
Clean Water Forum

Water Protection Program
Dec. 13, 2006

 Missouri
Department of
Natural Resources

Director's Comments

- Review the Goals of the Forum:
 - Timely
 - Transparent
 - Predictable
- Format for Today's Meeting
 - Progress in 2006
 - Looking forward to 2007
- What issues are important to you?
- Is the "Forum" Working?

Director's Comments

- Challenges Ahead
 - EPA's ruling on Missouri's UAA's
 - Dissolved Oxygen
 - Unclassified Waters
 - 303d LMD
 - Disinfection Schedules of Compliance

Director's Comments

- Paying for the Program

Director's Comments

- Should we change the name of the "Clean Water Forum?"

Clean Water Forum Advisory Group Updates

www.dnr.mo.gov/env/wpp/cwforum/index.html



Chapter 393 RSMo, Nonprofit Sewer & Water Companies

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Legal Counsel, MDNR

Introduction

During a special legislative session in 1997, a law was enacted, and later signed by the Governor, that created Nonprofit Sewer & Water Companies (otherwise known as “393’s”).

- Section 393.825 to 393.861 RSMo. (Sewer)
- Section 393.900 to 393.954 RSMo. (Water)

General Statutory Provisions

- 393’s must comply with Secretary of State corporation filing requirements;
- No Public Service Commission jurisdiction; and
- Sole jurisdiction is with MDNR.

MDNR History in regard to 393's

- Only a few companies have utilized the 393 law. Those that have used the law also complied with the Continuing Authority rule, as required by the department.
- Recently the department was faced with a 393 who wanted to establish a system within the service area of a PSC regulated entity.

Continuing Authority Rule (10 CSR 20-6.010(3))

- A preferential order is established in rule that the department must implement in regard to permits.
- If an entity is attempting to service an area where a higher level continuing authority exists, a waiver must be granted by the higher continuing authority before a permit can be issued.

Issue

- Are 393's exempt from the continuing authority rule?
- Based upon the statute, MDNR has decided that 393 corporations are exempt from the Continuing Authority rule.

What This Means

- Regardless of physical location, a 393 does not need a waiver from anyone; and
- A 393 may carve out areas not only within the service area of a municipal, county, or PSC regulated entity, but also from areas that actual service is being provided.

Rules Other than Continuing Authority

- Due to the general nature of our rules, all other provisions of department regulations continue to apply to 393's in the same manner as they apply to all other entities.

Statutory Modification

- The Department is looking at a possible statutory modification to address this issue.

303(d) List, Antidegradation Implementation Procedure and Nutrient Criteria

303(d) List

- Three Advisory Group Discussions Held on Methodology April and March, 2006
- Published Proposed List on October 11, 2006. End of Comment Period is January 17, 2007
- Special Identification of Waters Affected by Mercury and Dissolved Oxygen
- Five Public Availability Sessions Held Across State in November and December, 2006
- Planning for Commission Adoption of Final List Before April 23, 2007

Antidegradation Implementation Procedure

- 11 Advisory Group Meetings Held Between February and September, 2006
- Draft Procedure Posted for Comment on November 17, 2006. Comment Periods Ends on January 16, 2007
- Planning for Commission Adoption of Procedure on March 7, 2007

Nutrient Criteria for Lakes

- Numerous Advisory Group Discussions Held Over Last Two Years
- Criteria Developing as Either Regional (where lakes are similar) or Site-Specific (where a lake is unique).
- Two Thresholds Examined - "Assessment" and "Action"
- Plan to Submit Proposed Criteria to Commission on March 7, 2007

Unclassified Streams



Watershed Screening Conducted by WPP Staff

HUC# 10300102-240002
August 18, 2006
~70 sq. miles watershed area



Hillers Creek Basin Callaway County, MO

- A preponderance of unclassified streams.
- Predominantly streams of Order one through three using the Strahler classification system.
- Variable watershed sizes with several sites located on waters with one square mile or less drainage area.
- No significant channelization or anthropogenic amplification of base flow.
- Sites accessible from public thoroughfares.

