

Texas Commission on Environmental Quality (TCEQ)
Contract No. 582-18-80290
Amendment No. 3

With this Amendment:

1. The Maximum Authorized Reimbursement amount on the Contract Signature Page now reads: \$4,087,874.00.
2. The Expiration Date on the Contract Signature Page now reads: 8/31/2021.
3. The Scope of Work now reads: **Scope of Work:** Fiscal Years (FY) 2018-2019. The Tasks and Deliverables under this Scope of Work will remain unchanged.
4. The Contract is amended to add a new section titled, **Scope of Work: Fiscal Years FY 2020-2021**, which reads as follows:

Scope of Work
Fiscal Years FY 2020-2021

TASK 1: PROJECT ADMINISTRATION

Objective: To manage all administrative functions required to support the CRP Contract, including:

- informative and timely Quarterly Progress Reports (QPRs);
- participation in conference calls;
- participation at CRP meetings;
- timely and accurate Financial Status Reports (FSRs) 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 FY 2020-2021 CRP Guidance;
- adherence to TCEQ Contract 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 Performing Party project staff will work with the TCEQ Project Manager and the Performing Party's Finance, Internal Audit, Office Services and Program Operations departments to meet all TCEQ administrative requirements for this Contract. The Grants Administration Specialist for the

Performing Party's Community and Environmental Planning Department will assist with the tracking and documentation requirements for this Contract in coordination with the TCEQ Contract Manager. The Performing Party will handle all subcontract administration and fiscal monitoring under this task. Equipment purchases will be reported under this task.

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

The Performing Party will complete the following subtasks:

QPRs — QPRs will contain a level of detail sufficient to document the activities that occurred during the appropriate quarter and provide detailed supporting documentation and justification for reimbursement requests. QPRs will contain a general description of activities, a detailed tracking of deliverables, and water quality monitoring performed during the quarter. The QPRs will be submitted in the format provided in Exhibit 1D of the FY 2020-2021 CRP Guidance.

FSRs — FSRs, Supplemental Forms, and a current Personnel Eligibility List (PEL) will be submitted along with appropriate additional documentation (e.g. subcontractor invoices) on a quarterly basis. An updated Equipment Inventory List will be submitted with the reimbursement request when changes occur during the quarter. Budget Revision Requests will be made in advance of making changes to the budget.

Contractor and Subcontractor Evaluations — An annual self-evaluation and 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 2020-2021 CRP Guidance, will be developed. This documentation will be maintained in-house and made available for review by TCEQ staff upon request. For each subcontract made in association with this Contract, the Performing Party will provide to the TCEQ Project Manager a memo describing the procurement method used and a summary of the work to be performed. In addition, a Procurement System Certification will be submitted with the supporting documentation required with the FY 2022-2023 Work Plan, in accordance with the FY 2022-2023 CRP Guidance.

Conference Calls — The Performing Party will participate in all scheduled conference calls unless other arrangements are made with the TCEQ Project Manager.

Conferences and Training Events — The Performing Party will participate in meetings and training events as scheduled by TCEQ. Staff, as appropriate, will continue to attend the following approved conferences and advisory groups related to the CRP priorities and objectives:

- periodic Texas Water Conservation Association meetings and technical conferences,
- the biennial State of the Bay (Galveston Bay) Symposium,
- the National Water Quality Monitoring Conference, and other quality systems training events as appropriate,
- Texas Water Monitoring Council,
- the Watershed Coordination Steering Committee,
- the North Houston Association Environmental Committee,
- the Harris County Flood Control Task Force,
- the Bayou Preservation Association,

- the Greater Houston Partnership Water Quality Subcommittee,
- the Texas Stream Team Advisory Council,
- the quarterly Galveston Bay Estuary Program (GBEP) Monitoring and Research Subcommittee,
- the quarterly GBEP Water and Sediment Quality Subcommittee,
- the quarterly GBEP Public Outreach Subcommittee, and
- the Galveston Bay Council.

All other non-CRP conferences and training events must be pre-approved by TCEQ prior to incurring any costs associated with such events.

Documentation for Desk Review or On-Site Visit — Detailed supporting documentation, in addition to the quarterly reimbursement documentation, will be made available upon request. The additional supporting documentation will include those items outlined in Exhibit 1B of the FY 2020-2021 CRP Guidance. In the case of an on-site visit, the appropriate Performing Party personnel will be available during the visit.

