



## **Quality Management Plan**

**Revision No. 9**

**Florida Department of Environmental Protection  
Tallahassee, Florida**

**April 21, 2020**

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## QUALITY MANAGEMENT PLAN IDENTIFICATION FORM

**Document Title:** Quality Management Plan for the Regulatory, Lands and Recreation, and Ecosystem Restoration Programs of the Florida Department of Environmental Protection

**Organization Title:** Florida Department of Environmental Protection (DEP)

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**Plan Coverage:** This Quality Management Plan (QMP) addresses all monitoring and measurement activities mandated through EPA regulations and memoranda, and is applicable to all DEP programs, except those managed by the Division of Air Resource Management. The purpose of the QMP is to assure that environmental data (in part or in whole) generated using funds from EPA, in part or in whole, are adequate to support scientifically valid environmental decisions. It applies to all DEP activities (*e.g.*, assessment, compliance and monitoring programs, environmental technologies) whose purpose is to prevent pollutants from entering the environment, remove pollutants from the environment, and assess the environmental condition of Florida lands and waters. Generally, EPA funding is administered via grants, contracts, or cooperative agreements with EPA. A list of DEP programs receiving EPA funding is included in the folder of support documents accompanying the QMP.

## 1. INTRODUCTION

It is the policy of the United States Environmental Protection Agency (EPA)<sup>1</sup> that all environmental programs conducted by, or on behalf of, the EPA shall establish and implement effective quality systems to support the scientific and legal defensibility of those programs. A quality system is a structured and documented management system that functions to monitor, evaluate, and improve the quality assurance (QA) and quality control (QC) processes within an organization. Key components of the system are the QA policies and procedures that describe the processes for ensuring that work, products, or services satisfy the stated expectations or specifications. Both the EPA and any organizations conducting programs on the EPA's behalf must document quality systems in an approved Quality Management Plan (QMP).

This document is the QMP for the Florida Department of Environmental Protection (DEP or department<sup>2</sup>). The purpose of this plan is to document the department's quality systems and to provide a blueprint for how the department will plan, implement, and assess its quality systems for the environmental work performed on behalf of, or funded by, the EPA. The department also submits an annual QA Competency letter to EPA as part of the Performance Partnership Agreement for Performance Partnership Grants.

The DEP is Florida's principal environmental and natural resources agency. The department is involved in a wide range of environmental protection and management activities. Many of the QA policies, procedures and criteria identified in this QMP are applicable to all DEP units generating or using environmental data (see section 3.2, Organizational Units). However, this document emphasizes details of the quality systems currently in place for those programmatic activities related or of concern to the EPA. This includes programs generating environmental data for EPA-required activities conducted through monitoring programs, grants, contracts, and cooperative agreements. In addition, the plan covers environmental technology funded by the EPA, in part or in whole, whose purpose is to prevent pollutants from entering the environment or to remove pollutants from the environment.

In 1998, the Florida Legislature granted the department statutory authority to “establish, by rule, appropriate quality assurance requirements for environmental data submitted to the department and the criteria by which environmental data may be rejected by the department” ([Chapter 403.0623, Florida Statutes](#)). The 2008 legislature modified the statute to allow the department to further “adopt and enforce rules to establish data quality objectives and specify requirements for training of laboratory and field staff, sample collection methodology, proficiency testing, and audits of laboratory and field sampling activities.” From this statutory authority, the department structured its QA Program for water, waste, ecosystem restoration, and land and recreation activities. The minimum QA requirements described in [Chapter 62-160](#), Quality Assurance, Florida Administrative Code (F.A.C.), support the QA Program.

<sup>1</sup>EPA Order [C10 2105.0](#), *Policy and Program Requirements for the Mandatory Agency-wide Quality System*, U.S. Environmental Protection Agency, Washington, D.C. (May 5, 2000).

<sup>2</sup>For the purposes of this document “DEP” or “the department” refers to all Regulatory, Lands and Recreation, and Ecosystem Projects programs producing or consuming environmental data, and excludes the Division of Air Resource Management.

## **2. DEPARTMENT QUALITY ASSURANCE POLICY AND GOALS**

### **2.1 Department Quality Assurance Policy**

The department relies on environmental data from a variety of sources to make decisions to protect the health of the public and the environment. To ensure that these decisions are based on reliable data, the DEP requires that programs have appropriate quality systems in place. All department programs that generate or use environmental data are subject to data quality management criteria, as specified in [Quality Plans](#) for the program or work unit.

Each quality system will be implemented consistent with the requirements and criteria summarized in this QMP in order to provide reasonable assurance that all environmental data are usable for their intended purpose, scientifically valid, of known precision and accuracy, complete, representative, comparable, and, where appropriate, legally defensible.

A QMP is required for the majority of the work units that are responsible for administering DEP's regulatory programs, which include the following:

- Division of Water Resource Management
  - Drinking Water and Aquifer Protection Program
  - Wastewater Management
  - Engineering, Hydrology, and Geology
  - Submerged Land and Environmental Resource Coordination Program
  - Mining and Reclamation Program
  - Oil and Gas Program
  - NPDES Stormwater Program
  - Water Compliance and Enforcement Program
- Division of Environmental Assessment and Restoration
  - Biology Program
  - Chemistry Program
  - Laboratory Support Services
  - Water Quality Assessment
  - Watershed Evaluation and TMDL
  - Water Quality Restoration
  - Water Quality Standards
  - Watershed Services
- Division of Water Restoration Assistance
- Division of Waste Management
  - Permitting & Compliance Assistance Program

- Hazardous Waste Program & Permitting
- Solid Waste Program & Permitting
- Compliance Assistance
- Waste Reduction & Registration
- Petroleum Restoration Program
- Waste Cleanup Program
  - Program Administrator's Office
  - Waste Site Cleanup
  - Site Investigations
  - Federal Programs
  - Brownfields & CERCLA Site Screening
- District and Business Support Program
- Division of Recreation and Parks
- Division of State Lands
- Office of Resilience and Coastal Protection
  - Beaches Field Services
  - Beaches, Inlets, and Ports Coastal Construction Control Line Program
- Florida Geological Survey
- Office of Water Policy and Ecosystems Restoration Division of Law Enforcement

Revision and review of the DEP QMP is organized by the DEP QA Coordinator (QAC) in collaboration with the department's designated QA Officers (QAOs). Typically, program-level management and technical staff review relevant QMP text and provide comments and information concerning appropriate revisions to the QMP. Further management review may occur at the Division or District Director level. The DEP QAC, with the assistance of Aquatic Ecology and Quality Assurance Section staff (AEQAS) in the Water Quality Standards Program (WQSP), compiles and edits the submissions received from the DEP QAOs, assembles the revised QMP, and routes the document to senior DEP management for review, final editing, and signatures.

Department work units may differ slightly in carrying out review processes, and procedural details for QA reviews are generally described in the program or work unit [Quality Plan](#).

Decisions about data usability are made at the program level by the appropriate management and technical staff. Each DEP program evaluates data according to data quality objectives (DQOs) established by the program. The department's designated QAOs serve as the point of contact for implementation of each program's quality system. The DEP QAC, with assistance from AEQAS staff, works with the DEP QAOs to ensure that the Department's overall quality system requirements are met. This distributed QA function is described in the [DEP QA Directive](#). Each program or work unit Quality Plan provides further details about how this function is executed at the program or work unit level and describes procedures and criteria for data review and usability assessment. Data reviewers will also follow the guidelines described in the document titled [Process for Assessing Data Usability](#), DEP-EA-001/07, tailored to the specific level of data review.

Interpretations of quality system requirements, implementation of corrective actions, and

resolution of disputes about requirements and procedures, results of audits, and corrective action responses are handled at the program and work unit level whenever possible. Program-level technical staff and QAOs often possess the expertise to evaluate whether specific technical and QA requirements of the program for the use of environmental data have been satisfied. Details for these processes differ between programs and work units and are specified in program or work unit Quality Plans.

