

**WATER QUALITY ADVISORY COMMITTEE
JULY 29th & 30th, 2003**

ATTENDEES:

NY Not Present	DE DNREC John Schneider, Env. Prog. Administrator
EPA Wayne Jackson, Region II Denise Hakowski, EPA Region III	Dupont Alfred Pagano, Env. Consultant
PA DEP Ed Brezina, Env. Prog. Mgr. Michelle Moses, Program Council Carol Young, Chief Wtr. Qual. Stds & TMDL Sect.	Delaware Riverkeeper Network Maya van Rossum, Riverkeeper Tracy Carluccio, Director Special Projects
NJ DEP Debra Hammond, Water Quality Standards & Assmt.	Academy of Natural Sciences Not present
DRBC Pamela Bush, Assistant General Council Ken Najjar, Branch Head Planning & Implementation Patricia McSparran, Water Resources Engineer Jonathan Zangwill, Water Resources Planner Pamela V'Combe, Watershed Planner Edward Santoro, Monitoring Coordinator	Other attendees: Allan Ambler, National Park Service

This was the first of a two day meeting. The meeting was called to order at 9:35 am by the new chairperson, Debra Hammond of New Jersey DEP.

Reviewed Revised Schedule for WQS Rule Adoption

Patricia McSparran discussed the revised schedule for the WQS rule adoption. There was a change to the schedule due to temperature criteria development. Originally, DRBC had proposed to use Pennsylvania's criteria but then discovered that there are issues with exceedences if PA's numbers are adopted. The intention is to use the same process that PA used to develop its criteria but use site-specific data from the Delaware River. Staff will work on developing the criteria in August and discuss the progress made at the September meeting. Other changes to the schedule included adding a September meeting (to be announced) and adding another meeting for the WQAC after the public comments, sometime in May.

Temperature Development and Narrative Biocriteria

Patricia McSparran discussed the document "*Proposed Temperature Criteria Development Approach*." This document outlines how PA developed their temperature criteria and the approach that DRBC would like to take if the committee agrees. Bob

Limbeck suggested using Pennsylvania's approach over a year ago. The first step is to find out what warm water fish species and cold water fish species are located in the non-tidal Delaware River. DRBC is trying to get that information from PA fish & boat commission and from the states. Staff must then conduct a literature search to determine the thermal requirements of target species for each zone – DRBC has already started working on this. Staff must review historical records on temperature and determine what time period has the most complete data set. The historical data will be compared with current temperature requirements and then used to establish the natural range of seasonal temperature changes.

Question: Since continuous data is not available in all zones, should we only use the data from STORET from the USGS and disregard the continuous data?

Ed Brezina commented that the information listed is not the same as PA's for that timeframe. He ran a comparison because some of the numbers are the same for certain periods, but for other periods it looks like it was modified. Patricia remarked that it must be an error because we were using PA's numbers. Ed Brezina suggested contacting Leroy Young for data on 316a studies.

The temperature criteria will not likely be ready by the next advisory committee meeting in September but the data collected and literature reviewed will be discussed at the next Water Quality Advisory Committee meeting.

Patricia McSparran discussed the narrative biocriteria and numeric biocriteria development. Bob Limbeck would like to develop numeric biocriteria in the shared waters and currently there is not even a narrative biocriteria in our regulations. What is proposed is to add a narrative biocriteria and definition for biological integrity (taken from the EPA's definition). It will probably take a couple years to develop numeric biocriteria, but staff would like to have something in the regulations right now.

Comments on the definition of "Biological Integrity" –"adaptive" should be "indigenous" and delete "having a species composition.....within a region."

WQAC was supposed to give Bob L. names for a new committee but this did not happen. He will be at September's meeting to discuss this further so the committee members should come to the meeting with a name of who they would recommend to be part of a committee to develop biocriteria.

