

AGREEMENT ACTIVITIES

TASK 1: PROJECT ADMINISTRATION

Objective: To manage all administrative functions required to support the Clean Rivers Program (CRP) Agreement, including:

- informative and timely Progress Reports,
- participation in Conference Calls,
- participation at CRP meetings,
- timely and accurate reimbursement forms with adequate documentation,
- efficient cost control to ensure expenses are allowable and applicable,
- responsibility for procurement and oversight of subcontractors,
- participation in fiscal monitoring reviews,
- timely and accurate deliverables that meet the intent of the Fiscal Year (FY) 2012-2013 CRP Guidance,
- adherence to TCEQ Agreement provisions,
- detailed and reasonable Work Plan development,
- financial reporting and budget monitoring, and
- training to ensure personnel are properly prepared to conduct work.

Task Description - The Grantee project staff will work with TCEQ's CRP Project Manager and the Grantee's Finance, Internal Audit, Office Services and Program Operations departments to meet all new TCEQ administrative requirements for this Agreement. The Grants Administration Specialist for the Grantee's Community and Environmental Planning Department will assist with the tracking and documentation requirements for this Agreement in coordination with TCEQ's CRP Agreement monitoring staff. The Grantee also will handle all subcontract administration and fiscal monitoring under this task. Equipment purchases will be reported under this task, and will be updated in the Equipment Inventory Database.

The Grantee intends to meet the CRP voluntary goal of keeping Task 1 administrative costs at, or below, 10% of the total Agreement amount. Project staff will keep the Grantee's CRP Steering Committee apprised of project administration issues.

Progress Reports - Progress Reports will contain a level of detail sufficient to document the activities which occurred during the appropriate quarter. Progress Reports will contain a general description of activities, a detailed tracking of deliverables, and the amount of water quality monitoring which occurred during the quarter. The Progress Report will be in the format provided in Exhibit 1D of the FY 2012-2013 CRP Guidance.

Reimbursement Requests - A Financial Status Report and Supplemental Forms will be submitted along with appropriate additional documentation on a quarterly basis. An updated Personnel Eligibility List (PEL) and Equipment Inventory List will be submitted when changes occur during the quarter. Budget Revision Requests will be made in advance of making changes to the budget.

Grantee and Subcontractor Evaluations - An annual self-evaluation, as well as, evaluations of subcontractors will be submitted at the end of each fiscal year.

Procurement Procedures Documentation - Documentation of the procurement process used to solicit, evaluate, pay, and oversee subcontractors, as specified in the FY 2012-2013 CRP Guidance, will be developed. This documentation will be maintained in-house and will be made available for review by TCEQ fiscal monitoring staff upon request. For each subcontract, a letter listing the procurement method used and a copy of the executed subcontract will be submitted to the CRP Project Manager. In addition, a Procurement System Certification will be submitted with the supporting documentation required with the work plan.

Conference Calls - The Grantee will participate in all scheduled Conference Calls, unless arrangements are made with the CRP Project Manager.

Conferences and Training Events – The Grantee will participate in meetings and training events as scheduled by the CRP. All non-CRP conferences and training events need to be pre-approved by TCEQ prior to incurring costs associated with such events. The Grantee staff, as appropriate, will also continue to attend appropriate conferences and serve on advisory groups related to CRP priorities and objectives. Priority activities include the biennial Texas Water Monitoring Congress, the Annual Texas Water Conference co-sponsored by Water Environment Association of Texas (WEAT) and American Water Works Association (AWWA), the Annual EPA Region 6 Nonpoint Source and Watershed Management Conference, and periodic Texas Water Conservation Association meetings and technical conferences. Some conferences also provide opportunities for CRP outreach activities by project staff, such as the biennial State of the Bay (Galveston Bay) Symposium, ESRI Annual Geographic Information Systems (GIS) Conference, the annual North American Lake Management Society (NALMS) Conference, and the National Water Quality Monitoring Conference. Quality Assurance staff would also benefit from available National Environmental Laboratory Accreditation Conference (NELAC) and other quality systems training events as appropriate. The Grantee staff also currently serves on the Texas Water Monitoring Council, the Texas Stream Team Advisory Council, the Monitoring and Research Subcommittee, and the Water and Sediment Quality Subcommittee of the Galveston Bay Estuary Program (GBEP).

Annual Documentation for Desk Review or On-Site Visit - Detailed supporting documentation, in addition to the traditional quarterly documentation, will be made available upon request. The additional supporting documentation will include those items outlined in Exhibit 1B of the FY 2012-2013 CRP Guidance. In the case of an on-site visit, the appropriate Planning Agency personnel will be available during the visit.

FY 2014 - 2015 Work Plan and Supporting Documentation - The Work Plan and supporting documentation will be prepared and submitted as specified in the FY 2014-2015 CRP Guidance. Supporting documentation will include (as applicable): budget by category, budget by task, PEL, fringe rate methodology, indirect rate methodology, allocated costs documentation, equipment purchase request list, equipment inventory, a list of tasks that will be sub-contracted, a list of known training events/conferences, and a signed Procurement System Certification. The Work Plan will include the tasks and deliverables outlined in the FY 2014-2015 Guidance and will be negotiated with the CRP Project Manager. A list of all deliverables in due date order will be submitted with the final Work Plan.