Lead personnel and staff with final resolution authority for interpretations of requirements, implementation of corrective actions, and resolution of disputes will vary depending on the context and the organizational level within DEP in which a question, corrective procedure, dispute, or other QA issue has arisen. The process by which a given item is communicated, investigated, and resolved can largely involve “informal” exchanges with emails and phone calls, for example, until or unless more official correspondence and documentation is required. DEP district and Tallahassee project and permit managers may often be the first point of contact and lead person for initiating the resolution process. By consulting appropriate technical staff and supervisors within their work units or elsewhere in the department who possess relevant knowledge or expertise about an issue, these frontline DEP staff may be able to quickly resolve the issue. QA and QC questions about chemistry, microbiology and other bioassessment data are often referred to the DEP QAC, AEQAS staff, or the DEP laboratory staff for follow-up. Where required as part of the resolution, official letters or other standard documents may be written or completed and signed by staff with delegated authority for signature. If necessary for permits, administrative orders and other documented changes to permits may be executed as the result of resolutions.

Internal to DEP, the process for resolving disputes or providing interpretations and clarifications for QA procedures and requirements, including those in DEP rules, usually starts with initial inquiries by relevant technical staff. The DEP QAC may assist with the process as described below. Technical staff and work unit QA Officers coordinate with the DEP QAC and AEQAS staff as necessary to resolve identified issues and incorporate feedback into any interpretations or revisions to QA procedures, requirements, and policies.

DEP holds public workshops and invites stakeholder comments associated with specific DEP rules according to established statutory protocols ([Chapter 120, Florida Statutes](#)). These forums provide a process for input by persons affected by the relevant regulation, and may facilitate the resolution of differences and provide clarifications about policy and procedure associated with the execution of rule requirements. Typically, technical and management staff within the DEP program that is responsible for administration of the rule holds the authority for resolution of associated issues. For DEP activities specific to rulemaking when new or revised rules are proposed, public notice is required by statute, and opportunities for clarification and resolution occur at several procedural steps, including public workshops and hearings. Resolutions as the result of hearings are authorized by designated hearing officers, or for specific rules, by the [Office of General Council](#). Legal procedures may also involve litigation before courts of appropriate jurisdiction when DEP rules are challenged.

DEP auditors are typically the lead personnel responsible for the implementation of and resolution of disputes about corrective actions originating from audits of internal or external personnel, procedures and documents associated with a DEP program. Corrective actions may also be identified and initiated by technical staff as the result of routine review and evaluation of environmental data. Designated supervisory staff approve the corrective actions and any associated resolution of issues.

When questions or disputes about the department-wide QA requirements adopted in the [DEP QA Rules](#) require further interpretation, the DEP QAC and AEQAS staff will assist program staff in resolving inquiries about applicable issues, such as approved sampling procedures

and analytical methods, laboratory certification, documentation and reporting requirements, audits and data validation.

## **2.2 Department Quality Assurance Goals**

Responsibilities for QA functions are distributed throughout the department, but there are overarching DEP quality system management goals and tasks, including the following activities and expectations:

QA processes will be designed in a cost-effective manner without compromising data quality. The department programs will be adaptively managed to ensure continuous improvement in the quality management system.

Each program shall have a designated QAO that coordinates and directs QA activities for the program and provides technical training to staff. This will be accomplished with assistance from the AEQAS.

All individuals with identified QA responsibilities (see 4.1) are expected to be familiar with and understand the principles, policies and procedures discussed in this QMP, and their program's or organizational unit's Quality Plan.

For any monitoring and measurement activities required by EPA regulations, grants, contracts and cooperative agreements, the DEP will follow those QA activities specified as part of the conditions of those regulations, grants, contracts, and cooperative agreements. Specific procedures required as part of these programs and projects are contained in the associated EPA-DEP agreements.

If specifically required by agreement with EPA, QA Project Plans (QAPPs) will be prepared in accordance with [Requirements for QA Project Plans](#) (EPA QA/R-5, March 2001). These QAPPs will be reviewed and approved by the appropriate EPA office or the appropriate department program with delegated review authority.

DEP program and project managers will be encouraged to use a systematic planning process for all data generated by, or submitted to, the department. In addition, they will be encouraged to identify appropriate data quality performance criteria (e.g., precision, accuracy, sensitivity, etc.) to facilitate data assessment processes.

Data will be validated and assessed for usability in terms of the applicable data quality performance criteria required by the DEP program or specific project. The document, Process for Assessing Data Usability (DEP-EA 001/07), outlines the general approach and criteria that will be used for typical environmental data evaluations.

Organizations contracted by the DEP to perform environmental measurements or assessments, or to develop environmental technology, will be required to follow the DEP QMP via specific QA requirements incorporated in contract and grant agreements (see section 4.1.5, below).

DEP will coordinate any necessary information exchange with the Florida Department of Health (DoH) to periodically assess the effectiveness of the combined efforts of both agencies to ensure appropriate data quality. The DEP QAC will communicate with the [DoH Environmental Laboratory Certification Program](#) (DoH ELCP) Administrator as needed to resolve issues and ensure alignment of QA policies and procedures between the two agencies.

All other QA requirements are specified in the department's QA Rules in Chapter 62-160, F.A.C., Quality Assurance.

## 2.3 Department Quality Assurance Directive

The department has promulgated an internal program directive for QA policy, which was first implemented in September 2009 with the signature of the DEP Secretary. The [QA Directive](#) (DEP #972), titled *Quality Assurance Directive for the Collection, Analysis and Interpretation of Environmental Data for the Florida Department of Environmental Protection Regulatory, Lands and Recreation, and Ecosystem Restoration Programs*, outlines the structure for implementation of the DEP QMP, and delineates staff responsibilities for carrying out procedures, developing DQOs, and ensuring data quality at all stages of data use, from generation to archival storage. The directive emphasizes that the DEP QA Program is a distributed function executed by management and technical staff at all levels of the department. The directive does not apply to the DEP Division of Air Resources Management, which administers a separate QA program.

The Directive cites the specific authorities for the DEP QA Program, which include Chapter 403.0623, Florida Statutes, the QA Rules, [Chapter 62-160, F.A.C.](#), and the QMP submitted to EPA.

The Directive establishes the department's QA policy for implementing the QA requirements and associated activities deriving from the above authorities. The QA Policy includes ensuring the use of defensible data for decision-making; creating and adaptively managing DEP district- and program-level quality systems; training all staff responsible for every stage of data use; developing DQOs for each DEP program; evaluating the quality of data according to program-specific data quality indicators (DQIs); developing corrective actions for non-conformance issues where DQOs are not met; developing auditing procedures for internal and external generators of environmental data; implementing QA procedures for data base management; and providing an annual QA assessment report to the DEP Secretary (see section 4.3.3, below).

The Directive assigns responsibilities for carrying out the distributed functions of the DEP QA Program at all levels of the department. Duties are assigned to Division and District Directors, Program and Section Administrators, designated district, and program QAOs, and program-level technical staff.

The Directive assigns unique QA oversight duties to the AEQAS that are executed by designated QA staff, and include the following (additional description of AEQAS duties may be found in section 3.1):

- Facilitating communication amongst all DEP QAOs
- Providing technical resources for assisting DEP staff and external stakeholders with the development of quality systems
- Developing and maintaining [DEP Standard Operating Procedures](#), which are published as requirements for both DEP staff and external data providers
- Performing data validations, data usability assessments, project data audits, and sampling performance audits
- Administering and revising the DEP QA Rules
- Revising and submitting the QMP
- Upon the request of DEP programs, performing Quality of Science reviews to evaluate program-specific quality systems, suggest improvements to program quality systems, and provided related quality systems training
- Coordinating on QA issues with the Florida DoH and [The NELAC Institute](#) (TNI)
- Assembling and submitting the annual QA assessment report to the DEP Secretary

### 3. DEPARTMENT ORGANIZATION and QUALITY ASSURANCE RESPONSIBILITIES

#### 3.1 General Organization

The Secretary of the DEP, as the department's senior manager, is responsible for the department's Quality Programs. The Secretary has given the AEQAS authority to establish policy for data quality issues for activities involving regulatory, lands and recreation, and ecosystem restoration programs. The QAC for these programs is Kristen Sapp.

The funding for the QA effort within the department is determined by the individual programs, however the WQSP has specifically allocated funds for auditing, training, and other related activities. Costs for travel and laboratory analyses for audits conducted on behalf of a program are normally funded by the program. In addition, many programs also sponsor and fund training activities.

