received five new proposals this year. They are being reviewed at the state level. The second is the new National Water Quality Initiative that targets EQIP money. Three 12-digit hydrologic code units will be targeted – Spring River, Grand River along Medicine Creek, and Troublesome Creek around S. Fabius watershed. These areas will share \$700,000 to implement conservation practices. A Nutrient Tracking Tool (NTT) will be used for modeling in the Spring River. USDA will be doing phosphorus index water quality modeling, looking at erosion slope, hydrologic group of soils, presence of nutrient management, pest management, etc. It will be an exercise of pre-contract evaluation and a post-contract evaluation.

Meagan Henderson said as a consulting agency, they like to stay up regulations and see what may be coming up. They work with remediation and construction permits.

Mark White said the Environmental Resources Coalition has been working with the Department of Natural Resources and USDA in developing the NTT for use in Missouri to help negate nutrient issues in water quality. It could help in evaluating different best management practices, like constructed wetlands and bio-reactors to reduce nitrogen and phosphorus.

Bill Whipps mentioned the TMDL Unit has finished with one round of water quality standards. They are now gearing up for another round. He is just putting the finishing touches on the draft Blue River TMDL, in the Kansas City area, which is impaired for bacteria. He will then start working on the TMDL in the Big River watershed.

Jane Davis is transitioning from 319 project management to working on TMDLs. She will start working on the statewide Mercury TMDL, as well as the Lower Grand TMDL. The Mercury TMDL is currently on the schedule for 2015.

Dan Downing is working with the 319 program promoting 9-element watershed management plans. A workshop is scheduled in St. Peters for June 22. They are also looking for 2-3 other locations to hold workshops around the state in the next 8-9 months. If interested let Dan know and they will see if they can get to that area.

Bob Broz mentioned some upcoming meetings.

June 6-8 Climate Change Conference, UMC;

July 10-11 Ag Research Services is holding a training to highlight BMPs for pesticide mitigation for biofuels and other things;

July 24-25 Crop Energy Diagnostic Clinic at UMC Bradford Farms (CCA credits)

Chris Riggert mentioned the Volunteer Introductory Level Workshop for the spring is ending. Chris announced that Randy Sarver is back working with the Environmental Services Program.

Kevin Perry said they have started on the agenda for the Missouri Water Seminar, August 28-29, in Columbia. If anyone has topics to present let Kevin know. Other agenda topics include nutrients and the watershed approach.

Mike Alesandrini is involved with the Big River projects. He is working on the in-bridge pipeline permit work.

Miya Barr is currently managing a sediment transport project in the Big River watershed. It is an interesting challenge. They are gearing up for sediment collection along with trips to look at flood contamination and particle sizes.



**Missouri
Department of
Natural Resources**

Darlene Schaben mentioned the WQCC announcements are now being sent through “GovDelivery.” The Water Protection Forum and Clean Water Commission groups are also using GovDelivery. Look for the red envelope to sign up to receive these announcements if you are not already on the list.

John Johnson mentioned the 319 Nonpoint Source Unit has been working on the next 319 Request for Proposals, which should be coming out soon. Let Greg Anderson know if you are interested in hearing about a topic or presenting a topic at a WQCC meeting.

Meeting adjourned.