

# Atascosa River TMDL Public Meeting

Meeting Summary – July 12, 2005

## **Attendees:**

**Diana J. Bautista, Rocky Freund, Stanley and Nancy Coughran, Kathy Coronado, Jesse Pawelek, and Jim Hill.**

**Also present was TCEQ - Project Manager Andrew Sullivan, and TCEQ contracted staff representing: Shoreline Environmental Research Facility (SERF) –Robert Wilkinson; Ecological Communications Corporation (EComm) –Facilitator Jeremy Walther; Limno-Tech – Scott Hinz. TSSWCB – Aaron Wendt.**

## **CALL TO ORDER/WELCOME/INTRODUCTIONS:**

Jeremy Walther opened the public meeting by explaining that the purpose of this meeting is to provide the most recent results from the data collected during the Atascosa River TMDL project, discuss how the data will be used, discuss how the TMDL might be implemented, and to initiate the formation of a stakeholder group (steering committee). Introductions were made, handouts distributed, and the evenings' agenda was reviewed.

Public participation is very important and ensures that state government considers local perspectives in its decisions. The Atascosa River project will be a joint effort among the state and local stakeholders.

## **PROJECT OVERVIEW**

Mr. Sullivan pointed out that all biological and water quality data made during ambient monitoring was available in the reports provided during the meeting.

Mr. Sullivan began by presenting the data that has been collected to present date. He revisited the standards. For dissolved oxygen, 5mg/L (average criteria) must be met, as well as a minimum standard of 3mg/L. If levels drop below these standards, the high aquatic life us is not being met. For contact recreation, the indicator is bacteria concentration, specifically of E. coli. There are two criteria for this as well: single sample of 394 colonies per 100 mL; and geometric mean of 126 colonies per 100 mL.

### *Dissolved Oxygen*

The uppermost site (17898) exceeded dissolved oxygen criteria 4% of time (both average and minimum criteria). This indicates that there doesn't appear to be much of a problem at the most upstream site. At the next downstream site (17900), located in Pleasanton, minimum criteria were never exceeded, while average criteria was exceeded 17% of the time. The next downstream site (17899) had zero exceedences below the minimum criteria, but exceeded average criteria 27% of the time. The furthest downstream site (12980) found no exceedences across all samples.

### *Bacteria*

At the uppermost site (17898), the single sample criteria was exceeded 8% of the time. The geometric mean criteria was 93 (meeting standard). Anything above 126 would be considered exceeding that standard. At site 17900, single sample criteria was exceeded 47% of the time, while geometric mean criteria was 327 (more than double standard). At site 17899, single sample criteria was exceeded 43% of the time, while geometric mean was 365. For site 12980, single sample criteria was exceeded 58% of the time, while geometric mean was 409.

Mr. Sullivan then reviewed the four possible measures that could be taken now that ambient data collection is complete and the data has been analyzed. Of the four possible outcomes for the aquatic life use, a standards change would be one possibility. The data clearly showed that removing it from the impaired waters list is not a possibility. It is decided that there is not enough data to justify going to a TMDL, and additional dissolved oxygen data will be collected to determine if the problem can be fixed with a TMDL or other corrective method.

For the contact recreation use, removal from the 303(d) list was ruled out as a possibility, since *E. coli* concentrations exceeded the established criteria. Further data collection was also negated as a possibility, as data from this project and GBRA collections provide more than enough to make a decision. Therefore, a TMDL will be developed for bacteria. The primary contact recreation use can only be changed in very limited cases due to such factors as accessibility or safety. Therefore, there is no alternative to the development of a TMDL for contact recreation.

Mr. Sullivan stated that during the last fiscal year, work has been initiated to address the water quality problem and to start taking remedial action. He explained that the team has been sampling during high flow conditions, to determine how high bacteria levels are affected by rain events as water runs off from the surrounding watershed. He then explained that this data will be used in computer models to develop the TMDL.

He then emphasized the importance of developing a watershed committee, and stated that formation of this group is a major goal at this stage of the project.

