

## **Meeting Notes from the Attoyac Bayou Watershed Partnership meeting**

March 7, 2013, 6 pm

Nacogdoches County Farm Bureau Conference Facility

### **Presentation of the Recreational Use Attainability Analysis Survey Findings**

**Sarah Fuller**

Sarah provided an overview of the RUAA process and procedures used to conduct the RUAA in the Attoyac Bayou watershed. She provided an overview of the results from the RUAA and discussed evidence, or lack thereof for recreational uses of the waterbody. Below are key points from the presentation as well as questions raised by stakeholders during the meeting.

Overview UAA: assess water bodies and their use

Water Quality Standards:

4 categories available today

-primary contact, secondary contact 1, secondary contact 2, non-contact

RUAA procedures:

- 2 surveys were planned at 44 sites during warm part of 2012 (July & August)
  - only 43 sites were surveyed due to one landowner retracting previously granted permission to access private property
- documented historical use of waterbody
  - some instances of swimming and noodling were noted by individuals spoken to
- widespread concern about snakes and alligators in the waterbody; photos taken by survey crew confirms presence of both in waterbodies
- 2 teams performed the survey, one starting at the north end of the watershed and one starting at the south

-Primary contact recreation only occurs infrequently

-public access is restricted to road crossings

Field Surveys documented physical stream characteristics and evidence of recreational types

- stream width, depth, bank characteristics, flow conditions, ease of access, etc.
- notation of human use evidence (footprints, trash, fishing debris, etc.)

Also documented potential sources of contamination:

- feral hog activity was widespread
- illegal dumping was common
- livestock accessing the creek in several locations
- wildlife use was common; abundant beaver activity, alligators, water moccasins

No direct human use of the waterbody was observed during the water body surveys; but evidence suggested fair amount of secondary use such as fishing does occur

**Question:** Where does this RUAA document go from here?

**Answer:** The draft RUAA report will be released in the very near future for stakeholders to review and provide comments on:

- comments received will be addressed and how they are addressed will be conveyed back to stakeholders
- once stakeholders agree that comments have been adequately addressed, the RUAA report will be delivered to TCEQ for their review
- TCEQ will then review the document and provide an initial assessment; at that point, another public comment period will begin allowing for the public to comment on the recommendations made and their appropriateness
- TCEQ will then review comments received; address them and notify the public on how the comments were addressed
- Once comments are addressed, a final recommendation will be made and ultimately it will be up to the TCEQ Commissioners and the EPA to accept or reject these recommendations

**Question:** Does the survey team have a chance to make a recommendation on what they feel the the most appropriate use of the waterbody should be?

**Answer:** The role of the survey team that conducts the RUAA is to present only

the facts found; this is the role outlined in the guidance on how to conduct an RUAA

- public comment period does allow for the survey team to provide their opinion
  - when TCEQ makes a recommendation, if the survey team disagrees with this recommendation a formal comment can be sent to TCEQ describing why they disagree

One stakeholder mentioned that the significance of drought conditions in 2011 and 2012 may influence the use of the water bodies during the RUAA survey period

TCEQ will take a holistic look at all information received and included in the RUAA and will utilize this complete suite of information received (written and comments) in making a recommendation on the appropriate use of the waterbody

- there are not two waterbodies that are the same; so each water body receives its own review

### **Water Quality Monitoring Results: Brian Sims**

Brian presented a review of all of the data collected during the course of the Attoyac Bayou project which spanned from July 26, 2010 to August 20, 2012. One point to note is that extreme drought conditions experienced in the watershed during this time frame led to no flow conditions occurring at several locations on numerous occasions.

The use of water quality data collected and how these data will be interpreted was not clearly portrayed in the presentation and led to some concern from stakeholders present. At this point, it was explained that for waterbody assessment purposes, TCEQ only utilizes data collected under flowing conditions. While those data collected under non-flowing conditions won't be used to assess the waterbody, they will be very useful in bacteria source tracking analysis and will illustrate what types of direct *E. coli* deposition is occurring in the waterbody. This information will further aid in future decision making on what sources of *E.*

*coli* to address through the watershed protection plan. Additionally, it was noted that the different types of data collected and their respective uses will be clearly described in the watershed protection plan and that stakeholders will be given ample time to review the plan and provide comments.