FY 2022-2023 Work Plan and Supporting Documentation — The Work Plan and supporting documentation will be prepared and submitted as specified in the FY 2022-2023 CRP Guidance. Supporting documentation will include (as applicable): budget by category, budget by task, PEL, fringe rate methodology, indirect rate methodology, allocated costs documentation, an equipment purchase request list, equipment inventory, a list of sub-contracted tasks, 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 2022-2023 Guidance and will be negotiated with the TCEQ 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, 2019 through August 31, 2020

- A. QPRs — December 15, 2019; March 15 and June 15, 2020
- B. Annual Self-Evaluation and, if applicable, Subcontractor Evaluations — August 31, 2020
- C. Procurement Procedures Documentation Memo — within 30 days after the subcontract is executed
- D. Additional supporting documentation for desk review or site visit — upon request

September 1, 2020 through August 31, 2021

- A. QPRs — September 15 and December 15, 2020; March 15, June 15, and August 31, 2021
- B. Proposed FY 2022-2023 Work Plan and supporting documentation — December 15, 2020
- C. Final FY 2022-2023 Work Plan and Supporting Documentation — February 1, 2021
- D. Annual Self Evaluation and, if applicable, Subcontractor Evaluations — August 31, 2021
- E. Procurement Procedures Documentation Memo — within 30 days after the subcontract is executed
- F. Additional supporting 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:

- Quality Assurance Project Plan (QAPP) development and implementation;
- laboratory quality assurance;

- data review, verification, and validation;
- oversight of project(s); and
- special studies project planning.

Task Description: All work funded by this Contract that involves the acquisition of environmental data generated from direct measurement activities, collected from other sources, or compiled from computerized databases and information systems will be planned in consultation with TCEQ and documented in a fully approved TCEQ QAPP before data collection can be implemented.

The Performing Party will complete the following subtasks:

Regional Monitoring Workgroup (RMW) — The Performing Party will coordinate the RMW. The workgroup serves as the point of contact for the Performing Party to provide Quality Assurance (QA) materials and QA training to local agencies and subcontractors. The RMW is described in greater detail in Task 3. RMW activities will be summarized in the QPR.

Water Quality Monitoring Training for Local Agencies — The Performing Party will arrange training sessions for local field personnel and subcontractors as necessary. The TCEQ Surface Water Quality Monitoring (SWQM) staff, the Performing Party staff, local agency staff or vendors may 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 and will be summarized in the QPR.

NELAP Accreditation — Laboratory data will be produced by laboratories (and subcontract laboratories) whose quality assurance program is consistent with the NELAC Institute (TNI) standards.

Per TCEQ requirements, all laboratories submitting data to TCEQ must be National Environmental Laboratory Accreditation Program (NELAP) certified. The Performing Party will reimburse the required TCEQ annual accreditation fees, as well as semi-annual verification checks (Proficiency Test samples) from a TCEQ-accredited third-party vendor for the Houston Health Department Laboratory, Houston Drinking Water Operations Laboratory, and Harris County Pollution Control Services Laboratory to maintain NELAP accreditation status. A summary of these fees and charges will be included in the QPR.

Multi-Basin QAPP — The Performing Party staff will develop a Multi-Basin QAPP with input from the RMW. The Multi-Basin QAPP will be submitted to TCEQ in the TCEQ-approved shell format. Only those sites covered by the QAPP and parameters satisfying the requirements of Texas Water Code (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 Performing Party will address all TCEQ comments and submit the revised QAPP to TCEQ within 30 days of receiving comments from the TCEQ.

The Performing Party will secure written documentation (signature in the QAPP or Adherence Letter) from participants under the QAPP stating their awareness of and commitment to adhere to the requirements contained in the QAPP and any appendices and Amendments. This documentation will be maintained as part of the Performing Party's quality assurance records. Copies of all Adherence Letters must be forwarded to TCEQ no later than 45 days following TCEQ's approval of the QAPP, but prior to the monitoring event. (Note: Adherence Letters are not required for entities who sign the QAPP.) The Performing Party will distribute the QAPP to all participants (including the laboratory). Documentation of distribution and acknowledgement of receipt will be maintained by the Performing Party and made available for review during a TCEQ monitoring systems audit.

Sections of the Multi-Basin QAPP will be posted to the Performing Party's CRP web page. These sections include the monitoring program or project objectives, measurement performance specifications (i.e., Table A7 of the QAPP), appendices, and the monitoring schedule and maps of sampling sites. In lieu of

the monitoring schedule and maps, a link to the Coordinated Monitoring Schedule (CMS) website may be provided with a disclaimer that states the CMS includes stations monitored by other entities.

QAPP Amendment to Appendix B — The monitoring schedule in Appendix B of the Multi-Basin QAPP will be updated for the second year of the FY 2020-2021 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 Performing Party's QAPP will be included in Appendix B of the QAPP.

Planning for Special Studies or Permit Support Monitoring — In consultation with TCEQ staff, and in consideration of the elements of the QAPP, special studies and monitoring projects to support permits will be systematically planned. The Performing Party 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 Performing Party will submit planning materials for the meeting to all participants no later than one week prior to the meeting. Meeting materials will include, as appropriate, a problem definition, as currently understood, a description of the budget, personnel and schedule issues, maps, information on past or ongoing studies, historical water quality data, Integrated Report findings, wastewater discharge information, known or expected sources of contamination, existing monitoring sites, land use information, etc. Planning meeting summary notes will be provided to participants within two weeks of the meeting. The information developed during the planning meeting will be incorporated into a QAPP appendix.

