Notes from 8/3/09 TMDL Oversight Group Meeting

General:

NJ indicated that the Passaic TMDL was remanded back to Office of Administrative Law.

EPA agreed to distribute NY and NJ comments on EPA DO White Paper to TMDL Oversight Group

NY discussed some of their issues relating to "residual excursions", IEC standards, and the workgroup on incremental DO improvements. NY also asked for further clarification on what constitutes non-attainment. Specifically, how much of the water body (and depth) needs to be out of attainment in order to be considered non-attainment.

There was general agreement on use of NYS marine DO criteria, but concern as to how quickly and what process to utilize to change existing standards. There was some discussion on application of site-specific criteria.

NY asked about the difference between 1988 and 1989 and why we are using those years as our baseline.

UAAs were discussed, but Group decided it was premature to discuss specific applications at this time.

Possible Model Runs:

1. General discussion about running the model using the permitted design flows of C and N for all POTWs (versus existing flows). All agreed to discuss with the Nutrient Workgroup and that it would make sense to understand how the system would respond to any increases in C and N.

Next Steps:

- EPA agreed to follow-up with NY and NJ on the permitted POTW loads of C and N.
- EPA will revise DO White Paper based on NY and NJ comments.
- EPA agreed to identify % reduction for stormwater
- NJ will check to see if Raritan river TMDL information is available.
- NY asked if we can go beyond CAIR.

2. Best we can do system wide but add in Raritan river TMDL information and improved CAIR

This would include the best guess on CSO loads, NJ MS4 permit information, LOT for C and N, and include all POTWs in TMDL area.

3. EPA Scenario

a. Hackensack River:

LOT for C and N for all sources. EPA discussed some type of bioharvesting approach similar to that being discussed in LIS, but idea was rejected by NY and NJ.

b. Passaic River

LOT for C and N. Use marine DO criteria for saline portion of river.

NJ asked if we get a benefit for PVSC doing carbon reduction into Passaic? EPA agreed to follow-up with Hydroqual.

c. Newark Bay:

LOT for C and N. Use marine DO.

NJ indicated that the current standards are based on old science. Until we can do site specific criteria, marine DO is best we can do at this time.

d. Raritan River:

LOT for C and N. Need numbers from Raritan TMDL.

e. Raritan Bay: Need input from new model run to determine if any problem.

f. Arthur Kill/Kill Van Kull:

States indicated that it seems like a lot of money to address a few days problem. This issue will be discussed in the "residual excursion" discussion.

NY indicated that there seems to be a problem with the current standards graphics. EPA agreed to follow-up with Hydroqual.

g. Hudson River:

"Residual excursion" issue. NY asked why the marine DO graphic looks different than the current standards graphic. EPA agreed to follow-up with Hydroqual.

4. HEP Planned Improvements and additional atmospheric reductions reductions from revised CAIR

Next Steps:

1. EPA will distribute draft meeting notes.
2. EPA will send notes to TMDL Oversight Group
3. After TMDL Oversight Group approves, EPA will distribute notes to Nutrient Workgroup.
4. EPA will produce and distribute a new proposed straw TMDL modeling scenarios to TMDL Oversight Group and Nutrient Workgroup.
5. EPA will solicit Nutrient Workgroup on additional model runs they want run and comments on EPA revised straw TMDL
6. EPA will convene another TMDL Oversight Group meeting to discuss Pathogens

Here are the responses from HydroQual regarding a few questions that were raised at the meeting:

Question 1: The third slide of your June 3 (revised for June 16) presentation notes that the 5% and 10% reductions for N and C for MS4 are new. How is that information incorporated into the model runs?

> Answer 1 - They weren't. We never did a run with less than LOT reductions for MS4's. In a perfect world the information would have been available when we did planned improvements, but it wasn't. Really, the information was put together after all the runs were already done to please the states who wanted at the last minute to hang a number on removals "just because" there is an ms4 program. These reductions are unlikely to have any meaningful impact. If we re-run planned improvements, it can go in, but greater reductions are already in the sub-regional plans.