Deliverables and Due Dates:

September 1, 2011 through August 31, 2012

- A. Progress Reports - December 15, 2011; March 15 and June 15, 2012
- B. Annual Self-Evaluation and, if applicable, Subcontractor Evaluations - August 31, 2012
- C. Procurement Procedures Documentation - upon execution of the subcontract
- D. Additional Submission Documentation for Desk Review or Site Visit - upon request

September 1, 2012 through August 31, 2013

- A. Progress Reports - September 15 and December 15, 2012; March 15, June 15, and August 31, 2013
- B. Proposed FY 2014 - 2015 Work Plan and Supporting Documentation - May 1, 2013
- C. Final FY 2014 - 2015 Work Plan and Supporting Documentation - June 15, 2013
- D. Annual Self Evaluation and, if applicable, Subcontractor Evaluations - August 31, 2013
- E. Procurement Procedures Documentation - upon execution of the subcontract
- F. Additional Submission Documentation for Desk Review or Site Visit - upon request

TASK 2: QUALITY ASSURANCE

Objective: To conduct data collection activities in accordance with an integrated system of quality management activities involving planning, assessment, implementation, training, and quality improvement. This task addresses objectives and processes for:

- planning and coordination of basin-wide monitoring,
- Quality Assurance Project Plan (QAPP) development and implementation,
- laboratory quality assurance,
- data review, verification, and validation,
- oversight of project specifications,
- special studies project planning, and
- provide training to local partners.

Task Description: The Grantee will continue to assign to their Monitoring Coordinator, the responsibility of staffing the Regional Monitoring Workgroup (RMW) and maintaining the Regional QAPP. This team member will work closely with the staff member responsible for the Grantee's data management activities.

RMW - The Grantee will continue to coordinate and develop water quality monitoring strategies through the RMW. The workgroup will meet every quarter to discuss monitoring needs, problems, successes and changes. Additionally, The Grantee's Monitoring Coordinator is a member of the GBEP Monitoring and Research Subcommittee, in which continued participation will help ensure coordination of effort between the CRP and GBEP.

The RMW is composed of The Grantee CRP staff and representatives from TCEQ Austin, TCEQ Region 12, Texas Parks and Wildlife, Texas Department of Health, GBEP, local universities, and six local agencies which include Harris County Pollution Control, Environmental Institute of Houston, City of Houston-Health and Human Services, City of Houston-Water Quality Control, and the San Jacinto River Authority. Each agency, routinely, shall send representatives from their field investigation staff and laboratory staff. The RMW discusses CRP monitoring tasks and deliverables, basin monitoring priorities, training, and upcoming projects. The workgroup serves as the point of contact for the Grantee to provide Quality Assurance (QA) materials to local agencies and subcontractors. This workgroup is also the mechanism through which data management needs and priorities are discussed.

RMW meeting results will be presented to the Technical Advisory Group (TAG) and/or the CRP Steering Committee for review and concurrence with various basin interests. This review process will be used to assess the current monitoring plan and adjust regional monitoring strategies as needed.

Training for Local Agencies - The Grantee Monitoring Coordinator will arrange training sessions for local field personnel and sub-contractors as necessary. TCEQ Surface Water Quality Monitoring (SWQM) staff, the Grantee staff, local agency staff or vendors will conduct training sessions. Training may cover sampling techniques for field parameters, bacteria, dissolved metals, and biological monitoring or the use of new field equipment (e.g., multi-probe meters or flow meters). All training sessions will be coordinated with the TCEQ Project Manager.

NELAC Accreditation Activities - The ability of laboratories to demonstrate their competence is important to TCEQ's Performance Based Measurement System, in which the burden of proof of the applicability and quality of testing lies primarily with the laboratory. The NELAC Standard provides uniform requirements for accreditation of environmental laboratories. The Grantee will continue to ensure the review, update and verification of a laboratory's NELAC specified standard operating procedures, standardized quality systems, including requirements for management qualifications; documentation of policies and procedures; calibration and maintenance of equipment; quality control; qualifications and training of personnel; sample integrity procedures; management of audit findings and corrective actions; and provide comprehensive oversight of the entire system to ensure performance. Accreditation minimizes the risk of making decisions based on data of doubtful authenticity.

As per TCEQ requirements, all laboratories submitting data to the CRP must be National Environmental Laboratory Accreditation Program (NELAP) certified. The Grantee will reimburse the required TCEQ annual accreditation fees, as well as, semi-annual verification checks from a TCEQ-accredited third party vendor for the Department of Health and Human Services Laboratory, Water Quality Control Laboratory, and Harris County Laboratory.

Basin-wide QAPP – The Grantee staff will develop a Regional QAPP with input from the RMW and the TAG. The Basin-wide QAPP will be submitted to TCEQ in the TCEQ-approved shell format. Only those sites covered by the QAPP and parameters meeting the requirements of TWC, Chapter 5, Subchapter R (TWC §5.801 et seq) and Title 30, Texas Administrative Code (TAC), Chapter 25, Subchapters A and B will be included in the document. The Grantee will address all TCEQ comments and submit the revised QAPP to TCEQ within 30 days after receiving comments from TCEQ.

