

Coordinated Watershed Protection in Southeast and South Central Texas

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In this Issue:

- Update from Watershed Coordination Steering Committee
- Plum Creek Watershed
- Texas Watershed Steward Program
- Peach Creek – Leveraging 319(h) and EQIP Funding
- Rangeland Stream and Riparian Areas

Update from Watershed Coordination Steering Committee

Brian Koch, *Regional Watershed Coordinator, TSSWCB Wharton Regional Office, Wharton, Texas*

Welcome to our first monthly newsletter supporting Coordinated Watershed Protection in Southeast and South Central Texas. Tasked with serving as Texas' lead agency for the planning, management and abatement of agricultural and silvicultural nonpoint source (NPS) water pollution, the Texas State Soil and Water Conservation Board (TSSWCB) initiated this pilot project in November 2004 across Southeast and South Central Texas.

Funded by a Clean Water Act (CWA) §319(h) grant from the U.S. Environmental Protection Agency (USEPA), TSSWCB placed a Regional Watershed Coordinator in its Wharton Regional Office (WRO). The Regional Watershed Coordinator provides technical assistance to local stakeholder groups in their efforts to develop and implement Watershed Protection Plans (WPPs). Brian Koch joined the TSSWCB in October 2005 as the Wharton Regional Watershed Coordinator.

In order to accomplish project objectives, a Regional Watershed Coordination Steering Committee (WCSC) composed of representatives from water resource agencies was established. WCSC partners include other state agencies, federal agencies, river authorities, national estuary programs, and councils of governments.

The WCSC provides guidance to the Regional Watershed Coordinator and steers the project to



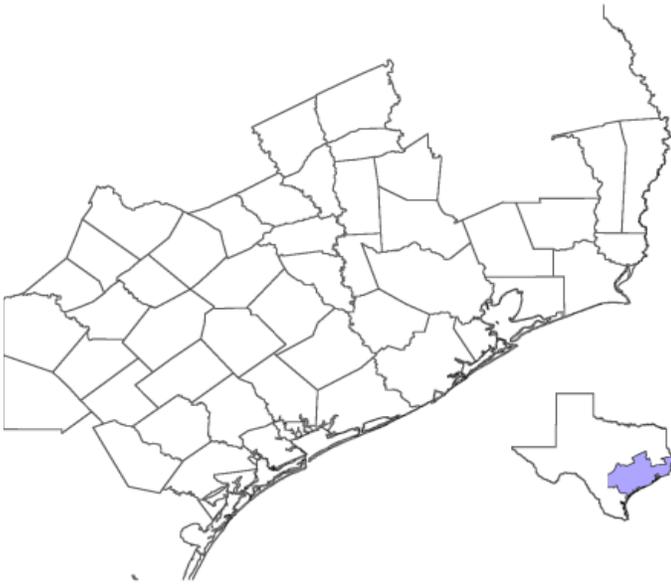
December 15, 2005 meeting in Columbus. Photo by Brian Koch.

those watersheds that would most benefit from development of a WPP. If successful, this Regional Coordinator-Steering Committee model could be implemented in other TSSWCB Regional Offices (Dublin, Harlingen, Hale Center, and Mt. Pleasant).

In March 2005 the initial meeting of the WCSC took place in Columbus, followed by meetings in June, November and December. Discussions by WCSC members at these meetings focused on developing a process to prioritize watersheds for WPP development through this project. For more information on the

WCSC Meeting Schedule

March 9, 2006
 June 8, 2006
 September 7, 2006
 December 7, 2006
 March 8, 2007
 June 7, 2007



TSSWCB Wharton Regional Office Service Area includes these forty-seven counties in Southeast and South Central Texas.

Regional WCSC, including meeting summaries, please visit http://www.tsswcb.state.tx.us/programs/wharton_wcsc.html.

Plum Creek Watershed

Brian Koch, *Regional Watershed Coordinator, TSSWCB Wharton Regional Office, Wharton, Texas*

At the December 15, 2005 WCSC meeting, Plum Creek, located in the Guadalupe River Basin, was selected as the first watershed for WPP development and implementation through this project. Plum Creek rises in Hays County north of Kyle and runs south through Caldwell County, passing Lockhart and Luling, and eventually joins the San Marcos River at their confluence in North Gonzales County.



Stream "Bed" in Plum Creek. Photo by Brian Koch.

Plum Creek Watershed has very diverse land use, with the upper reaches consisting of heavy urban development, while the lower portion has significant agriculture, such as row crops, hay and livestock grazing. Additionally, petroleum activity is very high around Luling. This diversity of land use exemplifies some of the challenges ahead in order to restore and maintain good water quality in Plum Creek.



Heavy urban development occurring at the headwaters of Plum Creek in Kyle. Photo by Nikki Dictson.

According to the draft *2004 Texas Water Quality Inventory and 303(d) List*, Plum Creek (Segment 1810) exhibits elevated nutrient levels and is impaired by elevated bacteria concentrations. This water quality status, along with land use, potential for future watershed impacts and local stakeholder commitment, were key factors in the decision to develop a WPP for Plum Creek.