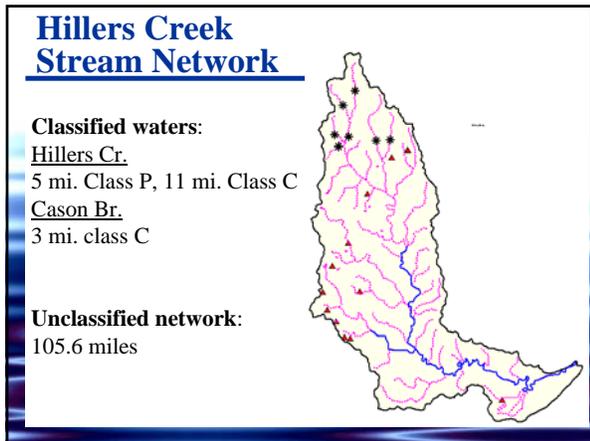
Precipitation Information

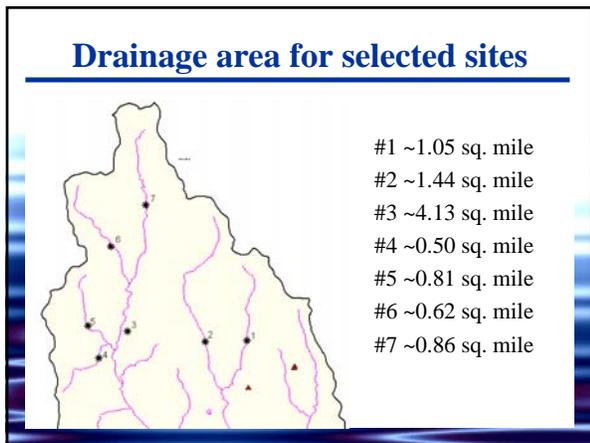
- Drought Condition Status: **Phase 3**
- Departure from long-term average: **1.21"**
- Quarterly departure from average: **1.01-3.00"**
- Rainfall from 07/18-08/18: **0.00"**
- 24-hour rainfall: **0.00"**

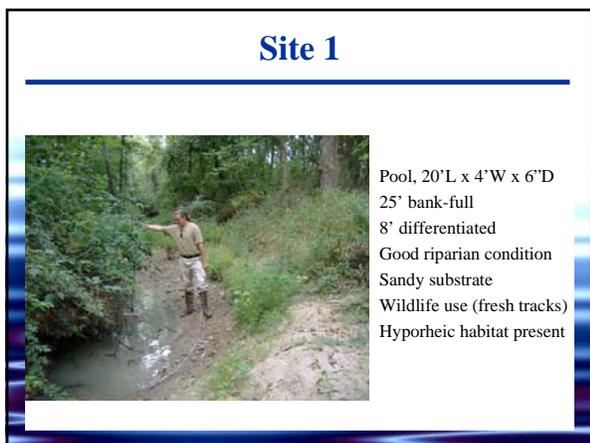
Source: University of Missouri Agricultural Extension and Missouri Drought Assessment Committee

Sampling Site Selection, Hiller's Creek

- Seven sites
- Drainage area ranged from 0.5 square mile to 4.1 square miles
- Median 0.86 and mean calculated as 1.3 square miles.
- Nearest classified water body to any site was >6.25 miles downstream.







Site 1(continued)

Three families of fish found:

- Percidae (darters)
- Centrarchidae (sunfishes)
- Cyprinidae (minnows)

Four types of macroinverts found:

- Ephemoptera (mayflies)
- Gastropoda (snails)
- Crustacea (crayfish)
- Diptera (midges)



Site 2



- Livestock use evident (cows in stream)
- One family of fish found
- Three types of invertebrates found

Site 3

- No fish found
- Abundant tadpoles
- Six types of macroinvert found:

- mayflies
- water beetles
- snails
- crayfish
- dragonflies
- water boatman



Pool 40'L x 20'W x 2'D

Site 4



No flow, no pools, no hyporheic habitat within 5" of substrate elevation.

Site 5

No flow or pools.
Moist, not wet, substrate found under streambed.

But why are the rocks black like that??



Site 5.5



- Approximately 50 yards below the confluence of sites 4 & 5, there was visible streamflow.

