

**Guadalupe River Basin
Clean Rivers Program
Steering Committee
Annual Meeting**

March 24, 2011

Minutes

(Changes to 2012 Coordinated Monitoring Schedules follow)

The annual meeting of the Clean Rivers Program (CRP) Guadalupe River Basin Steering Committee was held Thursday, March 24, 2011 at 1:00 p.m. at the Guadalupe-Blanco River Authority (GBRA) River Annex, 905 Nolan St., Seguin. Committee members/representatives attending included Allison Woodall, representing the Texas Commission on Environmental Quality (TCEQ) CRP; Travis Linscomb representing the Upper Guadalupe River Authority (UGRA); Debbie Magin, Lee Gudgell, Cinde Thomas-Jimenez, Josie Longoria, Liz Sedlacek and Oscar Fogle representing GBRA; Bill Harrison representing the TCEQ Surface Water Quality Monitoring team; Arthur Talley of the TCEQ Nonpoint Source team; Keith Ladner and Geraldo Arrambide of TCEQ Region 14; Lynn Bumguardner of TCEQ Region 13; Ron Riggins of TCEQ Region 11; Jason Pinchback and David Baker representing the Wimberley Valley Watershed Association, the Texas Rivers System Institute, and the Cypress Creek Watershed Planning project; Josh Oyer representing Texas Stream Team; Stephen Twidwell with the Texas Parks and Wildlife Department; and Rebecca Lambert with the U.S. Geological Survey. Also attending were Loren Warrick, Aaron Wendt and Dawna Winkler representing Texas State Soil and Water Conservation Board; John Dreier representing the Goliad County Groundwater Conservation District; Paula DiFonso, with the New Braunfels Utilities; Jim Cantrell, with the City of Victoria; and Wain Fairchild of the Gonzales County Soil and Water District. Homeowner associations were represented by Rick Wallace (Citizens United for Lake Placid); and J Harmon and John Ivy (Preserve Lake Dunlap Association). Also attending were Dr. Jack Fairchild of the San Marcos River Foundation; Dr. Glenn Longley and Rene Barken with the Edwards Aquifer Research and Data Center; Earl Dittman and Dan Madden with Master Naturalists from Comal and Hays County; Chuck Lorea, with the San Antonio River Authority; Brooke Leftwich and Eric VanGaasbeek with Hays County Environmental, and Andy Grubbs.

After introductions, Lee Gudgell, with the GBRA Clean Rivers Program, briefed the committee on the 2010 program activities in the GBRA ten-county district. Monitoring by GBRA under the Clean Rivers Program included 19 monthly sites and 7 quarterly sites for conventional parameters, flow and bacteria. Mr. Gudgell noted that the monitoring site on Coletto Creek Reservoir was relocated from the boat ramp to the dam in order to collect data to support development of nutrient standards on the reservoir. Additionally, GBRA does depth profiles quarterly at the dam site.

Biological and habitat assessments were dropped at the sites on the Dry Comal, Peach Creek, Plum Creek and the Guadalupe River at Riverview near Kerrville because the data goals had been met. GBRA, with help from UGRA, conducted six biological and habitat

assessments in 2010. Geronimo Creek was added for biological and habitat assessment in support of the watershed protection plan being developed for the watershed. Of the 2010 sites, four have been dropped for biological/habitat assessments (Dry Comal Creek and Peach Creek in Gonzales County; Guadalupe River at Riverview in Kerr County; and, Plum Creek in Hays County) in 2011 because the data goals have been met. Two sites, Peach Creek at CR 353 and the Guadalupe River at the Salt Water Barrier were sampled for metals. All results were below the acute, chronic and human health criteria. Metals in sediment were analyzed at two locations in 2010, Geronimo Creek at Haberle Road and the Guadalupe River at Kerrville-Schreiner Park. Both sites had levels that were below the threshold effects concentrations developed as consensus-based sediment quality guidelines for freshwater systems by MacDonald et al. (2000). Organics in sediment (total petroleum hydrocarbons and BTEX-benzene, toluene, ethylene and xylene) were collected at six sites. No detectable concentrations were observed at five of the six sites: San Marcos River at Luling, San Marcos River at IH 35, Dry Comal in New Braunfels, Plum Creek near Luling, and Geronimo Creek at Haberle Road. The total petroleum hydrocarbons (TPHs) measured in the sediment in Cypress Creek at the confluence with the Blanco River measured slightly over the minimum detection limit, but BTEX was below detection. Organics in water were collected at the same location as well as in the Dry Comal. No TPH or BTEX concentrations were measured above the detection limit.

