Attoyac Bayou Watershed Partnership Meeting Minutes

June 7, 2012
Nacogdoches County Courthouse Annex
6:00 PM
33 people attending

All presentations summarized below are available on the project website at: http://attoyac.tamu.edu/meetings

6:00 PM: Mr. Anthony Castilaw, CES: Meeting Opening and Introductions

- Welcomed everyone to the meeting and thanked them for their attendance

6:05 PM: Mr. Aaron Wendt; TSSWCB: Importance and Utility of WPPs

Presentation #1 on Project Website

- provided an overview of the connection between landowners and NRCS, SWCDs and TSSWCB
- discussed the Federal Clean Water Act, water quality in Texas and water quality impairments in Texas
- focus on Bacteria Impairments was emphasized due to bacteria impairment in Attoyac Bayou and their prevalence statewide
- 4 approaches to restoring water quality are available
  - additional monitoring demonstrates that water quality achieves standards
  - Use Attainability Analysis (UAA) results in different standard being applied to the watershed
  - a Total Maximum Daily Load (TMDL) and Implementation Plan are developed
  - a Watershed Protection Plan (WPP) is developed

Additional Monitoring:
- collected additional data in the watershed, most waterbodies are only monitored quarterly
- small datasets may or may not represent true water quality; make potential source ID difficult

UAAs:
- physical assessment of the stream to evaluate its ability to support its designated uses; ex. Contact recreation
- also documents the current uses of the stream and history of use

- Four potential use categories for recreation: Primary Contact, Secondary Contact 1, Secondary Contact 2, Non-contact
- All waterbodies are assumed to be Primary Contact unless proven otherwise through a UAA

- TCEQ has only made decisions on 8 RUAAs across the state; 4 remained primary contact and 4 are recommended to change to Secondary Contact 1
- EPA will have to review these recommendations and will ultimately decide if the standards change is appropriate

- potential standards changes only occur during the state's triennial water quality standards review process; 2015 is the next cycle

TMDL:
- a budget for pollution in a stream that defines the maximum amount of pollutant a waterbody can receive and still meet water quality standards; loads are allocated between point and nonpoint sources of pollution
- these are approved by both TCEQ and EPA
- Implementation Plans outline measures necessary to mitigate pollutant loading to the waterbody; these are only approved by TCEQ

WPPs:
- voluntary approach to holistically addressing water quality concerns across an entire watershed
- tools to better leverage available resources to implement the plan
- driven at the local level by local decision making
- utilize adaptive management to change strategies along the way
- demonstrate to agencies that local stakeholders are taking action to restore water quality

WPP is being developed for Attoyac Bayou to address the bacteria impairments and ammonia concern
- through this process, technical assistance is being provided to local stakeholders to make informed decisions on how best to address these issues at the local level

Q/A:
Q: Assuming the RUAA conducted on the Attoyac Bayou indicates that Secondary Contact 1 is appropriate, when could/or would TCEQ make a decision on revising the standard?

A: It would be 2015 at the earliest. TCEQ staff only make recommendations on what they think the appropriate use should be. TCEQ Commissioners must ultimately approve the decision to change the standard at the state level and EPA must also approve the change. A standards review is occurring now, so the next time TCEQ Commissioners would consider the results from Attoyac would be 2015. The timing on EPA's decision is not certain and could be a year or more after that.

Q: Are WPPs formally approved like TMDLs are?

A: No, they do go through an EPA 9 element consistency review to ensure that they satisfy EPA requirements for all WPPs. This review essentially opens the doors to receive future EPA funding to implement portions of the WPP.

Q: To date there hasn't been too much 'success' or water quality restoration seen through implementing WPPs. What happens if the WPP doesn't achieve its goals?

A: Several things could happen. Lawsuits could possibly arise basically suing EPA for slow or no restoration of water quality. As a result, mandatory TMDLs and regulatory action could ensue. Chesapeake Bay is an example of this.

6:45 PM: Mr. Anthony Castilaw, CES: Steering Committee Recommendations for Goals and Objectives

Presentation #2 on Project Website

A meeting of the Watershed Steering Committee was held April 30, 2012 to discuss developing Goals and Objectives for the Watershed Planning Process

During the meeting, the following items were recommended:

Watershed Mission Statement:

To promote the conservation and stewardship of the Attoyac Bayou watershed in a manner that improves and sustains instream water quality, protects its ecologically diverse natural resources and maintains the economic viability of the watershed while simultaneously supporting the needs of watershed stakeholders.

Watershed Goals:

- Meet designated water quality standards set by the state for the Attoyac Bayou
- determine the appropriate water quality standard for the Attoyac Bayou
- improve awareness and understanding of local water quality concerns
- encourage voluntary adoption of practices that improve water quality through better watershed stewardship

6:55 PM: Ms. Sarah Fuller, SFA: Recreational Use Attainability Analysis

Presentation #3 on Project Website

A more in-depth review of the RUAA process was given highlighting the process, its purpose, water quality standards, RUAA components, sites and expected field survey dates.