The Grantee will secure written documentation from participants under the QAPP stating their awareness of and commitment to requirements contained in the QAPP and any appendices and amendments. This documentation will be maintained as part of the Grantee's quality assurance records. Copies of all QAPP Receipt and Commitment letters will be forwarded to TCEQ within 60 days of TCEQ approval of the QAPP, but prior to the monitoring event. (Note: Commitment letters are not required for entities who sign the QAPP). The Grantee will distribute the QAPP to all participants (including the laboratory). Documentation of distribution will be maintained by The Grantee and be available for review during a TCEQ monitoring systems audit.

Sections of the Basin-wide QAPP will be posted to the Grantee's CRP Web page. These sections include the monitoring program or project objectives; measurement performance specifications (i.e., Table A7), appendices, and either post the monitoring schedule and maps of sampling sites, or provide a link to the coordinated monitoring schedule (CMS) website with disclaimer that states the CMS includes stations monitored by other entities.

QAPP Amendment to Appendix B - The monitoring schedule in Appendix B of the Basin-wide QAPP will be updated for the second year of the Agreement biennium after the annual coordinated monitoring meeting. This special type of QAPP amendment will be submitted using the TCEQ-approved shell format. Only the sites covered by the Grantee's QAPP will be included in Appendix B of the QAPP.

Planning for Special Studies or Permit Support Monitoring - Special studies and monitoring projects to support permits will be systematically planned by the Grantee and any of their subcontractors in consultation with TCEQ staff to address the elements of the QAPP. Due to the length of time necessary for project planning and QAPP development, more than one planning meeting may be needed before a final QAPP can be submitted for approval. The Grantee Project Manager will coordinate with TCEQ to establish the planning team, schedule the meeting (90 days prior to the planned sampling date), distribute meeting materials in advance of the meeting, facilitate the meeting, and prepare meeting minutes. The Grantee will submit planning material for the meeting to all participants one week prior to the meeting. Meeting materials will include, as appropriate, a problem definition, as currently understood, a description of budget, personnel and schedule issues, maps, information on past or on-going studies, historical water quality data, water quality inventory results, wastewater discharge information, known or expected sources of contamination, existing monitoring sites, land use information, etc. The information developed during the planning meeting will be incorporated into a QAPP appendix. The QAPP appendix will be submitted to TCEQ (within 30 days after the planning meeting) using the TCEQ-approved shell format.

QAPP Appendices - Special studies and permit support monitoring projects that have different objectives than those described in the Basin-wide QAPP will be incorporated into the QAPP as appendices after they are thoroughly planned in consultation with TCEQ. The QAPP appendices will be written in the TCEQ prescribed format and reference sections of the Basin-wide QAPP, as appropriate, and otherwise address information that is unique to the project. Unique aspects of special projects will include the problem definition, the task description, measurement performance specifications, sample design rationale, sampling methods requirements, and so on. QAPP appendices will be sent to TCEQ through the CRP Project Manager. TCEQ comments will be addressed and the document will be modified and resubmitted within 30 days of receipt.

QAPP Amendments - Changes in parameters, sampling or analytical procedures, project organization, and other items of an existing project necessitates an amendment to the QAPP and/or revisions to appendices. Amendments and revisions will be submitted electronically to the CRP Project Manager on an "as needed" basis in the TCEQ shell format for agency review. QAPP amendments and revisions to appendices will be distributed, upon approval, to all personnel on the distribution list maintained by the Grantee. On-going systematic projects and/or special studies started in the previous biennium will be amended to update the start and end dates for monitoring.

Project oversight – The Grantee will participate in monitoring systems audits and laboratory inspections conducted by TCEQ.

The Grantee will conduct oversight audits of the regional monitoring systems in two ways. First, the ambient monitoring program participants will be audited once during the Agreement cycle. This audit will be conducted as either a group effort whereby all agencies/organizations participating in the coordinated monitoring program assemble at one central location on one day, or individually per partner, whichever is deemed most appropriate. This audit shall be conducted to assess procedures used by field personnel and to give recommendations for corrective actions. A "monitoring systems audit checklist" will be completed and a follow-up letter will be sent to each audited agency within 30 days. If no findings are identified, then the report will state as such. If findings are identified during the audit, they will be reported as such in the audit report. Audit reports will contain references to written specifications, as defined in the QAPP or in a standard operating procedure (SOP). The audited organization will be asked to respond in writing to the report within 30 days. A copy of the audit reports and responses will be submitted as a deliverable to the CRP Project Manager with the Progress Report no later than the quarter following the one in which the audit was conducted. Audits of local monitoring agencies may be conducted more frequently if necessary. Additional audits may occur if there is a significant staff turnover at a specific agency or if data screening reveals problems with data collection.

The Grantee will complete at least one onsite assessment of all systematic or special study monitoring performed by subcontractors during each Agreement period. The audit may be a readiness review if the contractor has not performed this type of study before and/or it may be a field audit to assess field sampling and data collection techniques. The exact nature of those site visits will be determined during a project planning meeting.

Corrective Action Reports - Issues that may affect data quality and availability will be tracked, addressed, and reported to TCEQ using the definitions and corrective action strategy laid out in the CRP Guidance. Deficiencies and nonconformances will be addressed in response to deviations associated with sampling activities, chain-of-custody, analytical method requirements, quality control, and data management.