QAPP Appendices — Special studies and permit support monitoring projects that have different objectives than those described in the Multi-Basin 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 Multi-Basin QAPP, as appropriate, and otherwise address information unique to the project. Unique aspects of special projects include the problem definition, the task description, measurement performance specifications, sample design rationale, sampling methods requirements, etc. QAPP appendices will be sent to TCEQ through the TCEQ Project Manager. QAPP appendices for special studies or permit support monitoring will be submitted to TCEQ no later than 30 days after the planning meeting using the TCEQ-approved shell format. The Performing Party will address TCEQ comments, modify the document, and submit the final QAPP appendix to the TCEQ Project Manager within 30 days of receipt of TCEQ comments.

QAPP Amendments and Revisions to Appendices — Changes in parameters, sampling or analytical procedures, project organization, and other items of an existing project require an Amendment to the QAPP and/or Revisions to Appendices. Amendments and Revisions to Appendices will be submitted electronically to the TCEQ Project Manager on an "as needed" basis in the TCEQ-approved shell format for agency review. Upon approval, QAPP Amendments and Revisions to Appendices will be distributed to all personnel on the distribution list maintained by the Performing Party. Documentation of distribution and acknowledgement of receipt will be maintained by the Performing Party and made available for review during a TCEQ monitoring systems audit.

Project Oversight — The Performing Party will participate in monitoring systems audits and laboratory inspections by TCEQ.

The Performing Party will conduct on-site assessments of sub-participants (including contractors and in-kind participants) who conduct field monitoring under the Multi-Basin QAPP. The assessment will be performed once during the FY 2020-2021 cycle in the case of ongoing projects, or once during a project's lifetime in the case of short-lived special studies, or as otherwise specified in the Multi-Basin QAPP. In the event a new sub-participant begins collecting data for CRP, a Readiness Review will be conducted on the new sub-participant's monitoring program before the first CRP samples are collected by the sub-participant and accepted by the Performing Party.

Following the on-site assessment, the Performing Party will provide the audited organization with an audit report within 30 days. If no findings are made, the report will make this clear. Findings made during the audit will be documented 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 report and the response will be submitted as a deliverable to the TCEQ Project Manager with the QPR no later than the quarter following the one in which the audit was conducted.

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 FY 2020-2021 CRP Guidance. The Performing Party must address deviations in sampling activities, chain-of-custody, analytical method requirements, quality control, and data management.

Deliverables and Due Dates:

September 1, 2019 through August 31, 2020

- A. Multi-Basin QAPP Receipt Acknowledgement and Adherence Letters (if applicable) — October 15, 2019
- B. Specified sections of the Multi-Basin QAPP posted to the web page — October 31, 2019
- C. Draft QAPP Appendix B Amendment for FY 2021 monitoring — June 15, 2020
- D. Final QAPP Appendix B Amendment for FY 2021 monitoring — August 15, 2020
- E. Planning meetings for special studies or permit support monitoring (if applicable) — no later than July 19, 2019
- F. Planning meeting summary notes for special studies or permit support monitoring (if applicable) — no later than two weeks after the planning meeting
- G. Draft QAPP Appendices for special studies or permit support monitoring (if applicable) — no later than 30 days after the planning meeting
- H. Final QAPP Appendices for special studies or permit support monitoring (if applicable) — no later than 30 days after the receipt of TCEQ comments
- I. QAPP Amendments and Revisions to Appendices (if applicable) — as needed
- J. QAPP Appendix and Amendment Receipt Acknowledgement and Adherence Letters (if applicable) — no later than 45 days after TCEQ approval of the QAPP, but prior to the monitoring event
- K. Participate in TCEQ monitoring systems audit(s) and response to comments (if applicable) — date planned in consultation with TCEQ
- L. Conduct on-site oversight assessment of sub-participants, once during each project or once during FY 2020-2021 cycle (if applicable) — to be scheduled
- M. On-site project oversight report and response (if applicable) — with the QPR no later than the quarter following the one in which the audit was conducted
- N. Corrective action status report (if applicable) — with QPR

September 1, 2020 through August 31, 2021

- A. Draft FY 2022-2023 Multi-Basin QAPP — June 15, 2021
- B. Final FY 2022-2023 Multi-Basin QAPP — August 15, 2021
- C. Planning meetings for special studies or permit support monitoring (if applicable) — 90 days prior to the planned sampling date
- D. Planning meeting summary notes for Special Studies or Permit Support Monitoring (if applicable) — no later than two weeks after the planning meeting
- E. Draft QAPP Appendices for special studies or permit support monitoring (if applicable) — no later than 30 days after the planning meeting
- F. Final QAPP Appendices for special studies or permit support monitoring (if applicable) — no later than 30 days after the receipt of TCEQ comments