**Upper Management** (Division Directors and District Directors) have the responsibility of ensuring that the programs under their purview implement a quality system that is consistent with the QMP and support such efforts with funding, staff, and training. The QA Directive also requires directors to designate QAOs, evaluate feedback concerning data quality issues, and review each program's input to the [Annual Report to the Secretary](#).

**Middle Management** (Program and Section Administrators) will ensure that a quality system is implemented in conformance with this QMP and the QA Directive. They will:

- Designate QAOs at the request of the Division or District Director
- Periodically require an evaluation of the effectiveness of QA activities in meeting established DQOs within their program/section
- Ensure that Quality Plans for sections and programs are updated as necessary to describe current operations
- Request Quality of Science reviews and/or training from the AEQAS
- Review results of the Quality of Science reviews and audits with designated QAOs
- Evaluate and implement corrective action measures as recommended by the QAC or QAO when DQOs have not been met
- Review the section or program input to the annual QA Report to the Secretary, and support recommended improvements in their quality system
- Be familiar with relevant department and EPA QA requirements, rules, and statutes, and ensure that all quality documents are consistent with the applicable Federal and State Requirements

**Program staff** have the responsibility for:

- Routinely carrying out duties involving data collection, data usability evaluation, data interpretation, and the generation of DEP work products in a manner that ensures scientific defensibility and adherence to DEP rules and policies
- Evaluating program data using applicable data quality performance criteria, which include DQOs and DQIs established by the program
- Implementing corrective actions as directed by the QAO
- Providing feedback to the program QAO for improving the program quality system

- Understanding and implementing the requirements of the applicable program [Quality Plan](#) and the DEP [QA Rules](#)

QA oversight of the department's activities is handled by the **Quality Assurance Coordinator (QAC)** with assistance from AEQAS staff and the program QAOs. The QAC has the overall responsibility for ensuring that the quality systems documented in the QMP meet statutory, contractual and assistance agreement requirements for EPA-derived work. The QAC also oversees the development, implementation, and continued operation of the department's QA policies, and ensures that the policies and functions described in the DEP QA Directive are implemented. The QAC reports to the Administrator of the AEQAS and works with AEQAS to carry out the QA oversight duties assigned to the AEQAS according to the QA Directive. These duties include:

- Providing leadership, training, and technical assistance for all DEP QA program requirements
- Administering and revising the DEP QA Rules, Chapter 62-160, F.A.C.
- Developing and maintaining the department's [Standard Operating Procedures](#) (DEP SOPs) for routine sample collection, field testing, field bioassessments, and laboratory taxonomic identifications
- Revising the DEP SOPs concurrently with the DEP QA Rules as necessary to update the SOPs and the Rules with new requirements and information, following required State of Florida rulemaking procedures
- Proposing revisions to the DEP SOPs and QA Rules for public comment approximately every five years or sooner, if necessary
- Revising and distributing the QMP
- Ensuring that each agency program has a program-specific Quality Plan
- Coordinating the efforts of all QAOs by holding regularly scheduled meetings and teleconferences
- Providing guidance and training to the program QAOs
- Independently evaluating the effectiveness of the department's Quality System and initiating corrective actions, where warranted.
- Performing data validations, project data audits, data usability assessments, field and laboratory systems audits, and performance audits of field samplers
- Overseeing Quality of Science reviews for specific DEP programs when requested by the program, or when warranted by specific data quality issues that have been identified by the QAC or other department staff
- Serving as a liaison with the Florida [DoH ELCP](#) and [TNI](#) for relevant QA issues
- Coordinating the preparation of the annual QA report to the DEP Secretary on all QA activities, including recommendations for improving the department's Quality System.

Each program in DEP has at least one designated **Quality Assurance Officer (QAO)** with the responsibility of ensuring that the QMP is implemented. The QAO has additional responsibilities under the [QA Directive](#). The QAO:

- Serves as the contact for QA questions that may arise in the programs for which he/she holds oversight responsibility, and provides input on data quality and related technical issues

- Assists program managers with implementation of the program quality system and staff QA training
- Understands the contents of the QMP and coordinates the implementation of the program-specific Quality Plan, consistent with the requirements of the QMP
- Independently assesses QA functions under their purview, evaluates the quality of program environmental data, and provides recommendations to management when improvements or other corrective actions are warranted
- Ensures that corrective actions approved by management are implemented
- Coordinates audits of external and internal data generators (laboratory and field-testing data)
- Coordinates performance audits of field samplers
- Ensures that any specific QA-related requirements arising from EPA delegation, grant conditions, contracts, and cooperative agreements are fulfilled
- Documents program QA activities and provides input to the AEQAS for compilation of the annual QA report to the Secretary

### **3.2 Organizational Units**

The following divisions and organizational units within DEP have QA responsibilities under this QMP. The organization chart for the department's major organizational units may be found at:

<https://floridadep.gov/org-chart> Separate document files for organization charts for DEP programs and work units are provided in the folder of support documents accompanying this QMP.

#### **3.2.1 Offices of the Secretary**

**Office of the Secretary** - The DEP Secretary provides direction and leadership to the department and directly oversees the Chief of Staff, Deputy Secretaries, and the offices listed below.

**Office of Inspector General** - The Office of Inspector General (OIG) provides a central point for coordination of activities that promote accountability, integrity, economy, and efficiency in the department. The OIG conducts/coordinates audits, investigations, and management reviews that are designed to prevent and detect fraud and abuse in department programs and operations. The OIG advises in the development of performance measures, standards, and procedures for the evaluation of programs. The OIG also assesses the reliability and validity of information provided by the department programs on performance measures and standards.

**Office of General Counsel** - The Office of General Counsel (OGC) provides legal counsel and represents the department. The office focuses on Florida's environmental priorities, such as restoring the Everglades; improving air quality; restoring and protecting the water quality in Florida's springs, lakes, rivers, and coastal waters; conserving environmentally sensitive lands; and providing citizens and visitors with varied recreational opportunities.

#### **Technology and Information Services**

The Office of Technology and Information Services (OTIS) is responsible for the management and security of the systems that provide the agency with information technology (IT) solutions to promote mission success. Responsibilities for OTIS include working closely with the agency's

divisions, regulatory districts, and local governments that use regulatory databases. The OTIS provides Application Development, Business Management, Customer and Infrastructure Support, Planning and Governance and Remote Technologies Services.

**Office of Environmental Accountability and Transparency-** The Office of Environmental Accountability and Transparency is responsible for providing leadership for priority issues that require integration of science, policy, and management, from multiple programs and organizations internal and external to DEP. Office staff organize and manage external communication on these priority issues while promoting and facilitating key agency research initiatives to address environmental issues.

### **3.2.2 Deputy Secretaries**

**Deputy Secretary for Land and Recreation** - Provides oversight and leadership to the Divisions of State Lands and Recreation & Parks; and to the Offices of Cabinet Affairs and Operations.

**Deputy Secretary for Ecosystem Restoration** – Provides leadership and oversight to the Office of Water Policy and Ecosystems Restoration; and the Divisions of Environmental Assessment and Restoration and Water Restoration Assistance.

**Deputy Secretary for Regulatory Programs** - Provides leadership to the Divisions of Air Resource Management, Water Resource Management, and Waste Management, the Florida Geological Survey, the Division of Law Enforcement, and the [DEP District Offices](#).

### **3.2.3 Land and Recreation**

**Division of State Lands** – The Division of State Lands is Florida's lead agency for environmental management and stewardship, serving as staff to the [Board of Trustees](#) of the Internal Improvement Trust Fund (Governor and Cabinet). The division provides oversight for the management of activities on public lands including lakes, rivers, and islands.

**The Office of Cabinet Affairs (OCA)** – OCA serves as DEP's clearinghouse for all cabinet agenda items for presentation to the Governor and Cabinet. The OCA coordinates the preparation of cabinet agenda items pertaining to the acquisition, administration, disposition and use of state lands with the DEP divisions, district offices and water management districts, and provides technical and logistical support to the DEP executive staff, cabinet-level reviews of agenda items and transmittal of these items to the Governor and Cabinet. Serving as a liaison with the Cabinet Offices, the OCA coordinates overall programmatic assignments with the Deputy Secretary of Land and Recreation or other DEP staff as needed.

