Maine Department of Environmental Protection
Bureau of Land and Water Quality
April 2009
O&M Newsletter

A monthly newsletter for wastewater discharge licensees, treatment facility operators and associated persons

Index

BOD_5 and TSS Valid/Invalid Data and Re-Testing Guidance	**Page 1**
Final SRF/ARRA Intended Use Plan Submitted to EPA	**Page 2**
DMR QA Study 29 Changes	**Page 2**
For Practice	**Page 3**
Websites of the Month	**Page 4**
Combine Sewer Overflow 2008 Status Report	**Page 4**
Spring Exam	**Page 5**
Approved Training	**Page 5**
E-DMR Update	**Page 6**
Answers to For Practice	**Page 6**

BOD_5 and TSS Valid/Invalid Data and Re-Testing Guidance

As you know, the Department receives a tremendous amount of data from a variety of dischargers on a monthly basis. There are many reasons why data generated for regulatory purposes can be considered questionable and inappropriate for reporting purposes. In order to shed some light on this issue and to ensure consistency across the State, the Department has been working on some guidance to help operators and laboratories to understand when data is considered valid and invalid. At this point, we have completed the guidance for BOD_5 and TSS data. This information has been forwarded to commercial laboratories in Maine that have traditionally provided BOD_5 and TSS data to permitted facilities and Sharon Blodgett of the Maine Waste Water Control Association. If you conduct these laboratory procedures in-house then the Department will be mailing you a copy of the new guidance.

Along with the guidance identifying invalid data there is a need to answer the next question which is, “How many invalid tests can a facility have before there is a need to make up tests?” Although making up tests may seem like a strange concept there is a need for compliance to be based on a representative number of valid data points. The guidance pertaining to re-testing is based on the frequency of monitoring that is done at your facility. When it comes to BOD testing the Department is cognizant of the fact that five or more days will have passed before learning of an

invalid data point. So, any required retesting will have to be done as soon as possible after learning about an invalid result. For those facilities that only sample a few times per month it may be a good idea to plan testing around the possibility of obtaining an invalid result so that you can have time to run another test within the same month, if necessary. If you have a permit that limits that flexibility then that has to be considered, too. The ultimate goal is to ensure quality lab data is being utilized to determine your compliance with effluent limitations. So, take a look at the documents when you get them and make sure you call your inspector if you have any questions or concerns.

Clarissa Trasko

Final SRF/ARRA Intended Use Plan Submitted to EPA

As reported in recent issues of the O&M News, the Department has been reviewing proposals to fund wastewater infrastructure and non point source pollution control projects with economic stimulus funds provided by the American Recovery and Reinvestment Act (ARRA). The Department received over 200 project proposals totaling more than $300 million. Unfortunately, the Department received only $29.1 million in ARRA funds to distribute.

On March 13, 2009, the Department posted to public comment its draft Intended Use Plan for the State Revolving Fund (SRF) and ARRA. The comment period closed on March 23, 2009. The Department received 27 comments. 15 were supportive of the proposal, 4 were partially supportive, 3 were not supportive and 5 offered no opinion. After carefully considering all of the comments, the Department is not proposing any significant changes. A full response to comments document is available on the DEP website listed below.

Since the posting we have also received additional guidance from the Environmental Protection Agency on administration of ARRA funds, and have had additional discussions with other ARRA funding agencies such as USDA Rural Development.

Based on all of this information some changes were made to the IUP providing for two additional wastewater infrastructure projects being funded by the Department bringing the total to 23 projects in 16 communities. These projects will meet the goals and requirements of ARRA, create good jobs for Maine citizens and address important water quality issues.

The Department submitted the final Intended Use Plan to EPA on April 6, 2009 and expects that ARRA funds will be distributed to Maine very soon.

Additional information regarding ARRA funds managed by the Department is available at: http://www.maine.gov/dep/recovery/

Brian Kavanah

DMR-QA STUDY 29 CHANGES

Thank you to those wastewater treatment facilities that have been participating in the annual EPA laboratory quality assurance studies over the years. Most permittees received "Acceptable" results from their PT Providers in 2008. The next DMR-QA Study 29 will begin on May 15, 2009. You should receive your DMR-QA booklet by the end of April. The first change is that you will need to email your verification to me (not EPA) in 2009. This should be done by May 15, 2009. Also, please order your Proficiency Testing (PT) samples from your PT Provider lab by May 15th this year. You will have until August 31st to do the DMR-QA test analyses and submit your ungraded "Data Reports" to each PT Provider lab involved. Another significant change is that you will now need to send your "Permittee Data

Package" to me instead of your PT Provider lab by October 16, 2009.

As you can tell, there have been substantial changes made to the program in 2009. Please read your booklet carefully when it arrives. Pages 2 & 3 will summarize the changes in a fact sheet format. These changes are included in the Checklist and Schedule on page 1. See page 16 in your 2009 booklet for the Analyte Checklist. If an analyte is on both your MEPDES permit and the Analyte Checklist, you are required to perform quality assurance testing on that parameter for DMR-QA purposes. Low level Mercury is only available from the PT Provider labs as a Water Pollution (WP) study analyte. Standard DMR-QA Mercury test samples are considered to be high range and are inappropriate in Maine.