- G. QAPP Amendments and Revisions to Appendices (if applicable) — as needed
- H. QAPP Appendix and Amendment Receipt Acknowledgement and Adherence Letters (if applicable) — no later than 45 days after TCEQ approval of the QAPP, but prior to the monitoring event
- I. Participate in TCEQ monitoring systems audit(s) and response to comments (if applicable) — date planned in consultation with TCEQ
- J. Conduct on-site oversight assessment of sub-participants, once during each project or once during FY 2020-2021 cycle (if applicable) — August 1, 2021
- K. On-site project oversight report and response (if applicable) — August 31, 2021
- L. Corrective action status report (if applicable) — with QPR

TASK 3: WATER QUALITY MONITORING

Objectives: Water quality monitoring will focus on the characterization of a variety of locations and conditions. This will include a combination of the following:

- planning and coordinating Multi-Basin 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: The Performing Party will coordinate and develop water quality monitoring strategies through the RMW and present strategies to the CRP Steering Committee for review and concurrence.

To avoid duplication of monitoring efforts, the Performing Party will continue to coordinate monitoring efforts with other area data providers. The Performing Party will also continue to arrange regional training opportunities and workshops that support cooperative monitoring efforts (e.g., field methods, biological data collection, and habitat assessment).

The Performing Party will complete the following subtasks:

Monitoring Description — In FY 2020, the Performing Party will collect quarterly samples at 20 water quality monitoring sites throughout the H-GAC service area. Sampling efforts will include basic field parameters, flow, conventional chemical parameters, and bacteria. Most sites are located in the upper portions of watersheds or watersheds that fall outside the jurisdiction of local partner agencies.

In addition to the Performing Party's ambient monitoring program, six local agencies are involved in this multi-basin monitoring effort. The Performing Party subcontracts with several entities and coordinates with others as in-kind contributors to conduct monitoring. The six participating agencies typically monitor a combined total of over 300 monitoring sites in the region. Each agency's 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 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 partner agencies are outlined in the Performing Party's Multi-Basin QAPP.

In FY 2021, the Performing Party and area partners are expected to monitor at a level of effort similar to FY 2020. The actual number of sites, location, frequency, and parameters collected for FY 2021 will be based on priorities identified at the CRP Steering Committee and Coordinated Monitoring meetings and included in the amended Appendix B schedule of the Performing Party's Multi-Basin QAPP.

All monitoring will be completed in accordance with the Performing Party's QAPP, the TCEQ Surface Water Quality Monitoring Procedures, Volume 1: Physical and Chemical Monitoring Methods (RG-415) and the TCEQ Surface Water Quality Monitoring Procedures, Volume 2: Methods for Collecting and Analyzing Biological Assemblage and Habitat Data (RG-416). The Performing Party will include summaries of monitoring activities in the corresponding QPR.

24-Hour Dissolved Oxygen Monitoring — There are priority sub-segments with dissolved oxygen impairments or concerns in the Performing Party's monitoring area. More data collection is needed to determine or verify the impairments. The Performing Party will conduct 24-hour dissolved oxygen monitoring at a minimum of two stations, four times per year, throughout the FY 2020-2021 biennium. The sites will be determined once the budget is approved and site locations are coordinated and prioritized with TCEQ. The Performing Party will also include summaries of monitoring events in the corresponding QPR.

Permit Support Monitoring — During FY 2020 and/or FY 2021, the Performing Party may conduct monitoring activities to support the TCEQ's Water Quality Division by collecting field parameters and discharge measurements at selected waterbodies identified by TCEQ. The sites will be determined once site locations are coordinated and prioritized with TCEQ. The Performing Party will include summaries of any activities in the corresponding QPR.

RMW — The RMW will meet each year during three of four quarters to discuss monitoring needs, problems, successes and changes. The fourth quarter meeting is conducted as the Coordinated Monitoring Meeting (see below). The RMW is composed of the Performing Party staff and representatives from local participating agencies, currently including Harris County Pollution Control, Environmental Institute of Houston, City of Houston-Health Department, City of Houston-Drinking Water Operations, Texas Research Institute for Environmental Studies, and the San Jacinto River Authority, as well as H-GAC's contracted lab and TCEQ Region 12. Meeting notices will be sent to TCEQ, United States Geological Survey (USGS), Texas Parks and Wildlife, Texas Department of Health, GBEP, local universities, and other interested parties to invite input on monitoring discussions and strategies. Each agency/organization will be asked to send representatives from their field investigation staff and laboratory staff. The RMW will discuss CRP monitoring tasks and deliverables, basin monitoring priorities, training, and upcoming projects. This workgroup is designed to function as the mechanism through which data management needs and priorities are discussed. The Performing Party will include meeting summaries in the corresponding QPR.

The RMW meeting results will be presented to 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.

Coordinated Monitoring Meeting — The Performing Party will hold an annual Coordinated Monitoring Meeting, as described in the FY 2020-2021 CRP Guidance, in lieu of the spring RMW meeting. 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 provided by 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. A summary of the changes to the monitoring schedule will be provided to the participants within two weeks of the meeting. Changes to the monitoring schedule will be entered into the statewide CMS

(<http://cms.lcra.org>) and communicated to meeting attendees. Changes to monitoring schedules that occur during the year will be entered into the CMS and communicated to meeting attendees.

