

Summary of the September 18, 2002 Nutrient Work Group Meeting

On September 18, 2002, the Nutrient Work Group (NWG) met at EPA's NYC office. The purpose of the meeting was to 1) develop a response to the HEP Management Committee's request for a indicator, goal and 2009 target; 2) agree upon a format for the SWEM DO outputs to assure that the desired data is saved by the modeling program; and 3) agree on SWEM simulation conditions to be used in the current and future simulations.

At the beginning of the meeting, Phil O'Brien distributed a draft response to the Management Committee's requests for the group's discussion and input. However, that discussion was differed until we discussed the information needed by HydroQual to begin generating SWEM simulations for the workgroup.

Robin Landeck Miller presented the existing SWEM DO outputs and how those outputs were used in previous analyses and how they could be used by the NWG. In the related discussion of the post-simulation DO processing needs the proposed NYS marine DO standards were discussed. Several issues that are still being considered by NY will be critical to the post processing of the DO outputs.

The work group felt the existing SWEM DO outputs were sufficient for the NWG objectives. However, in addition to the existing SWEM outputs, daily average DO data will be saved for each cell in the model so that vertical profiles of the water column concentrations can be generated. The NWG also felt the existing carbon and nitrogen outputs were sufficient for the group's needs.

In their presentation of the available hydrologic and climatologic simulation conditions, HydroQual presented and recommended the use of a simulation condition the workgroup was not aware of. Those conditions are the conditions for the 1988 calendar year (Jan. - Dec.). The reason for recommending the 1988 conditions is consistency with the NYC DEP's Use and Standards Attainability (USA) Project. The USA project is using the 1988 conditions because those conditions contain a wetter than normal July which maximizes the CSO and storm discharges in their tributary models. The SWEM model is being used to provide boundary conditions for the tributary models. However, the 1988-89 water year (Oct. - Sept.) conditions are actually wetter conditions on an annual basis.

If the 1988 conditions are used, the SWEM would have to be upgraded for these conditions to include the calibration enhancements in the New Jersey waters. The upgrade would require an additional \$10,000 or an equivalent reduction in the scope of work. The work group decided it needed more time to consider the recommendation and agreed to table the discussion for a conference call that was scheduled for 9/30/02.

The work group did come to a decision on the loading conditions. The baseline simulation will use the 1994-95 point source loadings with upgrades where necessary so that all the plants are discharging at secondary treatment levels. The 1994-95 water quality measurements will be used for the CSO, storm water and tributary discharges.

The loadings for the future conditions simulation would be the same as the baseline for discharges not specified in the LIS TMDL. With the exception of the New York City discharges

the loadings for the discharges specified in the TMDL would be the TMDL waste load allocation. The loads for the NYC discharges will reflect the City's actual plans to meet the LIS TMDL requirements. NYC plans to meet the requirements of the TMDL by removing most of the required nitrogen at the Upper East River facilities. Since the amount of nitrogen removed to meet the TMDL requirements will be determined by established exchange ratios, where the City removes the nitrogen will not greatly effect the impact on the Sound. However, the amount and location of the nitrogen removal could significantly effect the impact on the Harbor.

Due to a collective hunger that could not be satisfied by a small bag of baby carrots, the work group adjourned after scheduling a meeting for 12/17/02 and an additional conference call for 9/23/02 to discuss the response to the MC's indicator request. It is expected that HydroQual will present the results of the first four SWEM simulations (see action required) at the December meeting.

Actions required:

Conference call 9/23/02 to develop a response to the HEP Management Committee's request for a indicator, goal and 2009 target.

Conference call 9/30/02 to choose the hydrologic and climatologic simulation conditions to be used in the baseline simulations.

Once the Nutrient Workgroup selects a baseline condition, HydroQual is authorized to perform four SWEM simulations:

- "Baseline Conditions" - Baseline hydrology with 1994-95 STP loadings. 1994-95 STP loadings modified to reflect all facilities at secondary treatment.
- "Baseline Conditions" Carbon vs. Nitrogen Effects Evaluation
- "Future Conditions" - Baseline hydrology with 1994-95 STP loadings as described above and modifications of STP loadings to reflect implementation of the Long Island Sound Study TMDL.
- "Baseline Conditions" with high level nitrogen removal

Attendees:

MarzooQ Al-Ebus	NJDEP
Mick DeGraeve	GLEC/NJHDG
Veronica Hurst	PVSC
James Lodge	HRF
Robin Landeck Miller	HydroQual
Brian Mitchell	IEC
James Mueller	NYCDEP
Bob Nyman	USEPA
Philip O'Brien	NYSDEC
Morton Orentlicher	CAC
John St. John	HydroQual
Mark Tedesco	EPA-LISO
Chris Villari	NYCDEP

Summary of the September 23, 2002 Nutrient Work Group Conference Call

Members of the NWG participated in a teleconference to develop a response to the HEP Management Committee's request for an indicator, goal and 2009 target. A draft of a memorandum from the NWG to the Management Committee developed and distributed to the group by Phil O'Brien focused the discussion.

At the beginning of the call, it established that the memo, in general terms, represented a consensus opinion of the NWG.