Deliverables and Due Dates:

September 1, 2011 through August 31, 2012

- A. Basin-wide QAPP Receipt and Commitment Letters - October 15, 2011
- B. Specified sections of the Basin-wide QAPP posted to the Web - October 31, 2011
- C. Draft QAPP Appendix B amendment for FY 2013 monitoring - June 15, 2012
- D. Final QAPP Appendix B revision for FY 2013 monitoring - August 15, 2012
- E. Planning Meetings for Special Studies or Permit Support Monitoring (if applicable) - 90 days prior to the planned sampling date
- F. Planning Meeting notes for Special Studies or Permit Support Monitoring (if applicable) - with progress report
- G. QAPP Appendices for Special Studies or Permit Support Monitoring (if applicable) - within 30 days after the planning meeting
- H. QAPP amendments (if applicable) - as needed
- I. Appendix and amendment QAPP Receipt and Commitment Letters (if applicable) - no later than 60 days after TCEQ approval of the QAPP, but prior to the monitoring event
- J. Participate in TCEQ monitoring systems audit and respond to comments (if applicable) - date planned in consultation with TCEQ

- K. Conduct on-site oversight assessment of sub-participants, once during each project or once during Agreement cycle (if applicable) - August 31, 2012
- L. On-site project oversight report and response (if applicable) - August 31, 2012
- M. Corrective action status report - December 15, 2011; March 15 and June 15, 2012

September 1, 2012 through August 31, 2013

- A. Draft FY 2014/2015 Basin-wide QAPP - June 15, 2013
- B. Final FY 2014/2015 QAPP - August 15, 2013
- C. Planning Meetings for Special Studies or Permit Support Monitoring (if applicable) - 90 days prior to the planned sampling date
- D. Planning Meeting notes for Special Studies or Permit Support Monitoring (if applicable) - with progress report
- E. QAPP Appendices for Special Studies or Permit Support Monitoring (if applicable) – within 30 days after the planning meeting
- F. QAPP amendments and revisions to Appendices (if applicable) - as needed
- G. Appendix and amendment QAPP Receipt and Commitment Letters (if applicable) - no later than 60 days after TCEQ approval of the QAPP, but prior to the monitoring event
- H. Participate in TCEQ monitoring systems audit and respond to comments (if applicable) - date planned in consultation with TCEQ
- I. Conduct on-site oversight assessment of sub-participants, once during each project or once during Agreement cycle (if applicable) - August 1, 2013
- J. On-site project oversight report and response (if applicable) - August 1, 2013
- G. Corrective action status report - September 15 and December 15, 2012; March 15, June 15, and August 31, 2013

TASK 3: WATER QUALITY MONITORING

Objectives: Water quality monitoring will focus on collecting information to characterize water quality in a variety of locations and conditions. These efforts will include a combination of:

- planning and coordinating basin-wide monitoring,
- routine, regularly-scheduled monitoring to collect long-term information and support statewide assessment of water quality,
- systematic, regularly-scheduled short-term monitoring to screen water bodies for issues,
- permit-support monitoring to provide information for setting permit effluent limits, and
- special study, intensive monitoring targeted to:
 - identify sources and causes of pollution,
 - assess priority water quality issues,
 - obtain background water quality information,
 - provide information for setting site-specific permit effluent limits, and
 - evaluate statewide, regional, and site-specific water quality standards.

Task Description: In the absence of a single, regional entity that comprehensively monitors water quality across the San Jacinto River Basin and the various coastal basins in the Houston metropolitan area, the regional monitoring approach, which the Grantee is pursuing through the CRP, involves coordinating efforts among those local agencies, which monitor water quality in some portion of the area for their own specialized purposes and with their own organizational approaches. The Grantee's regional QAPP is the mechanism for bringing this existing data into the statewide water quality database. The participation of local monitoring agencies in this regional coordination effort has been largely voluntary. The Grantee provides assistance to some participating agencies contributing data to the CRP by paying for CRP quality assurance requirements, as well as, additional parameters collected at the Grantee's request on behalf of the CRP as negotiated with each participating agency.

During FY 2012 - 2013, the Grantee will continue to refine current monitoring efforts in the basins in partnership with the agencies participating voluntarily in the Grantee's RMW. This core group will define common goals and objectives and also consider goals of the environmental and regulatory communities in the basins. Project staff will take the RMW results and recommendations to the Grantee's CRP Steering Committee for concurrence and to enable additional review and comment by various basin interests. The details of the monitoring for the basins will then be documented in the Grantee's FY 2012-2013 QAPP updates. Initial funding agreements will be in place during FY 2012 based on the results of the regional monitoring evaluation in FY 2011.

Working with GBEP staff, the Grantee will continue to coordinate all monitoring and data management efforts between the RMW and the Monitoring and Research Subcommittee. The Grantee also will continue to arrange regional training opportunities and workshops which support cooperative monitoring efforts (e.g., field methods, biological data collection, and habitat assessment).

Monitoring Description - Local monitoring agencies participate voluntarily in the Grantee's monitoring program. The Grantee provides assistance to some participating agencies contributing data to the CRP by paying for CRP quality assurance requirements, as well as, additional parameters collected at the Grantee's request on behalf of the CRP as negotiated with each participating agency. CRP funds are used to augment their existing monitoring programs in order to further their own program objectives and have access to a much larger dataset. Special studies are developed, as needed, based on local stakeholder input and the results of TCEQ or the Grantee assessments.