QPRs — Each QPR (Task 1) will include all types of monitoring and indicate the number of sampling events and the types of monitoring conducted in the quarter.

Special Studies — Special studies are developed, as needed, based on local stakeholder input and the results of TCEQ's or the Performing Party's assessments. Status reports of each special study conducted will describe activities completed during the quarter. The status reports will be submitted along with the QPR. These studies also include draft and final project reports as deliverables. To help keep the public and basin stakeholders informed, the Performing Party's 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, data analysis, final reports).

Special studies for the FY 2020-2021 Contract biennium include:

Targeted Monitoring for Bacteria Source Identification in the Bacteria Implementation Group (BIG) Project Area — The Performing Party has tracked bacteria levels to develop a list of the most impaired water bodies for bacterial concentrations (i.e. those streams with the highest geometric means relative to the state standards for bacteria). The Performing Party will address ten targeted watersheds (four from highly urbanized areas, four from suburban areas and two from rural areas). Ten impaired watersheds will be prioritized based on the BIG Implementation Plan's recommendation under the Geographic Priority Framework for five criteria: bacteria level, accessibility, use level, implementation opportunities, and any anticipated future land use changes.

Based on the prioritization analysis, at least one subwatershed in each of the ten watersheds will be monitored during dry weather conditions. Water quality monitoring will be used to further refine source identification and to aid in tracking the source(s) of the impairment to the greatest extent practicable. Once verified, the source(s) of the bacteria loading will be relayed to the appropriate jurisdiction for correction. Additionally, any potential sources identified during the prioritization analysis will be directed to local jurisdictions. The Performing Party will track implementation of the corrective action and may conduct additional monitoring of the original sites to determine if the corrective action results in improved water quality.

Site Characterizations — Review of local monitoring data indicates there are many sites throughout the region where elevated levels of bacteria or low levels of dissolved oxygen are chronic conditions. Local entities have expressed interest in determining why these chronic conditions exist. Beginning with some of the most problematic sites, the Performing Party and other CRP partners may conduct "site specific" characterizations at future locations if determined necessary by data analysis. Habitat information, field verification of land cover, and identification of potential sources of pollution will be determined. Additional monitoring data 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. The Performing Party will also include summaries of any activities in the corresponding QPR.

A short report of approximately one to five pages in length along with photographs will be submitted following completion of each characterization assessment. The reports will be submitted to TCEQ to assist with determining the appropriate water quality strategies to be pursued. An appendix to the Multi-Basin QAPP will be developed to provide the details of these characterizations.

Deliverables and Due Dates:

September 1, 2019 through August 31, 2020

- A. Conduct water quality monitoring, summarize activities, and submit with QPR — December

- 15, 2019; March 15 and June 15, 2020
- B. RMW Meeting Notice — Two weeks in advance of RMW meetings
 - C. Coordinated monitoring meeting — between March 15 and April 30, 2020
 - D. Coordinated monitoring meeting summary of changes — within 2 weeks of the meeting
 - E. Email notification that CMS updates are complete — May 31, 2020
 - F. Special Study Status Reports — August 31 and December 15, 2019; March 15 and June 15, 2020
 - G. Special Study Desk Review/Ground Truth Preliminary Action Draft Report - June 30, 2020
 - H. Special Study Desk Review/Ground Truth Preliminary Action Final Report - August 31, 2020
 - I. Site Characterization Reports (if applicable) — coordinate due date(s) with TCEQ Project Manager

September 1, 2020 through August 31, 2021

- A. Conduct water quality monitoring, summarize activities, and submit with QPR — September 15 and December 15, 2020; March 15, June 15 and August 31, 2021
- B. RMW Meeting Notice — Two weeks in advance of RMW meetings;
- C. Coordinated monitoring meeting — between March 15 and April 30, 2021
- D. Coordinated monitoring meeting summary of changes — within 2 weeks of the meeting
- E. Email notification that CMS updates are complete — May 31, 2021
- F. Special Study Status Reports — September 15 and December 15, 2020; March 15, June 15 and August 31, 2021
- G. Special Study Source Identification Draft Report - May 31, 2021
- H. Special Study Source Identification Final Report - August 31, 2021
- I. Site Characterization Reports (if applicable) — coordinate due date(s) with TCEQ Project Manager

TASK 4: DATA MANAGEMENT

Objectives: To manage a quality-assured water quality monitoring database and submit data to TCEQ in the required format for inclusion in the Surface Water Quality Monitoring Information System (SWQMIS) database.

Task Description: SWQM data files, including biological, special studies, and targeted monitoring data, as applicable, will be transferred to TCEQ in the correct format using the TCEQ file structure. Binary Large Object (BLOB) files will be provided with biological data as outlined in the FY 2020-2021 CRP Guidance.

