

Summary of the February 12, 2004 Nutrient Work Group Meeting

On February 12, 2003 , the Nutrient Work Group (NWG) met at the offices of the Hudson River Foundation. The purpose of the meeting was to review the System-wide Eutrophication Model (SWEM) simulations for the Long Island Sound (LIS) component matrix and discuss the next SWEM component runs for the NY/NJ Harbor.

Robin Miller gave an interactive presentation to the work group. The first topic was the LIS component matrix and an investigation of how linear the components appeared. (To be linear the sum of the individual component impacts should be equal to the impact of all the components simulated at the same time.) The carbon components for the LIS, and East River had a linear response. (The carbon components are also expected to be linear in the Harbor.) The nitrogen components for the LIS were nearly linear in the summer only.

Robin presented examples of the component matrix that was developed using the LIS3.0 model and solicited input from the NWG on how the new matrix might be improved. It was estimated that the matrix spread sheet and a report documenting how linear the component DO responses are could be developed by April 2004.

Robin then outlined the remaining modeling work and suggested that the NWG assign runs to be made in batches of 4 to 5 runs and that the work group meet with HydroQual on a quarterly basis to review the results of those runs. At that rate the remaining modeling runs would be completed in approximately 1.5 years.

After a lunch break, Robin summarized the modeling work done for the NWG in analyzing the Harbor and presented two alternative approaches to studying the Harbor using the existing NWG budget. She also presented an estimate of what additional work would be needed if a TMDL was required for the Harbor. EPA had requested the presentation. The rest of the meeting was spent discussing the presentation and the need for a change in the work group's current approach.

Action Item: A conference call with HydroQual, NY, CT, and EPA was scheduled for March 16, 2004 to further discuss the development of the component matrix for LIS.

Attendees:

MarzooQ Al-Ebus	NJDEP
Mick DeGraeve	GLEC
Veronica Craw	PVSC
Jim Fitzpatrick	HydroQual
Art Glowka	skeptic
John St. John	HydroQual
Mark Klein	NJDEP
Keith Mahoney	NYCDEP
Robin Miller	HydroQual
Brian J Mitchell	IEC
Bob Nyman	USEPA-HEP

Kevin O'Brien	Hazen & Sawyer
Philip O'Brien	NYSDEC
Morton Orentlicher	Public
Jane Rebhuhn	Great Neck WPCD
Dave Rosenblatt	NJDEP
Paul Stacy	CTDEP
Mark Tedesco	EPA-LIS
Naji Yao	NYCDEP

Summary of the March 16, 2004 Conference Call

Participants:

HydroQual : John St. John, Robin Miller, James Fitzpatrick, and James Wands

Connecticut: Paul Stacey

New York: Philip O'Brien

EPA: Mark Tedesco and Robert Nyman

(The following is the body of an e-mail Mark Tedesco sent to the call participants.)

Thanks everyone for a productive call this morning. Here's my quick summary of conclusions.

1. It is not necessary to redo the DO deficit chart comparisons of base case and sum of components. The existing comparison using surface water DO saturation values is appropriate compared to using bottom water temperature and salinity to calculate saturation values.
2. The minimum 30 day average will be used for the unit response matrix.
3. The response for 1988 and 1989 will be presented separately to show the variability between these two years.
4. The maximum DO response in response region 2 from management zone 4 was not intuitive and will be reviewed before proceeding.
5. The bias of the component runs to underestimate the DO deficit from mile 0-40 and overestimate it from 40-90 was noted. One approach to correct this would be to apply the relative percent contribution of each management zone to the DO deficit to the total DO deficit projected in the base case model run.
6. The unit response matrix will be constructed so that reductions applied to loading will be from the total load, not just the enriched portion.
7. The unit response matrix will be constructed so that either percentage changes or mass changes can be inputted.
8. An additional component run will be performed so that the "other" zone will be split into an external ocean zone and an internal non-LIS zone.
9. Existing component runs will be used to portray a direct atmospheric deposition "zone".

Please let me know if I missed anything.

Mark