Nutrient Criteria Presentation

Ed Santoro, DRBC Monitoring & Modeling Branch, discussed an alternative to EPA's approach of establishing nutrient criteria. He stated that EPA's reference period is 1990-2000. DRBC has data that has been collected over the period of 1990-2002. Ed stated that it is his understanding that the approach is to provide guidance on developing and adopting nutrient criteria including flexibility in the guidance. EPA is encouraging the states to develop nutrient criteria and to identify plans to outline the state's approach, milestones and schedule for implementation. The plans are to allow the states to take advantage of this flexibility and the EPA thinks these plans will be a collaborative agreement between the states and EPA. In March of 2003 there were at least four

nutrient plans that were agreed on: Indiana, New Hampshire, Vermont, and Maine. Other state's plans are in the process but there are five states with no intentions known by the EPA. The type of criteria nationally that are being set are either quantitative or narrative with a quantitative translator. The parameters recommended by EPA include total nitrogen, total phosphorous, chlorophyll a, and water clarity. A number of states are conducting studies to determine if nitrogen criteria are needed to protect a designated use for the waterbody. The data Ed presented is primarily from a 106 funded activity. Surface water samples are collected 12 times per year from March thru November along the main stem in the center of the channel.

Overall, the dissolved oxygen has been getting better over the past two decades. The minimum oxygen levels are well above 3 mg/l. The reason for the variance is because the Delaware Estuary is a very atypical estuary. The flushing time for the water is 90 to 120 days.

Again, there has been a large increase in oxygen and large reduction in phosphorous levels. Over the period from 1960 to 1980 there has been very little change in suspended solids or in total nitrogen. A potential approach would be to use the monitoring data that we already have. The intent would be to define numeric nutrient thresholds and/or criteria. The EPA approach is to establish criteria in reference sites at the 75th percentile of ambient data and at the 25th percentile in non-reference areas. This assumes that the system is impaired due to nutrients. Ed showed hypothetical levels that can be assigned based upon 25th, 50th, 75th and 95th percentile. For Zone 2 for this period of time we have 280 days of records which is a good database. These figures are not from one station, they are from multiple stations. Most of the zones have at least 3 stations. The nutrients come in from the river and get utilized by the organisms in the bay.

John Schneider commented to Ed that the bay is a tremendous source of nitrogen and phosphorous, which affects the water quality in the tributaries. Ed commented that he has talked to Dave Wolanski of DNREC and he would like to see supporting data.

The committee agreed that numbers were not going to be put into the proposed regulations right now. More discussion is needed on what, if any, numeric nutrient criteria should be adopted in the future. Ed is going to meet with the EPA and some others to discuss a proposed plan.

Nutrient Narrative Criteria

Patricia McSparran noted that page 19 of the WQS is where the other narrative criteria is located and where objectionable algal blooms are mentioned in the narrative. The WQAC decided to move the narrative "biocriteria" and "nutrient" criteria to page 19 and add it to the first bullet. It must be decided how the narrative criteria will be evaluated.

Pollutant Trading

Ed Brezina reviewed Andy Zemba's comments (he works for Deputy Secretary Cathy C. Myers). Andy is the department's focal point on pollutant trading and they have been doing a pilot project on trading. He has been working with the EPA and went to the meeting in Chicago.

Comment #1: Regarding the language on page 52, the definition section needs to be updated.

Comment #2: Trading of toxics should not be included now. Patricia stated that the regulations do not prohibit toxics trading especially since DRBC has been talking internally that to implement the PCB TMDL we must do something more innovative to actually meet the criteria and trading might be that option. Pam Bush commented that this is still a possibility. Ed Brezina stated that EPA's own policy does not support this. Pam Bush said they will allow exceptions in special cases so we have to talk to them about it and get their approval and it's possible we can get approval in this case. Andy and Carol Collier discussed that PA is going to take a position where they will allow toxics trading. Debra Hammond suggested entertaining it through a TMDL process which is fine too but pollutant trading is also looking to maintain existing water quality.

Debra Hammond also suggested that something be added in the regulations for TMDLs. Incorporate that for new discharges we are looking to seek a reduction within the sub-watershed.

Comment #3 - bullet #1 under 3(a): How are new non-point source loads defined? Non-point source in this case is tied directly to approval of a point source and the new development in the service area that requires a non-point source pollution control plan. There should be a condition that deals with the TMDL situation. There should be a separate condition for Special Protection Waters.

Comment #4 – bullet #3 under (a): It is unclear what the intent of this is and what does the term “project operation” mean? It is not addressed unless it is associated with a docket. It should be clarified that this deals with the Special Protection Waters only.