Diurnal monitoring was conducted at two locations: the Guadalupe River at Nursery (five times) and Cypress Creek at Blue Hole (one time annually). Radiologicals in sediment were collected in Coletto Creek at Arnold Road quarterly in 2010 in order to document baseline conditions. To date, two isotopes of uranium were detected but total uranium levels have been found to be consistently below method detection limits. Radiologicals are not going to be collected in 2011.

Mr. Gudgell went on to highlight events in 2010 that could or did impact water quality. In November 2010, Hays County road crews noted a sewage odor on Plum Creek, downstream of the Kyle Wastewater Plant. It was discovered that the Kyle WWTP had a sewage overflow that resulted in a large fish kill, extending several miles downstream. Steve Twidwell with Texas Parks and Wildlife noted that the City of Kyle was fined \$25,000 by TCEQ and \$4,000 by TPWD. GBRA also responded to several illegal dumping complaints in 2010, as well as investigated a loss of cichlids in a pond on the New Braunfels Golf Course that was result of the extremely cold weather in the winter of 2011. Mr. Gudgell noted that GBRA took advantage of that cold weather to control waterhyacinths on the hydro lakes in Gonzales County. GBRA lowered the hydroelectric lakes 18 inches in order to expose the floating plants roots to the subfreezing temperatures.

Funding for the Guadalupe River Basin Clean Rivers Program in 2010 was \$160,341 and for 2011 is \$143, 341, the difference being money that was provided by CRP to purchase a flow meter for UGRA and a new spectrophotometer for chlorophyll a analyses for GBRA. No special studies are planned for 2010-11. A copy of Mr. Gudgell's presentation is available at <http://www.gbra.org/CRP/PublicParticipation.aspx>.

Travis Linscomb, with the UGRA, discussed the CRP activities in Kerr County. Mr. Linscomb described the UGRA monitoring activities for CRP that included quarterly

monitoring of 10 sites in Kerr County. He also reviewed UGRA sponsored monitoring conducted in FY 10. He described the outreach programs sponsored by UGRA that include an annual river cleanup and a volunteer summer study. A copy of his presentation is available at <http://www.gbra.org/CRP/PublicParticipation.aspx>.

David Baker, representing the Wimberley Valley Watershed Association, gave an overview of the program goals of their Cypress Creek and Blanco River Monitoring Project. Mr. Baker discussed the activities of the Association and reported that Hays County has purchased the property where Jacob's Well is and has put it in conservation. He also reported that over 40 docents have been trained and are now giving tours and educational presentations at the Well and nature preserve.

Brooke Leftwich with Hays County was introduced and she reported that in October 2010 the Hays County Commissioners Court approved funding for an environmental monitoring program. The county is working on their multi-sector storm system plan. The monitoring program was approved in response to the high growth seen in the county and in support of the three watershed protection plans being developed in the county. Over the next several weeks an appendix to the CRP Guadalupe River Basin Quality Assurance Project Plan outlining their monitoring program will be developed so that their data will be accepted into the TCEQ's surface water quality database and used for assessments.