Work has started, as we are busy researching the watershed and the communities involved, and beginning to bring local stakeholders together to build a Partnership for WPP development. Nikki Dictson, with Texas Cooperative Extension (TCE), and I have coordinated and attended several meetings in the Plum Creek Watershed.

The first meeting included a guided tour of the upper portion of Plum Creek by "Tour Guides" Johnie Halliburton and Joshua Grimes of the Plum Creek Conservation District (PCCD), and Debbie Magin from Guadalupe-Blanco River Authority (GBRA). Also on this tour were Rachel Bauer and Bryan Davis, Extension Agents from Caldwell and Hays County, respectively, Aaron Wendt, State Watershed Coordinator for TSSWCB, and Mark McFarland, Professor and TCE Soil Fertility Specialist.

We also presented this program to gain support for the Plum Creek Project at the following board

meetings: Caldwell-Travis and Hays County Soil and Water Conservation Districts, PCCD and GBRA. The Plum Creek Website is now online at <http://pcwp.tamu.edu/>.



Texas Watershed Steward Program

Nikkoal J. Dictson, *Extension Program Specialist, Texas Cooperative Extension, College Station, Texas*

Water bodies within a watershed can be affected by many types of nonpoint source pollution. Recognizing these sources of pollution and methods for their control and prevention is critical. The Texas Watershed Steward (TWS) program is implemented through a partnership between Texas Cooperative Extension (TCE) and the Texas State Soil and Water Conservation Board (TSSWCB). This program provides science-based, watershed education to help citizens identify and take action to address local water quality impairments.

In collaboration with the TSSWCB Wharton Regional Watershed Coordinator and Watershed Coordination Steering Committee (WCSC), TCE will pilot this project on a watershed in the TSSWCB Wharton Regional Service Area, specifically Plum Creek. This project supports the development of WPPs and promotes a sustainimpairments caused by nonpoint source pollution.

The Texas Watershed Steward Program will help to transform the stakeholder group into a local watershed action committee to participate in implementation of the Watershed Protection Plan. The watershed action committee will identify priority issues to target from the WPP, facilitate local efforts and activities, and help locate funding to support local implementation efforts. The program will support local volunteers and watershed action committee members in enhancing local awareness and involvement in watershed and water quality management and protection activities. This will include working with the watershed action committee to identify, coordinate and deliver watershed education workshops and promote local activities such as

stream walks, soil testing campaigns, well testing and abandoned well closure programs, etc.

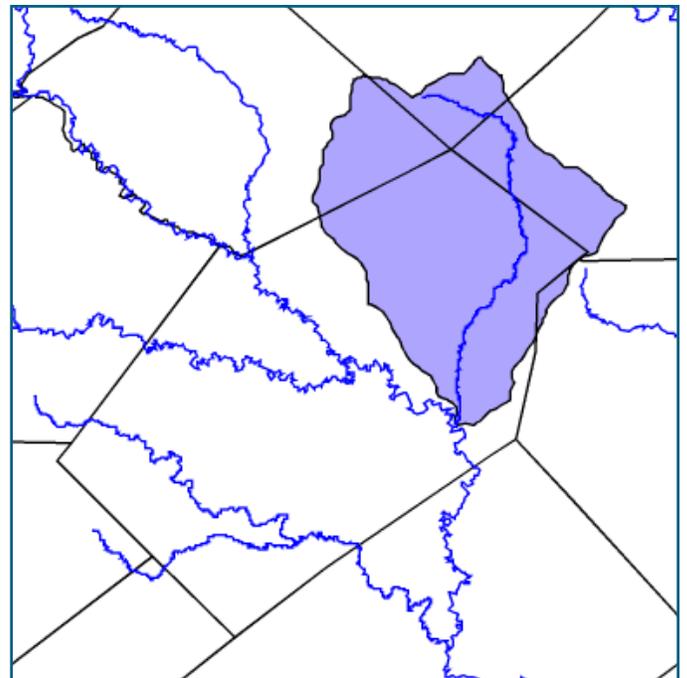
The program will also offer advanced training for participants to become Master Watershed Stewards and provide leadership and service in their communities.

The Texas Watershed Steward Program will also serve as an on-going source of new knowledge, tools and pertinent information regarding watershed protection and improvement activities through continuing education workshops and trainings, demonstrations, press releases, newspaper articles, newsletters, fact sheets and public information statements about recommended water quality best management practices. See our website for more information at: <http://watershedsteward.tamu.edu/>.

Peach Creek – Leveraging 319(h) and EQIP Funding

Aaron Wendt, *State Watershed Coordinator, TSSWCB, Temple, Texas*

Several streams in south central Texas do not support their beneficial, designated use of contact recreation due to high bacteria concentrations. In response to these conditions, the Texas Commission on Environmental Quality (TCEQ) is developing Total Maximum Daily Loads (TMDLs) for Elm Creek (segment 1803A), Sandies Creek (segment 1803B), Peach Creek (segment



Peach Creek Watershed, a tributary of the Guadalupe River in north Gonzales County.

1803C), Lower San Antonio River (segment 1901), and Atascosa River (segment 2107).

