Tres Palacios Total Maximum Daily Load (TMDL)
Low Dissolved Oxygen Project
Meeting Summary
November 1, 2005

DRAFT Summary

ATTENDING STAKEHOLDERS:

Aaron	Wendt	Texas State Soil and Water Conservation Board
Betsy	Terrel	Lower Colorado River Authority
Cathy	Porter	Texas Nature Conservancy
Ed	Schulze	Matagorda County Environmental Health Department
Haskell	Simon	
Percy	Carroll	Matagorda County
Richard	Gonzales	Gulf of Mexico Foundation
Linda	Broach	Texas Commission on Environmental Quality
Arthur	Priesmeyer	Wharton County S&WCD
Chad W	Ahlgren	Texas Commission on Environmental Quality
Robert	Shoemate	Jackson SWCD#336
Sylvia	Balentine	Lower Neches River Authority
Brian	Koch	Texas State Soil and Water Conservation Board
Bill	Balboa	Texas Parks & Wildlife Department
John	Wedig	Lower Colorado River Authority

ATTENDING PROJECT STAFF:

Sandra	Alvarado	Texas Commission on Environmental Quality – Project Manager
Sally	Applebaum	University of Texas – Marine Science Institute
Earlene	Lambeth	Texas Commission on Environmental Quality

CALL TO ORDER/WELCOME/INTRODUCTIONS:
Sally Applebaum with the University of Texas, Marine Science Institute opened the first meeting for the Matagorda Bay and Nearby Coastal Waters Dissolved Oxygen and pH Total Maximum Daily Load (TMDL) project initiated by the Texas Commission on Environmental Quality.

The purpose of the meeting was to inform the stakeholders on the status of work that was being performed under a TMDL project which included Matagorda Bay/Powderhorn

Lake, Tres PalaciosBay/Turtle Bay, Conn Brown Harbor, and Carancahua Bay as required under the 1972 federal Clean Water Act.

The evenings' meeting agenda included presentations on the states' TMDL program and process, the history and development of the project, the 305(b) and 303 (d) listing processes and provided an opportunity for the public to have input into the project(s). Presentations focused on Matagorda Bay, Tres Palacios Bay, and Carancahua Bay, all of which have been found to be impaired (not meeting its criteria). A water body listing would occur when the sampling results do not meet a 24-hour average criteria set of 5 mg/liter and not less than 4 mg/liter - 10% of the time.

Sandra Alvarado, the TCEQ Project Manager, gave a presentation about the goal of the TMDL Program which is to restore surface water quality across the state. A TMDL determines the amount of a pollutant (or load) that a body of water can receive and still support its designated uses, such as recreation, support of aquatic life, harvesting and consumption of oysters. The load is then allocated among all the potential sources of pollution within the watershed and measures to reduce pollutant loads are developed as necessary. Both point and nonpoint sources of pollution are identified as part of the TMDL and reductions in those pollution sources are determined.

Ms. Alvarado explained how the 303(d) List identifies water bodies that do not meet, or are not expected to meet, applicable water quality standards (which the bays are listed under a category of "exceptional use"). The EPA approves the 303(d) list which is compiled every two years. Ms. Alvarado reported that the designated use specified for Tres Palacios Bay is not being met.

The main elements of the final TMDL document will be: 1) problem definition, 2) endpoint identification, 3) source analysis, 4) linkage between sources and receiving waters, 5) a margin of safety, and a 6) pollutant load allocation (point, nonpoint and natural).

After the TMDL is prepared the next step would be to develop an Implementation Plan (IP). An IP is a detailed description of the regulatory and voluntary management measure necessary to achieve the pollutant reduction identified through the TMDL.

Sandra's presentation can be viewed at the TCEQ's web site at the following address: http://www.tceq.state.tx.us/assets/public/implementation/water/tmdl/62-nov05-tmdl101.pdf

To follow are some questions and comments received:

Question: What criteria are used for establishing sampling stations?
Answer: Reviewing historical data that is representative of the bay and available funding and resources.

Sally next presented how the monthly sampling was taken following the quality assurance project plan that was developed and the results of the sampling/monitoring. A copy of Sally's presentation can also be viewed at the TCEQ web site shown above.

Seven stations were monitored in Tres Palacios Bay (2 stations outside the harbor and 1 station in the harbor), Carancahua Bay (1 station), and Matagorda Bay (3 stations) during 2004 and 2005 (last sampling date was 10/05). The station in the Tres Palacios harbor did not meet the criteria for dissolved oxygen.

Sally presented detail information on the equipment used in the sampling, how it worked, how it was calibrated, etc. She explained that the same instrument is used to measure various parameters such as DO, pH, temperature, etc. She said that one of the requirements was to have at least 10 sampling events in order to conduct an assessment. The samples were all taken during the index period between March and October (DO tends to be lower in the summer months).

Question: What determined that you monitored so high in Carancahua Bay?
Answer: It was a historical station where the impairment was documented.

Question/Comment: Did you know that you had the Tres Palacios monitoring equipment right in front of the wastewater treatment discharge?
Answer: Yes, it seems that DO is not affected by the wastewater treatment discharge. There is also another one way north. We will address this more in the report that will be submitted.

