

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

Quarterly Report Number 1

Covering work accomplishments during January through March, 2008

prepared by

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Task 1: Lampasas River WPP Development and Project Administration

Significant activities this quarter consisted of creating the project team, specifying team members' roles and responsibilities, and organizing project administrative and management functions. Especially important were team planning meetings to coordinate science/modeling and outreach activities, amplification of the project plan methodologies, and initiation of an internal peer review process.

Substantial efforts by LWAPP staff included review and study of relevant background materials including literature concerning facilitation of stakeholder-driven projects and EPA documents on the development of successful watershed protection plans. In addition, materials concerning prior projects conducted in the Lampasas watershed were gathered, and an initial survey of available data sources was performed.

Further efforts to gain the requisite knowledge for a successful project included participation in related watershed/water quality workshops, and attendance at stakeholder and workgroup meetings conducted in nearby watersheds.

Most efforts were geared towards typical project start-up activities and the LWAPP team calls attention to a divergence in projected and realized project start dates. The start date in the LWAPP team project timetable is January 2, 2008.

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) Principal investigators hired / assigned LWAPP staff, designated team member roles and responsibilities. Team broadly explored potential problem areas which could impede project success, and as a result, refined communication strategies and initiated an internal review mechanism

5% 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 began the process of identifying and contacting likely members of the stakeholder committee and workgroups.
- LWAPP staff observed stakeholder meetings for ongoing watershed protection plans at Cedar Creek Reservoir, Granger Lake, Lake Granbury, and Plum Creek.
- LWAPP staff attended the technical steering committee meeting the Leon River watershed project. Subsequently, LWAPP staff met with Leon River project staff to gain a deeper understanding of outreach methods.
- LWAPP staff attended Brazos CRP Steering Committee meeting at BRA headquarters, March 27th.

5% Complete – On-going

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

- LWAPP staff met with Cleanwater Stillhouse Reservoir group, a nonprofit organization promoting water quality in the Lampasas Watershed.
- LWAPP staff met with Central Texas Water Supply.
- LWAPP staff initiated formation of the education workgroup.

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)

- No activity this quarter.

0% Complete – On-going

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

- LWAPP staff conducted educational activities at the Temple train depot on Saturday, March 15th.
- LWAPP staff planned education & outreach activities for Earth Day celebration.
- Staff participated in Watershed Stewards course 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)

- No activity this quarter.
0% 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)

- No activity this quarter.
0% 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 April 18, 2008.
75% 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)

- No activity this quarter.
0% 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 Atributes) 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)

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

Activities Planned for Next Quarter

Science/Modeling Activities

- Organize and conduct technical steering committee meeting.
- Gather river flow and water quality monitoring data; classify and arrange in relational database.
- Automate method for creating load duration curves (LDCs) and develop LDCs at sample collection sites in the Lampasas River watershed. Document methods, assumptions, and source data. Analyze results and present findings to stakeholder committee.
- Complete available data survey. Design and compile a basemap geodatabase with watershed land use inventory, soil survey, and other assessment data. Develop metadata and document geodatabase. Summarize and present spatial extents to stakeholder committee and on website. Identify and list data gaps.
- Review scientific literature to improve understanding of bacteria (*E. coli*) life cycle, sources, transport mechanisms, and water quality impairment.

Outreach / Education Activities

- Complete outreach strategy.
- Organize stakeholder committee and workgroups.
- Create Web presence for project.

Project Management and Administration Activities

- Submit QAPP (4-18-08), follow up and revise as necessary.
- Complete expanded task lists. Organize tasks by year and quarter and develop project calendar. Identify project milestones (w/dates) for evaluating progress. Document calendar and milestones on website.
- Document team members' roles, responsibilities, and contact information on website.
- Complete and submit Quarterly Report Number 2 for work accomplished April-June 08.