8/19/2009

Comments to DRBC on Integrated listing methods for 2010
DRBC
Attn: Integrated Assessment 2010
P.O. Box 7360
25 State Police Drive
West Trenton, NJ 08628-0360;

Re: Integrated Assessment 2010

August 13, 2009

Dear Mr. Yagecic:

Thank you for the opportunity to comment on the Delaware River Basin Commission's (DRBC) draft methodology for the 2010 integrated listing report and for the informational meeting held on August 6, 2009 to provide more detail. First, we are pleased to see the DRBC using macroinvertebrate data for assessment purposes as it provides a clearer and more representative picture of the health of the ecosystem and goes beyond water quality parameters that do not always detect pollution problems during routine grab sampling. We believe the additional information macroinvertebrate analysis will provide, will be a great benefit to protecting the River and its designated uses as long as the IBI metrics chosen are protective enough to sustain a diverse community. We also understand from the August 6th meeting, that upcoming meetings with EPA may result in changes to the proposed methodology. If substantive changes occur, we request an opportunity to comment on these changes before the methodology is finalized for the 2010 assessment.

Biological Metrics
We would like more information on how the threshold tolerance of 75.6 was chosen for the 6-metric IBI and we would like some examples provided using specific stream stations to better understand what this means for species lost at this threshold. The draft methodology alone and the meeting on August 6th does not provide this detail and data. We would like to know how the 75.6 threshold relates to species lost within the stream at that threshold. For example, has 20% of the benthic community disappeared at this threshold? Have many of the pollution sensitive species with low tolerance values disappeared? Please provide several examples of the benthic community assemblages (both taxa and number) representative of this 75.6 threshold so we can better understand the representative benthic community protected at this threshold. In requesting this detail, we want to ensure that the utmost protection is provided to the main stem Delaware and that an "early trigger" for degradation is switched on with a protective threshold so the stream can be listed and restored before much of its benthic community has degraded.

With much of the main stem having Special Protection Waters status, will there be a more stringent threshold than 75.6 for these SP waters regions? Since the benthic community in SPWs is more diverse, we need to ensure that there is no degradation of these communities and if degradation occurs, a very sensitive trigger is in place to restore these sections of the River.

A benthic data window of three years (rather than five years) should allow for quicker response and protection if degradation is occurring. At the August 6th meeting, a "Decision rule" of 30% of benthic samples from 2007-2009 below the 75.6 threshold was discussed as the trigger to list a stream zone as impaired. With three years of data being used for this analysis, is this percentage protective enough for the stream? If there is a severe drop in diversity for a station one year (and it is not due to natural conditions like flooding) and a station falls far below the 75.6 threshold, how will the DRBC deal with these instances? How will the DRBC react to any continual and gradual declines every three years that are still above this threshold but that indicate decreasing water quality over time? Please provide more details about this "decision rule".

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Table 3 (page 10) lists data objectives for biological monitoring of "at least two years of data with multiple sites per AU in each". Is the data window for benthics at least two or at least three years?

Pennsylvania Department of Environmental Protection (PADEP) and New Jersey Department of Environmental Protection (NJDEP) recently established IBI techniques for attainment and we understand from the August 6th meeting that comparisons have been made by DRBC biologists on the different IBIs. We would like to know how the DRBC threshold will relate to these other states. How will DRBC's 500 bug counts compare to PA's 200 bug count samples? Is the DRBC threshold more protective than the NJ or PA thresholds that have been established? Will the agencies be able to compare the DRBC datasets with the PA and NJ datasets and methodologies? It is difficult to determine this with the 6/8/2009 report without seeing the science that went behind establishing the threshold values. Has there been independent technical review of the science behind the thresholds chosen by the various states and DRBC? Is the IBI driven by specific groups of insects – like mayfly or stonefly populations?

Dissolved Oxygen Attainment

Regarding Table 3 (page 10) and the reference to different dissolved oxygen standards on page 5, we have major concerns that some of the specific instantaneous minimums for dissolved oxygen levels in DRBC's water quality criteria are not protective enough to aquatic life. For example, DO levels as low as 4.0 mg/l will decrease the number of mayflies and stoneflies in the stream at these low levels. Zone 3, Zone 4, and Zone 5 dissolved oxygen level criteria seem particularly low allowing an average concentration of not less than 3.5 mg/l. In these zones important fish migrate and live and higher dissolved oxygen levels would better protect these species. It is troubling that for the 2010 assessment, these low DO figures will be used to base attainment, further codifying them into law, at the same time the DRBC's Nutrient Subcommittee and Water Quality Advisory Committee have acknowledged that oxygen levels and limits in the River may be too low to be protective and supportive of aquatic species and fish and are considering a path forward that may result in an increase in DO targets and criteria for the River. The instantaneous maximums need to be set at a higher level, our recommendation being 6 mg/l, to ensure protection of all species which do or may use each reach of the River.

Along the same lines with specific criteria, we also question why there is a specific fecal coliform criteria that distinguishes upstream and downstream of river mile 81.8 that allows for a maximum geometric average of 770 per 100 milliliters above RM 81.8 for fecal coliform. Considering these waters are designated as primary contact recreation, this level is not protective enough. If particular inputs like CSOs or other pollution inputs cause such a degree of pollution, rather than establish less protective criteria here, the DRBC should lead with more stringent criteria to encourage polluters to work to meet the goals of cleaner water in these stretches of the River rather than allow for deterioration of water quality by setting lower standards.

These issues based on the actual criteria levels for dissolved oxygen and fecal coliform, though not a part of the specific proposed methodology, have large implications in assessing if a stream meets or does not meet its designated uses. Therefore, it is clearly necessary that the issues we have raised be addressed to ensure protective and effective standards that will accomplish the goal of protecting water quality and waterway health from degradation.

Temperature

Setting ambient temperature definitions for Zones 1A through 1E is needed to strengthen protections for this stretch of river as temperature is a critical necessity for aquatic life and these zones cover a large portion of the River from Hancock to Trenton, encompassing over 200 miles. This round, while DRBC works to set these temperature limits, using data or models to determine the ambient temperatures will be an important step to a better assessment. Nutrient criteria are also important to aquatic life and should be added to improve future assessments.

Toxics Criteria

We strongly support the development of protective numeric criteria for toxics in Zones 1A through 1E and in Zone 6 to better strengthen the narrative criteria that is in effect in these zones. In the interim and for the 2010 assessment, we recommend using EPA's National Recommended Water Quality Criteria or the existing or proposed applicable state criteria, whichever is more stringent for each toxic constituent.

Thank you for the time and expertise put into these assessment methods and we look forward to reviewing any substantive changes that may evolve out of the EPA meetings or other comments. We appreciate your time in addressing our questions and concerns.

Yours sincerely,

Maya K. van Rossum, the Delaware Riverkeeper

Faith Zerbe, Monitoring Director