A number of wastewater labs had difficulty with the microbiological analytes in 2008. The acceptance limits are very wide for both the E. coli and Fecal Coli form unknowns. The major problem seems to be getting any growth after the rehydration of the vitroid disk. You must follow the PT Provider lab sample rehydration instructions very carefully. Even then, some unknowns seemed to have greater viability after rehydration than others. If you had problems last year, you may want to consider getting your microbiological analyte from a different PT Provider in 2009.

This year the NPDES Permittee Data Report Form is available for your use online again. You are encouraged to fill it out onscreen. You may then print it out and sign it. The web address is in the Study 29 fact sheet.

Good luck with the analysis of the DMR-QA unknown samples this summer. Please report your results online to your PT Provider lab before the August 31, 2009 deadline or they will be considered invalid by the lab. I would advise you to do this in June or July, if possible. This eliminates the largest cause of failing the DMR-QA Study. Try to do it early before you get too busy this summer. Then you can relax and enjoy your summer.

Ken Jones
State DMR-QA Coordinator
ken.jones@maine.gov

For Practice

1. The best definition of the word "communication" is:

a. Talking to others and making your point.
b. Writing memos and reports.
c. Transferring information to and from others.
d. Making sure other people know what you are thinking.

2. How much water is in a 12-inch line 1000 feet long?

a. 1,175 gallons
b. 2,654 gallons
c. 5,888 gallons
d. 3,143 gallons

3. A sample with a pH of 4.5 is

a. Alkaline
b. Neutral
c. Acidic
d. Basic

4. To improve settling in a clarifier, you should

    a. Decrease the hydraulic detention time in the clarifier
    b. Increase flow to the clarifier
    c. Use mixers to suspend the sludge
    d. Make sure there is a uniform low velocity across the clarifier

Websites of the Month

http://www.nmfs.noaa.gov/pr/species/fish/atlanticsalmon.htm
NOAA's National Marine Fisheries Service is responsible for the management, conservation and protection of living marine resources within water three to 200 miles offshore. Under the Marine Mammal Protection Act and the Endangered Species Act (Act), NOAA's National Marine Fisheries Service recovers protected marine species. This link brings you to information regarding the Atlantic salmon that was recently proposed for additional protection in Maine under the Act.

http://www.maine.gov/mema/weather/flood.htm
Maine Emergency Management Agency site for flood warnings.

http://www.umaine.edu/waterresearch/
The Mitchell Center is recognized as one of the premier environmental research institutions in Maine, and is involved in state-wide water resources research. Research topics focus on a variety of physical, chemical, and biological processes that influence the quantity and quality of water resources.

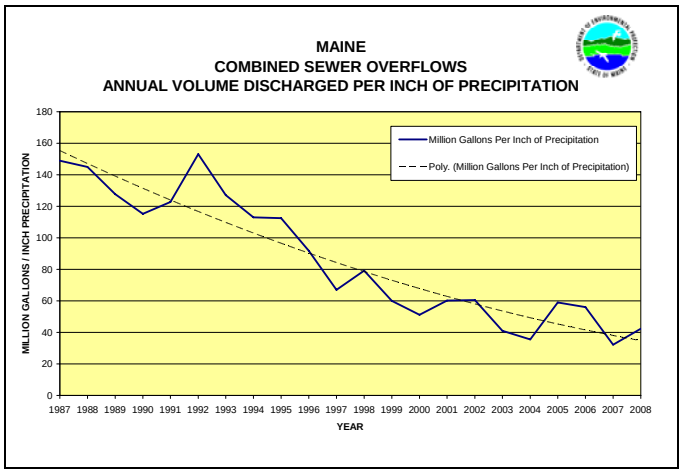
Brian Kavanah

COMBINED SEWER OVERFLOW 2008 STATUS REPORT

I'd like to thank all of the Combined Sewer Overflow (CSO) permittees for submitting their annual progress reports to the Department. The information that you submit shows your commitment and progress in abating the discharge of combined sewer overflows.

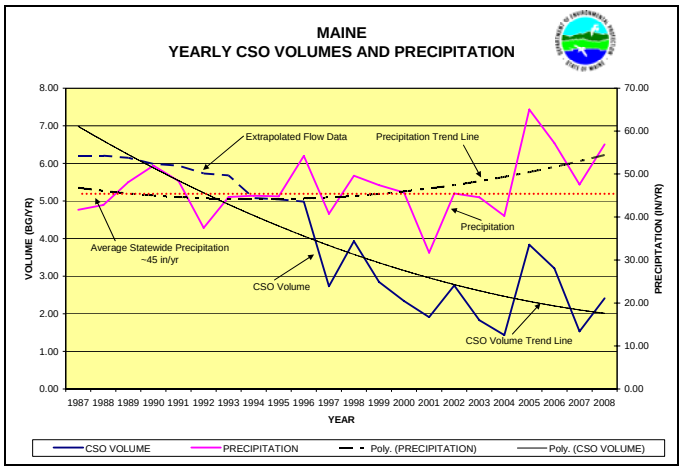
For the past three years I have taken this information and compiled it into a CSO Status Report. A copy of the report is distributed to all of the CSO permittees as well as their municipal officials, engineers, and some members of the Legislature. A copy of the full report may be found at the Department's website at http://www.maine.gov/dep/blwq/doceng/csotech.htm

The efforts to reduce CSO discharges continue to show downward trends in the volume of overflows and the number of overflows per year. As you would expect, these numbers go up and down from year to year as precipitation amounts vary, but the overall trend is downward.