Under 3B the tradeoffs are going to be worked out through TMDL's so the individual applicant shouldn't have to go in front of the Commission and have a public hearing to do a trade. If the trade has been approved through or set up through a TMDL, should this requirement be done every time?

Approval of every project requiring a docket must have a public hearing. Projects that have a discharge of 50,000 gpd or more require a docket (or 10,000 gpd in Special Protection Waters). A docket is not done for every permit that is issued- only if it qualifies as stated above.

WQAC needs to find out whether or not the Commissioners are supportive of pollutant trading. Then it will be decided how to implement this policy.

LUNCH

Review of Water Quality Standards

Page 1 - Best Management Practices

Added language so BMPs include activities, procedures, or facilities.

Page 5 - Outstanding Basin Waters

Removed “exceptionally high” from the third condition and replaced with “outstanding” because there was no difference between that and significant resource waters. Outstanding should have slightly better recreational and ecological values that require special protection than significant resource waters. There is some concern among the group regarding including state parks.

Page 7 - Significant Resource Waters

If the waters qualify for Outstanding Basin Waters designation, then it qualifies for Significant Resource Waters also.

Page 53 – Many of the bullets under General Conditions in the Pollutant Trading section refer to Special Protection Waters.

Page 54

Section 3.40.4 (A)(2)(a)

Only change was to reference the section that discusses the SEJ.

Page 55

Section 3.40.4 (A)(2)(c)

Added “Protection of Existing Uses” section.

Section 3.40.4 (B)(2)(b)

Changed the language as discussed and made it more straight forward.

Page 56

Section 3.40.4 (B)(3)

Interim Protection (Pam Bush was not available for discussion - need input from Ken Warren).

Ed Brezina stated that several years ago Pennsylvania had an interim protection policy that was not a regulation. Interim protection would be applied from the time the Secretary of the department made a decision to move a proposed rulemaking package forward through the Environmental Quality Board until the time it cleared the regulatory review process which could take up to two years. The policy was rescinded on the recommendation of their General Counsel. There were legal ramifications and if there was going to be interim protection, it would have to be in a regulatory format. Right now the only policy similar to interim protection is their “existing use protection”. Once the data is in hand to make a determination as to the existing use of the waterbody, it is

posted on their web page and that use must be protected as soon as it is posted. If it is different than the designated use, they would initiate a rulemaking to change the designated use.

Patricia McSparran noted that this section was changed slightly and added that there must be definite evidence and data to back up the application for the change in designation. The evidence/data requirement to justify interim protection is as stringent as the data necessary to establish existing water quality criteria.

This issue was not resolved today. Patricia would like to discuss it with Ken Warren and possibly at the Commission meeting on Sept. 3rd.

Page 57

Section 3.40.4 (B)(4)(a) - Third bullet

Deleted the language concerning SEJ and referenced that paragraph.

Page 59

Section 3.40.4 (B)(4)(e)

Added this section on Pollutant Trading, just to be consistent throughout the regulations.

Added “directly to Significant Resource Waters or” & “Outstanding Basin Waters.”

Section 3.40.4 (B)(4)(f)

Degradation Analysis

Added “insufficient to protect existing water quality.”

The same language should be added to section 3.40.4 (B)(4)(e) in lieu of “infeasible.”

Page 62

Section 3.40.4 (B)(5)(a)

Added “and protected” after SPW is maintained.

Page 63

Section 3.40.4 (B)(5)(b) - Third bullet

Added “avoid, minimize or control the non-point source loads from project sites.”

Page 64

Second dash

Added “maintain existing infiltration.”

6th dash

Added “through the development and implementation of construction and post-construction BMPs.”

Second Bullet, first dash

Added “either individually or cumulatively.”

Page 65

First dash

Replaced the word “equal” with “matched.”

Fourth dash

Question as to what is meant by “limiting zone.”

Replace “i.e. contaminated soil...” with “due to site conditions.”

Fifth dash

Added that an implementation method has to be included in the NPS control plan. Move to bullet below.

First bullet

Added that the applicant has to demonstrate that the requirements of a NPS control plan approved by the Commission will be implemented by the applicant directly or through enactment of municipal ordinances.

Page 66

First bullet

Added the section reference 3.40.4B.5.b.

