

APPENDIX A: TASK 3 WORKPLAN

TASK 3: WATER QUALITY MONITORING

Objectives: Data collection efforts will focus on providing information to support:

- Temporal and spatial analysis of water quality
- Knowledge of water quality and flow for unclassified streams
- Evaluation and development of state-wide, regional, and site-specific water quality standards
- Permit criteria related to the perennial or intermittent nature of receiving streams
- Receiving water assessments
- 305(b) assessment and 303(d) priority monitoring
- Use attainability assessments;
- Waste load evaluations (WLE) or total maximum daily load (TMDL) development
- Special studies.

Task Description:

Task 3.1

Fixed Station Routine

Monitoring

SRA will conduct long-term water quality monitoring at fixed monitoring sites. SRA will coordinate all monitoring plans with the TNRCC regional offices to avoid duplication of effort. The fixed monitoring sites include 30 - 40 sampling sites that are monitored monthly for routine physical and chemical parameters. Selected sites are also monitored annually for metals in water and metals in sediment. Details of the monitoring schedule, parameters, and sampling locations will be included in Appendix B of the QAPP and will be updated each year. Data analysis from the results of the monitoring are reviewed annually and will be used to adjust the fixed monitoring sites to address changes in water quality issues. All monitoring plans will be presented to the Sabine Basin Steering Committee for input from the stakeholders. All interested parties will be encouraged to participate in water quality monitoring through the SRA QAPP.

Task 3.2

Systematic Watershed

Monitoring

The SRA will continue systematic monitoring utilizing biological screening studies in combination with routine physical and chemical parameters. Approximately seven sites will be monitored in FY 2002 and four to six sites will be monitored in FY 2003. Details of the monitoring schedule, parameters, and sampling locations will be included in Appendix B of the QAPP and will be updated each year. The water quality data includes monitoring and analyses of physical, chemical, bacteriological, and biological parameters. Instantaneous flows will be collected at selected sites. These programs provide data on the health of aquatic life and long-range water quality protection.

Biological testing will include both ambient biomonitoring and rapid bioassessments. Most routine parameters will be sampled every other month. Rapid bioassessments will be conducted annually at most sites depending on season and flow conditions. Metals will be analyzed annually in water at selected sites. Metals in sediments will be analyzed at sites where metals in water are sampled provided adequate sediment can be collected.

Subwatersheds that show concerns will be further evaluated to determine what appropriate action should be taken. The number of sites that require additional testing will determine the number of sites sampled in future years of the program. Increases in the number of samples to be analyzed by the laboratory must be tempered with the limited resources available. Further action on a priority site will be contingent upon available resources and an updated QAPP.

**Task 3.3
Targeted
Monitoring**

No targeted monitoring is scheduled for the Sabine Basin during this planning period.

**Task 3.4
Special Studies
on Priority
Subwatersheds**

Data analyses by the Sabine River Authority have identified some water quality concerns in some subwatersheds. These subwatersheds have been prioritized for additional sampling. Details of the monitoring schedule, parameters, and sampling locations will be included with the QAPP.

In Reach 3, the Caney Creek Subwatershed is being studied to determine impacts due to changes in effluent loading.

In Reach 5, a non-point study is being conducted in the Grace Creek Subwatershed to delineate concerns identified in the 1999 assessment. The Rabbit Creek and Hawkins Creek Subwatersheds are scheduled for special studies to determine non-point impairments.

SRA will coordinate a cooperative sampling program with participants from the TNRCC, TPWD, and local, watershed-specific, stakeholders. Since water quality concerns are thought to be primarily from non-point sources, wet weather and normal flow sampling events will be scheduled. The objective of the sampling will be to determine the origins of the non-point source pollution. Field and laboratory parameters and dissolved metals will be analyzed at all sites, and selected sites will be tested for biological impairments using Ambient Toxicity Tests (AT) and Rapid Bioassessment (RBA).

Equipment: SRA has all of the necessary equipment needed to perform this task.

**Deliverables
& Dues Dates: September 1, 2001 through August 31, 2002**

Task 3.1 & 3.2

A. Conduct water quality monitoring and provide details of the monitoring activities in Progress Reports - December 15, 2001, March 15, and June 15, 2002.

Task 3.3

A. No targeted monitoring is scheduled for the Sabine Basin during this planning period – not applicable.

Task 3.4

A. Conduct water quality monitoring and provide details of the monitoring activities in Progress Reports - December 15, 2001, March 15, and June 15, 2002.

September 1, 2002 through August 31, 2003

Task 3.1 & 3.2

A. Conduct water quality monitoring and provide details of the monitoring activities in quarterly Progress Reports - September 15 and December 15, 2002; March 15 and June 15 and August 31, 2003.

Task 3.3

A. No targeted monitoring is scheduled for the Sabine Basin during this planning period – not applicable.

Task 3.4

A. Conduct water quality monitoring and provide details of the monitoring activities in quarterly Progress Reports - September 15 and December 15, 2002; March 15 and June 15 and August 31, 2003.