**Division of Recreation and Parks** – The Division of Recreation and Parks manages 161 state parks, nine state trails and the Marjorie Harris Carr Cross Florida Greenway. Florida's state parks encompass 711,215 acres and hosted 21.6 million visitors during the 2012/13 fiscal year, while Florida's state trails welcomed more than 3.9 million visitors across 74,258 acres. The Division directs the overall development and implementation of comprehensive multipurpose outdoor recreation.

### **3.2.4 Ecosystem Restoration**

**Office of Water Policy and Ecosystems Restoration** - Coordinates with the South Florida Water Management District and United States Army Corps of Engineers for South Florida Ecosystem restoration efforts and oversees and coordinates with the state's five regional water management districts (WMDs). The Office of Water Policy and Ecosystems Restoration plays a

key role in carrying out the largest environmental restoration project in the world restoring the Everglades. The office ensures effective implementation of DEP's policy, programmatic, technical, and regulatory responsibilities under the Everglades Forever Act, the Comprehensive Everglades Restoration Plan, the Northern Everglades and Estuaries Protection Program, and related efforts, including Kissimmee River Restoration, Critical Projects Program, Herbert Hoover Dike Rehabilitation, and Modified Water Deliveries to Everglades National Park. Restoration initiatives are focused on improving water quality and restoring the hydrology and ecology of the Everglades ecosystem, which extends from the Kissimmee Chain of Lakes, to Lake Okeechobee, through the remaining Everglades and on to the waters of the Florida Bay (an area covering 18,000 square miles).

Under the Florida Water Resources Act (Chapter 373, F.S.), the office also addresses statewide water management issues in coordination with the Governor's Office, WMDs, and other agencies on issues such as the establishment of minimum flows and levels for surface waters and aquifers, water supply planning and development, and interstate water management issues. The office administers water resources at the state level and exercises general supervisory authority over the WMDs that manage water resources for water supply, water quality, flood protection and floodplain management, and natural systems protection, at the regional level. The office publishes an Annual Status Report on Regional Water Supply Planning, produces the Florida Water Plan, and reviews Water Management Plans and Regional Water Supply Plans created by the WMDs to address water supply and water resource development. In addition, it develops and updates the [Water Resource Implementation Rule](#), Chapter 62-40, F.A.C.

**Office of Resilience and Coastal Protection** – Manages more than 4.9 million acres of the most valuable submerged lands and select coastal uplands, including 41 Aquatic Preserves, three National Estuarine Research Reserves, and the [Florida Keys National Marine Sanctuary](#) (co-managed with NOAA). The Office also administers the Florida Coastal Management Program, the Outer Continental Shelf Program, the Clean Marina Program, the Coral Reef Conservation Program the Florida Resilient Coastlines Program, and five beach and inlet management programs.

**Division of Environmental Assessment and Restoration (DEAR)** – Conducts extensive water quality monitoring, assesses water quality to identify those waters that are impaired and those waters requiring additional data or further evaluation, develops Total Maximum Daily Loads (TMDLs) for impaired waters, and works with stakeholders to develop Basin Management Action Plans to restore impaired waters. DEAR also evaluates the water quality impacts of point source and nonpoint source discharges, reviews and analyzes mixing zone requests, develops statewide rules pertaining to surface water quality standards ([Chapter 62- 302, F.A.C.](#)) and ground water quality standards ([Chapter 62-520, F.A.C.](#)), and other related rules. The division provides laboratory analysis, field sampling, and technical consultation for biology and chemistry support to DEP programs and the stakeholder public through the services of the Laboratory Programs. Staff within DEAR also coordinate the department's QA program for the regulatory, land and recreation, and ecosystem restoration activities of the department.

**Quality Assurance Program-** The AEQAS, within DEAR, is responsible for establishing QA policy for the water, waste, water policy, ecosystem restoration, and land & recreation programs of the agency. AEQAS staff work with the QAC to accomplish the duties described above for the management of the department's QA program.

**Division of Water Restoration Assistance** - The Division of Water Restoration Assistance provides funding assistance for many types of water, wastewater, surface water, stormwater, NPDES, non-point source, and non-mandatory land reclamation projects. Implements funding programs for Deepwater Horizon Oil Spill response and restoration.

### **3.2.5 Regulatory Programs**

**Division of Water Resource Management** - The department's Division of Water Resource Management (DWRM) Programs are responsible for protecting the quality of Florida's drinking water, ground water, rivers, lakes, estuaries, and wetlands, and the reclamation of mined lands. DWRM also serves as Florida's central point of contact for federally delegated water programs, such as National Pollutant Discharge Elimination System (NPDES) Stormwater and Wastewater Programs, Drinking Water and Underground Injection Control (UIC), and has regulatory oversight of certain functions of water and wastewater facilities throughout Florida. Additionally, DWRM regulates the environmental resource permitting of mines and mitigation banks.

**Division of Waste Management** - The Division of Waste Management has the lead program management and implementation responsibilities for the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA). The Division is responsible for promoting practices that minimize solid and hazardous waste generation, properly managing generated wastes, putting systems in place to minimize discharges of chemicals and petroleum products, and overseeing adequate and timely cleanup of environmental contamination.

**District Offices** – The department has six district offices, located regionally throughout the state. These district offices review permit applications, conduct inspections of permitted facilities, respond to reports of environmental damage, and conduct compliance assistance and enforcement activities to implement the policies developed by the regulatory Divisions (Water, Air, and Waste).

**The Florida Geological Survey (FGS)** – The FGS collects, interprets, and provides data and research on earth systems related to water resources, energy and non-energy mineral resources, landforms and their sub-surface structures, and geological hazards such as sinkholes. The FGS provides information and interpretive data about geoscience-related information to governmental agencies, land-use planners, environmental and engineering consultants, mineral owners and exploration companies, industry, and the public. The information is essential for resource conservation and management, sustainable development issues related to human health and safety, promotion of economic growth and implementation of successful environmental regulatory programs.

**Division of Law Enforcement (DLE)**– The DLE responds to a wide variety of environmental pollution threats, ranging from incidents involving petroleum spills caused by vehicle accidents to chemical plant explosions to coastal oil spills. DLE provides technical and on-site assistance to ensure threats to the environment and human safety are quickly and effectively addressed. In addition, the DLE works with local public safety officials and emergency response contractors to minimize threats to the environment.

### **3.2.6 External Agency Programs**

**Water Management Districts (WMDs)** - The state's five WMDs (Northwest Florida WMD, Suwannee River WMD, St. Johns River WMD, South Florida WMD, and Southwest Florida WMD) administer a wide variety of water management programs designed to effectively manage water use, provide for flood protection, preserve natural areas, and restore and protect both surface and ground water resources. The WMDs also develop water management plans for water shortages in times of drought and acquire and manage lands for water management purposes. Regulatory programs delegated to the WMDs include programs to manage the consumptive use of water, aquifer recharge, well construction, and surface water

management. As part of their surface water management programs, the WMDs administer the department's stormwater management program.

**Department of Health Environmental Laboratory Certification Program (DoH ELCP) –**

The [DoH ELCP](#) administers a critical component of the department's QMP because all laboratories providing data to DEP must be certified by the DoH ELCP. The DoH ELCP is recognized as the Florida accreditation body under the National Environmental Laboratory Accreditation Program ([NELAP](#)). All laboratories certified by the DoH ELCP are accredited in accordance with the [TNI Standards](#) adopted by NELAP.

**Delegated Programs** – Rule [62-160.110](#), F.A.C., of the department's QA rule extends the scope of the Chapter 62-160, F.A.C., to all state and local programs that have delegated responsibilities for DEP activities. The requirements are communicated by the department through the documents that are associated with the delegation process.

## **4. QUALITY ASSURANCE SYSTEM**

The DEP quality system includes the following components of planning, implementation, and assessment.

### **4.1 Planning**

Per the department's QA Directive, each DEP program and project manager is ultimately responsible for ensuring that data generated by, or submitted to, the department are appropriate for any intended use. This responsibility includes establishing program- or project-specific DQOs, preparation of QA planning documents (where required), and the coordination among field, laboratory, and data assessment staff about applicable technical and data-quality issues associated with data collection and analysis activities.

