

Angelina & Neches River Authority
Upper Neches Basin Clean Rivers Program
Steering Committee Meeting

April 28, 2010, 1:30 p.m.

Courtyard Marriott

2130 S. First Street

Lufkin, Texas 75904

- **Welcome and Introductions**

The meeting began at 1:30 p.m. with Brian Sims, Angelina & Neches River Authority (ANRA) Environmental Division Manager, welcoming all attendees. Introductions were made of all in attendance.

- **Overview of the Clean Rivers Program**

Mr. Sims conducted a presentation with information on ANRA's functions within the basin. He highlighted the three key departments within his division consisting of the Clean Rivers Program (CRP), Control Zone Rayburn (CZR), and the Environmental Laboratory.

Mr. Sims provided an overview of the Texas Clean Rivers Program including the program goal, the six program objectives, and the program tasks consisting of 1) Project Administration, 2) Quality Assurance, 3) Water Quality Monitoring, 4) Data Management, 5) Data Analysis and Reporting, 6) Stakeholder Participation and Public Outreach, and 7) Special Projects. The CRP goal is to maintain and improve the quality of water within each river basin in Texas through an ongoing partnership involving the TCEQ, river authorities, other agencies, regional entities, local governments, industry, and citizens. The program's watershed management approach identifies and evaluates water quality issues, establish priorities for corrective action, work to implement those actions, and adapt to changing priorities.

He reviewed the CRP FY 2010-11 budget followed by the Clean Rivers Program activities conducted by ANRA staff. The Draft 2010 Upper Neches Basin Summary Report has been a current focus. This report is developed every five years and is designed to provide a comprehensive review of water quality information for the basin. A limited number of copies of the report were available for interested stakeholders and is also available on ANRA's web site at www.anra.org.

- **Water Quality Monitoring**

Ms. Ashley Walthall was the next presenter. Ms. Walthall is an Environmental Analyst with ANRA's Environmental Division Clean Rivers Program.

Ms. Walthall conducted a presentation on the Clean Rivers Program Task 3, Water Quality Monitoring. She explained ANRA's surface water quality monitoring procedures and stated that data is collected under a TCEQ-approved Quality Assurance Project Plan (QAPP). She then explained various goals and usage for the water quality data including, but not limited to, the following: to characterize existing water quality and emerging problems, define long-term trends, determine compliance with standards, describe seasonal variation and frequency of occurrence of selected water quality constituents, and aid to produce the *State of Texas Water Quality Inventory*, which is required under section 305(b) of the federal Clean Water Act (CWA).

Ms. Walthall explained the monitoring parameters for routine monitoring, including field, conventional, and bacteriological analyses. ANRA currently submits data to the TCEQ for routine monitoring at 30 stations within the Upper Neches River Basin. Four of the thirty stations are collected by the City of Tyler, with analysis and submission of data from ANRA. The remainder of the 26 stations are monitored by ANRA personnel. Provided within the presentation were maps of all sites of the current monitoring stations. Tables of current stations for routine and metals monitoring activities were also included within the presentation.

Ms. Walthall provided updates from the Coordinated Monitoring Meeting (CMM) held on March 25, 2010 at the Lower Neches Valley Authority Salt Water Barrier in Beaumont, TX. One of ANRA's stations, station 10615 (Sam Rayburn at Marion's Ferry) switched from segment 0615 to segment 0610 due to an error in an original GIS layer. There will be two new additions to routine monitoring included for FY 2011. One addition will be station 15523 (Sam Rayburn at Alligator Cove), which will be added to represent an assessment unit. ANRA has monitored this station in previous years; therefore the addition of data will provide an adequate assessment. The next addition to the monitoring schedule for FY 2011 is a new station at La Nana Creek. Within La Nana Creek, there are three assessment units. ANRA collects data at stations within the upper (provides data about water quality prior to entering the city of Nacogdoches) and lower assessment areas (provides water quality data after water passes through the city), but currently there is not a station for the middle assessment area. The new station at La Nana Creek will be at SH 21/SH 7/upstream of the confluence with Bonita Creek. The last update from the CMM was the need for new biological data at station 10621 (Sam Rayburn downstream of Papermill Creek). This station was listed on the 303 (d) list of impaired water bodies in 2002 for an impaired fish community and depressed dissolved oxygen levels. Therefore, a need for new fish, benthic, and habitat data would be helpful to compare data with post-closure of papermill operations. Useful website addresses and maps of the new monitoring stations for FY 2011 concluded the presentation.

- **Discussion on Draft Basin Summary Report**

The next presentation was made by Mr. Brian Sims of ANRA on the 2010 Draft Basin Summary Report.

