

Bosque River Watershed Meeting - Draft 4/18/2008

April 17th, 2008 Brazos River Authority Offices in Waco, Texas

Meeting Summary

Jakob Stewart (Congressman Edwards' representative) opened the discussion with a brief statement about the intent of the meeting and what we were trying to achieve.

- Goal of the meeting is to identify several subwatersheds within the Bosque River watershed where initial demonstrations can be conducted when funding arrives in FY 09

Mead Sams (USACE) then discussed the WRDA authorization and indicated that an estimated \$1 to 2 million should be available in FY 09. He then gave an overview of draft version of a "Comprehensive Plan for Restoration, Protection and Preservation" that he put together. This plan included:

1. Plan Authorization and Purpose
2. Discussion of Previous Studies and Recommendations
3. Participating Agencies and Organizations Roles and Interests
4. Concept of Operations
5. Apportionment and Schedule of Implementation Costs
6. Memorandum of Agreement and Program/Project Governance
7. Implementation Activities, Schedule, and Costs
 - FY 2008 – use TWAA funds to get started prior to initial WRDA funding arrival
 - FY 2009 – begin initial appropriations with WRDA funding
 - FY 2010-2012 – continue to implement practices in selected watersheds
8. Communications Plan

Mead then asked for input on this draft plan and indicated that comments or suggestions would be incorporated as needed.

Discussions then turned over to NRCS (Steve Bednarz, Al Leal, and John Mueller); they passed out two maps of the watershed and five proposed subwatersheds to consider for the initial demonstration watersheds. The five proposed subwatersheds were:

- Harris Creek in the South Bosque
- Tonk Creek in the South Bosque
- Gibson Branch in the North Bosque
- Honey Creek in the North Bosque
- Gilmore Creek in the North Bosque

They indicated that these watersheds were chosen for several reasons. Those reasons were:

- Wanted to have watersheds that were in multiple areas of the watershed

- Selected smaller watersheds with a maximum of 100 to 200 landowners. This will make it easier to cover a larger percentage of the watershed with Conservation Plans. (It takes the same amount of time to develop a conservation plan on 40 acres as it does to develop a plan on 400 acres)
- Watersheds were selected that did not have a high concentration of dairies to avoid potential implementation delays due to permitting hang-ups. If conservation practices are recommended on areas currently covered by a dairy's permit, implementing that practice may be delayed due to permit restrictions.

The City of Waco (Wiley Stem) indicated their concerns with dairy permits and their ability to apply manure in excess of the agronomic rate. The City will not support this type of action. However, it was mentioned that the City would be willing to work with the dairy farmers on some of the issues if the dairy farmers were to enter into a conservation plan that would likely reduce nutrient loading to the Bosque.

The field tour to the Meridian golf course and the proposed use of a wetland type system to serve as a secondary treatment for the effluent from the City of Meridian's WWTP was also mentioned. The City, Golf Course and others from the Meridian area were/are in support of a project and this type of project would be easy to monitor for effectiveness. Samples could be taken at the outlet of the pipe feeding WWTP effluent to the wetland system and samples could be taken at the outlet of the wetland system to evaluate the performance.

Discussions turned to the feasibility and pros/cons of selecting one subwatershed over another for the demonstrations. A general consensus was that no more than 2 subwatersheds should be focused on in this demonstration period. Implementing practices in more than 2 watersheds would spread the available funding to thin and a good measure of impacts may not be readily seen. Therefore, it was agreed that one watershed in the lower portion of the watershed and one in the upper portion be selected.

- Harris Creek: this watershed has good background data than can be used for comparisons post implementation. The City of McGregor is located in this watershed and their WWTP discharges into Harris Creek and will likely make any changes in WQ difficult to distinguish from the influence of the WWTP. As a result, it was agreed that this watershed is not a good place to demonstrate the effectiveness of implementing these conservation practices as a means to improve the quality of water leaving this subwatershed.
- Tonk Creek: this watershed also has good background data available and is currently monitored by TIAER. No WWTPs discharge into this creek so there should be no significant masking of improvements post-implementation. NRCS already has a good start on conservation plans in this watershed.
- Gibson Branch: this watershed also has decent monitoring data, but the North Bosque River flows directly through this subwatershed virtually eliminating the possibility of seeing visible changes in WQ as a result of conservation practice implementation. Due to this challenge, it was agreed that this watershed was not an ideal location to demonstrate the impacts of these practices.

- Honey Creek: this watershed has several dairies located on the periphery of the watershed and a decent data set; however, there is a slight concern with this data set (Dr. Larry Hauck is looking into this data set). This watershed also has a lower percentage currently covered by active conservation plans
- Gilmore Creek: this watershed adjoins the Honey Creek watershed to the south and also has several dairies located near the watershed boundary. Available historic monitoring data is also thought to be decent, but will be evaluated before confirmed. NRCS has a much larger are of this subwatershed already under active conservation plans. (Dr. Larry Hauck will also evaluate this data set)
- Either the Honey or Gilmore Creek watershed will be selected as a demonstration watershed largely based on the available data that can be used for post-implementation WQ comparisons.
- An additional benefit is that the Tonk Creek subwatershed is predominantly in Congressman Edwards' district and the Gilmore and Honey Creek subwatersheds are in Congressman Carter's district.