#### **4.1.1 Preliminary Planning – General Activities**

During the early planning phase of any investigation or data collection activity, the project manager will establish the intended use of the data, the time and resource constraints affecting the project, and, in general terms, the required data quality. The planning process also identifies and solicits input from appropriate or pertinent internal and external stakeholders involved in the project. For example, for contracted services, including assistance grant recipients, draft versions of contracts and planning documents are jointly developed by the participants, which typically include DEP staff originating the project, AEQAS QA staff, department procurement staff, consumers of the project data, contractors, and subcontractor staff, as well as designated QAOs for participating organizations. If Plans of Study (POS) are initiated for permitting activities, the permittee and appropriate consultants to the permit-holder are invited to participate in the creation and revision of the POS. For special projects initiated by and internally executed by DEP, appropriate technical and QA staff are included in the process, beginning at the earliest stages of scoping and planning activities, continuing throughout the planning phase of the project, and often through completion of the project. If special areas of expertise are required, the project manager will usually request the assistance of technical experts during the planning process. The overall planning process requires effective communication among the project manager, field staff, laboratory staff, QA staff, other technical staff, and secondary data users, as appropriate.

Department programs and work units further describe planning processes in applicable [Quality Plans](#). As an example, the DEP [section 106 QAPP](#), which provides detailed information about the department's comprehensive surface water and groundwater monitoring

associated with section 106 funded activities, cites a number of Quality Plans and related QA documents.

#### **4.1.2 Data Quality Planning**

For most environmental data used by DEP, the minimum data quality requirements specified in the DEP [QA Rules](#) and DEP [SOPs](#) will be applicable to data used for monitoring, evaluation, scoping, assessment, compliance, and enforcement activities. Research projects may require the use of non-routine methodologies and a uniquely specified set of DQOs.

Expected data quality is further characterized by performance goals that are specific to project or program DQOs, which are generally described below. In identifying these objectives, the managers will consult with other DEP technical staff on data quality issues outside of their technical expertise.

- Data Quality Objectives - DQOs are the direct outcome of the process outlined in [Guidance for the Data Quality Objectives Process](#) (EPA QA/G-4, February 2006) for systematic planning. DQOs are qualitative and quantitative technical statements that define the appropriate types of data and specify tolerable levels of potential decision errors. DQOs are established and documented prior to data collection and/or assessment activities.
- Quality Control (QC) Measures – QC measures are a series of indicators that collectively define the quality of the submitted data. A baseline level of quality control is expected of any organization that provides data in support of department programs. These measures include the essential quality control requirements as outlined in [TNI standards](#), as well as those specified or cited in the DEP QA Rules and DEP SOPs. Program managers will ensure that QC acceptance criteria, alternate QC measurement frequencies, as well as any additional QC measures specific to the project are detailed in relevant QA planning documents.
- Many DEP regulatory activities have accompanying QC measures, such as acceptable precision, accuracy, and comparability, associated with requirements to use standardized analytical methods, as specified in the applicable administrative rules or QA planning documents. When specified, these QC acceptance criteria must be met.
- The DEP regulatory programs make decisions based on relevant concentration levels or target levels. These decision points are also a means of specifying QC performance criteria such as method sensitivity or method selection.

#### **4.1.3 Sampling Design**

The selection of sampling points and the sampling frequency are determined by the objectives of a given activity or project. For many activities, sampling locations and frequency are predetermined based on permit-specified compliance sampling locations (e.g., daily samples at the discharge point) or other requirements. Sampling locations may also be determined by other factors, such as habitat characteristics, groundwater flow (e.g., with contamination assessments managed by the Division of Waste Management), or potential areas of human disturbance. For extensive monitoring programs, such as for [section 106 monitoring](#), the monitoring design is planned in detail according to the relevant documents developed and reviewed by the department and the EPA. For projects that are not bound by other constraints, sampling points and sampling frequency are selected based on the project objectives and may involve the use of software tools to determine spatial homogeneity or temporal variability. For contracted sampling projects, the sampling design must be approved by DEP contract or grant

managers and appropriate technical reviewers and is included in the agreement. Specific study plans can be made available upon request.

#### **4.1.4 Quality Plans**

DEP documents for quality assurance planning generally fall into two categories: project-specific and program-specific.

##### **4.1.4.1 Project-specific planning documents**

DEP programs may require planning documents for special projects, contamination assessment sites, permitting activities, ambient monitoring, and contracted work. These plans may take various forms, including sampling and analysis plans, contamination assessment plans, remedial action plans, study plans, or research QA plans. Regardless of type, the plans address the elements of planning summarized in the QMP.

If specifically required by EPA for activities conducted for or funded by EPA, QAPPs are prepared in accordance with *Requirements for QAPPs*, ([EPA QA/R-5, March 2001](#)). When the work is performed by the department, these QAPPs are reviewed and approved by the appropriate EPA office. If the grant funds are provided to a second party through a grant agreement, the department requires, reviews, and approves the QAPP, when delegated by EPA. DQOs and DQIs specific to the project are incorporated into these QAPPs, with oversight by the applicable DEP project management and AEQAS QA staff.

Currently, there are three QAPPs written for specific DEP non-air programs that require review by EPA. These programs are the Underground Injection Control Program, the Superfund Site Assessment Program, and the surface water and groundwater monitoring and assessment activities performed with section 106 funds under DEP's Integrated Water Resources Monitoring (IWRM) Program. The section [106 QAPP](#) is a web-based format that allows timely updating of linked supporting documents and public access to the documentation for the department's quality system for these activities.

QAPPs are also reviewed by grant managers and DEP QA staff when submitted by grantees performing treatment effectiveness monitoring for stormwater construction projects funded through section 319(h) grant assistance.

For other activities, the QA planning process and the quality expectations are documented in other department-required documents such as DEP rules, work plans, contracts, permits, etc.

##### **4.1.4.2 Program-specific planning documents**

The QMP and program-specific documents are used to document the department's quality system. DEP programs develop SOPs, manuals, Quality Plans, technical memos, and other references specific to operations conducted by the respective programs. In addition, field organizations collecting samples to provide analytical data used by DEP must have a Quality Manual (per DEP SOP [FA 1000](#), subpart FA 3300) and, as part of their certification requirements, laboratories analyzing those samples must have a Quality Manual that conforms to TNI (2016) requirements.

With the implementation of the department's [QA Directive](#), all DEP organizational units generating or using environmental data have written Quality Plans. These plans describe the QA procedures and criteria that are specific to the organizational unit and are another component of the quality planning process for environmental data collection. The Quality Plans are updated as needed to maintain ongoing quality system documentation. The plans provide an archival record for past practices and a current reference for use by all technical and management staff working in the organizational units covered under the Quality Plan. The

Quality Plan also serves as a training tool for new staff requiring instruction and guidance about the quality system for the unit.

#### ***4.1.4.3 Planning Document Review and Approval***

All planning documents produced by DEP or contractors/grantees are reviewed for technical accuracy and completeness and approved by the appropriate EPA office or by the DEP project, contract, or grant managers and department QA staff. Other DEP managers may review the planning document, consistent with review procedures described in program or work unit Quality Plans.

Once approved, planning documents are generally reviewed and revised when necessary to ensure the relevance and effectiveness of the plan, and to incorporate changes in scope, procedures, criteria, personnel, etc. The frequency of the review is dependent on the type of document and the duration of the project. Program-specific plans may be reviewed at a frequency specified by the program in its Quality Plan. Administrative reorganizations of programs and work units may also lead to revisions to affected program Quality Plans. Project-specific plans are typically only reviewed for revision when substantial changes are made to the project, such as changes in procedures, methods, equipment, subcontractors, or personnel.

Project plan reviews may also occur in conjunction with the review of required progress reports.

The review will evaluate the scope and content of the document, and recommend any necessary amendments that reflect procedural changes, corrective action implementation, changes in QA criteria, or any other items that improve the overall effectiveness of the project or the program quality system.

Amendments or revisions are generally reviewed and approved in the same manner as the original approval and as specified in work unit Quality Plans. Amendments may be documented as a revision, an addendum, or other attachment to the original document, and approved amendments are circulated to the same individuals/groups as the original document.

### **4.1.5 Contracts and Grants**

In addition to compliance monitoring and other data collection associated with permits, the environmental data used by DEP programs are collected as the result of a number of other activities (e.g., integrated water resources monitoring, impaired waters assessments, contaminated site clean-ups, special projects, and research). Some of these activities are accomplished through contracts or grants administered through DEP.

