USEPA
REGION 4 SUPERFUND & EMERGENCY MANAGEMENT DIVISION
QAPP CHECKLIST/SITE-SPECIFIC SUPPLEMENT TO PROGRAM-LEVEL QAPP

Site-specific Supplement QAPP Title: Lake Conestee Phase 2
Title of Associated Program-level QAPP: SCDHEC Program Level QAPP
Approval Date of Associated Program-level QAPP: October 2017
Project Location: Greenville (Greenville County), SC
Organization submitting the QAPP: SCDHEC Federal & State Site Assessment Section
QAPP Date: 09/04/2020
Receipt Date: 09/04/2020
Review Date: 09/16/2020-09/23/2020
Designated Approving Official (DAO): Alayna Famble
EPA Remedial Project Manager or On-Scene Coordinator: Alayna Famble

Topic covered in accordance with requirements: ☑ Yes ☐ No

☐ Yes - Indicates that the topic/element was covered in sufficient detail to meet EPA's requirements as specified in this checklist.

☐ No - Indicates that the topic/element covered in the QAPP does not provide sufficient detail to meet EPA's requirements or the topic is entirely missing from the document.

Element	Meets Requirements ☐ Yes ☐ No
A-1. Title and Approval Page	
Title of Site-specific Supplement QAPP and Reference to Program-level QAPP	☑ Yes ☐ No
Organization's Name: The Name of the organization submitting the QAPP.	☑ Yes ☐ No
Dated Signatures of both the originating organization's Project Manager, if not EPA Region 4 Superfund and Emergency Management Division, and EPA Region 4's corresponding RPM or OSC.	☑ Yes ☐ No
Date and Signature of Quality Assurance Manager or designee's approval for the originating entity (if originating entity is not EPA Region 4 Superfund and Emergency	☐ Yes ☑ No This standard will be addressed in all future QAPPs. It cannot be addressed at this time.

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Management Division) and space provided for Date and Signature of EPA Region 4 Designated Approving Official.	
Other Signatures as Needed: N/A	☐ Yes ☐ No
A-2. Table of Contents: Including Tables, Figures and Appendices	☑ Yes ☐ No
A-3. Distribution List: Including Addresses of all entities or agencies requiring copies of the QAPP	☐ Yes ☑ No This standard will be addressed in its entirety on all future QAPPs. The project team members are sufficient at the moment.
A-4. Project - Task Organization	
Identifies which key project personnel in the program-wide QAPP will be assigned to this site	☑ Yes ☐ No
A-5. Problem Definition/Background.	
Clearly states the particular environmental problem to be solved, decision to be made, or outcome to be achieved. Include sufficient background information to provide a historical, scientific, and regulatory perspective for this project. Systematic planning is required and the seven-step DQO process is EPA's preferred process. A response that meets requirements will also address **DQO Step 1. State the Problem. Define the problem that necessitates the study; identify the planning team, examine budget, schedule.** See EPA QA/G-4.	☑ Yes ☐No
Provides historical and background information concerning prior environmental investigations or assessments performed at the site. Discusses the data collected from these prior investigations and identifies any additional information that may be contained in computer databases (secondary data), etc.	☑ Yes ☐ No

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A-6 Project/Task Description	
Provides a summary of all work to be performed, products to be produced, and the schedule for implementation. Lists the actual measurements to be made: Including in-situ field measurements, fixed laboratory measurements, or any other type of information collected as part of the project.	☑ Yes ☐ No
Cites applicable regulatory standards or criteria such as action levels or screening levels - ARARs (incl. MCLs), PRGs, RSLs, RALs, etc.	☑ Yes ☐ No
Identifies all instruments/equipment needed to conduct project and identifies all key study personnel (field technicians, chemists, risk assessors, engineers, project managers, quality assurance managers, etc.)	☑ Yes ☐ No
Provides work schedule for all tasks including report preparation, response to comments, etc.	☑ Yes ☐ No
Identifies all required reports, records, data reports, quality assurance reports/documents	☑ Yes ☐ No
Identifies all electronic data deliverables (EDDs) that will be submitted for the project and the required fields for each EDD, using the Region 4 Format for EQuIS Data Processor (EDP).	☑ Yes ☐ No
A-7. Data and Field Quality Objectives and Criteria for All On-Site and Off-Site Measurement Data	
Provides the qualitative and quantitative data quality objectives for all aspects of the project. Must provide clearly delineated project objectives such as determining the presence/absence of potential contaminants, nature and extent of contamination, determining whether human health is affected. Must provide a list of decisions and alternative actions (remediation, removal,	☑ Yes ☐ No

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further assessments, no further action, etc.). Systematic planning is required and the seven-step DQO process is EPA's preferred process. A response that meets requirements will also address **DQO Step 2. Identify the Goal of the Study. State how environmental data will be used in meeting objectives and solving the problem, identify study questions, define alternative outcomes.** See EPA QA/G-4.	
Using the sources cited in A-6 above, provides actual numerical criteria as part of DQO process on an analyte by analyte basis. If applicable, discusses where levels cited will not be analytically achievable.	☑ Yes ☐ No
Identifies critical contaminants/analytes of concern along with their respective reporting level requirements (for chemical parameters). Reference the laboratory SOPs for method and instrument QC and, where more stringent criteria are needed for the project, identify the modifications needed to the laboratory's SOP. Systematic planning is required and the seven-step DQO process is EPA's preferred process. A response that meets requirements will also address **DQO Step 3. Identify Information Inputs. Identify data & information needed to answer study questions.** See EPA QA/G-4.	☑ Yes ☐ No
Provides design of the sampling/collection network. Provides an extensive discussion regarding the rationale for the sampling design. Systematic planning is required and the seven-step DQO process is EPA's preferred process. A response that meets requirements will also address **Step 4. Define the Boundaries of the Study Specify the target**	☑ Yes ☐ No