- 4 types of invertebrates found
- 2 families of fish found
- fish >5" long found

Site 6

- 2 families of fish found
- Tadpoles present
- 4 types of macroinverts found:
 - mayflies
 - snails
 - midges
 - water boatmen



Site 7



- minnows
- leeches
- tadpoles
- midges
- water striders
- whirligig beetles



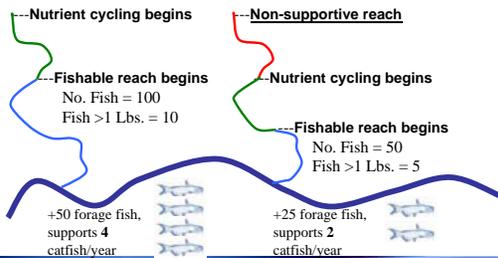


A balanced aquatic system will:

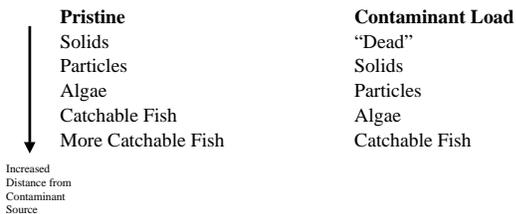
- At least periodically support **propagation**, including early life stages.
- Usually support **growth** through reproductive maturity.
- Occasionally, for short periods, provide for **survival** of adult organisms alone.

Non-supportive reaches

Nutrient cycling and food web no longer starts in the headwaters, but further down stream. This reduces the length of fishable reaches, the number of fish and pounds of catchable fish.



How does this affect "fishable"



Effluent Limitations, Ammonia Procedure Policy, Disinfection Requirements and Effluent Dominated Streams

Effluent Limitations

- Developed a “Cookbook” for determining Water Quality Based Effluent limits
- Used in the development of Water Quality Review Sheet for new or expanded facilities
- Used in the development of Fact Sheets, typically associated with renewals
- Revision and improvement is an on-going process.
- Not required to be referenced in a state regulation due to technical nature of the document

Ammonia Procedure Policy

- It only addresses permit renewals
- Expected to be finalized by the Dec 31
- Limits are developed for facilities that discharge to Classified streams
- Monitoring requirements for discharges to Unclassified streams
- Reasonable Potential Analysis will be conducted for at renewal to add, remove or maintain limits

Disinfection Requirements

- The Effluent Regulation, 10 CSR 20-7.015(9)(H), allows the permittee up to five years to:
 - Install disinfection facilities,
 - Present an evaluation to show that disinfection is not required to protect recreational uses (Waiver to Disinfect), or
 - Conduct a Use Attainability Analysis (UAA).

Disinfection Requirements

- For sources that install disinfection facilities
 - Consideration for developing E. coli effluent limits
 - Apply E. coli Standard at the discharge point
 - Allow for bacteria die off in undesignated streams.
 - Distance to WBC designated segments
- For source seeking a waiver to disinfect
 - Mixing zone consideration, if available
 - Bacteria die off allowance

Effluent Dominated Streams

- The expectation under Clean Water Act is that once a habitat has been established, it must be protected
- Stream assessment would be based on specific criteria
- Specific criteria were not developed
- Current procedures for developing effluent limits are applicable

In Summary

- Effluent Limitations - Completed
- Ammonia Procedure Policy- Completed
- Disinfection Requirements- On- going
- Effluent Dominated Streams- On-going

State Revolving Fund Priority Points Advisory Group

Priority Points & CWSRF Regulation

$$\text{Basic Priority Points} = \left[\frac{\text{Log } 10(A + 1) + B - C + D + \text{Log } 10(E) + F + (G + 10)}{(A + D) + H} + V \right] \times 10$$

Priority Points & CWSRF Regulation

- Future funding levels
- Financial Capability
- Public health criteria
- Sustainable infrastructure

Priority Point Areas

I. Watershed

- a) Impaired waters
- b) Protection of high quality waters
- c) Nonpoint source
- d) Watershed planning
- e) Regionalization/Consolidation

II. System

- a) Existing infrastructure
- b) New standards
- c) CSO & SSO issues
- d) Non-compliance
- e) Inflow/Infiltration remediation program

III. Community

- a) Health & Welfare
- b) Discourage artificially low user rates
- c) Reward responsible system management and user rates
- d) Income
- e) Distressed community
- f) Community size/population

IV. Conservation

- a) Water conservation
- b) Energy conservation

V. Other

- a) Phased projects
- b) Other funding sources

Nonpoint Source Management Plan Advisory Group

Issue

Revise and update Missouri's Nonpoint Source Management Plan

Participation is being sought to update Missouri's Plan to address nonpoint sources (NPS) of water pollution. The state's Nonpoint Source Management Plan establishes NPS goals, objectives and priorities within the state. Although the Department of Natural Resources houses this plan, it was developed by a diverse group of resource partners. The plan focuses on areas of interest to many organizations and is intended for their use as well as the department's.