Question 2: I'm sure it is in one of your many memos and perhaps you can just point us to it: 1) Define the differences in hydrodynamics for the 1988 and 1989 conditions, and 2) How do these fit into historical context?

> Answer 2 - 1988 is determined to be a typical rainfall year (number of events, size of events, total from events, etc.) and was used for a lot of the CSO LTCP work. 1989 had a wet summer and overally slightly above average annual rainfall. Both 1988 and 1989 were used for the LIS TMDL. I may have a write-up somewhere that I can forward, but it may take some time to find and won't say much more than I said here already.

Question 3: What is your best professional judgement as to the extent of the impact of the PVSC discharge in the harbor on the Passaic River?

Answer 3 - If I understand the question correctly (I'm not sure I do), PVSC's effluent in the Upper Bay probably has little or no impact on the Passaic River. PVSC's CSO's in the Passaic River and Newark Bay probably have only a very minor impact on the Passaic River because going to CSO LOT in Passaic/Newark didn't do very much.

Question 4: Can you provide any insight into how significant the "small excursions" (few days of non-attainment) are? In other words, do we need to worry about 0.5 days, 2.1 days, 6 days, etc)? Part of the question is a regulatory policy question for us, but part of it has to do with confidence limits on the SWEM model.

Answer 4 - The question I think is both how good is the model and how much data were available to back up the model. Part of the judgement you are asking for should be based on an isolated cell (sharp gradients in an estuary are hard to believe) vs. a full waterway. For example, when we showed 10-days of violation in the entire Hudson opposite Manhattan for 1989, I believe it. When we show one grid cell at the Passaic/Newark confluence that refuses to budge even when all the surrounding grid cells comply, I don't believe it. If 10 or less days of violation occur in a broad area they should not be dismissed. For less than 10 days of violation occurring at isolated locations, I suggest the following: 5 to 10 days of violation, we should look to see if there are any data at that specific location that say the same thing. Where data are lacking, encourage the dischargers to collect data at that location. Maybe an existing station could be relocated for a few years so no new costs are involved. Could also encourage use of sondes that collect data continuously for 24-hr average purposes at selected locations in lieu of reduction requirements for the 5-10 days violations. 5 days or less of violation I would let slide.

Question 5: In the Kills bar charts, the current standards (never less than 3) and the NYS Acute (never less than 3) are close, but not exactly the same. Can you explain this for us please?

Answer 5 - The Kills includes several water quality standards in both States: SE2/I waters where the current standards are never less than 4 mg/L and SE3/D waters where the current standards are never less than 3 mg/L. Only the SE3/D waters have the same requirement as NY acute so current standards in the Kills are in fact different than NY acute because of the SE2/I waters and the bar diagrams correctly show this difference.

Question 6: In preparation for a possible scenario run, I will be seeking information from the states on permitted loads for N and C for each of the treatment plants. I was thinking of asking for the information in the following table. Is this format OK for you and do you have any suggested additions/changes?

Answer 6. The answer depends upon how permits are written. In general, I think the spreadsheet is too simplistic. If the permits say anything about forms of nitrogen (e.g., ammonia nitrogen, nitrate plus nitrite nitrogen, organic nitrogen, TKN, etc), we would want to know that. We have the forms of nitrogen in the model now based on effluent data. When we go to permitted loads, if form information isn't available, we will have to make the assumption that the forms of nitrogen in the permitted load are split similarly as in current loads. Regarding BOD, we should be clear if the numbers in the permits are BOD5 or BOD ultimate. The BOD numbers get converted to several forms of organic carbon for use in the model and we need to know if the load number is a 5 day or an ultimate BOD. Also, the spreadsheet should specify final effluent. The spreadsheet should also say units for the loads, either lbs/day or kg/day. The spreadsheet also needs to have some clarifying information about what is being reported: monthly average, 12 month rolling average, monthly maximum, etc. This might be different for different plants depending upon individual permits. There might also be a circumstance where a permit has concentration (mg/L) requirements rather than load requirements that we also need to know about if/when that is the case. Units for flow should also be specified. MGD is the typical flow unit.