Josh Oyer, volunteer coordinator with the Texas Stream Team, presented information on the Stream Team monitors in the Guadalupe River Basin. Those groups include monitors in Blanco State Park, Wimberley Valley area, Plum Creek (Kyle area), Upper San Marcos River, Walnut Branch (Seguin), Geronimo Creek, Mesquite Creek Wildlife Management Area, Upper Guadalupe (RR 474, Canyon Lake), Middle Guadalupe (Seguin), and Lower Guadalupe (Victoria). Texas Stream Team Citizen Scientists are monitoring on a monthly basis to determine ambient water quality conditions as "Natural Resource Witnesses". Other activities in 2010 included routine *E.coli* monitoring at storm water outfalls in Upper San Marcos River, adding a monitor in the Canyon Lake Gorge by the request of the U.S. Army Corps of Engineers to study effect of Gorge water on the Guadalupe River and continued to monitor for *E.coli* on the Blanco River at Five Mile Dam in Dudley Johnson Park for Hays County. TST trained 24 Master Naturalists at the Annual Statewide Conference and manned environmental education booths at the cities of Kyle and Lockhart stream clean-up events. A copy of his presentation is available at <http://www.gbra.org/CRP/PublicParticipation.aspx>.

Debbie Magin asked for comments on the 2011 Basin Highlights Report. No comments were made. The draft report will be available for comment until mid-April.

John Dreier with the Goliad County Groundwater Conservation District commented that the uranium mining operations are still pursuing permits to drill in the Coletto Creek watershed and we should remain aware of the potential impacts that the mining operations can have to the creek and reservoir. It was pointed out that in 2009-10 GBRA collected background samples (water and sediment) in the creek. Mr. Dreier was asked to notify GBRA when the mining companies begin drilling operations so that additional samples from Coletto Creek could be planned.

Allison Woodall, Program Manager for the TCEQ Clean Rivers Program, updated the group on the proposed changes to the water quality stream standards made in 2010 and those specific changes impacting the Guadalupe River Basin. The revisions have been submitted to EPA for their review and acceptance. Proposed revisions included numerical nutrient criteria for 75 lakes and reservoirs, and revising or adding site-specific standards for individual water bodies. The numeric nutrient criteria for reservoirs use chlorophyll *a* concentrations in the main pool and are site-specific, based on historical data of each reservoir. Nutrient criteria established for Canyon Lake (Segment 1805) are a chlorophyll *a* concentration of 5.0 micrograms per liter at the dam. Coletto Creek Reservoir does not have enough historical data on the main pool to have proposed criteria at this time.

One of the most controversial areas proposed for modification are the standards for contact recreation. TCEQ is proposing to expand the categories for contact recreation if warranted and confirmed by a recreational use attainability assessment (RUAA). No RUAs are planned for the Guadalupe River Basin.

Specific standards revisions in the Guadalupe River Basin include the critical low-flows for spring-fed segments (Segments 1808, 1811, 1813, 1814, 1817) that will provide additional protection to segments with federally listed endangered or threatened aquatic or aquatic-dependent species and temperature criteria proposed to be lowered for specified portions of the Comal River (Segment 1811) and Upper San Marcos River (Segment 1814) to provide additional protection to listed federally endangered species. Camp Meeting Creek (Segment 1806) is proposed to have a minimum dissolved oxygen (DO) criterion of 2.0 mg/L and a 24-hour average of 4.0 mg/L that would apply from July 1st to September 30th. The portion of the segment upstream of Ranchero Road is proposed to have a minimum DO criterion of 1.0 mg/L and a 24-hour average of 2.0 mg/L to apply from July 1st to September 30th.

Ms. Woodall briefed the stakeholders on the upcoming water quality assessments. TCEQ assesses the waterbodies in Texas every two years, looking at seven years of data. The next assessment will cover the period of December 1, 2003 through November 30, 2010. The assessments will be reported in the 2012 Texas Integrated Report for Clean Water Act Sections 305(b) and 303(d). The data comes from TCEQ's Regional staff, CRP partners and other data contributors. Prior to the next assessment, TCEQ will look at other methods of assessing bacterial data, incorporating new standards and how to handle data below the detection limit.

Ms. Woodall explained TCEQ's new process called Watershed Action Planning. The process will help select and coordinate strategies to address water quality impairments. The process will utilize the meetings with stakeholders and partners already in place as part of CRP to understand activities and compile information on studies and/or data collection efforts.