Here are a few bullets from the report.

- Maine currently has 35 CSO Communities, down from 60 in 1989 (42% reduction).
- The volume of combined sewage discharged statewide in 2008 was reported at 2.41 billion gallons, down from an estimated 6.2 billion in 1989 (60%-70% reduction).
- In 2008 the total number of CSO discharge locations decreased by 6, from 183 to 177. From the 340 listed 1987 this is a 48% reduction.
- Thirty (30) of the 35 CSO Communities reported experiencing at least one combined sewer overflow discharge in 2008, while five (5) reported no overflows.
- To date Maine CSO Communities have reported expending $311 million implementing their CSO abatement projects, $16 million in 2008. It is estimated that the future needs of these communities to complete their CSO abatement plans totals $250 - $300 million.
- Since 1989, overflow volumes have decreased from approximately 149 million gallons per inch of precipitation to 30 - 50 million gallons per inch of precipitation, 42 million gallons in 2008.
- In 2008, the annual precipitation for the CSO Communities ranged from 50 - 66 inches, exceeding the average precipitation by 5 - 17 inches (10 - 46%).



John True, P.E. – CSO Coordinator

Spring Exam

More than 60 individuals applied to take an operator certification exam in May. That's the largest number of applicants we've had in a log time. Good luck to all who will be taking and exam.

Approved Training

April 15, 2009 in Kittery, ME –Southern Maine Safety Rodeo – Sponsored by MRWA – Approved for 6 safety hours
*****
April 16, 2009 in Portland, ME – Using PowerPoint to Make Your Point – Sponsored by JETCC – Approved for 6 hours
*****
April 28, 2009 in Augusta, ME - FOG Management Overview - Controlling Collection System Impacts & Disposal Options - Sponsored by JETCC/ NEIWPCC – Approved for 6 hours
*****
April 29-30, 2009 in Presque Isle, ME – North Country Convention - Sponsored by JETCC – Approved for up to 12 hours
*****

May 5, 2009 in Sabattus, ME –Implementing ICS 200 for the Water Sector – Sponsored by MRWA – Approved for 6 hours
*****
May 6, 2009 in Hampden, ME – Asset Management – Sponsored by MRWA – Approved for 4 hours
*****
May 7, 2009 in Lewiston, ME – Asset Management – Sponsored by MRWA – Approved for 4 hours
*****
May 12, 2009 in Gray, ME – Basic Math for Operators – Sponsored by MRWA – Approved for 4 hours
*****
May 14, 2009 in Gorham, ME – Advanced Certification Math for Operators – Sponsored by MRWA – Approved for 5 hours
Note: JETCC stands for Joint Environmental Training Coordinating Committee – PO Box 487 – Scarborough, ME 04070-0487 – Tel (207) 253-8020

MRWA stands for Maine Rural Water Association - 14 Maine Street, Box 36 -Brunswick, ME 04011 – Tel (207) 729-6569

NEIWPCC stands for New England Interstate Water Pollution Control Commission – 116 John St. – Lowell, MA 01852-1124 – Tel (978) 323-7929

E-DMR Update

Thanks to all of you who are using the electronic Discharge Monitoring Report system. We know that some of you have experienced problems with the system and may be frustrated from time to time. We hope you'll stick with the system and work with us while we iron out the bugs.

We will have a short article in the *O&M News* to keep you up to date as we work to improve the system and implement some of the features that were built into the system.

Thanks again for all your help.

Dick Darling

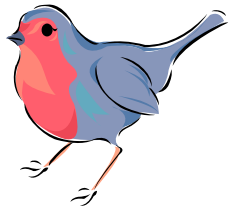
Answers to *For Practice:*

1. c. Communication is the transfer of information both to you and from you. True communications works both ways.

2. c. The volume of the pipe is 0.785 x (diameter in feet)^2 x length in feet x 7.5 gallons/cubic foot
0.785 x 1^2 x 1000 x 7.5 = 5,888 gallons.

3. c. Neutral pH is 7.0. Any liquid having a pH less than 7.0 is acidic. Any liquid having a pH greater than 7.0 is alkaline or basic.

4. d. Clarifiers depend on slow, uniform flow to allow the solid particles to settle out of the water before the water leaves the clarifier. Decreasing the detention time, which is usually done by increasing flow, will allow less time for settling. Stirring the clarifier with mixers will re-suspend the solids.



Welcome Spring!