#### ***4.1.5.1 Quality Assurance Requirements for Contracts and Grants***

The grant recipient or contractor is required to follow QA protocols specified in contracts and grants, and meet applicable QC performance criteria, including the following:

- (a) A citation to a document titled "[Requirements for Field and Analytical Work Performed for the Department of Environmental Protection under Contract](#)," DEP-QA-002/02, is included in all contracts or grant agreements that have standard field or laboratory activities associated with the proposed work. This document outlines specific data quality and reporting requirements that contractors must meet.
- (b) Contract or grant managers are provided with a Quality Assurance Requirements template that must be inserted into the contract or grant language. This template is available in separate versions for contracts and grants, and are embedded within the QA process documents for contracts and grants linked at the DEP [QA Resources](#) webpage. The template:

- Outlines the technical QA requirements (e.g., laboratory certification, use of the DEP SOPs, adherence to the DEP QA Rules in Chapter 62-160, F.A.C.)
- Requires the contractor to submit to audits requested by DEP; conduct any required internal audits (based on internal organizational policy or laboratory certification requirements); and, conduct QA planning review audits and report the results of the planning review to the DEP contract or grant manager
- Requires the contractor to submit a final statement of data usability to the DEP contract or grant manager as part of the audit requirements to review all contracted data products against the contract or grant QA requirements and criteria
- Requires the submission and approval of a planning document that describes the contractor or grantee sampling and analytical procedures, equipment, and specific quality controls

This document may be a QAPP that meets the requirements of EPA QA/R-5 (if required when EPA grant monies are used), a sampling and analysis plan, a research quality assurance plan (for research projects, as described by the DEP QA Rule [62-160.600](#), F.A.C.), specific *QA plan templates* that have been developed by DEP (embedded within the process documents described above), or other documents providing the requisite information outlined in [DEP-QA-002/02](#)

- Specifies QC measures, including any additional QC, measurement frequency, and acceptance limits
- Identifies required QA deliverables to be submitted to the contract or grant manager, including copies of relevant laboratory certification documents, results of recent laboratory performance test (PT) sample analyses, detailed descriptions of non-standard or research methods, and, the reports of required internal audits and data usability assessments, as well as the planning document described above. The deliverables are intended to inform the manager about the progress of project activities in meeting the QA requirements specified in the planning document and the contract or grant. The deliverables alert the contract manager to quality problems that can be corrected and/or further investigated by audits of sampling or laboratory performance and/or field and laboratory records

(c) DEP programs or work units may include additional QA procedures and reporting requirements in applicable contract or grant agreements.

#### *4.1.5.2 Quality Assurance Review for Contracts and Grants*

The general, department-wide processes and requirements for procurement of contracted services and products are described in DEP directives 300 and 301 (available on the department's internal website and as attachments to this document). Procedures for QA review of contracted services and products are generally conducted as described in the documents available from the DEP QA Resources webpage at the links for QA requirements for contracts and grants, as summarized below:

- (a) To initiate any agreement for a contract or grant, department program staff responsible for the project and negotiating with the prospective contractor or grantee must determine whether sampling or analytical services are being proposed in the agreement. When these types of activities will be contracted, the request to initiate the agreement will be routed through the DEP QAC or AEQAS staff for initial review and approval to ensure that appropriate QA requirements are included in the agreement.

- (b) Department contracts and grants for sampling and analytical services, including research projects, must include QA requirements. Those requirements are contained in a template that is attached to the agreement.
- (c) Contract or grant managers discuss the QA requirements with the contractor/grantee during the development of the scope of services.
- (d) In addition to the review of draft contracts prior to execution at the program or work unit level, all DEP contracts are reviewed by upper management staff, usually at the division level. Any other specific procedures for review are detailed in work unit Quality Plans. Draft documents are reviewed for technical accuracy and completeness for the scope of the work to be performed, the design of the project, and the QA requirements applicable to the contracted activities.
- (e) The final contract or grant agreement is reviewed and assembled by staff in the work units involved with developing the agreement, and routed for final review through the contract or grant manager to the DEP QAC or AEQAS staff, work unit administrators, and division management for approval prior to execution of the agreement.

#### **4.1.6 Purchase Orders**

Many purchased services for sampling or analyses are processed through an on-line system (MyFlorida Marketplace) that automatically routes requisitions for these services to the DEP QAC and AEQAS staff for review and approval. The department program or work unit responsible for purchasing the services will provide a QA Requirements Template to the vendor when negotiating the scope of services and obtaining a price quote. The template is attached to the online purchase requisition. The template imposes QA requirements on the vendor and any persons participating in the sampling or analysis activities. The requirements are essentially the same as those required of contractors and grantees, except that no planning document is submitted to the department, and all details of the provided services are described in documents submitted by the vendor to the department prior to execution of the purchase order (such as internal SOPs or research proposals, with supporting reference literature, where applicable). DWM has specific procedures for contracts and purchase orders that are slightly different. Those procedures are described in the DWM's Quality Plan.

## **4.2 Implementation**

Once approved, the procedures or processes outlined in Quality Plans and associated quality assurance documents are implemented with respect to the elements described below.

### **4.2.1 Execution of Planning Documents**

After the drafting, review and approval process has been completed for any Quality Plan or other quality document (and after any revisions to approved documents have been adopted), the program, project or contract manager typically retains the primary responsibility for implementing the quality plan according to timelines established in the plan or contract/grant agreement. The project manager also ensures that copies of planning documents are distributed to appropriate persons conducting or overseeing the program or project, including consumers of the project data. Quality Plans for programs or work units are implemented as part of the overall integration of QA requirements into the operations of the work unit or program, and, at the most general level, must conform to the distributed responsibilities for QA functions, as prescribed in the DEP QA Directive. Typically, the QAO for the work unit or program is responsible for distributing copies of the work unit Quality Plan, and is responsible for coordinating any needed revisions to the plan. Further details about the implementation of

Quality Planning documents are described in program or work unit Quality Plans, where applicable.

Follow-up oversight for Quality Plan implementation is the responsibility of program, project, and contract managers responsible for program activities and specific projects and includes the evaluation of whether objectives and timelines specified in the plan are met, and that satisfactory project or contract deliverables are submitted. Program or work unit QAOs are the contact point for ensuring that unit Quality Plan procedures, criteria and goals are carried out or met, consistent with the department-wide distributed QA functions prescribed in the DEP QA Directive, as well as the specific staff responsibilities indicated in the unit Quality Plans.

#### **4.2.2 Standard Operating Procedures (SOPs) and Approved Laboratory Methods**

SOPs are documents that describe the officially approved procedures for performing certain routine or repetitive tasks. SOPs are useful when it is necessary to ensure comparability among activities performed on different occasions, at different locations, or by different individuals. DEP programs and work units are encouraged to develop and utilize SOPs whenever appropriate for consistent performance of specific activities.

Department-wide SOPs, *Standard Operating Procedures for Field Activities*, DEP-SOP-001/01 (January 2017), *Standard Operating Procedures for Laboratory Activities*, DEP-SOP-002/01 (January 2017), and *Standard Operating Procedures for Selected Bioassessment Activities*, DEP-SOP-003/11 (January 2017) are incorporated into Chapter 62-160, F.A.C., the department's QA rules. The SOPs for field activities must be used by any organization engaged in applicable field activities (e.g., sample collection, field testing measurement and field bioassessment procedures). The SOPs for laboratory activities are mandatory for any laboratory conducting specified bioassessment index calculations or taxonomic identification activities.

Laboratories are also required to follow standardized methods approved by the department and as specified in DEP rules.

Alternative or modified field or laboratory procedures may be proposed by persons or organizations, and will be reviewed and approved (or disapproved) according to requirements for the use of alternative and modified methods in DEP QA Rules [62-160.220](#) and [62-160.330](#),

F.A.C. All reviews and approvals for alternative and modified procedures are overseen by the DEP QAC and AEQAS staff, and require the signature of the appropriate DEP administrator, deputy, or director, with delegated authority, typically a division director or deputy director.