Mr. Sims provided an overview of the draft report and reiterated that the report is also available on ANRA's web site at www.anra.org. He encouraged everyone to review the report and solicited those present for feedback and comments to include in the final version. Mr. Sims briefly explained each section of the draft report and discussed the methodology used to compile and evaluate the data for the relational database, the monitoring station summaries, statistical analysis and trend graphs. This data is then divided and presented in the sub-basin summaries. Mr. Sims discussed the need for recommendations and comments by the stakeholders and reviewed some of the comments received thus far. These comments will be incorporated into the Final Basin Summary Report.

Mr. Sims recessed the meeting for a short break at 2:36 p.m.

- **TCEQ 2010 Clean Water Act (CWA), §305(b) and §303(d) Integrated Report**

Upon reconvening at 3:47 p.m., Ms. Walthall introduced the next presenter as Ms. Shawna Simpson. Ms. Simpson is with the Texas Commission on Environmental Quality (TCEQ) Surface Water Quality Monitoring (SWQM) team.

Ms. Simpson conducted a presentation on the *Clean Water Act (CWA), §305(b) and §303(d) Integrated Report*. Previously referred to as the *Texas Water Quality Inventory and 303 (d) List*, this report is required under sections 303 (d) and 305 (b) of the Federal Clean Water Act and is the state's primary surface water assessment and planning tool. This report is submitted by TCEQ to the EPA every two years in even-numbered years and summarizes the status of the state's surface waters. The Integrated Report (IR) is the evaluation of all readily available and reliable water quality monitoring data and is required to assess all water body types (stream, rivers, reservoirs, bays, estuaries, and wetlands). For the assessment of water bodies throughout the state for the 2010 period of record (data submitted from 11/30/2001 to 12/01/2008), routine monitoring by the Clean Rivers Program (CRP) accounted for 1,560 stations (47 of which were sampled by ANRA). Other monitoring entities for the assessment included the TCEQ, which accounted for 973 stations, USGS accounting for 397 stations, and 302 other stations.

Ms. Simpson then went on to discuss the coordinated monitoring schedule, which can be found at <http://cms.lcra.org>. The website is available to the public and all data collectors. It is searchable by basin, segment, monitoring/submitting entity, TCEQ region, and fiscal year. This tool, maintained by the CRP and Lower Colorado River Authority (LCRA), improves

communication and coordination of sampling and reduces duplication of sampling effort assisting with ensuring proper coverage. Map features and special projects found within the webpage were pointed out. Ms. Simpson then presented information on data collection, data input into the Surface Water Quality Information System (SWQMIS), and assessment. For assessment data, data is collected under a TCEQ- approved QAPP specific to each entity and the Surface Water Quality Monitoring Procedures (SWQM) Volumes 1 & 2, prepared by the TCEQ. Quality assured data is then loaded into the TCEQ database, the Surface Water Quality Information System (SQWMIS).

The Texas State Water Quality Standards (TSWQS) are written by the TCEQ under the authority of the CWA and the Texas Water Code. Located within Title 30, Chapter 307 of the Texas Administrative Code, the standards went into effect on August 17, 2000 and are currently under revision. The 2010 draft IR was assessed using the standards from the year 2000. The water quality standard criteria are stored in SWQMIS for the assessment tool used by the TCEQ (SAS program) to retrieve them during the assessment process. Ms. Simpson included the explanation of uses evaluated for the IR (i.e. aquatic life use). Within the Upper Neches Basin, the uses for evaluation include aquatic life use, recreation, general use, fish consumption use, and public water supply. Ms. Simpson went on to explain the uses within the basin and the parameters used to support the attainment. Since the Department of State and Health Services (DSHS) is the only agency authorized to conduct risk assessments and issue advisories, the TCEQ includes the DSHS assessment results within the TCEQ IR. The new mercury advisory for the Neches River was discussed. The TCEQ SAS assessment tool was discussed and screen display pictures were provided. After statistics is completed on the data, the assessment process occurs.

The presentation concluded with the Texas IR attainment categories, including the CWA 303 (d) list, the Texas Index of Water Quality Impairments, examples of water bodies evaluated within the report, and location of processing of the IR. Pollutant sources and ways to address impairments were discussed. Adam Whisenant of TPWD initiated a question regarding the special projects within the coordinated monitoring site from LCRA, if the status is included. Ms. Simpson and Ms. Delk answered that within the site, the project status (target start/ end, actual start/ end date, sampling/planning/completed) project type (ALM, UAA, etc.), and project lead (i.e. Texas Soil Board) are included within the search on the site (<http://cms.lcra.org>).

