MICHIGAN CLEAN WATER CORPS QUALITY ASSURANCE PROGRAM PLAN REVIEW CHECKLIST

This checklist is based on the elements in *Guidance for MiCorps Member Programs for Developing QAPPs*. This checklist can be used to either write or review a QA Program Plan. Page/Section is listed if different from the section outline in this checklist.

PROGRAM TITLE: _____

Preparer: _____ **Date Submitted for Review:** _____
Reviewer: _____ **Date of Review:** _____

☐ Accepted as is ☐ Accepted, if minor issues addressed ☐ Major revision needed

Reviewer signature _____

Element	Acceptable (Yes/No/NA)	Page/ Section	Comments
A1. Title and Approval Sheet			
1. Contains program title			
2. Indicates revision number (start with 0).			
3. Indicates organization's name			
4. Dated signature of organization's program manager			
5. Dated signature of organization's QA manager present			
6. Other signatures, as needed			

Element	Acceptable (Yes/No/NA)	Page/ Section	Comments
A2. Table of Contents			
1. Lists QA Program Plan information sections			
A3. Distribution List			
1. Includes all individuals who are to receive a copy of the QA Program Plan and identifies their organization			
A4. Program Organization			
1. Identifies key individuals involved in all major aspects of the program, including contractors			
2. Discusses their responsibilities			
3. Identifies individual responsible for maintaining the official, approved QA Program Plan			
4. Describes or illustrates lines of authority and reporting responsibilities			
A5. Problem Definition/Background			
1. Clearly explains the reason (site background or historical context) for initiating this program			
2. States the goals or purpose and the actions to be taken or outcomes expected from the information to be obtained.			
A6. Program Description			
1. Provides a brief description of the entire program (an abstract).			

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A7. Data Quality Objectives			
1. Identifies performance/measurement criteria for all information to be collected, addressing the list below.			
2. Discusses precision, including procedures and formulas for calculating applicable QC statistics and outliers.			
3. Addresses bias			
4. Identifies the target level of completeness			
5. Explains the extent to which site selection and sampling methodologies indicate the condition of the larger stream system.			
6. Describes the need for comparability			
A8. Special Training/Certifications			
1. Identifies any internal or external specialized training or certifications provided to staff or volunteers			
2. Discusses how this training will be provided			
3. Indicates personnel responsible for assuring these are satisfied			
4. Identifies how this information is documented			
B1. Study Design and Methods			
1. Describes the program design in detail. Identifies all procedures used in the study.			
2. Provides a timeline of all tasks to be performed, indicating critical program points, e.g., start and			

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completion dates for activities such as preparing for and working with volunteers, sampling, analysis, data or file reviews, and reporting.			
3. Includes the methodology used to select sites, the geographical locations to be studied (mapped), and how sites will be identified and located (including an example of the map			
4. Discusses what to do if the study cannot be carried out as planned, such as when sampling sites become inaccessible			
5. Specifies what information is critical to addressing program goals and what will be used to help explain results only			
6. Discusses potential resource and time constraints			
7. Identifies sources of variability and how this variability should be reconciled with results.			
8. Indicates how samples should be collected			
9. Indicates how nets are cleaned to avoid contamination and ensure bugs or other samples from one site do not include anything from a previous study site.			
10. Identifies how samples will be preserved			
11. Addresses actions to be taken when problems occur, identifying individual(s) responsible for corrective action and how this should be documented			
12. Identifies how samples should be physically handled, transported, and then received and held in the laboratory or office (including temperature upon receipt)			

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13. Indicates how sample or information handling and custody information should be documented, such as in field notebooks and forms, identifying individual responsible			
14. Discusses system for identifying samples, for example, numbering system, sample tags and labels, and attaches forms to the plan			
15. Identifies all analytical SOPs (field, laboratory and/or office)			
16. Specifies any specific method performance criteria, such as identification accuracy			
17. Identifies procedures to follow when failures occur, identifying individual responsible for corrective action and appropriate documentation			
18. Identifies sample disposal procedures			
19. For each type of sampling, analysis, or measurement technique, identifies QC activities which should be used, for example, blanks, spikes, duplicates, etc., and at what frequency			
B2. Instrument/Equipment Testing, Inspection, and Maintenance			
1. Identifies all equipment and support facilities, such as storage facilities used and any that are needed			
2. Identifies field and laboratory equipment needing periodic maintenance, and the schedule for this			
3. Indicates procedures in place for inspecting equipment before usage			
4. Identifies individual(s) responsible for testing,			

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inspection and maintenance			
5. Indicates how deficiencies found should be resolved, re-inspections performed, and effectiveness of corrective action determined and documented			
B3. Inspection/Acceptance for Supplies and Consumables			
1. Identifies critical supplies and consumables for field and laboratory, noting supply source, acceptance criteria, and procedures for tracking, storing and retrieving these materials			
2. Identifies the individual(s) responsible for this			
B4. Non-direct Measurements (if necessary)			
1. Identifies data sources, for example, computer databases or literature files, or models that should be accessed and used			
2. Describes the intended use of this information and the rationale for their selection, i.e., its relevance to program			
3. Indicates the acceptance criteria for these data sources and/or models			
4. Identifies key resources/support facilities needed			
5. Describes how limits to validity and operating conditions should be determined, for example, internal checks of the program and Beta testing			
B5. Data Management			
1. Lists all other program documents, records, and electronic files that will be produced			

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2. Identifies where program information will be kept and for how long			
3. Discusses back up plans for records stored electronically			
4. Describes data management scheme from field to final use and storage			
5. Discusses standard record-keeping and tracking practices, and the document control system or cites other written documentation such as SOPs			
6. Identifies data handling equipment/procedures that should be used to process, compile, analyze, and transmit data reliably and accurately			
7. Describes analytical techniques used to calculate metrics, indicators or other environmental measures to be reported.			
8. Identifies individual(s) responsible for this			
9. Describes the process for data archival and retrieval			
10. Attaches checklists and forms that should be used, if necessary			
C1. Assessments and Response Actions			
1. Lists the number, frequency, and type of program assessment activities that should be conducted, with the approximate dates			
2. Identifies individual(s) responsible for conducting assessments, indicating their authority to stop work, and any other possible participants in the assessment			

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process			
3. Describes how and to whom assessment information should be reported			
4. Identifies how corrective actions should be addressed and by whom, and how they should be verified and documented			
C2. Data Review, Verification, and Validation			
1. Describes criteria that should be used for accepting, rejecting, or qualifying program data (may reference A7)			
2. Describes process for data verification and validation			
3. Identifies who is responsible for verifying and validating different components of the program data/information.			
4. Identifies issue resolution process, and method and individual responsible for conveying these results to data users			
5. Attaches any checklists, forms, and calculations			
C3. Reconciliation with Data Quality Objectives			
1. Describes procedures to evaluate the uncertainty of the validated data, or how uncertainty will be reported.			
2. Describes how limitations on data use should be reported to the data users			
C4. Reporting			
1. Identifies what program QA status reports are needed and how frequently			

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2. Identifies who should write these reports and who should receive this information			
3. Identifies report format and summarizes all data report package information			