The goal of a TMDL is to determine the amount (or load) of a pollutant that a body of water can receive and still support its beneficial uses. The load is then allocated among all the potential sources of pollution within the watershed, and measures to reduce pollutant loads are then implemented as necessary. Data for Peach Creek indicate the three largest contributors of bacteria are cattle, domestic sewage and chickens.

In order to address the cattle component, the TSSWCB has launched the Peach Creek Water Quality Improvement Project. The project strengthens the continuing partnership between the TSSWCB, the Gonzales County Soil and Water Conservation District (SWCD) and Texas Cooperative Extension (TCE) with the goal of reducing the amount of bacteria present in Peach Creek.

Through this project, TSSWCB will provide CWA §319(h) grant funding from USEPA to the Gonzales County SWCD to hire a soil conservation technician for a three year period to develop approximately 30 Water Quality Management Plans (WQMPs) on lands directly along Peach Creek. In addition, funding in the amount of \$280,000 will be made available to cover 50% of the cost associated with implementing selected best management practices (BMPs) along the creek that promote good grazing management and alternative water sources. TCE will educate agricultural landowners on the water quality issues in the watershed, how their operation may impact the water quality in Peach Creek and what measures they can implement to reduce the bacteria runoff into the stream. Producers along Peach Creek seeking technical and financial assistance through this CWA §319(h) project should contact the Gonzales County SWCD at 830-672-8371.

Additionally, TSSWCB and TCEQ have worked with the USDA Natural Resources Conservation Service (NRCS) and the State Technical Committee to establish a South Central Texas Water Quality State Resource Concern for FY2006 EQIP funding. NRCS has allocated \$800,000 for EQIP cost-share funding for producers in five watersheds – Peach Creek, Elm and Sandies Creeks, lower San Antonio River, and Atascosa River.

The focus of EQIP funding will be towards protection of the streams from bacteria from livestock through alternative water sources and good grazing management. Practices will be cost

shared at 50% based on the established county average cost of the practice. Incentive payments for prescribed grazing will also be offered. For more information, contact the local USDA Service Center in any of the five watersheds or see the website at <http://www.tx.nrcs.usda.gov/programs/EQIP/index.html>.

The pairing of CWA §319(h) grant dollars and USDA NRCS EQIP funding, creates great potential for water quality improvement in Peach Creek through a partnership between cattle ranchers and state and federal agencies. Each partner plays a crucial role in demonstrating how proper grazing management practices will also provide water quality improvements: technical assistance from the Gonzales County SWCD, implementation of voluntary BMPs by cattle ranchers, cost-share funding through TSSWCB and NRCS, and education by TCE.

Rangeland Stream and Riparian Areas

Nikkoal J. Dictson, *Extension Program Specialist, Texas Cooperative Extension, College Station, Texas*

Stream and riparian ecosystems are very important to the water issues facing Texans today and into the future. Healthy streams and riparian areas are among the most productive resources found on Texas rangelands. Healthy stream and riparian ecosystems provide clean water, sustain flow in rivers and act like sponges to soak up and store flood waters, recharging shallow water tables and reducing downstream flood damage. They also improve wildlife habitat and livestock productivity through increased soil infiltration and water capture during storms. To provide these benefits, the streams and rivers



Plum Creek in Caldwell County. Photo by Nikkoal J. Dictson.

need to be properly managed and many need to be restored to healthy conditions.

Many of the streams and rivers in Texas have been degraded by past and on-going human activities. These activities have caused increasingly damaging floods, lowered base flows, high sediment loads, reduced reservoir storage capacity, invasion of exotic species, loss of natural riparian habitats and degraded water quality. Stream and riparian systems develop over a period of years, only to be altered by such major disturbances. A healthy system should be resistant and able to repair itself after "normal" disturbances unless it has become so degraded that the ecological processes are disrupted and are no longer functioning properly. These systems are constantly changing and an overall healthy system can have degraded or recovering sections, as well as healthy ones.

Currently, many riparian systems have been managed merely to drain and rapidly move water downstream, reducing local flooding while allowing agriculture and other development in the floodplain. Stream hydrographs usually show increased intensity and frequency of floods in existing channels and floodplains where watersheds have been degraded. Seldom do people think of the floodplain as one of the major, natural water holding areas. Floodplains act as a sponge to soak up above normal water levels that slowly percolate through the soil profile, providing slow release of water back into the streams to keep them flowing between rainfall events. Where possible, floodplains should be restored to conditions that allow them to flood every few years, thus giving the greatest

water storage capacity benefit and increasing base flows, while meeting future water needs.

Efforts to raise awareness of Texas' water problems have focused on water availability, but have neglected that healthy streams and riparian systems are essential for meeting this need. Riparian zone management, whether private or public, directly affects the stream and downstream water users. By understanding the ecological processes, key indicators and impacts of disturbances, landowners and other citizen-stakeholders can evaluate stream and riparian systems and improve their management to produce a clean and healthy water resource for the future.

For more information, see TCE publication B-6157, "A Texas Field Guide to Evaluating Rangeland Stream & Riparian Health" at <http://tcebookstore.org>.



Flooding along Hwy. 6. Photo by Nikki Dictson.

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