Other watersheds were mentioned as possible demonstration watersheds (Green Creek, Duffau Creek, other). Largely, the problem with these watersheds is that they are much larger and have many more landowners. These factors present a two-fold problem. First, the larger watershed size would mean that a smaller percentage of the watershed would be able to have practices implemented on it. Second, the total number of conservation plans that NRCS will have to develop is cost and time prohibitive.

NRCS made the point that keeping landowners and local SWCDs up to date on project activities, goals and progress will be a key to making this a successful demonstration because ultimately, the landowners will decide if a practice is implemented on their property or not. NRCS also pointed out that each conservation plan will be developed specifically to address the natural resource needs of the specific property that it is being developed for. As a result, a variety of conservation practices will be recommended throughout these watersheds. Some of the potential practices mentioned were:

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| • Grazing management | • Contour farming |
| • Nutrient management | • Terracing |
| • Range planting | • Brush control |
| • Pasture planting | • Grassed waterways |
| • Streambank stabilization | • Cross fencing |
| • No-till planting | |

Upon making the decision that initial demonstrations would be conducted in the Tonk Creek watershed and either Honey or Gilmore Creek watershed, a plan of action was discussed to carry the work into the FY 09 funding cycle. The work proposed in this plan of action will utilize the available \$100k TWAA funding.

Proposed Plan of Action:

1. USACE will work with NRCS and TWRI to establish a (Memorandum of Agreement) with each group that will outline a list of deliverables/tasks that will be accomplished under those MOAs. Modeling and data analysis work to be conducted by SSL and

TIAER will be included in the MOA between USACE and TWRI. These MOAs will be funded using a portion of the available TWAA funding.

2. NRCS will begin work to establish needed landowner relationships and begin educating these landowners on the importance and benefits of developing and implementing Conservation Plans. The primary focus areas will be the Tonk Creek subwatershed and Honey or Gilmore Creek subwatersheds. (TIAER will assess the available data for the Honey and Gilmore Creek Subwatersheds and one of them will be chosen as a demonstration watershed. It should be noted that NRCS already has significantly more active Conservation Plans in the Gilmore Creek subwatershed) Once these Conservation Plans are developed or in the works, NRCS will tell TWRI which conservation practices need to be evaluated in the detailed models for each demonstration watershed. NRCS will also provide economic information on the recommended conservation practices that will be modeled.

3. As stated above, TIAER will assess the available data sets for Honey and Gilmore Creeks to determine which is the better demonstration watershed regarding available pre-implementation data.

4. SSL and TIAER will work together to model the selected subwatersheds. SSL will focus on the Tonk Creek watershed and TIAER will focus on the Honey or Gilmore Creek watershed. Modeling will be conducted using either the SWAT or APEX model. Available water quality data from TIAER will be used to calibrate and validate the models for each subwatershed. When recommended conservation practice information from NRCS is received, these practices will be modeled in their respective watersheds to evaluate the efficacy and feasibility of implementing these practices in the watershed. Using cost information from NRCS and projected nutrient/sediment reductions from implementing a specific practice, a simple cost-benefit analysis will be developed to aid in determining which conservation practices are most effective while remaining economical.

5. TWRI will work to enhance the communications on project activities. The current web-page on the TWRI website will be developed into a project website that will be used to post meeting minutes, project updates, published materials, current events, meeting notices, etc. TWRI will also assist in reporting activities and will serve as a point of contact for the project. The current web page is: <http://twri.tamu.edu/project-info/EnvironmentalInfrastructures/>

6. USACE will also begin work on a “Comprehensive Plan for Restoration, Protection and Preservation of the Bosque River Watershed.” Information generated in tasks 2-5 above will be incorporated into this plan upon their completion.

It was also agreed by the group that August was an appropriate time to meet again and to have discussions and presentations on the work that has been conducted since the

previous meeting. An attempt will also be made to hold the August meeting in conjunction with district visits from Congressmen Carter and Edwards.

The last topic of discussion was the project that had been proposed in the Green Creek watershed on Kiker Lake. The landowner had approached the City of Waco about constructing a treatment wetland at the upper end of Kiker Lake to act as a filter for pollutants prior to their entering the lake. This project would be feasible in that the landowner is very supportive of improving water quality on his property as well as downstream. It was noted that at this point, implementing such a project would be rather isolated and more beneficial to one party rather than numerous persons. The discussion turned back to the wetland enhancement at the Meridian Golf Course as a similar project, but one that would benefit many groups directly.