Currently, six local agencies are involved in this regional monitoring effort: the Environmental Institute of Houston, Harris County Environmental Public Health Division, San Jacinto River Authority, City of Houston Department of Health and Human Services, the City of Houston Department of Water Quality Control, and the Grantee. The six agencies have a combined total of over 300 monitoring sites in the region. Each of the agencies' monitoring activities will be coordinated through the RMW. The coordination reduces monitoring duplication and allows all local agencies to see the data collection efforts of and data availability from other local agencies. Routine monitoring is scheduled at varying frequencies, which are determined by the parameters of concern for individual streams and/or proximity to a monitoring agency's field office and lab. Frequencies vary from quarterly for some parameters to monthly in highly impacted urban areas. Baseline monitoring will include the collection of basic field parameters at all sites and the collection of bacteria, flow, and conventional chemical parameters at sites where indicated. Additional details concerning the monitoring activities conducted by the basin partner agencies are outlined in the Grantee area wide QAPP.

In FY 2012, Grantee will collect quarterly samples at 30 water quality monitoring sites throughout the Grantee service area. Most sites are located in the upper portions of watersheds or watersheds that fall outside the jurisdiction of local partner agencies. In FY 2013 area partners are expected to monitor at a similar level of effort as in FY 2012. The actual number of sites, location, frequency, and parameters collected for FY 2013 will be based on priorities identified at the basin Steering Committee and Coordinated Monitoring Meetings and included in the amended Appendix B schedule of the QAPP.

All monitoring procedures and methods will follow the guidelines prescribed in Grantee QAPP, the TCEQ *SWQM Procedures, Volume 1: Physical and Chemical Monitoring Methods for Water, Sediment, and Tissue (RG-415)* and the TCEQ *SWQM Procedures, Volume 2: Methods for Collecting and Analyzing Biological Community and Habitat Data (RG-416)*.

Coordinated Monitoring Meeting – The Grantee will hold an annual Coordinated Monitoring Meeting on the fourth Tuesday of March. Qualified monitoring organizations will be invited to attend the working meeting in which monitoring needs and purposes will be discussed segment by segment and station by station. Information from participants and stakeholders will be used to select stations and parameters that will enhance overall water quality monitoring coverage, eliminate duplication of effort, and address basin priorities. The changes to the monitoring schedule will be entered into the statewide database on the Internet (<http://cms.lcra.org>) and communicated to meeting attendees. Changes to monitoring that occur during the course of the year will be entered into the statewide database and communicated to meeting attendees.

Progress Report - Each Progress Report will indicate the number of sampling events and the types of monitoring conducted in the quarter, to include all types of monitoring.

Special Studies - Status reports of each special study will describe activities during the quarter. The status reports will be submitted along with the Progress Report. To help ensure the public and basin stakeholders are informed, the Grantee website will be updated in a timely manner to include key elements of special studies reports or summaries (e.g., status reports, executive summary, maps, and data analysis).

Aquatic Life Monitoring - Low Dissolved Oxygen (DO) levels are found on many streams within the Grantee region. While significant amounts of water chemistry data have been collected at routine monitoring sites, the aquatic life communities at most sites in the region have not been evaluated. The Grantee proposes to conduct aquatic life monitoring at up to 7 sites on Wadeable streams that have previously not been evaluated. The monitoring will be completed using approved TCEQ methods. Sites will be selected by the Grantee and TCEQ.

A data summary report will be submitted in August of 2013. A draft and final report, including the Biological Summary packet, will be completed during FY 2014.

24 Hour DO Monitoring - There are priority sub-segments with DO impairments or concerns in the Grantee region. More data collection is needed to determine if the segments are actually impaired. The Grantee proposes to conduct 24 hour DO monitoring six times throughout the two year Agreement period. The sites will be determined once budget is approved and Coordinated Monitoring meeting information is finalized.

Site Characterizations - Review of local monitoring data indicates there are many sites throughout the region where elevated levels of bacteria or low levels of DO are chronic conditions. Local entities are interested in determining why these chronic conditions exist. Beginning with some of the most problematic sites, The Grantee and other CRP partners will conduct 'site specific' characterizations. Habitat information, field verification of land cover, and identification of potential sources of pollution will be collected. Additional monitoring will be collected from these small sub-watersheds as needed to supply data to support TCEQ's assessment process. Data collected during these intensive surveys will be submitted to TCEQ for consideration while developing stream standards. As a result of the data collected during the site specific characterizations, identified sources causing the impairment will allow local entities to expend other resources to fix the problems and will, hopefully, result in improved conditions at these sites. A short report of approximately 1-5 pages in length along with photographs will be submitted following completion of each characterization assessment. An appendix to the Regional QAPP will be developed to provide the details of these special studies.

Biological Monitoring Summary Packets & Reports for Aquatic Life Monitoring conducted during FY2011 - During the FY 2010-2011 period, H-GAC contracted with the Environmental Institute of Houston to conduct aquatic life monitoring at 5 sites on Wadeable streams within the H-GAC region. All data were collected prior to August 31, 2011, and the final Biological Monitoring Summary packets and reports are scheduled for delivery in FY 2012.