A copy of Ms. Woodall's presentations can be found at <http://www.gbra.org/CRP/PublicParticipation.aspx>.

Dr. Jack Fairchild asked how nutrient standards developed on streams and rivers will impact wastewater effluents. Ms. Woodall noted that the nutrient standards would be taken into consideration when new permits are issued or existing permits are expanded. Rick Wallace mentioned that GBRA has completed a boating capacity study on the six hydroelectric lakes that in its way will benefit water quality by limiting the number of recreational watercraft on the lakes. The study is available on the GBRA website. J Harmon and John Ivy, representing the Preserve Lake Dunlap Association, brought up the issue of non-point source pollution caused by intense recreational pressure on the Guadalupe and Comal Rivers, above Lake Dunlap. They noted the large amount of floating debris, including flip-flops, cups, cans, and styrofoam that float downstream through the hydro lakes and on to the coast. Ms. Woodall noted that this type of pollution is a problem in many systems, but most especially in the Guadalupe Basin because it is the most highly-recreated river in Texas. Debbie Magin with GBRA said that she will take their concerns to the River Outfitters in the coming week and request that they look at ways to reduce the impacts of their customers.

The next part of the meeting consisted of presentations from various speakers, covering projects or issues that could impact water quality in the river basin and were of interest to the stakeholders. Copies of the presentations are posted at <http://www.gbra.org/CRP/PublicParticipation.aspx>.

Debbie Magin began the presentations by discussing the status of several watershed protection projects active in the basin. Plum Creek, the first watershed protection plan in the state, is in the final stages of the implementation project. The PC WPP was funded with 319 funds from the Texas State Soil and Water Conservation Board and facilitated by the Texas AgriLife Extension Service (AgriLife). As a result of the plan, implementation dollars have been awarded to AgriLife, the cities of Kyle and Lockhart, and GBRA. The projects that have been funded focus on reduction of pollutant loads that were identified in the PC WPP. The sources of the pollution include storm water, pet waste, feral hogs, and failing septic systems. GBRA has begun a new monitoring project that will collect data that will be used to assess the effectiveness of the 319-funded projects. Recently, the city of Buda and Hays County have partnered to apply for state-revolving fund and nonpoint source dollars from the Texas Water Development Board for expansion of the city of Buda's wastewater collection lines to a subdivision in Hays County. The Hillside Terrace Subdivision is a high density development that is prone to septic tank failures. Because of the subdivision's proximity to the creek, the plan identified the area as a possible source for *E. coli* bacteria. Feral hog control measures include aerial hunts, landowner workshops and educational brochures and a website for reporting hog sightings. Also, an extension specialist has been funded in the watershed to help landowners with control of feral hogs. The next question for the Plum Creek Partnership is how to sustain the watershed protection activities after the AgriLife implementation project is over in August 2011. An interlocal agreement has been drafted and is in review by the partners that provide match for another 319 grant that would establish a local watershed coordinator. The match dollars would be allocated to the partners based on their population and area served within the Plum Creek watershed.

Ms. Magin went on to discuss the status of the Geronimo Creek watershed protection plan. The GC WPP is being funded by the TSSWCB and GBRA, and facilitated by Texas

AgriLife Extension. This watershed extends from slightly north of New Braunfels, through rural, agricultural lands, to the city of Seguin, where it confluences with the Guadalupe River. The watershed protection plan is currently being drafted and will be out in summer 2011. The project steering committee and three topical work groups covering agricultural, urban and wastewater nonpoint pollution sources have been meeting to review modeling data and the distribution of pollution sources. The flood study by Guadalupe County was being conducted parallel to this project to identify and evaluate flood mitigation structures in the Geronimo/Alligator Creek watersheds. It was also noted that, based on the 2010 census, the city of New Braunfels is a phase II city which requires that the city develop a storm water protection plan. The city is in the process of forming technical and citizen committees that will assist in the drafting of the plan.