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population & characteristics of interest, define spatial & temporal limits, scale of inference. See EPA QA/G-4.	
Provides a discussion regarding the rationale and relevance of the analyses planned. Identifies the statistical parameter that will be used to compare the data to the numerical criteria (maximum detection, mean, 95% UCL of the mean, by each individual result, etc.) Systematic planning is required and the seven-step DQO process is EPA's preferred process. A response that meets requirements will also address **Step 5. Develop the Analytic Approach. Define the parameter of interest, specify the type of inference, and develop the logic for drawing conclusions from findings.** See EPA QA/G-4.	☑ Yes ☐ No
Derives the performance or acceptance criteria that the collected data will need to achieve in order to minimize the possibility of either making erroneous conclusions or failing to keep uncertainty in estimates to within acceptable levels. Identifies whether the project has a decision-making problem requiring statistical hypothesis testing (DQO Step 6A) or an estimation problem (DQO Step 6B). For a decision-making problem, specifies probability limits for false rejection and false acceptance decision errors. For estimation problems, specifies performance metrics and acceptable levels of uncertainty. Systematic planning is required and the seven-step DQO process is EPA's preferred process. A response that meets requirements will also address **DQO Step 6. Specify Performance or Acceptance Criteria. Step 6A - Specify probability limits for false rejection and false acceptance decision errors *or* Step 6B - Develop performance**	☑ Yes ☐ No

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criteria for new data being collected or acceptable criteria for existing data being considered for use. See also EPA QA/G-4.	
Identifies whether the project will use a probability-based sampling design or a judgmental sampling design. Summarizes the selecting sampling design and specifies key assumptions supporting the selected sampling design. Systematic planning is required and the seven-step DQO process is EPA's preferred process. A response that meets requirements will also address **DQO Step 7. Develop the Plan for Obtaining Data Select the resource-effective sampling and analysis plan that meets the performance criteria.** See also EPA QA/G-4. NOTE: The details of DQO Step 7 will be addressed in B.	☑ Yes ☐ No
A-8. Special Training Requirements and Special Certifications	Not Applicable – In Program-level QAPP only
A-9. Documentation and Records	
Provides a list of the specific Region 4 Format electronic data deliverables applicable to this project. If applicable, notes any deviations from the program-level QAPP to analytical turnaround time or analytical data package stage.	☑ Yes ☐ No
B-1. Sampling Process Design	
Provides a summary table with type and number of samples required for collection such as surface, subsurface, or groundwater. Provides number and type of field quality control samples. Identifies each sample type using matrix codes and descriptions found in the Region 4 Reference Values for EQuIS. Identifies which sample(s) will be designated	☑ Yes ☐ No

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for laboratory QC use (matrix spike, matrix spike duplicate, and laboratory duplicate) and whether/how much additional volume is needed.	
Provides design of the sampling/collection network. Provides an extensive discussion regarding the rationale for the sampling design. This also includes a discussion regarding the rationale and relevance of the analyses planned.	☑ Yes ☐ No
Provides maps or diagrams with sample locations/collection locations and provides table with frequency of sampling events.	☑ Yes ☐ No
Provides the samples slated for collection in the sample table by Station ID and Sample ID. Uses existing Station IDs where available in EQuIS for the planned location (matched by latitude/longitude).	☑ Yes ☐ No
Includes a discussion regarding the rationale and relevance of the analyses planned. Provides detail or reference on target analytes included in each analysis and whether Tentatively Identified Compounds are to be reported, where applicable. Where different reporting levels are available for an analysis type, distinguishes options by analysis name.	☑ Yes ☐ No
Provides a table identifying the analyses of interest for each collected sample. If selecting analysis type where different reporting level options are available, considers the expected contamination level of each sample in addition to the criteria selected in A6 and A7. Table includes the analytical method number, sample container requirements, sample preservation requirements, sample volume requirements and holding time criteria.	☑ Yes ☐ No
B-2. Sampling Method Requirements	
If applicable, notes any deviations from the program-level QAPP.	☑ Yes ☐ No ☐ Not Applicable – using Program-level

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	QAPP
B-3. Sample Handling and Custody Requirements	Not Applicable – In Program-level QAPP only
B-4. Analytical Method Requirements	
If applicable, notes any analytical methods not in the program-level QAPP.	☑ Yes ☐ No ☐ Not Applicable – using Program-level QAPP
B-5 through B-10, C1-C2, D1-D3	Not Applicable – In Program-level QAPP only

Final QAPP Disposition:

__AF__ *Approved, no comments*

Signature of Designated Approving Official (DAO) _____

Signature of Section Chief of the DAO Meredith Clark

____ *Not Approved,* ***Address Comments, Submit Revised QAPP to the EPA Designated Approving Official***

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