

Meeting Summary
H-GAC Dioxin TMDL Stakeholder Meeting

June 16, 2006

MEMBERS PRESENT: Louis Brzuzy, Winston Denton, Tracy Hester, Ed Matuszak, Lial Tischler, Jack Wahlstrom represented by Felicia Najera, John Westendorf represented by Ted Brenneman, Bob Wood.

MEMBERS ABSENT: Scott Aspelin, Chris Barry, Charles Beckman, Ronald Crabtree, Luke Giles, George Guillen, Guy Jackson, Rory Lang, Sara Metzger, Kristy Morten, David Ramsden, Bob Stokes, Steve Weishar, Kerry Whelan, Kirk Wiles

TECHNICAL TEAM: Carl Masterson (H-GAC); Larry Koenig (TCEQ); Hanadi Rifai (UH);

OTHERS PRESENT: Pat Radloff (TPWD), Jon-Paul Komar, Jeff Stevenson (Deer Park), Brent Dyer, Laura Ferriby, Spencer Williams, Linda Broach (TCEQ)

WELCOME & INTRODUCTIONS

Mary Jane Naquin, H-GAC facilitator, led self introductions and briefly reviewed the agenda. The January 12, 2006 meeting summary was adopted.

STATUS OF WASP WATER QUALITY MODEL DEVELOPMENT

Hanadi Rifai gave a two part presentation on the status of the RMA2-WASP model and the load allocation spreadsheet model. In the first segment, she reviewed the hydrodynamic model RMA2 and the WASP 7.1 transient model. RMA2 model WSE calibrations showed a clear match between observed and modeled. RMA2 model flow calibrations showed varying degrees of comparability between the modeled and observed flow rates, with modeled flow rates nearly ten units of flow (m³/s) off from the nearest peak and there appears to be no reason for this. Overall, the goodness-of-fit projections for these measurements were well matched. The WASP model salinity calibration was not as well matched, possibly due to the fact that WASP is a vertically averaged model, whereas the data for a given location were collected at a single depth. There is a possible numerical dispersion, and a model with a shorter time step of 5 minutes is underway. A watershed model was created through the calculation of the NPS and HSPF and the use of the SCS curve method. This model did not match up with the observed concentrations and it is hoped that the five minute time step may fit better. In addition, a WASP sensitivity analysis was done for scour velocity and pore diffusion, showing for both that the model is more sensitive to these than other factors for which a sensitivity analysis was done. In the second segment, estimates were reviewed for dioxin point source loads, runoff loads, direct deposition loads and in-stream loads. Mass balance calculations were done for 2378-TCDD and TEQ, showing a large portion of unaccounted loads. Estimates on bottom sediment loads were then compared to these unaccounted loads, showing for the majority of the water body segments a possible sink for the unaccounted loads. Sediment could also be a source and there was discussion on how, for individual segments, it could be determined whether sediment was a sink vs. source.

In summary, the thirty minute time step hydrodynamic model is finished, but the salinity calibration may indicate a need for a smaller time increment, which Rifai recommends at five minutes. The runoff loads have been entered into WASP as the measured concentrations (dry and runoff) and USGS flows. However, the WASP model is very sensitive to scour and pore diffusion. The preliminary load calculations indicated major contribution from sediment, and the load calculations are to be refined using a fate and transport model.

ANTICIPATED SCHEDULE

A modeling report was requested to be finished by the end of summer.

NEXT STEPS

After some discussion Dr. Rifai recommended as next steps:

- Calibrate dioxin model to concentrations measured between 2002 and 2004 (long-term run)
- Refine scour and settling models
- Refine NPS load calculations (if needed)
- Run load reduction scenarios
- Update load spreadsheet model and define TMDL

MEMBERSHIP ISSUES

There was little discussion on this item other than there are people who have not attended in quite some time.

NEXT MEETING

The next meeting will be scheduled once the technical team has an idea of the time scale needed to do an analysis in five minute increments.

ADJORN

The meeting adjourned at approximately 3:30 PM.