Jason Pinchback discussed the watershed planning efforts in the Cypress Creek watershed near Wimberley. The mission of the Cypress Creek Project is to ensure that the long-term integrity and sustainability of the Cypress Creek watershed is preserved and that water quality standards are maintained for present and future generations; in other terms, to "*Keep the Cypress Creek clean, clear and flowing*". The project has completed the characterization and delineation of subwatersheds and the gathering of historical data. The Decision Support System (DSS) has been completed. The DSS will help decision-makers and stakeholders understand how land use changes may impact water quality and quantity conditions and assist in the formulation of a plan for land use and growth that will minimize impacts to water quality. Storm water monitoring was conducted at two locations. Phase II of the Watershed Protection Plan development will begin in the coming months. During Phase II, the WPP will be drafted with the input from the stakeholder committee and three topical workgroups: education and outreach, technical and policy and implementation.

Mr. Pinchback went on to give the status of the watershed protection planning activities going on in the upper San Marcos River watershed. A group of stakeholders that includes the city of San Marcos, the Rivers Institute, Texas State University, Hays County, GBRA, the San Marcos River Foundation and other interested parties have been meeting over the last two years. The area of interest includes the subwatersheds of Sink Creek, Sessom Creek and Purgatory Creek, most of which are intermittent. A grant application for 319 funding was submitted but was not funded in 2011. The grant application will be considered again for funding in 2012.

Travis Linscomb with UGRA gave the status of the Total Maximum Daily Load project conducted on the Guadalupe River above Canyon Reservoir, primarily in the Kerrville area. As a result of the TMDL, UGRA submitted a grant, "Bacteria Reduction Plan for the Upper Guadalupe River," for a three-year implementation project. Currently, the grant application has been given to EPA for approval. The 3.5 mile stretch of the Guadalupe River in Kerrville was listed as impaired due to elevated bacterial concentrations. Matching for the grant will come from UGRA, Kerr County, City of Kerrville and TXDOT and the CRP monitoring component in Kerr County.

GBRA has an associated 319 project that is establishing three continuous monitoring stations. The locations were selected in support of the watershed protection planning efforts. The station located in Geronimo Creek will be on line by the summer of 2011.

Shortly after, the station in the Cypress Creek will be on line in the fall of 2011. In 2012 GBRA will have a station located on Sandies Creek, near the USGS gaging station. As a part of this project, GBRA will install three educational kiosks that provide the public access to the continuous monitoring data as well as other educational materials. The kiosk linked to the Geronimo Creek site will be located in the Navarro ISD library. The kiosk linked to the Cypress Creek site will be available to the public at the Wimberley Community Center. The site for Sandies Creek has not been determined.

Debbie Magin gave the stakeholders an overview of the environmental flow process that was established as part of SB 3. Each river basin must have flow regimes established that balance protection of the environment with human needs. The flow regimes for the Guadalupe-San Antonio-Mission-Aransas Basin will come to the state as recommendations from the basins' stakeholders. The stakeholders will consider and evaluate the flow regime that has been developed by the Basin and Bays Science Team. The Science Team looked at historical flows in the river basins and established flows for freshwater needs as well as needs for the estuaries. The flow regime includes recommended flows for four seasons, under three levels of base flows, subsistence, high flow pulses and overbank flows at 16 gaged locations. The flow regimes will only impact future diversions.

Ms. Magin briefed the group on the Recovery Implementation Project (EARIP) being conducted on the Edwards Aquifer. The stakeholder-driven process is looking at how the aquifer should be managed including minimum flows from the Comal and San Marcos Springs that will balance water use and development with the recovery of federally-listed endangered or threatened species. The EARIP has tentatively agreed to 1) a 15-year, two phase incidental take permit under the Endangered Species Act, 2) flows from the Comal Springs no less than 30 cubic feet per second (cfs) and 45 cfs from the San Marcos Springs during a repeat of the drought of record, and 3) a bottom-up package of conservation and habitat restoration measures. A bottom-up approach means that the most inexpensive projects will be implemented first. The two phases, each approximately 7 years, are proposed to be funded by a regional sales tax (eighth of a cent sales tax in the counties in the Guadalupe and San Antonio River Basins and counties in Edwards Aquifer Authority jurisdiction, generating \$30-40 million per year) being considered by the state legislature. In Phase I, the effectiveness of the mitigation and habitat conservation measures will be evaluated; long-term biological requirements will be evaluated; and, the need for additional water supplies will be identified.