- **Water Quality Projects**

- **Texas Stream Team Volunteer Monitoring**

Ms. Walthall introduced Mr. Josh Oyer as the next presenter. Mr. Oyer is the Volunteer Coordinator for the Texas Stream Team in San Marcos. Previously, the Texas Stream Team was named Texas Watch. This program exists through a joint partnership between

the TCEQ, the US EPA, and the Texas State University in San Marcos and is a non-profit environmental education organization focusing on the non-point source pollution message and water shed education. They coordinate a volunteer water quality monitoring network and provide community education and outreach. Mr. Oyer briefly discussed their volunteer monitoring, the parameters tested and the uses of the data collected. This data is available on their web site and can be a useful source for education, research and local decision making. They are currently working on an online data viewer that should be available by the end of the year for volunteers to submit their data online.

The most active monitoring group within the Upper Neches Basin is the Greater Lake Palestine Council. The Texas Stream Team would like to recruit more volunteers within the Angelina and Neches river basin. These volunteers would receive training by an instructor consisting of three phases and completed in one day. He encouraged anyone interested in becoming a volunteer to contact him at <http://txstreamteam.rivers.txstate.edu/>.

➤ **Aquatic Invasives of Texas Reservoirs**

Ashley Walthall introduced Howard Elder from TPWD Inland Fisheries Division. Mr. Elder was invited to speak at the steering committee meeting to provide input from his work with invasive species in Texas reservoirs. Mr. Elder discussed how reservoirs provide a fertile media for introduced exotic vegetation, especially in East Texas. Because exotic (non-native) plants, originate mainly from South America and other areas, when brought into a new habitat, there are no natural enemies or control mechanisms against them. Due to reservoirs being described as disturbed habitats whose young ecosystems have not been well established, when the non-native species evolve under intense competition, the result is that they will out-compete the native species for resources. In the case of hydrilla and Giant salvinia, they develop into monocultures, degrade water quality, and decrease biodiversity. However, all exotic vegetation can have negative impacts on water quality, recreation, and reservoir-based businesses. Giant salvinia, Common salvinia, water hyacinth, and alligatorweed were the main aquatic invasive species discussed to be problematic in Texas lakes and reservoirs. Pictures, characteristics used to distinguish between common and giant salvinia, and areas impacted were discussed.

Mr. Elder described the integrated Pest Management strategy. This would be the strategic use of one or more techniques to control nuisance aquatic species at the most cost-effective level without due harm. Strategies discussed during the presentation were as followed: prevention, media campaigns, EPA-approved herbicides, alligatorweed flea beetle, and the Giant salvinia weevil. Several questions arose throughout the presentation. One question was raised as to which species- Common or Giant salvinia was found on

Sam Rayburn reservoir. Mr. Elder pointed out that Giant salvinia (which grows faster and larger than the Common salvinia) was found on Sam Rayburn; presently, boom is containing it. A question was asked as to the location of the boom that was placed to encase Giant salvinia on Sam Rayburn reservoir. Mr. Elder stated that the boom was located on Coleman Creek and has been there for three years. A question arose about purchasing and type of boom used to encase the salvinia. Mr. Elder stated that the booms are commercial-grade oil spill contaminant booms purchased by TPWD. Lastly, a question was raised about salvinia and biocontrol methods (i.e. weevils). There are rearing facilities that raise weevils that are host-specific to Giant salvinia raised in-situ. After weevils are raised, they must be transported to the location being treated. Infected material, which has larvae, eggs, and pupae within the plants, also must be transported. Because weevils are climate susceptible, it is difficult to raise them in areas of non-tropical environments. Also, the salvinia grows static in winter, but without reproduction of weevils, the weevils will lag behind the plants. Mr. Elder commented that there was an 80-90 percent reduction on Caddo Lake, Toledo Bend, and Sam Rayburn reservoir from the colder temperatures which occurred this winter. Mr. Elder concluded that prevention and rapid response are the best controls.

➤ **Lake Columbia Sourcewater Assessment Project**

Mr. Brian Sims conducted a presentation on the Lake Columbia Source Water Assessment Project. This project was funded by a Research and Planning Grant from the Texas Water Development Board (TWDB) for a source water assessment for a future planned reservoir site (Lake Columbia). This project was for a one-year period beginning January 1, 2009 to December 31, 2009.

The goals of the project were to identify and address non-point and point source contamination prior to the impoundment of reservoir waters, provide a basis for predicting water quality conditions in the proposed Lake Columbia, identify and plan for processes to treat the raw water to meet drinking water standards, and to develop a project template that will be useful to other entities for assessment of future reservoir locations.

Mr. Sims discussed the Study Plan, the monitoring and sampling locations, and provided a map showing the sampling locations and another with an overlay of the proposed reservoir. ANRA's laboratory provided analyses for specified parameters monthly, quarterly, and semi-annually. The project encompassed all of the routine parameters used within the Clean Rivers Program but expanded upon those parameters greatly to assess the raw water for the express purpose of planning treatment to meet drinking water standards.

The project is in the final stages of data evaluation and the draft written report will be submitted to the TWDB at the end of May, with the final report due in August. Once the report is available it will be made accessible on ANRA's website.