### **PROGRAM OVERVIEW**

Mr. Sullivan then briefly presented an overview of the TMDL program. There are two key elements of the program: the TMDL, which determines the maximum load of a specific pollutant and allocates the load to sources throughout the watershed and; the implementation plan, which uses best management practices, permitting, and other available tools, to try to fix the problem.

He explained that there are six parts to the TMDL part of the program: 1) define the problem, 2) endpoint identification, 3) identify sources, 4) identify linkage between sources and water body, 5) margin of safety, and 6) complete load allocation. Once a TMDL is approved by the EPA, the project moves into the implementation plan, which is largely carried out by the watershed committee.

He then reviewed the two kinds of implementation plans. The first is a TMDL implementation plan and a watershed restoration plan. Both have the same goals; to improve water quality and restore uses. Implementation plans are remedial, while restoration plans are either remedial or

preventative. The Atascosa River will be using an implementation plan, since a TMDL will be developed.

Mr. Sullivan then discussed the Texas Surface Water Quality Standards in relation to contact recreation. He stated that the standards are very hard to change, and that all water bodies in Texas are required to have a primary contact recreational use, even unclassified water bodies. There are two categories of recreational use: contact recreation use and non-contact recreation use, each with their own criteria. The only way to change a use is through a Use Attainability Analysis (UAA). Water quality standards are supposed to be revised every three years, although the last revision occurred in 2000. There are very few water bodies that have a non-contact recreation use. One example is the Houston Ship Channel. Several factors may support a UAA to determine that a water body should have a non-contact recreation use. These are: 1) the water body may not be physically amenable to contract recreation; 2) no evidence of recreation (though very hard to prove); and 3) seasonal recreation could not occur during low flow conditions. Mr. Sullivan then provided a map showing all water bodies that are not meeting the contract recreation uses to demonstrate how widespread the problem is throughout the state.

Mr. Sullivan then called for questions.

One attendee asked if it was outlawed to swim in the river, would contact recreation use still have to be met. Mr. Sullivan stated that a city ordinance would be required for that, and that it would only apply to the city limits, and that the watershed extends beyond city limits.

Another attendee stated that it appears there has not been any progression on the project since the last meeting. Mr. Sullivan stated that we have collected data from a single storm event (which will be presented later during the meeting) and will collect data from an additional two events. He then explained that the meeting was put off until the first storm event so that at least some new data would be presented.

The same attendee asked if he and his neighbors should be concerned with livestock drinking from the Atascosa. Mr. Sullivan stated that the standards are only for humans, but that he would assume that the water will do no harm to cattle or wildlife.

The attendee then asked about the composition of the stakeholder group. Mr. Sullivan answered that anyone can be involved, and that the committee needs to be balanced before it is approved through a formal process by the TCEQ. He stated that the next meeting will hopefully occur by next fall, after the other two sampling events are conducted. At that time, there should be large amounts of data and modeling results to present to the committee.

#### **DATA COLLECTION UPDATE**

Mr. Walther then introduced Mr. Wilkinson, and explained that he would be presenting the data that was collected during the single high flow sampling event. Mr. Wilkinson stated that one out of three sampling events has been complete, and occurred around the end of February 2005. He showed a map of the sampling sites, and demonstrated that the sites distributed to try to capture a broader picture of the watershed.

Mr. Wilkinson explained that dissolved oxygen, temperature, pH, and conductivity were measured using scientific probes, and that water samples were taken every 8 hours and sent to a lab in San Antonio. Additionally, pathogen samples were taken every 8 hours and analyzed in Pleasanton during the sampling event.

Mr. Wilkinson stated that the pathogen spikes reached as high as 25,000 colonies, which more than exceeded the single sample standard of 394. He stated that additional work is required and that it is dependant on more rain.

He then stated that bacterial source tracking may be used in the future for this project, and that a time of travel study and cross section surveys will also be performed near the end of summer. All of the data will be used by modelers to determine the existing load and to determine sources of the pollutants. He stated that the time of travel study will use a non-toxic dye and fluorometers to measure the leading edge, maximum concentration, and trailing edge of the dye mass.