Data collected during each event included field multi-probe parameters, Diel (24-hour) measurements, routine water chemistry samples, flow measurements and observations, a fish survey, a benthic macroinvertebrate survey, and a stream physical habitat survey. Additionally, the following items will be submitted to TCEQ: copies of field notes and forms, latitude/longitude coordinates of each reach, and color photographs. The data will be analyzed using the regional approach currently used by TCEQ. For any comparisons to past conditions, the previous data will have to be re-analyzed using the currently approved regional metrics. If the old data cannot be re-calculated using the regional metrics, the current data will be calculated using the state metrics for the report comparison only. However, all new data will be submitted to TCEQ in the approved regional metrics format.

Deliverables and Dues Dates:**September 1, 2011 through August 31, 2012**

- A. Conduct water quality monitoring, summarize activities, and submit with Progress Report - December 15, 2011; March 15 and June 15, 2012
- B. Biological Data Report (for data collected in the FY 2010-11 biennium) – December 1, 2011
- C. Coordinated Monitoring Meeting - March 26, 2012
- D. Coordinated Monitoring Meeting Summary of Changes - May 15, 2012
- E. Email notification that Coordinated Monitoring Schedule updates are complete - May 31, 2012
- F. Draft Report: Aquatic Life Monitoring Report from biological monitoring activities conducted in the FY 2010-11 biennium – May 1, 2012
- G. Final Report: Aquatic Life Monitoring Report from biological monitoring activities conducted in the FY 2010-11 biennium – August 20, 2012
- H. Special Study - Status Reports - December 15, 2011; March 15 and June 15, 2012

September 1, 2012 through August 31, 2013

- A. Conduct water quality monitoring, summarize activities, and submit with Progress Report - September 15 and December 15, 2012; March 15 and June 15 and August 31, 2013
- B. Coordinated Monitoring Meeting - April 2, 2013
- C. Coordinated Monitoring Meeting Summary of Changes – May 15, 2013
- D. Email notification that Coordinated Monitoring Schedule updates are complete - May 31, 2013
- E. Special Study - Status Reports - September 15 and December 15, 2012; March 15 and June 15, 2013
- F. Special Study - Draft Report – July 15, 2013
- G. Special Study - Final Report – August 15, 2013
- H. Special Study - post Final Report to Web – August 15, 2013

TASK 4: DATA MANAGEMENT

Objectives: To manage a quality-assured water quality monitoring database and transfer data to the TCEQ SWQM Information System (SWQMIS) database in the required format.

Task Description: Pending final QAPP approval by TCEQ, the Grantee and the participating monitoring agencies will begin to implement the regional QAPP in FY 2012 and then the updated FY 2013 QAPP. Field data and sample analyses completed by the agencies will be transmitted to the Grantee, reviewed and re-formatted by the Grantee staff as needed, and then forwarded to TCEQ as outlined in the QAPP. The Grantee will provide verification and validation of all data submitted by local monitoring agencies per requirements of current CRP Guidance. The local agency Data Manager and Quality Assurance Officer (QAO) will be responsible for filling out a Data Summary and submitting it with the data for validation purposes.

SWQM data files, including biological and special studies data, will be transferred to TCEQ in the correct format using the TCEQ file structure. The Grantee will review each data set using the Data Review Checklist, and will prepare a Data Summary to be submitted with each data set. The Data Summary will contain basic identifying information about the data set, information regarding inconsistencies and errors identified during data verification and validation steps, and/or problems with data collection efforts. Each data submittal will include data collected no more than eight months prior to submission. Water quality data approved by TCEQ will be posted the Grantee's website at least two times per year. The Grantee will continue to upgrade its Data Clearinghouse functionality on its website and investigate options for ease of use by the public. Site characterization information collected by local monitoring agencies, including habitat and factors that affect water quality, will be linked to the water quality database. A link may be provided to the TCEQ surface water quality data at <http://www.tceq.texas.gov/compliance/monitoring/crp/data/samplequery.html>.

The Grantee will continue to upgrade GIS data management and analysis capabilities, including the incorporation of analysis of water quality information, land cover characteristics, site characterization information, and other factors

that affect water quality for each watershed into digital form for use with existing spatial data.

The Grantee will work with its CRP advisory groups, through discussions and/or meetings, to set priorities for ongoing verification of locational data using Global Positioning System (GPS) technology. The Grantee will continue to collect, quality assure, and maintain data that are collected under their *How's the Water?* application. Verified data will be uploaded to appropriate GIS layers on a routine basis.

Data correction requests and station location requests will be submitted via the SWQMIS as needed.

Deliverables and Due Dates:

September 1, 2011 through August 31, 2012

- A. SWQM data files, SWQMIS Validator Report, and Data Summary - December 1, 2011; March 1 and August 1, 2012
- B. SWQM data updates to Web or link to TCEQ's water quality data – February 1 and August 1, 2012
- C. Provide summary of Database and GIS upgrades - February 1 and August 1, 2012

September 1, 2012 through August 31, 2013

- A. SWQM data files SWQMIS Validator Report, and Data Summary - December 1, 2012; March 1 and August 1, 2013
- B. SWQM data updates posted to Web, or link to TCEQ's water quality data - February 1 and August 1, 2013
- C. Provide summary of Database and GIS upgrades - February 1 and August 1, 2013

TASK 5: DATA ANALYSIS AND REPORTING

Objectives: Conduct data analysis and develop reports that provide information to describe water quality and identify priority water quality issues for further investigation or action. This work will:

- correlate watershed characteristics with water quality conditions,
- highlight areas where water quality appears to be improving or declining,
- support and/or validate the findings of the TCEQ Water Quality Integrated Report,
- support planning of monitoring efforts,
- identify areas where nonpoint source management efforts may be or have been applied, and
- provide information for stakeholders to discuss at Steering Committee meetings.