RUAAs: - assess the physical, chemical, biological and economic factors affecting the ability of a water body to meet its designated uses
- the purpose is to provide documentation needed to validate a change to a more appropriate water quality standard for the waterbody

Water Quality Standards:

- prior to 2010; only two standards existed: Contact and Non-Contact
    - contact applied to all waterbodies with the exception of just a few
    - contact was considered all uses except where forbidden by law
- 2010 water quality standard revision yielded four contact recreation use categories
    - primary contact: 126 cfu/100 ml of water: recreation with a significant risk of ingestion
        - swimming, diving, wading by children, water skiing, tubing, whitewater kayaking, canoeing, rafting
    - secondary contact 1: 630 cfu/100 ml of water: recreation that commonly occurs but has limited body contact incidental to shoreline activity
        - fishing, canoeing, non-whitewater kayaking and rafting, sailing and motor boating
    - secondary contact 2: 1030 cfu/100 ml of water: activities with limited body contact incidental to shoreline activity; occurs less frequently that SCR1 due to physical stream characteristic limitations
        - fishing, canoeing, non-whitewater kayaking and rafting, sailing and motor boating
    - noncontact recreation: 2060 cfu/100 ml of water: activities that do not involve a significant risk of water ingestion incidental to shoreline activity: birding, hiking and biking

Focus in the Attoyac Bayou:

- assess the current uses of the Attoyac Bayou, i.e. what is actually occurring
- will evaluate sites twice during the warm season when use is most likely to occur
- document current and historical use of the waterbody, barriers to use and public perceptions/knowledge of uses
- photo document observations at each site
- will assess 53 sites in the watershed on the Attoyac Bayou, Big Iron Ore Creek, Naconiche Creek, Terrapin Creek, Waffelow Creek, West Creek

Expected field survey dates are: July 4th weekend and sometime in August

Q/A:

Q: are the four separate water quality standards options published yet?

A: Yes, these standards are published in the Texas Administrative Code 307.1 – 307.10

7:20 PM: Mr. Jeff Williams and Dr. Leon Young, SFA: Infrared Imagery Analysis of Pastures

Presentation #4 on Project Website (includes maps)

For use in modeling potential bacteria loadings from chicken litter, the following approach was proposed for identifying where in the watershed chicken litter was likely applied as opposed to applying litter across all pastures.

- using pastures and rangeland in the watershed, multispectral imagery was analyzed to identify potential hay fields or managed pastures that receive nutrient applications
- fields receiving nutrient applications produce different infrared signature than those without; signature also varies by amount of nutrient build up in the soil

- in the map, fields with yellow, orange and red signatures receive nutrient amendments, likely chicken litter

- this tool refines the approach for where in the watershed chicken litter is likely applied

stakeholders agreed that applying litter evenly across these “highlighted” areas is the preferred method for evaluating potential chicken litter applications

7:45 PM: Mr. Lucas Gregory, TWRI: Updated SELECT model inputs

Presentation #5 on Project Website

- Animal fecal productions rates were likely overestimated in first SELECT analysis
- OSSF numbers were also overestimated

To refine these numbers, further literature review and data assessment was done

Animal Fecal Production:
- initially, manure production rates were used when calculating animal E. coli production
- this led to overestimating the weight of fecal output by including the weight of urine as well
- depending on the age, diet and species of animal, dry matter in feces typically ranges between 0.4 and 2.34% of total body weight daily
- moisture content of feces also varies widely and has been found to typically range between 60 and 90% depending on animal age, diet and species
- using this new information, revised fecal production rates were selected by watershed stakeholders

	Original Numbers Used:	Revised Numbers to be Used:
Beef Cattle:	82lbs/AU/day	40 lbs/AU/day
Hogs:	65 lbs/AU/day	10 lbs/AU/day
Horses:	51 lbs/AU/day	30 lbs/AU/day
Deer:	15 lbs/AU/day	15 lbs/AU/day

stakeholders agreed that the revised numbers are more appropriate and should be used for modeling purposes

OSSF Number Estimates:
- original estimate was based on 911 address locations for the watershed; yielded an estimate of 6,624 OSSFs in the watershed
- these address include some barns, shops and utility connections that likely don't have an OSSF
- numbers were reevaluated by cross-referencing the 2010 Census block data with the 911 address data; this yielded and estimate of 6,085 OSSFs

stakeholders agreed that the revised numbers are more appropriate and should be used for modeling purposes

The meeting closed with an announcement that a Feral Hog Control Program will be held in Nacogdoches on June 28th at 6 p.m. in the Nacogdoches County Courthouse Annex. The County Agent, Jamie Sugg can be contacted for more information at 936-560-7711 or jdsugg@ag.tamu.edu

Next Meeting: TBD pending completion of RUAA field work and draft report