Question: How close were your sites to the ship channel? Adjacent to it?
Answer: We were by it but not in it; by the channel marker.

Question: Did you have a problem with ship traffic?
Answer: The station was inside the harbor and just inside the jetties. We never had a problem with ship traffic.

Comment (Stakeholder): I am thinking the move from the ship traffic maybe acted as a saltwater intrusion.
Answer (Sally): The water movement in this area moves fairly rapidly. Anytime you have water movement, you can have the water getting saturated with air, lowering/raising the DO. Salinity was also monitored.

Where do we go from here?
Sandra began this discussion with a re-cap of her original thinking on the project after reviewing sampling results. She said her original thought was that UT-MSI and the TCEQ would plan to come to the Tres Palacios meeting and would present the results and the segments would all be de-listed. Sandra reported that some of the stations have been borderline and teetering at the 10% level that would make them over the standard set. She said that the decision was made to collect more data for two events, Sept. and October, from the Palacios harbor station that might give more indication of what was

going on. Sandra said that both of the events in the harbor (Sept. & Oct.) that were sampled did not meet the criteria so that caused an exceedence of the criteria over 29% of the time.

Sandra surmised that Carancahua Bay and Matagorda Bay would be removed from the 2006 303(d) list. However, Tres Palacios Bay will remain on the 303(d) list. Sandra asked the stakeholders to consider a the following: 1) Change the designated use from exceptional to high in the harbor or; 2) Do not include the data collected in the final report from the harbor station (13382) in the assessment because it is not representative of the bay (which EPA may or may not approve); 3) Move forward with the TMDL project – determine what oxygen demanding substances are causing the low dissolved oxygen and what reductions would need to be taken in order to restore Tres Palacios harbor to its designated use. Another option to consider in the harbor might be to install an aeration system that would mix and add oxygen to the water raising the DO.

Question: What is causing Tres Palacios to be impaired?
Answer (Sandra): Currently, it is the station in the harbor that is exceeding the limits set.
Comment (Stakeholder): It does not have the wind current as the open bay and it is protected with the rocks and it is a dumping ground. The shrimpers use it.

(Sally) We have looked at some of the permitted dischargers through the TCEQ database. There is one in the inner-harbor (a bilge water reclamation facility) right before the RV Park. Sally believed that it was far enough away from the sampling station that it was not causing the problem or changing the oxygen values. She also said that the other permitted discharger was the City of Palacios wastewater treatment plant. Sally stated that she did not feel that would be an issue or causing the impairment either.

Sally reminded the stakeholders that the station was right in front of the slough (wastewater discharge that was asked about earlier in the meeting). There were times that the station did not meet the criteria and the harbor was fine. The harbor was built to minimize erosion and wave action, there is not very much water flow and when it gets hot, the water sets up in a stagnant water column and that is when you get your low DO's.

Comment: It may not be permitted discharges but there are a lot of beach houses and an RV Park. The low DO may just be a by-product of this.

Sally said that UT-MSI counted more shrimping boats than recreational boats.

Comment – Stakeholder: Tres Palacios is the largest single port on the Texas coast. We have shrimp processing houses and lots of 90' steel shrimp boats here. There are a lot of organics running into the water here. We have a big ship yard. There are a lot of non-point sources that could affect the DO levels.

Question: Are you saying that the designated use could be changed just in the harbor and not the whole bay?
Answer: Yes, I was told the harbor could be changed.

Question: Does that mean you would have to do a use attainability study? Who would bear that expense?
Answer: Yes, it would be the TCEQ and we could not tell you when that would happen. It would be very expensive – lots more data collection.

That is what we would like to know from you, the stakeholders, what is your input?

Comment: Maybe we could have a wind farmer get a fan going in the harbor. There should be some special attention to the transition of the shrimping industry. With the hurricanes, gas prices, etc., for the shrimpers, it is not business as usual right now. Another consideration would be to pay attention to storm water runoff.

Sandra - What I am hearing is that there are non-point sources that are controllable and that there are things we can do to improve the water quality? It is just a matter of what and how.

Comment - Stakeholder: Another consideration is that I didn't see any sensors up the river, where the river comes into the bay. There is rising population on the Tres Palacios River and not all are incorporated.
Answer – Sandra & Sally: They are monitoring there. It is under a separate project. We will be merging with them and sharing data. There will be a joint effort among various state and local entities. We do not want to duplicate efforts. Some of the other ongoing work is focusing on water quantity and not water quality. I believe a lot of the work they are doing is a snapshot in time, where I believe the TCEQ has been doing a more prolonged study. The TCEQ will take water samples for DO in the hot summer where others might be doing more seasonal studies such as fresh water inflows, etc. We will certainly coordinate and share data with all the parties. We will contact the river authority and see if they are piped in to all the work that is going on in the bays.

Comment - Stakeholder: I think it is very wrong that the harbor drags down the whole bay. It does make the bay "look bad". The bay is fine and wonderful but the harbor needs work. It is only mildly stressed and it would not take much to turn it around.

Sandra closed the meeting with the promise that the TCEQ would be back. She would take all the data under consideration, talk to the TCEQ Permitting, and if the stakeholders thought of something else to please let us know. The TCEQ does want to hear from the locals since they know the area the best.