Task Description: Each year a water quality report is developed for the basin(s). The Planning Agency will produce a Basin Highlights Report applicable to each year as described below.

Basin Highlights Report – The Grantee will produce a Basin Highlights Report in each year of the Agreement. In the FY 2012 the Grantee will produce the Program Update version of the Basin Highlights Report described in the FY 2012-2013 Program Guidance. In FY 2013, the Grantee will produce the Watershed Characterization version of the Basin Highlights Report described in the FY 2012-2013 Program Guidance.

Program Update

- an update on major basin activities, top concerns and issues, changes and events,
- an update of basin water quality monitoring activities,
- a summary of findings from special studies,
- maps showing the location of sampling sites and major water quality issues,
- an update on public outreach and educational activities, and
- links to additional resources.

Watershed Characterization

- descriptions of segments with the areas of impairment or interest described,

- summary of the potential causes of impairments or areas of interest,
- maps of land use characteristics,
- summary of watershed events, special projects, etc.,
- summary of information learned during site visits and communication with monitoring personnel, stakeholders and local residents, and
- recommendations for next steps based on the potential causes of impairment or interest.

Electronic copies of the draft report and five hard copies of the final report will be provided to TCEQ. TCEQ will provide comments on the draft report. The Grantee will revise the report to address comments provided by TCEQ. The final approval will rest with TCEQ. The reports will be made available to basin stakeholders, and on the Planning Agency's Web page.

Deliverables & Due Dates:

September 1, 2011 through August 31, 2012

- A. Draft Basin Highlights Report - February 15, 2012
- B. Final Basin Highlights Report – June 1, 2012
- C. Post Report to Internet - July 15, 2012

September 1, 2012 through August 31, 2013

- A. Draft Basin Highlights Report - February 15, 2013
- B. Final Basin Highlights Report – June 1, 2013
- C. Post Report to Internet - July 15, 2013

TASK 6: STAKEHOLDER PARTICIPATION and PUBLIC OUTREACH

Objectives: Enhance and support participation of stakeholders (including the general public and other interested parties) in development of water quality objectives and priorities for the basin and CRP as a whole. Stakeholder involvement in helping determine the direction of each basin's activities is crucial and will be accomplished through both the Steering Committee process, and other public participation, outreach, and education activities. To accomplish this, the Grantee will follow the FY 2012-2013 CRP Guidance to:

Coordinate and lead a Steering Committee that serves as the focus of public input. To support this, the Steering Committee shall meet publicly and assist with:

- development and review of basin priorities and objectives that address water quality problems and pollutant sources,
- development, review, and approval of the Basin Summary Report and other major reports,
- development and review of the CRP work plan and the use and allocation of the program's costs and funds,
- development, review, and determining effectiveness of the basin's watershed monitoring and assessment program (including the coordinated monitoring schedule), and
- development and review of strategies for increasing involvement of private citizens/organizations and providing a forum for stakeholder ideas and concerns.

Engage the public through public participation, outreach, and education activities that support the program goals and priorities of the CRP. To support this, the Grantee will:

- provide forums for citizens to contribute their ideas and concerns to the process,
- participate in public information and education activities to increase public awareness about basin water quality issues,
- communicate information on water quality issues so that priorities may be set considering local, regional, state, and federal needs,

- support stakeholders and other programs in addressing water quality issues,
- provide and disseminate information via the Internet, and
- expand the role of the public in water quality management issues whenever possible.

Task Description: To ensure a comprehensive watershed assessment program, the Grantee will provide opportunities for the participation of stakeholders and other interested parties in development of water quality objectives and priorities for the basin and CRP as a whole. Stakeholder involvement will be accomplished through both the Steering Committee process and other public participation, outreach, and education activities following FY 2012-2013 CRP Guidance.

Steering Committee and Meetings - So that the different interests, concerns, and priorities of each watershed are addressed, the Grantee will work to ensure that its Basin Steering Committee includes stakeholder volunteers from across the basin that represent the groups identified in the FY 2012-2013 CRP Guidance.

At the beginning of FY 2012, the Grantee will contact the Steering Committee members to promote and confirm continued participation. If specified groups are not represented, efforts will be made to recruit replacements before the next scheduled meeting. To engage new members and increase participation, the Grantee will take every opportunity to promote the CRP and involvement in the Steering Committee, including use of the Grantee's website.

Steering Committees will meet publicly and stakeholders should be involved in development of the meeting agenda. To meet goals and coordination requirements of CRP Guidance, the Grantee will conduct at least one Steering Committee Meeting during the latter half of the first Agreement year and two meetings during the later half of the second Agreement year. Additional sub-committees or other public meetings may also be held to help complete the requirements. Besides designated meetings, efforts will be made to include additional stakeholder participation to ensure the various interests of each basin and watershed are represented.