Magin went on to discuss the U.S. Geological Survey Surface Water/ Ground-water Characterization Study conducted on Coletto Creek in Goliad County. The first synoptic sampling event was done in August 2009 during the extended drought. All surface water sites with exception of Audilet Springs were dry. Sampling was conducted in order to characterize extremely low flow conditions. The second synoptic sampling event was conducted in January 2010 after fall rains recharged the system. Constituents analyzed include major ions, trace elements, nutrients, and isotopes. The isotopes are used to develop the ratio of groundwater to surface water in the samples. The final report is due later this year.

Based on the interest of the stakeholders, Ms. Magin presented the findings of the TCEQ study on methods of disposal of unused pharmaceuticals. SB 1757 required that TCEQ perform a study and recommend methods for disposal of unused pharmaceuticals so that these drugs do not enter the wastewater system. The study reported that most pharmaceuticals enter the environment by way of raw or treated wastewater or land application. Conventional wastewater treatment methods are not designed to remove all of these compounds. The drugs enter the wastewater primarily by excretion but also by intentional disposal down the toilet. The TCEQ study recommended approaches that would reduce the amount that enters the wastewater system and raise awareness of potential impacts of improper disposal. The four recommendations were 1) to render drugs undesirable before disposing in municipal solid waste, 2) support single day collection events, 3) voluntary use of take-back programs, and 4) education of consumers on impacts. Dr. Glenn Longley mentioned that the city of San Marcos held a collection event that was very well received. Paula DiFonzo said that the collection event held by New Braunfels Utilities was very popular and required local law enforcement on site. Jim Cantrell of the City of Victoria talked about their negotiations for a recycle program in his city that would include hazardous waste collection, including pharmaceuticals.

Copies of the minutes are available at <http://www.gbra.org/CRP/PublicParticipation.aspx>.

Notes from the Coordinated Monitoring Meeting – March 24, 2011

1. In support of the TCEQ's Watershed Action Planning effort, discussions were had on 5b and 5c stream segments (segments that have been listed with impairments). Notes added to the table included possible activities that could be playing a part in the impairment or concern, studies or data collection efforts on the segment and any concerns with past data collection efforts.
2. It was the opinion of the staffs at the meeting that it is not necessary to continue the 24-hour diurnal monitoring at the Guadalupe River Tidal. The Coordinated Monitoring Schedule (CMS) was changed to reflect.
3. The monitoring station located at Peach Creek at FM1680 was listed on the CMS because it was a part of a USGS study. USGS will check to see if that the site should remain on the CMS.
4. Organics in sediment was removed from the schedule for San Marcos at Luling.
5. Hays County Environmental will begin monitoring on the Blanco River and in the upper San Marcos watershed. Their monitoring locations will be added to the CMS after the appendix has been added to the Guadalupe River Basin CRP QAPP.
6. All routine and targeted monitoring sites in GBRA's 2011-2013 Plum Creek Monitoring Project will be added to the CMS. The monitoring project is being funded by a CWA Section 319h grant through the Texas State Soil and Water Conservation Board
7. A note was added on the San Marcos at IH35 schedule that explained the reason for collecting total dissolved solids (TDS) monthly by GBRA. TDS and specific conductance will be used to calculate a site-specific correction factor that can be

used to determine TDS from specific conductance. The site was listed as impaired due to elevated TDS calculated using the standard 0.65 correction factor.

8. The metals in sediment will be discontinued at the Guadalupe River at Kerrville State Park in FY2012.
9. Diurnal monitoring will be done with each biological assessment.