The Performing Party will complete the following subtasks:

The Performing Party will review each data set using the Data Review Checklist and the SWQMIS Data Loader. A Data Summary (including information on data completeness) and the SWQMIS Validator Report will 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.

The Performing Party will provide a summary of the status of data submittal progress in the second year of the biennium. The data submittal progress report will document the extent to which data collected through November 30, 2020, have been submitted to TCEQ. The report should summarize the status of data submittals for all data providers described in the Performing Party's Multi-Basin QAPP.

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

Water quality data approved by TCEQ will be posted on the Performing Party's web page at least two times per year, or a link may be provided to the TCEQ Surface Water Quality Web Reporting Tool at <https://www80.tceq.texas.gov/SwqmisPublic/index.htm>.

The Performing Party will continue to upgrade Geographic Information System (GIS) data management and analysis capabilities, specifically 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. All of this information will be available for use in the Water Resources Information Map (WRIM) tool, which will be updated on a regular basis.

Deliverables and Due Dates:

September 1, 2019 through August 31, 2020

- A. SWQM data files, SWQMIS Validator Report, and Data Summary — December 1, 2019; March 1 and August 1, 2020
- B. SWQM data updates to web page or link to TCEQ's water quality data — February 1 and August 1, 2020
- C. Summarize upgrades to GIS data management and analysis capabilities and submit with QPR — December 15, 2019; March 15 and June 15, 2020
- D. BLOB files (if applicable) — coordinate due date(s) with TCEQ Project Manager

September 1, 2020 through August 31, 2021

- A. SWQM data files SWQMIS Validator Report, and Data Summary — December 1, 2020; March 1 and August 1, 2021
- B. SWQM data updates posted to web page, or link to TCEQ's water quality data — February 1 and August 1, 2021
- C. Summarize upgrades to GIS data management and analysis capabilities and submit with QPR— September 15 and December 15, 2020; March 15, June 15, and August 31, 2021
- D. BLOB files (if applicable) — coordinate due date(s) with TCEQ Project Manager
- E. Data submittal progress report — March 1, 2021

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 Texas Integrated Report of Surface Water Quality;
- support planning of monitoring efforts;
- identify areas where nonpoint source management efforts may be applied; and
- provide information for stakeholders to discuss at Steering Committee meetings.

Task Description: The Performing Party will complete a Basin Highlights Report in FY 2020 and Basin Summary Report in FY 2021.

The Performing Party will complete the following subtasks:

Basin Highlights Report — The Performing Party may vary the content of the Basin Highlights Report to reduce repetition of information that does not change on an annual basis. The Basin Highlights Report for FY 2020 will follow the outline described below as detailed in the FY 2020-2021 CRP Guidance.

Watershed Characterization

- descriptions of segments with the areas of impairment or interest described;
- stream/reservoir hydrology;
- impairment/area of interest description;
- land use and natural characteristics;
- potential causes of each impairment;
- potential stakeholders;
- recommendations for improving water quality;
- maps including water bodies and relevant spatial conditions;
- ongoing projects;
- images of water bodies and watershed areas being characterized; and
- major watershed events (present and future).

A pre-draft watershed characterization (one segment only) will be provided to the TCEQ Project Manager for pre-approval prior to completing the entire first draft of the report. There will be two draft deliverables for the FY 2020 Basin Highlights Report. The first draft will include all text, tables, graphs, and example maps and photos to be used in the Basin Highlights Report. The first draft will be provided to TCEQ for content review. The second draft will include the website/storyboard application used to format and present the Basin Highlights Report to the public. The second draft will be provided for TCEQ accessibility review. Final approval of the Basin Highlights Report for distribution rests with the TCEQ.

Electronic copies of the draft report and five hard copies of the final report will be provided to TCEQ. The report will be made available to Steering Committee Members and all basin stakeholders and posted on the Performing Party's web page.

Basin Summary Report — The FY 2021 Basin Summary Report will follow the outline described in the FY 2020-2021 CRP Guidance. The report will include a comprehensive review of water quality for the entire basin, including:

- a description of the water quality conditions and issues;
- trend analysis of water quality by station and parameter;
- maps showing watershed characteristics, sampling stations, and water quality issues;
- a discussion of the watershed characteristics and their potential influence on water quality; and
- recommendations for water quality management strategies to correct identified water quality problems and pollution sources.

A meeting between the Performing Party and the TCEQ staff will be arranged prior to the commencement of substantial work on the report. The Performing Party will be prepared to discuss site selection for trend analysis, report content and layout, methodology for data review, and address other questions or suggestions for the report.

A pre-draft watershed summary (one segment only) will be provided to the TCEQ Project Manager for pre-approval prior to completing the entire first draft of the report. There will be two draft deliverables for the FY 2021 Basin Summary Report. The first draft will include all text, tables, graphs, and example maps and photos to be used in the Basin Summary Report. The first draft will be provided to TCEQ for content review. The second draft will include the website/storyboard application used to format and present the Basin Summary Report to the public. The second draft will be provided for TCEQ accessibility review.

