Meeting Summary
Clear Creek Bacteria TMDL Public Meeting

November 15, 2007

WATERSHED ADVISORY COMMITTEE MEMBERS ATTENDING: Susie Cavazos (League City); Ron Drachenberg (Ft. Bend County); Joe Ferro (Webster); Jon-Paul Komar (Harris County Watershed Protection); Torin McCoy (resident); Catherine Elliott (HCFCD); Jerald Landis (GCWDA);

SUPPORT TEAM PRESENT: Carl Masterson (H-GAC); Mary Jane Naquin; Hanadi Rifai (UH); Ron Stein (TCEQ); Mel Vargas (Parsons); Jennifer Davis (Parsons);

OTHERS ATTENDING: Jean Wright (H-GAC); George Guillen (EIH); Kathy Richolson (GCWDA); Lindsey Lippert (GBEP); Brittany Brownlow (Storm Water Solutions); Erika McCauley (GBEP);

WELCOME & INTRODUCTIONS/AGENDA REVIEW
Following introductions facilitator Mary Jane Naquin reviewed the purpose of the meeting and the agenda, and presented the ground rules for the meeting.

PROJECT UPDATE
Mel Vargas presented the project update. He began with a response to a question from the February meeting regarding exceedences from a wastewater treatment plant (WWTP) at Magnolia Creek/Clear Creek. A representative from the TCEQ Houston office was not in attendance but the technical team will contact the region office to get more information. During this interlude it was pointed out that there is a lack of discharge monitoring report (DMR) data (also known as Self Reporting) available. The team will be contacting the TCEQ region office to get more information. At this point it was suggested that this information could be obtained directly from WWTP operators Mr. Vargas presented the project update in two parts – a general overview of the methods used to arrive at a TMDL number and a look at the source assessment task.

Methods – there are two methods a Tidal Prism Box Model for the tidal portion of Clear Creek and a Load Duration Curve (LDC) for the portion of Clear Creek that is above tidal influence (fresh water).

To prepare an LDC, water quality data is obtained and matched with flow data from the same date. The data is then graphically displayed by a curve on a plot that represents the allowable load (estimated flow multiplied by the water quality standard0; the flow is multiplied by the water quality parameter (bacteria – E. coli for fresh water; Enterococcus for salt water) to get daily loads; then flow exceedence percentiles and daily load observations are plotted in a load duration plot (see the Flow Duration Curve slide used in Mr. Vargas' presentation; the slide show will be put on the TCEQ web site; you can get to the slide show via www.h-gac.com/tmdl, scroll down to TMDL Studies/Clear Creek).

Mr. Vargas went on to explain that an LDC allows the technical team to characterize water quality concentrations of bacteria at different flow regimes. It is an easy method for expediting comparisons between loading analysis and pollutant sources. One difficulty has been that over the years flow measurements were not collected when sampling for bacteria. Also there is only one USGS gauging station and it has insufficient data to give an accurate picture of flows in Clear Creek.
Tidal Prism Box Model – Mr. Vargas portrayed this method as a simple mass balance calculation that assumes the tidal system ins in hydrodynamic equilibrium (what is brought in by the tide is removed by the tide).

A number of questions were raised during Mr. Vargas' presentation. These are summarized:

Q: have you checked with the Corps on flow data through the Federal project on Clear Creek
A; no, but that is a good suggestion. Catherine Elliott said she would check at HCFCD to see if there is any data.

Q: will there be a Load Duration Curve done for each tributary or just the main Clear Creek Channel?
A: all tributaries

Q: can you put in a short term flow gauge to get some real time data?
A: there are a few flow measurements taken during sampling. To get a comprehensive depiction of flow regimes, you need to have a minimum of 10 years of data. This would be a recommendation of the Implementation Plan.

Q: What if LIDAR was available – can you look at stream stage data with the LIDAR to get flow measurements?
A: It could give a very rough estimate. The team will be using a Drainage Area Projection Estimate that involves finding a similar watershed nearby with a 10-year flow gauge record and project that flow to Clear Creek Watershed – found one and it is Sims Bayou.

Q: what about septic systems?
A: they are a NPS. We could use help in getting the numbers of systems and spatial distribution.

Q: in the tidal section will you be looking at the loads that are brought into the segment by tides?
A: yes.

Q: since only ¼ of WWTPs have been characterized, would this not result in a misrepresentation of WLA vs. LA?
A: this would manifest itself in the upcoming source assessment. The team has been struggling with this question from both the PS and NPS sides and a more gross allocation of WWTPs is needed.

Q: how are clogged collection systems accounted for in low flow conditions?
A: it is regulated therefore will be considered a PS. This will become an IP issue.

Q: Are we at the stage where all the work has been done?
A: no, we need to get all the calculations done and come back to the group with the TMDL number.

Q: how do you bring in those areas within MS4 Phase II permits?
A: we'll do a simple gross estimate of the percentage of those areas within the watershed.

Q: will a sensitivity analysis be done on sources to allow us to set priorities on problem areas?
A: it is likely the team can do this.

Throughout the presentation it was noted by Mr. Stein that a number of issues will be able to be addressed during implementation planning.

DISCUSSION OF WATERSHED ADVISORY COMMITTEE, IMPLEMENTATION & NEXT STEPS

Ron Stein, TCEQ, led this part of the meeting. He noted that what is really wanted through the TMDL program is to improve water quality. Even with a paucity of data, we must proceed and address certain issues during implementation – the TMDL goes only so far; it is necessary for permit regulation. The Implementation Plan is not a short term affair and TCEQ and EPA are aware of this, that adaptive management will be a necessary strategy and there has to be time to make sure whether implementation measures are working or not.

Mr. Stein presented a conceptual organization plan with the Watershed Advisory Group functioning as the core of a Watershed Protection Partnership, bringing in other watershed stakeholders to address specific issues such as regionalization of wastewater facilities, education and outreach (very important), stormwater discharges, septic systems and other issues the stakeholders identify. He also presented goals for the Watershed Protection Partnership and a strategy for achieving the goals.

While the implementation planning will be in the hands of the watershed stakeholders, TCEQ will provide as much technical assistance as is possible and help identify sources of funding to get implementation measures on the ground. Mr. Stein talked about schedule, saying the next meeting would probably be sometime in late January where the final TMDL number will be presented and that implementation planning should begin in April 2008 and completed by April 2009.

NEXT MEETING

It is anticipated that the next meeting will be held in late January 2008.

ADJOURN

Business being completed, the group adjourned at approximately 8:15pm.