For the purposes of this presentation, the current primary contact recreation standard of 126 colony forming units (CFUs)/100mL of water was used as a threshold to compare monitored water quality to.

8 of 10 sites monitored had E. coli levels above this primary contact recreation water quality standard; however, if the water quality standard for the Attoyac was changed to secondary contact recreation 1 standard of 630 CFUs/100mL, all sites would meet these standards

For all nutrient parameters, a concern is typically noted when 20% or more of the samples collected exceed the designated screening level.

In looking at ammonia and evaluating all of the data collected, more than 20% of samples from two sites exceeded the screening level of 0.33mg/L. That said, these two sites also exhibited non-flowing conditions on many occasions and data collected under those conditions will not be used in a water body assessment.

**Question:** How does the bacteria impairment in the Attoyac compare to other similar waterbodies in the basin?

**Answer:**

- It is relatively similar with other waterbodies, but was one of the earlier waterbodies listed as impaired
- bacteria and ammonia concerns are fairly common throughout the Neches basin

### **Load Duration Curves and SELECT Model Results: Lucas Gregory**

Lucas presented load duration curves with pair water quality data with stream flow conditions measured at the same time. These graphics illustrate how

bacteria loads vary under different flow conditions. Generally speaking, potential sources of pollution change under different flow conditions as well. In dry and low flow conditions, pollution from point sources or direct deposition to a waterbody is most likely while nonpoint sources of pollution are the most likely contributors under mid-range, moist and high-flow conditions. This can help identify what type of pollution is most common in the watershed. In all cases illustrated, pollutant loading was higher than it should be to meet the water quality standard under high-flow, moist and mid-range conditions thus indicating that the most likely sources of *E. coli* entering the waterbody are nonpoint sources scattered across the watershed. To a lesser extent, low flow and dry conditions also exhibited excessive *E. coli* loads indicating that direct depositions of *E. coli* to the waterbody are also a likely source type.

Additionally, these load duration curves illustrated flow conditions observed at each site throughout the course of the project.

**Question:** If nonpoint sources of pollution from across the entire watershed are the primary source, why are landowners along the creek responsible for the problem?

**Answer:** The landowners along the creek are not responsible for sources from other area of the watershed.

**Question:** OK, so how do landowners develop a plan to address these sources that are upstream from our property or are natural sources of pollution such as a bird rookery?

**Answer:** Excellent questions.

- For these cases where natural sources are identified, these items are identified in the watershed plan and are noted and considered by the state when assessing water quality across a watershed.

- To address sources of pollution that are distributed across the watershed, the information we are presenting, such as the SELECT model outputs and bacteria source tracking analysis, help identify where these sources of pollution are most likely to come from. This information can then be used in association with your local knowledge of the watershed to plan out where management measures

should be directed.

Next, Lucas presented revised SELECT model results based on stakeholder feedback received during the last few meetings. What these results illustrate is the relative worst case potential for each subbasin with the Attoyac Bayou watershed to contribute *E. coli* loading from the analyzed source. A separate analysis was conducted for cattle, horses, deer, feral hogs, poultry, OSSFs, Dogs, WWTFs and hunting camps. An aggregate output was also presented illustrating what areas of the watershed had the highest potential to contribute *E. coli* from all of the sources contributing to the watershed. When compared, OSSFs and hunting camps have the highest potential *E. coli* loading of all the sources evaluated. WWTFs, horses and poultry had the lowest potential for contribution.

**Question:** Are the results of the bacteria source tracking available yet?

**Answer:** Not just yet, they are winding that down and that information will be presented at the next meeting.

**Next Meeting:**

From this point forward, the frequency of the meetings will be increased to ensure completion of the project on time.

- Meetings should be every other month
- Next meeting tentatively scheduled for Thursday, May 2
  - o Nacogdoches County Farm Bureau Conference Facility, 6 pm
- Topics to be discussed at next meeting:
  - o RUAA draft report to be released
  - o BST