➤ **Attoyac Bayou Watershed Protection Plan**

Brian Sims introduced Anthony Castilaw with Castilaw Environmental Services, presenting on the Attoyac Bayou Watershed Assessment and Watershed Protection Plan (WPP) development. Conceptually, this project has been under the preparation stage for over two years, and the Quality Assurance Project Plan (QAPP) is under review with the Environmental Protection Agency (EPA). The proposed WPP is on the Attoyac Bayou, which is segment 0612 located within the lower Angelina sub-basin. Attoyac Bayou was placed on the 2004 Texas 303(d) list of impaired waterbodies due to bacteria. In addition, there is a screening level concern for ammonia. The impairment for *E. coli* levels found in Attoyac bayou are higher than state standards, and an action should be taken to improve water quality within the watershed. If improved conditions are not met, a TMDL will be scheduled by the year 2017. Mr. Castilaw explained that a WPP is a voluntary plan developed by stakeholders, composed of a diverse group of citizens, poultry/dairy farmers, and timber companies. The WPP can be looked at through a holistic approach to watershed management, addressing the potential sources and causes for concerns and impairments. Mr. Castilaw listed considerations for the approach such as load reductions, Best Management Practices (BMPs), and public information. A list of the project team was provided, including the Texas Water Resources Institute, Texas AgriLife Research, Stephen F. Austin State University, Pineywoods RC&D, Angelina and Neches River Authority, and Castilaw Environmental Services, LLC.

Mr. Castilaw explained the project goal is to collect data in Attoyac Bayou Watershed to better characterize hydrology and *E. coli* levels, assess uses of the water body, and ultimately develop a plan that decreases *E. coli* levels through a stakeholder-driven process. Mr. Castilaw outlined project tasks with their designated groups. The coordination between stakeholder involvement, conducting watershed survey and updated GIS information (Castilaw Environmental Services, LLC), surface water quality monitoring (SFA), LDC and SELECT modeling (Agrilife), Recreational Use Attainability Analysis (SFA and Castilaw Environmental), bacterial source tracking (Agrilife), and development of a APP (TWRI and Castilaw). ANRA will be completing analysis on samples. A slide including the sampling sites and frequency was displayed. Mr. Castilaw concluded with gratitude from funding provided through the Clean Water Act §319 (h) Nonpoint Source Grant from the Texas State Soil and Water Conservation Board and the United States EPA. Shawna Simpson asked Mr. Castilaw about specifically what GIS information would be updated through the WPP. Mr. Castilaw

stated that Castilaw Environmental Services, LLC will be updating land use mapping and completing additional field surveys to verify the information.

- **Update on Lake Columbia**

The next presenter was Mr. Kelley Holcomb, General Manager of the Angelina & Neches River Authority. Mr. Holcomb provided an overview of the proposed Lake Columbia Water Supply Reservoir Project with maps indicating the site location and service area, and basic project facts of the dam and lake.

The state water right permit for the project was granted in June 1985, but official planning of the project began in 1978 under the name of Lake Eastex. The conception of the project dates back to the mid 1950's when it was called the Mud Creek Reservoir. It was renamed Lake Columbia in 2003 after the Space Shuttle disaster.

Mr. Holcomb discussed some of the project benefits as identified by the draft EIS, which was published for public comment earlier this year by the US Army Corp of Engineers. The project would benefit employment primarily in the Cherokee County area, provide recreation through the lake itself and through additional wetlands from mitigation added to the Big Thicket National Preserve, and have ecological benefits through protection of wetlands. He also discussed the remaining steps to attain a final EIS and a Record of Decision which will culminate in the issuance or denial of the 404 Permit.

- **Steering Committee Member Recommendations and Concerns**

There were no recommendations or concerns from the Steering Committee Members.

The meeting was adjourned at 4:50 p.m.

All presentations from this program will be made available for viewing on ANRA's web site at www.anra.org

Attendees:

Howard Elder, TPWD

Ashley Walthall, ANRA

Mike Parrish, ANRA

Anthony Castilaw, Castilaw Environmental Services

Jennifer Delk, TCEQ

Julie McEntire, TCEQ

Teresa Scroggins, ANRA

Wendy Ledbetter, Texas Nature Conservancy Big Thicket
Shawna Simpson, TCEQ
Matt Romig, citizen of Nacogdoches
Abby Schlipmann, Castilaw Environmental Services
Mike Peterson, City of Whitehouse
James Mills
Kelley Holcomb, ANRA
Jeremiah Poling, ANRA
Josh Oyer, Texas Stream Team
Mark Cochran, Texas State Soil & Water Conservation Board
Claudia Ebeler, City of Lufkin
Art Crowe, TCEQ
Brice Clements, Nacogdoches
Brian Sims, ANRA
Jeff Lauman, Texas Railroad Commission
Adam Whisenant, TPWD