

Clean Water Act Section 319(h) Nonpoint Source Pollution Control Program Project
Lampasas Watershed Assessment and Protection Project (LWAPP)

Quarterly Report Number 2

Covering work accomplishments during April through June, 2008

prepared by

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A significant change to the LWAPP staff occurred in June with Jason McAlister's promotion. While Jason was slated at 0.75 FTE to LWAPP, his efforts in the project will now be limited to about 5 percent FTE. Jason's QA responsibilities are being redirected to Steve Potter, at least until the QAPP is approved. Jason also had primary responsibility for directing the outreach effort. Most of these tasks will be redirected to Lisa Prcin with Steve assisting in developing an outreach work plan. Steve will now assume full responsibility for the watershed facilitator/coordinator role. To balance the workload out, some of Steve's tasks, (i.e. geodatabase development) may need to be reassigned. LWAPP project manager, Dr. Dennis Hoffman, will monitor and evaluate progress. Staff and other resources will be supplemented as needs dictate in order to keep the project on schedule¹.

Turning up outreach activities was chief area of progress this quarter. Driving this was attendance of three LWAPP staff at the Watershed Planning Short Course during which we gained an appreciation for outreach. The course provided us with the skills and tools needed to plan and conduct outreach activities.

Outreach efforts this quarter focused on developing a detailed outreach work plan. Development efforts included conversations with a broad range of key stakeholders. In addition, ideas from the Short Course instructors helped shaped the plan. In it, we define our major outreach objectives. The work plan shows how we intend to find, recruit, organize, and manage stakeholders, the outreach methods we expect to use, and a schedule. The plan is nearly at the stage where LWAPP staff can discuss it with outreach experts, especially the TSSCB staff.

¹ Note that a difference exists between the August 2007 start date projected by TSSWCB and the project's actual start date of January 2008. The LWAPP team expects that the project will require three full years and is planning accordingly.

Other activities this quarter included the study of relevant background materials including literature concerning facilitation of stakeholder-driven projects. Visits to the watershed, informal meetings with stakeholders, and windshield surveys were conducted. A website design was created and development is in progress. We also scheduled a Watershed Stewards workshop with Extension to be held in Lampasas on September 25. In addition, the team was invited to make an outreach presentation at a water conference planned for Lampasas.

Activities were not limited to outreach. Literature concerning prior projects in the Lampasas watershed were reviewed and we are considering writing a formal Literature Review which could be included in the WPP or an appendix. Staff also attended a USGS-hosted webinar on GIS imaging in preparation for watershed characterization tasks. In other activity, a software tool to automate creation of load duration curves was developed.

We also consulted with several national experts concerning Human Dimensions Research, which enabled staff to gain insights on incorporating socioeconomic indicators as metrics to evaluate plan progress. A key finding was that we probably should not wait until project month 18 to begin considering metrics (see below).

Task 1: Lampasas River WPP Development and Project Administration

Subtask 1.1: Conduct quarterly meetings, or as appropriate, with project participants, and other interested parties to discuss project schedule, lines of responsibility, communication needs, and other requirements. (Start Date: Month 1; Completion Date: Month 36)

6% Complete – On-going

Subtask 1.2: Identify and recruit key stakeholders through public education and outreach. Organize stakeholder group. Prepare and distribute semi-annual newsletter to stakeholders. Develop and host watershed website. (Start Date: Month 1; Completion Date: Month 36)

- LWAPP Staff is developing a comprehensive outreach work plan so that tasks are specifically targeted to the requirements of developing a potentially successful WPP consistent with the EPA's nine elements.
- Staff continued identifying and contacting likely members of the stakeholder committee and workgroups.
- Staff organized "listening sessions" with stakeholders (both groups and individuals).

7% Complete – On-going

Subtask 1.3: Organize workgroups based on stakeholder recommendations. (Start Date: Month 1; Completion Date: Month 36)

- LWAPP staff worked on formation of the technical committee.

- Staff attended the monthly meeting of Cleanwater and assisted their educational outreach efforts. Cleanwater is a stakeholder group concerned with the water quality in Stillhouse Hollow Reservoir.
 - Staff met with representatives from the Friends of Sulphur Creek; a stakeholder group in Lampasas concerned with the water quality in Sulphur Creek, a tributary to the Lampasas River.
- 5% Complete – On-going**

Subtask 1.4: Conduct stakeholder meetings as appropriate (stakeholder/community driven), and conduct workgroup meetings according to project demands. (Start Date: Month 1; Completion Date: Month 36)

- Scheduled listening session with Mills County SWCD.
 - Scheduled listening session with Hill Country SWCD.
- 0% Complete – On-going**

Subtask 1.5: Prepare stakeholder and workgroup educational programs as requested. (Start Date: Month 1; Completion Date: Month 36)

- Staff participated in BRA in-stream flows workshop and arranged attendance for several watershed stakeholders.
- 5% Complete – On-going**

Subtask 1.6: Develop Lampasas River WPP. (Start Date: Month 1; Completion Date: Month 18)

- No activity this quarter.
- 0% Complete – On-going**

Task 2: Development of load duration curves for the Lampasas River Watershed

Subtask 2.1: Develop flow duration curves using historical stream-flow data. (Start Date: Month 3; Completion Date: Month 6)