#### **4.2.3 Certification and Training**

All laboratory test data used by the department shall be performed by a laboratory having accreditation for the matrix, method (or analytical technology), and analyte for each reported test result. The accreditation (or secondary accreditation) shall be from the [DoH ELCP](#), which is a recognized [NELAP](#) accreditation body. This requirement applies to all laboratories, with the exception of: field testing measurements, biological assessments, and taxonomic identifications as specified in DEP SOPs; laboratory analyses that are associated with the department's Air Resource Management Programs; research methods as defined in DEP QA [Rule 62-160.600](#), F.A.C.; any prior, written agreements (e.g., administrative orders, consent orders, permits, quality assurance project plans or contracts and grants) that specify laboratory qualifications; and any other exceptions found in Rule 62-160.300, F.A.C.

Field organizations are required to maintain records of employee training. Such training must

be commensurate with the employee responsibilities.

Organizations conducting biological assessments or taxonomic identifications using selected DEP bioassessment SOPs are required to have documented training, pass performance audits, and demonstrate laboratory competency using specific QC measures. DEP SOP FA 1000, subpart FA 4300, DEP SOP LQ 1000 (various subparts), LVI 1000 (various subparts), and SCI 1000 (various subparts) specify these performance and competency requirements (see the webpages titled [DEP Standard Operating Procedures](#) and [DEP Bioassessment Training, Evaluation and Quality Assurance](#)).

### **4.3 Assessment**

Different types of assessment activities are used to verify that measurement systems are providing data of known quality and that the data generated by these systems are appropriate for their intended use. Quality of Science reviews, project data audits (records audits), laboratory and field performance audits, and systems audits will review all applicable quality documents associated with the data as the bases for evaluations. The lead auditors for any audit will have auditing experience, and, in addition to possessing technical expertise in one or more of the procedures or data categories audited, will have an understanding of quality principles, the DEP audit process, and the applicable requirements of the DEP QA program. Quality assurance assessment and oversight of the department's environmental databases are managed at the program or work unit level, except for those computer systems oversight and control responsibilities discharged by the DEP Office of Technology and Information Services (OTIS).

Each of the following assessment activities will be used alone or in conjunction to evaluate the targeted procedures or data:

#### **4.3.1 Information Management**

DEP's Office of Technology and Information Services (OTIS) is responsible for managing the hardware, software and communications components that form the foundation of the agency's information technology. OTIS has established hardware and software standards for all DEP computer resources. The agency's Information Technology Resources (ITR) and Information Resource Security Standards policies are detailed in DEP Directives 370 and 390, which are included as separate files accompanying this QMP.

QA controls are applied to DEP databases at the program or work unit level. Details about data entry checks, internal consistency checks of individual data records, metadata screening, qualification flagging, and other data verification procedures, including software functionality checks performed by designated staff on specific department databases, are described in program or work unit Quality Plans and associated documents. The AEQAS survey department programs for information about quality checks for data entry and stored data for the [Annual QA Report to the DEP Secretary](#). Examples of these controls and checks include:

- (a) Data entry verifications occur before the data are submitted into a database, and they can be either manual or automated. Most programs within the department reported that manual verifications are conducted prior to data entry in databases, while some use automated checks of data. The Division of Waste Management uses the Automated Data Processing Tool ([ADaPT](#)) software to automatically evaluates environmental analytical data. The ADaPT software ensures that the data records are complete and of acceptable quality prior to upload. The division is gradually phasing in the use of this electronic data review and mandatory data delivery product across its programs as internal and external stakeholders develop expertise and capacity for use of the product. Data checked by this software are

uploaded to appropriate databases. The Watershed Monitoring Section (WMS) also performs automated checks using the Automated Data Management Application (ADM), which checks data entered in the Generalized Water Information System (GWIS) database. The Division of State Lands reported that [FL SOLARIS](#) checks its data against source databases.

- (b) Data Quality checks screen data already entered in a database for completeness and correctness. Database checks are conducted to ensure quality of data for a specific program, permit, or rule. The Drinking Water and Aquifer Protection Program in the Tallahassee office work with Water Compliance Enforcement Program (WCEP) district staff to perform annual checks of data in the [Public Water System \(PWS\)](#) database. Another example is the Petroleum Restoration Program (PRP), which reviews files stored in the department's [OCULUS](#) document storage system for compliance and other predetermined control factors based on program need.
- (c) Section 6 of the DEP Office of [Watershed Services Quality Plan](#) describes current data management controls performed for [WIN, Florida STORET](#), and EPA WQX data.
- (d) The Tallahassee office for the DEP Drinking Water and Aquifer Protection Program coordinates adherence to EPA implementation guidance for State reporting requirements. Sample analyses are submitted to and reviewed by the appropriate DEP/DoH field office where data are entered into the Public Water System (PWS) database. Various edits (controls) on data entry keep errors, such as duplicate samples and incorrect sample types, to a minimum. Nightly routines automate compliance decisions to ensure consistency across the state. Finally, the database automatically creates the violation record so that it conforms with the Safe Drinking Water Information System (SDWIS) reporting requirement. Every year in March all data entered for the prior calendar year are reviewed for any erroneous entries, duplicates, incorrect sample types, and other errors to ensure that data are of the highest quality for compliance determinations and protection of public health.
- (e) The DEP Watershed Services Program is currently managing the contracted design, testing and production of the [Watershed Information Network \(WIN\)](#) database software that serves as the STORET replacement for Florida. The WIN product applies numerous data verification and QA checks to DEP monitoring data. The data in WIN are uploaded to EPA national data repository WQX. The regional sampling teams within DEAR conduct QA checks for data entered into WIN.
- (f) The Electronic Discharge Monitoring Report System ([EzDMR software](#)) performs checks for completion and appropriate entries on all submitted domestic wastewater and industrial wastewater discharge monitoring reports (DMRs) provided to FDEP by permitted facilities.
- (g) Section [62-160.405, F.A.C.](#), of the department's QA Rule outlines general performance standards for electronic signatures used for laboratory reports, field reports or other official documents.

#### **4.3.2 Audits**

As part of the distributed function of the department's QA program, AEQAS auditors provide audit training to DEP program QAOs and other delegated staff.

##### **4.3.2.1 Project Data Audits (Record Audits for Data Verification and Validation)**

Data quality audits involve evaluating the data generated in support of a program or activity with respect to appropriate quality criteria. These criteria may be established by rule, contract,

or some other written agreement (e.g., QAPP or DEP organizational unit Quality Plan). This evaluation process is a shared responsibility among all levels of data consumers at DEP.

To assist program staff and the public with data review, verification, and validation activities, the AEQAS continues to develop guidelines and training materials for presentation and distribution throughout the department and via DEP web pages. The AEQAS provides field and lab checklists for project data audits and assists DEP staff with customizing checklists for specific audit applications.

The 2008 revisions to the DEP QA rule [62-160.670](#), F.A.C., incorporated a document for assessing data usability into the rule. The document, titled *Department of Environmental Protection, [Process for Assessing Data Usability](#)*, DEP-EA-001/07, (March 31, 2008), outlines the conceptual model to be used when evaluating the usability of data for a specific program or project. A hierarchical description of usability criteria is also provided for typical calibration, quality control, and other data quality indicators usually associated with laboratory analyses, field sample collection, and field-testing measurements. These indicators are those normally applied to most data in partial fulfillment of the DQOs established by the department's regulatory and monitoring programs and are also generally applicable to certain aspects of research projects initiated by DEP programs and conducted by DEP staff or by contractors.

The AEQAS performs project data audits when requested by DEP project or program managers, on an as-needed basis. Audits may be performed on randomly selected DEP projects as well.

#### 4.3.2.2 *Performance Audits*

Performance audits may be conducted for lab or field operations. Performance audits of laboratories involve submission of like samples, sometimes of known concentration, to laboratories generating data for the department. Field performance audits evaluate the skill and knowledge of personnel conducting sampling or field-testing activities.

Performance Test (PT) samples are used to evaluate a laboratory's calibration or testing performance. The [DoH ELCP](#) requires laboratories seeking or holding certification to participate in PT studies. The PT samples must be obtained from commercial vendors that are recognized by [TNI](#). The results from these samples are evaluated as part of the certification process.

DEP programs are encouraged to use and consider the results from other evaluation programs, such as those conducted by the United States Geological Survey (USGS) and the National Oceanographic and Atmospheric Administration (NOAA).