An attendee asked if the dye study just measures flow. Mr. Wilkinson answered that it was necessary for the modelers to have an idea of how long it takes for pollutants to go from the top of the watershed to the bottom.

Mr. Sullivan followed up that although flow does measure velocity, the dye study is required to determine how long it takes for water to travel through the watershed. He cited the example of the impoundment at the city park in Pleasanton, and that it takes water a lot longer to get through that area than it does through other areas of the segment.

One attendee asked if municipal sewage plants are being looked at as a possible source. Mr. Wilkinson stated that the sampling points are placed to be able to pinpoint where the sources for pollution are. An attendee asked if there was a sampling point above Poteet, and Mr. Wilkinson stated that the segment above Poteet is not considered impaired and that flows were too low during ambient monitoring to include sampling sites there.

One attendee stated that by his observation, Poteet wastewater treatment plants might be a major contributor to the pollution, and that it would be very important to try and sample above Poteet to get a real indication of what is happening. Mr. Wilkinson pointed out that changes to the project, such as adding sampling points, may be a decision that the watershed committee can make. The attendee emphasized that several years ago, during a period of no rain, there was a portion of the segment above Pleasanton and below Poteet that saw an increase in flow, and that water quality was extremely poor. The source, he theorized, had to come from Poteet.

Ms. Bautista asked if anyone has ever walked the entire segment to try to identify what is happening. Mr. Wilkinson stated that it would not be feasible, and in some cases, might not be legal, to do that, but that satellite imagery and several weeks of ground truthing were conducted to identify the best sampling sites.

Mr. Walther then called for a 10-15 minute break.

## **IMPLEMENTATION AND MODELING**

After the break, Aaron Wendt of the Texas State Soil and Water Conservation Board, presented the role that his agency would play in the implementation phase of the TMDL project, citing the example of the Peach Creek TMDL project, which is further along than the Atascosa River project. He explained the programs administered through the TSSWCB, including soil and water conservation district assistance, water supply enhancement, and non-point source pollution abatement. Mr. Wendt also explained that the implementation strategy for this project would most likely include voluntary implementation of best management practices (BMPs) by private landowners. Using Peach Creek as an example, he described poultry operation BMPs that are already in place, as well as cattle operation BMPs that will be used.

One attendee asked what the cost share would be. Mr. Wendt stated that on some practices for Peach Creek, the cost share is 75% for his agency's program, and that other contributions are available. He also stated that funding and resources are available now and do not have to wait for the TMDL process or the implementation phase.

One attendee noted that the most likely source of feces in the watershed is feral hog, as there are a higher number of hogs than there are cattle in this watershed. At least two other attendees agreed.

Mr. Sullivan noted that if the project shows the main source to be wildlife, that there may not be much potential for management. He emphasized, however, that it is important to take actions on sources that are manageable to help control the problem.

Mr. Walther then presented a sign-in sheet for those interested in signing up for the watershed committee. Mr. Sullivan stated that although the numbers were low for the meeting's turnout, there would be opportunity for additional members to join the committee. He explained that the watershed committee plays the most important role during the implementation phase of the project, and that a large and diverse group is crucial. He expressed hope that the next meeting would have a larger turnout, and that more people would be interested in participating on the committee.

Ms. Coronado suggested that it did not appear that new information was presented, and that it might be a reason for such low turnout. Mr. Sullivan stated that some information, particularly that presented by Mr. Wendt, was important, but that the presenters would keep that in mind when planning future meetings.

Scott Hinz then briefly summarized the status of the modeling for the project, which is in very early stages and awaiting further data.

One attendee asked if the sandy soils of the Atascosa can play a role in the elevated bacteria levels. Mr. Sullivan stated that the sediment can have an impact, and noted that in some segments in the Houston area, bacteria becomes trapped in the soil and is freed during high flows. The same occurs in sandy soils (like in the Atascosa) but not at such significant levels.