The Basin Summary Report will be presented to the Steering Committee for review and comment. Resolution of comments will be coordinated with the public and TCEQ, if necessary. The Performing

Party will provide an electronic copy of the draft report to the TCEQ for review. Final approval of the report will rest with TCEQ. Five copies of the final report will be provided to TCEQ. The reports will be made available to Steering Committee members and all basin stakeholders and posted on the Performing Party's web page. The final 2021 Basin Summary Report will be provided to the Texas Parks and Wildlife Department, Texas State Soil and Water Conservation Board, the governor, the lieutenant governor, and the speaker of the House of Representatives no later than the 90th day after the date the report is submitted to the TCEQ.

Deliverables and Due Dates:

September 1, 2019 through August 31, 2020

- A. Pre-Draft Watershed Summary — October 1, 2019
- B. Draft Basin Highlights Report — January 15, 2020
- C. Draft Basin Highlights Report website/storyboard application — April 1, 2020
- D. Final Basin Highlights Report — May 15, 2020
- E. Post Report to web page — June 30, 2020

September 1, 2020 through August 31, 2021

- A. Preparation meeting for Basin Summary Report — by June 30, 2020
- B. Pre-Draft Segment Example/Sample — September 15, 2020
- C. Draft Basin Summary Report — February 15, 2021
- D. Draft Basin Summary Report application — May 1, 2021
- E. Final Basin Summary Report and application — June 15, 2021
- F. Post Report to web page — June 30, 2021

TASK 6: STAKEHOLDER PARTICIPATION AND PUBLIC OUTREACH

Objectives: Enhance and support participation of stakeholders in the development of water quality objectives and priorities for the basin, and the CRP as a whole. Engage in education and outreach activities to enhance stakeholder knowledge and involvement.

The Steering Committee serves as the focus of public input and assists with:

- creation of specific, achievable water quality objectives and basin priorities;
- review and development of work plans and allocation of resources;
- review, development and approval of major reports;
- establishment of monitoring priorities and development of monitoring plans; and
- identification of priority problem areas and possible actions to address these problems and pollutant sources.

Stakeholders should be engaged through outreach and education activities that support CRP goals. This can be accomplished by:

- providing several forums for citizens to contribute their ideas and concerns;
- participating in outreach and education activities to increase public awareness about water quality issues in the basin;
- communicating information on water quality issues so that priorities may be set considering local, regional, state, and federal needs; and
- providing opportunities for volunteer citizen monitoring of basin water bodies.

Task Description: To ensure a comprehensive watershed evaluation, the Performing Party will provide opportunities for the participation of stakeholders and other interested parties in development of water quality objectives and priorities for the area and CRP as a whole. Stakeholder involvement will be

accomplished through both the CRP Steering Committee process and other public participation, outreach, and education activities per the FY 2020-2021 CRP Guidance.

The Performing Party will complete the following subtasks:

Steering Committee and Meetings — To sufficiently address the different interests, concerns and priorities of each watershed, the Performing Party will work to ensure that the CRP Steering Committee includes stakeholder volunteers from across the basin that represent the groups identified in the FY 2020-2021 CRP Guidance. If specified groups are not represented, efforts will be made to recruit representatives before the next scheduled meeting. To engage new members and increase participation, the Performing Party will take every opportunity to promote the CRP and involvement in the CRP Steering Committee.

To meet the goals and coordination requirements of the FY 2020-2021 CRP Guidance, the Performing Party will conduct at least one CRP Steering Committee meeting during the late winter or spring month(s) of the first year of the FY 2020-2021 biennium and two meetings during the late winter or spring of the second year of the FY 2020-2021 biennium. Additional subcommittees or other public meetings may also be convened to help complete the requirements.

The Performing Party will contact stakeholders at least 45 days in advance of meeting date(s) to encourage participation. A questionnaire, which will be sent to all interested stakeholders, will provide a list of proposed agenda topics, request confirmation of continued interest/participation in the CRP Steering Committee, and request input on additional topics and potential stakeholders. Along with the priority agenda topics identified in the CRP Guidance, CRP Steering Committee meetings will cover additional topics of significant interest to stakeholders. A final meeting announcement and agenda will be made available at least 15 days prior to the meeting.

After each CRP Steering Committee meeting, the Performing Party will ensure all stakeholder input, comments, decisions, and any other meeting decisions are addressed, where applicable. For all CRP Steering Committee meetings, copies of meeting materials will be provided with the next QPR, and include a copy of the meeting agenda, presentations, meeting minutes, and a list of attendees. CRP Steering Committee meeting minutes will also be posted to the Performing Party's website and the posting of the meeting minutes will be documented in the QPR following the meeting.

Education and Outreach — To maximize outreach efforts with available funding, the Performing Party will coordinate with related programs to connect with new audiences and engage them to effect positive change on water quality.