First Dash

Now reads that the surface water impoundments listed below are exempt or other major surface water impoundments when the Commission makes a finding that time of travel and relevant hydraulic and limnological factors preclude an impact on Special Protection Waters. (Currently exempt reservoirs remain exempt and to add additional reservoirs in the future, this condition must be satisfied.)

Definitions

Ed Brezina suggested that the definitions be done last.

Background TDS - delete this (no longer used in document).

Critical Habitat – check if this is only applied in the estuary.

Add habitat for threatened and endangered species.

Ed Brezina suggested that there should also be a definition for “load allocation”.

Primary Contact Recreation - delete “wading”?

Shellfish - this is generally bivalves which are consumed raw. Scallops are not eaten raw or whelks. Change the definition.

“Stream Temperature” should be before “Surface water quality criteria” in the definitions.

Total Maximum Daily Load (TMDL) – Check why not EPA’s definition.

Make sure the definition for “wasteload allocations” is consistent with “load allocations.”

Wildlife - this covers mammals, fish are already covered.

Page 11

Section 3.40.2B

Added “existing uses” to uses being protected.

Page 16 - Table 2

Replace “reasonable” with “conventional.”

Page 18 - Table 4

Replace “reasonable” with “conventional.”

Page 19

Section 3.40.3.A

Need to add narrative criteria for nutrients and biocriteria (currently in Tables 5 and 6).

Section 3.40.3.A.2

Delete “background” before the word “concentrations.”

Page 20

Section 3.40.3.A.3

Need definition for “natural water quality.”

Page 21 - Table 5

Move “biocriteria” to Section 3.40.3.A.

Page 22 - Table 2

Move “nutrients” to Section 3.40.3.A.

Page 24 & 26

These numbers for temperature criteria are to be redone.

Remove “total dissolved solids” from the table.

Page 28 - Table 6

Under “enterococcus” it should be below R.M. 81.8, not 81.

John Schneider suggested that there is a Federal Fecal Standard also for shellfish.

Page 29

Move “biocriteria” and “nutrients” to Section 3.40.3.A.

Page 30

Delete “Synthetic Detergents.”

Page 31

Delete “Total Dissolved Solids” – already on page 19.

DAY TWO (7/30/03)

Todd Kratzer reviewed the Water Quality Tables. There were updates in STORET from Pennsylvania which have been included and additional analysis for dissolved oxygen, temperature and percent saturation were done. The updates have been included in the appendices. Because many of the members did not have the information, there was no resolution on the Water Quality Tables.

Page 32

Section D.2 Surface Water Quality Criteria for Toxic Pollutants

Change “Delaware River Estuary” to “shared waters of the basin.”

Page 34

Section f

Change “public water” to “potable water.”

Page 35

Section g

Change “public water” to “potable water.”

Page 36 – Table 7

Nickel – NJ received a petition that the marine nickel criteria are not good. The EPA agrees. DRBC staff will meet with NJDEP to discuss this issue.

Page 38 – Table 8

Add “for the Protection of Human Health” to the title.

Page 41 – Table 9

Add “for the Protection of Human Health” to the title.

Also, the numbers need to be updated.

Page 47

Section E.1a

EPA suggested adding a section on “No overlapping mixing zones.

Add “Protection for threatened and endangered species.”

Page 48

Second bullet

Change “requirements” to “guidelines.”

Page 51

First Bullet

Delete this section – covered under W1.

Move “Other Considerations” to beginning of heat dissipation areas section.

Page 52

Section e

Wasteload Allocations – delete title and create separate bullets for flow requirements for aquatic life protection and human health protection contained in this paragraph.

Section 3.a

For new discharges, keep trading to sub-watershed.

Add language for TMDL situation – larger area to trade.

Page 53

Section b

Add bullet requiring a public hearing for approval of a trade (not a separate hearing, but the normal Commission hearing).

Page 55

Add a section 2.d on protecting threatened or endangered species.

Eb Brezina questioned where TAC fits into this – thinks it should be a sub-committee of WQAC as originally planned. Maya van Rossum stated that the Commissioners voted to make them a separate committee. Patricia will try to have the Commissioners discuss extending the toxics criteria to Zones 1 and 6 at the next commission meeting on 9/3/03.

The next WQAC meeting will be September 11, 2003 @ 9:30 am.