The Grantee will design and distribute a pre-meeting questionnaire 45 days prior to the meeting (following FY 2012-2013 CRP Guidance) to all Steering Committee members and other interested stakeholders to solicit input/feedback towards meeting agenda development. Along with the priority agenda topics identified in the CRP Guidance, Steering Committee meetings will also include additional topics that have been identified to be of significant interest to stakeholders. A final meeting announcement and agenda will be made available at least 15 days prior to the meeting by:

- written invitations/announcements (including mail, e-mail, or fax),
- announcement placed on the Grantee's website,
- public posting notification and/or press releases provided to local newspapers, and
- Community and Environmental (C&E) Department Newsletter.

After each Steering Committee or Subcommittee Meeting, the Grantee will ensure all stakeholder input and comments, decisions, and any other meeting accomplishments reached are incorporated and/or addressed. For all Steering Committee, subcommittee, or other CRP public meetings a copy of the meeting agenda; materials produced or distributed at the meeting; a meeting summary and/or copy of meeting minutes; and a list of attendees will be included in the Progress Report. Meeting summaries/minutes will be posted to the Grantee website within 30 days after the meeting.

Public Participation and Outreach - Enhancement of CRP public participation, outreach, and education is a primary program goal. The Grantee, with Steering Committee input, will achieve this by:

- 1) Expanding the role of the public in water quality management issues by promoting CRP and the Steering Committee as a forum for citizen input. To accomplish this, the Grantee will:

- continue to support the monthly *Community & Environmental Planning Department Newsletter* that contains articles about relevant issues and distribute it via the Environmental Concerns and Issues Mailing list maintained by the Grantee,
 - sponsor booths at local events such as the State of the Bay Symposium, and Boy Scout Fair, where the public and stakeholders have the opportunity to talk with staff and pick up literature, and
 - post information regarding meetings, brochures, and reports on the Grantee website.
- 2) Providing information necessary to balance basin priorities and increase public awareness of local water quality, and water resource issues. To accomplish this, the Grantee will:
- Continue to produce and distribute maps and brochures from the “What Watershed Do You Live In?” series. Continue to Agreement the production and installation of watershed signs for selected watersheds,
 - Promote volunteer monitoring of local water bodies, rivers, and creeks,
 - The Grantee will consider ways to integrate volunteer environmental monitoring efforts under the Texas Stream Team Program into the regional monitoring strategy. The emphasis will be on targeting volunteer resources to fill gaps and augment agency monitoring programs. Volunteers also can help to address high-priority information needs in coordination with monitoring agencies. All Texas Stream Team activities will continue to be conducted in accordance with the state-wide Texas Stream Team QAPP,
 - Continue to fulfill its responsibilities and objectives as a Texas Stream Team Partner by working with local groups and industries to build partnerships. The Grantee staff will continue to work with these partners to set annual priorities and develop a coordinated activities schedule. The Grantee also will continue to evaluate the maximum number of volunteers that the cooperating partners can support in the area with current staff and resources,
 - The Grantee will distribute at least 12 “seed” kits and miscellaneous supplies in FY 2012 and 15 “seed kits” and miscellaneous supplies in FY2013, in support of local volunteers,
 - The Grantee staff will continue to participate in the annual Texas Stream Team Meeting of the Monitors and the state-wide Partners Meeting and will assist in conducting an annual regional symposium to encourage networking among area volunteers and interaction between volunteer and professional monitors, and
 - All Texas Stream Team activities will be handled by the Grantee’s Texas Stream Team Volunteer Coordinator. The Grantee will convene and support a Volunteer Monitoring Workgroup where representatives from the region will be asked to attend meetings at least three times per year.

For any public participation, outreach, or volunteer monitoring activities, a copy of the activities summary, materials produced/distributed by the Grantee, and a list of participants will be included in the Progress Report.

Because the Internet is a very important tool for providing information, increasing stakeholder and public awareness, and improving involvement in the CRP, the Grantee will develop, maintain, and update, and report on their website as specified in the FY 2012-2013 CRP Guidance.

Deliverables and Due Dates:

September 1, 2011 through August 31, 2012

- A. Document that website meets outlined website requirements - December 15, 2011
- B. Summary of website updates - December 15, 2011; March 15 and June 15, 2012
- C. Contact Steering Committee members with questionnaire, draft agenda topics and to confirm participation - July 15, 2012
- D. Final announcements and agenda for Steering Committee meetings - August 15, 2012
- E. Steering Committee Meeting - by Aug 31, 2012
- F. Steering Committee Meeting materials - with Progress Report following meeting
- G. Steering Committee Meeting minutes posted to the web - indicate in Progress Report following meeting
- H. Materials from education and outreach activities - December 15, 2011; March 15 and June 15, 2012

September 1, 2012 through August 31, 2013

- A. Summary of website updates - September 15 and December 15, 2012; March 15, June 15, and August 31, 2013
- B. Contact Steering Committee members with questionnaire, draft agenda topics and to confirm participation - June 15, 2013
- C. Final announcements and agenda for Steering Committee meetings - July 15, 2013
- D. Steering Committee Meeting - by August 31, 2013
- E. Steering Committee Meeting materials - with Progress Report following meeting
- F. Steering Committee Meeting minutes posted to the web - indicate in Progress Report following meeting
- G. Materials from education and outreach activities - September 15 and December 15, 2012; March 15, June 15, and August 31, 2013