Most of the call was spent discussing the appropriate indicator to be recommended. The original memo suggested a dissolved oxygen (DO) concentration of 5 mg/l should be used as an indicator because it is the standard for fishable waters in both NY and NJ. However, Jim Mueller pointed out that the DO standard for class I and SE-2 waters was 4 mg/l and that the best use of these waters is also fishing. While not resolved it was suggested that we use multiple indicators. A concentration of 3 mg/l to indicate waters that allow for fish survival; a concentration of 4 mg/l to indicate waters that allow for fish propagation; and a concentration of 5 mg/l to indicate waters that have no adverse impact the growth and health of the fish.

The second item discussed was the ability of the NWG to develop meaningful targets and goals using these indicators. The discussion focused on when the NWG would be in a position to identify goals and targets and the need for adding a statement to the memo as to when the NWG could provide the goals and targets.

Due to a lack of time, the third issue in the memo, the presentation of long-term monitoring data was not discussed.

Actions required: Schedule a meeting or conference call to continue these discussions and resolve the issues.

Participants:

John Kashner	NJDEP
Brian Mitchell	IEC
James Mueller	NYCDEP
Bob Nyman	USEPA
Phillip O'Brien	NYSDEC
Morton Orentlicher	CAC
John St. John	HydroQual

Summary of the September 30, 2002 Nutrient Work Group Conference Call

Members of the NWG participated in a teleconference to agree on the SWEM hydrologic and climatologic simulation conditions to be used in the current and future condition simulations. There were apparently difficulties with the conference call lines and only five people participated.

Mark Tedesco and Paul Stacy indicated that the Long Island Sound Study (LISS) would be interested in simulations using both the 1988 and the 1988-89 conditions. The LISS used an 18-month LIS 3 simulation in developing the LIS TMDL and would like to see that period simulated with the SWEM. John St John pointed out that since HydroQual had simulated the hydraulic conditions for January through March of 1988, they could easily supply a 21 month simulation and suggested a complete 24-month simulation could be developed.

The group thought that the 24-month simulation (Jan.88 through Dec. 89) should be done at least for the initial run. After reviewing the results of the initial run, the NWG would be in a better position to choose a critical 12month period (1988, 1989 or water year 88-89) for the rest of the simulations or decide to run 24-month simulations.

The initial 24-month simulation is likely to cost an additional \$15,000 or an equivalent reduction in the scope of work. The cost estimate includes the upgrade in the NJ waters required for the periods out side the 1988-89 water year and the cost of running an additional 12 months in the simulation.

Since the baseline run and possibly other runs can be used by both HEP and LISS cost sharing is a possible way of coming up with the additional funds. We can also reduce the scope of work by reducing the number of component runs and request additional funds from the next HEP budget to restore them.

John St. John said that HydroQual would develop and distribute, to the NWG, cost estimates for the two year simulations later in the week. They will also review the scopes of work for the HEP and LISS NWGs to see where cost sharing could occur.

A conference call was scheduled for Wednesday, October 9, 2002, at 10:00 am to discuss the decision with the rest of the NWG.

Participants:

Bob Nyman	USEPA
Philip O'Brien	NYSDEC
Paul Stacy	CTDEP
John St. John	HydroQual
Mark Tedesco	EPA-LISO

Summary of the October 9, 2002 Nutrient Work Group Conference Call

Members of the NWG participated in a teleconference to discuss the 9/30/02 NWG decision to develop a 24-month simulation for the initial SWEM run and choose a critical 12 month period for the rest of the simulations based on that run. All participants endorsed the decision without further discussion.

The conference call was used to discuss a request from the Policy Committee for SWEM simulations to aid in the development of HEP goals and targets. Robin Landeck Miller outlined the Policy Committees request in her October 3, 2002 memorandum to the NWG. That outline and personal recollections of the October 1, 2002 Policy Committee Meeting were the basis of the discussions.

At the 9/18/02 NWG meeting, the NWG decided to use 1994-95 loadings for the initial/baseline run. The baseline simulation will use the 1994-95 point source loadings with upgrades where necessary so that all the plants are discharging at secondary treatment levels and 1994-95 water quality measurements will be used for the CSO, storm water and tributary discharges. The work group believes these conditions will satisfy the Policy Committee's request for a present condition run.

The Policy Committee requested a simulation of expected 2009 conditions. Various participants in the conference call agreed to supply HydroQual with loading estimates for a 2009 simulation based on existing and planned water quality improvement projects. Those estimates are to be delivered within 6 weeks.

The NWG scheduled a meeting for Tuesday November 26, 2002. At this meeting HydroQual will present the results of the initial /baseline simulation and present a loading scenario for the 2009 simulation. The NWG will be expected to choose a 12 month simulation period for the remaining simulations and approve or improve the 2009 loading scenario. The NWG will also meet on December 17, 2002.

Participants:

Mick DeGraeve	GLEC/NJHDG
Robin Landeck Miller	HydroQual
Bob Nyman	USEPA
Philip O'Brien	NYSDEC
Marie O'Shea	USEPA
Paul Stacy	CTDEP
John St. John	HydroQual
Mark Tedesco	EPA-LISO
Antony Tseng	USEPA