Status

Meetings were held on April 18, May 9 and May 16

April 18th - History and purpose of the Plan discussed.
Reviewed the Plan's Mission, Goals and Objectives.
Participants recommended changes to these areas of Plan.
Reviewed Missouri's prioritization methods.

May 9th - Revised Mission Statement to say,
"Protect and restore the quality of the water resources of the state from nonpoint source impairments"
Discussed who uses the Plan.
Continued discussion on revisions to goals and objectives.

May 16th - Provided participants a bullet list of recommended changes from the May 9th meeting and discussed lack of use by other partners. The Plan is now on-line.

What Happens Now?

- Get more participation from partners involved in the revisions and prioritization process
- Refine recommended changes to date
- Discuss other necessary changes
- Set deadlines for completing the revisions
- Promote the Plan to be used by other agencies
- December 19th meeting at the USGS Environmental Research Center, Columbia (**CANCELLED**)
- The final document should be placed on public notice and public comment received and responded to before taking the document to the Clean Water Commission for approval.
- Should be no cost to revise the Plan

**Federal Safe Drinking
Water Rules/Design Guide
Advisory Group**

SDW Advisory Group Members

- Liz Grove, SDWC
- John Witherspoon, SDWC
- Ginny Ismay, City of Marshall
- Cherri Baysinger, MO DHSS
- Cary Sayre, Allstate Consultants
- John Hoagland, MRWA
- Roger Walker, REGFORM
- Leo Ebel, Horner & Shifrin

Rules

- Long-Term 2 Enhanced Surface Water Treatment Rule
- Stage 2 Disinfectants/Disinfection By-Products Rule
- Design Guide for Community Water Systems

Meetings in 2006

- April 13
 - Reviewed draft rulemaking schedule
 - Discussed stakeholder process and the rules to be adopted
- No other meetings were held
 - Rulemaking has been discussed at SDWC meetings and conferences

LT2, Stage 2 Status

- Status
 - Drafting proposed text and associated documents
 - Will affect about 10-12 existing public drinking water rules and add at least two more
 - Anticipate adopting federal requirements with no changes

LT2, Stage 2 Schedule

- Tentative Schedule
 - Draft proposed text available, July 2007
 - SDWC approval to publish, Sept. 2007
 - Proposal published, Nov. 2007
 - Rulemaking completed, Nov. 2008

Design Guide for CWS

- Status
 - Solicited comments from stakeholders
- The Plan:
 - Form a balanced workgroup
 - Review and discuss changes
 - Discuss rulemaking or alternative means
- The Reality:
 - Loss of experienced PDW engineering staff

Design Guide for CWS

- In the amazing race of rulemaking, we've been....



Additional Rules Coming Up

- Groundwater Rule
 - EPA final rule, Nov. 2006
 - State adoption, 2007-2010
- Lead and Copper Revisions
 - EPA proposed rule, July 2006
 - Projected final, 2007
 - Projected state adoption, 2007-2010
- New Primacy Fee

**Clean Water Forum
Regulatory/Policy 2007**

Water Protection Program
Dec. 13, 2006



Rulemaking/Policy for 2007

2007 Advisory Groups

- Carry Forward from 2006
 - Safe Drinking Water Rules/Design Guide
 - Priority Points
 - Unclassified Streams
 - Effluent Limits/Effluent Dominated Streams
 - Non-point Source Management Plan

2007 Advisory Groups

- New Groups?
 - WPP Forum Steering Committee
 - Chap. 8 design guide
 - Temperature Issues
 - Watershed Based Decision Making/Trading

Survey

- What issues are most important to you?
- Are there rulemaking/policy items that are not listed the need to be addressed
- What issues should be addressed by an advisory group?

Scheduling Advisory Groups