- Wrote simple software program to automate Flow Duration Curve (FDC) assembly. Tested protocol in FDC produced for QAPP documentation.
- 5% Complete – On-going**

Subtask 2.2: Develop LDCs to characterize pollutant loadings in the Lampasas River Watershed for all parameters of concern. Determine if and under what conditions bacteria levels exceed water quality standards. (Start Date: Month 3; Completion Date: Month 6)

- Wrote software program to automate Load Duration Curve (LDC) assembly. Tested protocol in LDC produced for QAPP documentation.
- 5% Complete – On-going**

Subtask 2.3: Calculate the load reductions necessary to meet water quality standards. (Start Date: Month 3; Completion Date: Month 6)

- No activity this quarter.
0% Complete – On-going

Task 3: Watershed inventory and geographic analysis of land use influencing *E. coli* migration and other NPS pollution within the Lampasas River Watershed.

Subtask 3.1: In order to develop and implement DQOs and QA/QC activities necessary to ensure environmental data of known and acceptable quality is generated through this project, a QAPP for Tasks 2-4 will be developed that is consistent with *EPA Requirements for Quality Assurance Project Plans (QA/R-5)* and the *Environmental Data Quality Management Plan for the TSSWCB*. (Start Date: Month 1; Completion Date: Month 2)

- Completed significant progress on QAPP. Expected submittal date is July 18, 2008.
95% Complete – On-going

Subtask 3.2: Classify current land use for the watershed using existing land use/land cover data utilizing most current imagery available. (Start Date: Month 2; Completion Date: Month 4)

- Initiated development of land-use geodatabase. Classified watershed land-use into broad categories to facilitate tasks associated with stakeholder identification.
5% Complete – On-going

Subtask 3.3: Verify classification of land use through ground-truthing of sub-sampled land units, and collection of available data. (Start Date: Month 2; Completion Date: Month 4)

- No activity this quarter.
0% Complete – On-going

Subtask 3.4: Delineate the Lampasas River Watershed into catchments using highest resolution digital elevation model available. Start Date: Month 3; Completion Date: Month 4)

- No activity this quarter.
0% Complete – On-going

Subtask 3.5: Compile all of feature class, raster, and tabular data into a comprehensive geo-database reflecting existing watershed conditions. (Start Date: Month 3; Completion Date: Month 10)

- No activity this quarter.
0% Complete – On-going

Task 4: Utilize Spatially Explicit Load Enrichment Calculation Tool (SELECT) for analysis of the Lampasas River Watershed.

Subtask 4.1: Compile and estimate the contribution of potential sources of *E. coli* and other parameters within the watershed. (Start Date: Month 8; Completion Date: Month 12)

- No activity this quarter.
0% Complete – On-going

Subtask 4.2: Allocate numbers of each potential source category, in a spatial context according to land use classification using GIS. (Start Date: Month 8; Completion Date: Month 12)

- No activity this quarter.
0% Complete – On-going

Subtask 4.3: Identify potential pollutant sources across the landscape based on proximity to hydrology, land use, and other factors using SELECT analysis. (Start Date: Month 10; Completion Date: Month 12)

- No activity this quarter.
0% Complete – On-going

Subtask 4.4: Utilize the hybrid statistical and process-based approach of SPARROW (Spatially Referenced Regressions on Watershed Atttributes) to quantify uncertainty in SELECT parameters. (Start Date: Month 10; Completion Date: Month 12)

- No activity this quarter.
0% Complete – On-going

Task 5: Facilitate implementation of the Lampasas River WPP.

Subtask 5.1: Work with stakeholders and workgroups to prioritize implementation activities based on consensus and continual watershed assessment and awareness. (Start Date: Month 18; Completion Date: Month 36)

- No activity this quarter.
0% Complete – On-going

Subtask 5.2: Assist stakeholders in identification and acquisition of resources necessary to proceed with watershed implementation and protection strategies, and in anticipation of future watershed needs. (Start Date: Month 18; Completion Date: Month 36)

- No activity this quarter.
0% Complete – On-going

Subtask 5.3: Identify metrics or other indicators which will be used to evaluate successful implementation or improvement of watershed health over time. (Start Date: Month 18; Completion Date: Month 36)

- Consulted with Tom Davenport about using social indicators as interim metrics. Tom maintains that it is critical to identify these metrics early in the WPP process in order to establish a baseline. Furthermore, he stated firmly that watershed plans addressing bacteria impairments should be required to incorporate the “human dimension” as indicators for evaluating implementation. Discussions with Tom, university and NRCS experts are ongoing.
1% Complete – On-going

Activities Planned for Next Quarter

- During the next quarter we intend to crank up outreach activities
- Official project kickoff
- Create brochure and PowerPoint presentation, turn-on website, and create other communication tools
- Prepare for Lampasas Water Conference
- Prep for Watershed Stewards workshop
- Conduct “Listening Sessions” (see outreach work plan)
- Identify and recruit 5-7 key stakeholders as steering committee/board of directors
- Organize and host first board meeting
- Identify individual and organizations which ought to be on technical committee
- Organize and conduct technical committee meeting

Project Management and Administration Activities

- Submit QAPP (7-18-08), follow up and revise as necessary
- Complete and submit Quarterly Report Number 3 for work accomplished July-Sept. 08