The Performing Party may support the development of maps and materials (e.g., What Watershed Do You Live In? posters, How Can I Get Involved? posters, and flyers on how to access the CRP Basin Summary Reports and the CRP Basin Highlights Reports) for distribution at public outreach events. Materials proposed for development under this Contract will be discussed for approval with the TCEQ Project Manager. Printed materials will include a clause acknowledging the funds were provided by CRP. Following approval by the TCEQ Project Manager, the Performing Party may also fund staff time and travel for the public outreach event, and the cost of the booth space, if applicable, and the activities will be summarized in the QPR.

For any public participation, outreach, or volunteer monitoring activities, a copy of the activities summary, materials produced or distributed by the Performing Party, and a list of participants will be included in the subsequent QPR (Task 1).

The Performing Party will provide information on current basin priorities to increase public awareness of local water quality and resource issues. To accomplish this, the Performing Party will:

- Expand the role of the public in water quality management issues by promoting CRP and the CRP Steering Committee as a forum for citizen input.
- Continue to contribute to the monthly Community & Environmental Planning Department Newsletter and H-GAC Regional Focus Newsletter.
- Staff a water quality information booth at a minimum of five local events per year, such as the State of the Bay Symposium, Bay Day, World Oceans Day, Nurture Nature, Bayou Preservation Association Symposium, Fan Fest, Nature Fest, Trash Bash, Houston Dog Show, Earth Day events, Kickerillo-Mischer Preserve Event, Boy Scout Fair, and H-GAC Health Fair. (Note: Any event not listed above will require the TCEQ Project Manager's approval before attending.)
- Post information regarding meetings, brochures, and reports on the Performing Party's web page.
- Promote the use and provide guidance for using the WRIM and "How's the Water?" phone application.
- Promote the Texas Stream Team monitoring program to increase stakeholder involvement.
- Maintain the Texas Stream Team Volunteer Coordinator function to support all Texas Stream Team activities in the Performing Party's CRP basins.
- Produce and distribute a quarterly volunteer newsletter for volunteers and other interested parties.
- Continue to fulfill its responsibilities and objectives as a Texas Stream Team Partner by working with local groups and industries to build partnerships. The Performing Party will continue to work with these partners to set annual priorities and develop a coordinated activities schedule.
- Distribute water quality monitoring kits and monitoring supplies in FY 2020-2021 in support of local Texas Stream Team volunteers as needed.
- Continue to participate in the annual Texas Stream Team Meeting of the Monitors and the state-wide Partners Meeting and assist in conducting an annual regional symposium to encourage networking among area volunteers and interaction between volunteer and professional monitors.

The Performing Party will develop, maintain, update, and report on their web page as specified in the FY 2020-2021 CRP Guidance. The web page will be reviewed on a quarterly basis to ensure that information and announcements remain current and relevant. The Performing Party will also include summaries of revisions to the web page in the corresponding QPR.

As a component of public outreach, the WRIM (located on the Performing Party's CRP website) will be updated quarterly to reflect the most recent Texas Stream Team water quality data available. As changes and upgrades are made to the software that supports the WRIM, changes and upgrades to the WRIM itself will be required. The Performing Party will strive to make the WRIM and all associated applications as user friendly and relevant as possible to reach the broadest audience possible.

Deliverables and Due Dates:

September 1, 2019 through August 31, 2020

- A. Document that web page meets outlined requirements — December 15, 2019
- B. Summarize web page updates and submit with QPRs — December 15, 2019; March 15 and June 15, 2020
- C. Contact Steering Committee members with questionnaire, draft agenda topics and to confirm participation — a minimum of 45 days prior to Steering Committee meeting date
- D. Final announcements and agenda for Steering Committee meetings — a minimum of 15 days in advance of meeting
- E. Steering Committee meeting — number and dates as negotiated with TCEQ Project Manager
- F. Steering Committee meeting materials — with QPR following meeting
- G. Steering Committee meeting minutes posted to the web page — indicate in QPR following meeting
- H. Materials from education and outreach activities included with QPRs — December 15, 2019;

March 15 and June 15, 2020

- I. Update WRIM with Texas Stream Team Activities and include documentation of update in QPRs — December 15, 2019; March 15 and June 15, 2020

September 1, 2020 through August 31, 2021

- A. Summarize web page updates and submit with QPRs — September 15 and December 15, 2020; March 15, June 15, and August 31, 2021
- B. Contact Steering Committee members with questionnaire, draft agenda topics and to confirm participation — a minimum of 45 days prior to Steering Committee meeting date
- C. Final announcements and agenda for Steering Committee meetings — a minimum of 15 days in advance of meeting
- D. Steering Committee meeting — number and dates as negotiated with TCEQ Project Manager
- E. Steering Committee meeting materials — with QPR following meeting
- F. Steering Committee meeting minutes posted to the web page — indicate in QPR following meeting
- G. Materials from education and outreach activities included with QPRs — September 15 and December 15, 2020; March 15, June 15, and August 31, 2021
- H. Update WRIM with Texas Stream Team Activities and include documentation of update in QPRs — September 15 and December 15, 2020; March 15, June 15, and August 31, 2021