Occasionally, DEP programs will request performance audit data for chemistry analysis activities not specifically addressed by routine PT studies required for laboratory certification. In this event, the AEQAS may initiate or collaborate with other DEP programs in conducting a specialized inter-laboratory comparison exercise (round robin).

As part of the Discharge Monitoring Report Quality Assurance (DMR-QA) study, dischargers permitted under the National Pollutant Discharge Elimination System (NPDES) are required to purchase and analyze PT samples for the constituents identified in the permit. These samples must be analyzed by the organization that routinely provides the data for the DMR and may be either on-site or contracted laboratories. Coordination of the study for facilities in Florida is conducted by EPA Region 4.

#### 4.3.2.3 *Field audits*

Field audits are typically performance audits that verify that sample collection and field testing procedures are appropriate. Typically, auditors evaluate the knowledge, skill, and ability of personnel to execute specific techniques and meet performance criteria that have been

published in the [DEP SOPs](#). The DEP SOPs prescribe standard field procedures for routine water quality monitoring and contamination assessment for various matrices, in addition to procedures for bioassessment sampling and testing. These audits may be conducted as a joint effort between AEQAS staff and a DEP program, and may be initiated at the request of the program. Bioassessment audits are also required for external organizations submitting data to the department to ensure that field personnel are sufficiently trained to perform bioassessment procedures. As an example, water sampling, field testing, and field bioassessment audits are conducted in support of the DEP Impaired Waters Rule ([Chapter 62-303, F.A.C.](#)).

Although some audits are scheduled as a part of formal delegation agreements between the state and EPA, as well as at the request of DEP project and program managers, the AEQAS may also randomly select organizations for field or laboratory audits.

Any of the performance audits described above (except DMR-QA studies) will be conducted by AEQAS or designated DEP QAOs, at the request of DEP contract managers. DEP contractors will be audited according to criteria stipulated in the QA requirements contained in executed agreements. AEQAS may also select contractors for audit on a random basis.

#### *4.3.2.4 Systems Audits*

Systems audits are on-site assessments of an organization's facilities, equipment, personnel, procedures, and QA management process. Examples of systems audits include:

- (a) The [DoH ELCP](#) conducts on-site assessments of certified laboratories every other year. The AEQAS will conduct or assist with laboratory systems audits for DEP programs upon request.
- (b) Performance Audit Inspections (PAIs) of NPDES-permitted dischargers are conducted by the DEP District staff to determine if the self-monitoring data reported by permitted facilities meet established DQOs. An integral part of these audits includes visits to on-site and contracted laboratories. Audits of samplers may also be included in these inspections. These audits are conducted and reported under the terms of NPDES delegation to the state.
- (c) Internal systems audits of program and district activities are conducted by the QAO or other designated auditors for each department program or district. These audits assess compliance with the QMP and the program, work unit, or district Quality Plan.
- (d) Any of the systems audits described above (except PAIs) will be conducted by AEQAS or designated DEP QAOs, at the request of DEP contract managers. DEP contractors will be audited according to criteria stipulated in the QA requirements contained in executed agreements. AEQAS may also select contractors for audit on a random basis.

#### *4.3.2.5 Quality of Science Reviews*

At the request of DEP program managers, the AEQAS will perform Quality of Science Reviews, as outlined in the [DEP QA Directive 972](#). These reviews are comprehensive in scope and focus on study design, selection of field and laboratory parameters, collection and analysis methodology, and data management, assessment, and interpretation. Ultimately, these reviews are intended to determine whether management decisions made by DEP programs are adequately supported by sound environmental data. Additionally, the results of these reviews will be used to assess and improve the agency's quality systems. These reviews may also be conducted at AEQAS's discretion.

#### *4.3.2.6 Audit Reports*

Assessment activities will result in a report when applicable to the type of audit and the associated department program. All reports are accessible under the Florida Sunshine Laws

and must be retained by the lead auditor for at least five years after the completion of the audit. Auditors in different DEP programs also adhere to reporting and archival storage procedures established by their programs and as described in the respective program [Quality Plans](#).

The results for DoH PT samples are reported as required by the [DOH ELCP](#), and are available to DEP as needed to support the department's assessment of the performance of any given laboratory. Reports for specially initiated round robins are distributed to the participating laboratories and DEP program managers involved with the round robin study, and published on a department webpage.

The procedure for reporting the results of a project data audit, field performance audit, or systems audit associated with data submitted to DEP for compliance with regulations or contract requirements will generally follow the procedures outlined in Rule [62-160.650](#), F.A.C., and will include:

- Findings, recommended corrective actions, and the responses from the audited party
- Determination of compliance with the relevant quality documents, performance standards, or other criteria, including those listed at Rule [62-160.670](#), F.A.C.
- Assessment of the audited activities as they relate to data usability, according to the process outlined in [DEP-EA-001/07](#)
- Posting of the reported audit results on the department's [website](#), or filing of audit results with permit or project files, as applicable

Internal audits conducted by DEP district or work unit QAOs will follow audit reporting procedures described in respective Quality Plans or SOPs written by the work units. Internal audits conducted for special projects or at the request of DEP program or project managers may include additional routes of transmittal.

Results of field performance audits required by the DEP bioassessment SOPs are published in a [Searchable Registry for Bioassessment Method Proficiency](#) for tracking the qualification status of individuals and teams performing bioassessment sampling and field testing. The WQSP and AEQAS maintains these webpages, and issues summary reports for team assessments, such as those for [Lake Vegetation Index field testing](#).

When an audit identifies inappropriate activities (e.g., negligence or potential fraud), the audit report emphasizes that the activities are inappropriate and requires that the activities cease. For internal situations, the conditions are brought to the immediate attention of the Office of the Inspector General for further investigation. If needed, a root cause analysis is done, and preventative measures for all other internal quality systems are instituted immediately so that the activities are not repeated. For external situations, if warranted, the activities are reported to the applicable law enforcement agency.

#### *4.3.2.6 Corrective Actions*

When an audit report identifies findings or deficiencies that require a response, the audited party is required to submit a corrective action plan for the noted items. The plan must include an implementation schedule for each corrective action. Subsequent audits of the same organization include assessing the effectiveness of the corrective action plan.

Audited parties have an opportunity to rebut any finding or corrective action. To be considered, the rebuttal must be accompanied by explanation and documentation. The auditors will review the additional information for acceptance. If further actions are necessary, the auditors will summarize the issue with the required or recommended resolution. The summary will be sent

to the QAO and the applicable program administrator for final resolution. If external parties do not agree with the department's findings, corrective action requirements, or recommended actions, they may file for an administrative hearing under the Administrative Procedures Act, (Title X, [Chapter 120](#)) of the Florida Statutes.

The audited party is responsible for having sufficient records to document all corrective actions and their effectiveness in maintaining and improving the organization's established quality system.

#### **4.3.3 Annual QA Report**

The Secretary of the department will receive an annual QA Report that is prepared by the AEQAS with input from the designated department QAOs. Individual QA reports prepared by organizational units of the department will be used to assemble the report to the DEP Secretary. This report will summarize the department's QA activities during the previous year, with emphasis on the evaluation of the effectiveness of the department's QA program for the water, waste, water policy, ecosystem restoration, and land & recreation programs. The report will include the status of quality systems within the department, discussion of internal and external audits (including Quality of Science Reviews), internal and external QA training, significant QA issues, corrective actions implemented, data management QA, and any other QA matters of interest identified by the DEP organizational work units covered under individual unit QA reports. Additional improvements to the QA program will be recommended, if necessary, for consideration by the Secretary and relevant management staff. These reports are posted on the DEAR [Quality Assurance website](#).

#### **4.4 Documentation**

Identification, preparation, review, approval, distribution, and retention of technical and QA documents and records are outlined below and elsewhere in the QMP. Generally, DEP program and work unit [Quality Plans](#) detail the responsibilities of staff to carry out indicated procedures for the management of documents and to ensure that relevant documents accurately reflect completed work or information applicable to environmental data and associated QA requirements.

Documents applicable to all programs and work units include those QA and information technology resource procedures and requirements administered by the AEQAS and OTIS. In addition, the AEQAS and other work units in the department are responsible for the administration of regulations that undergo public comment and legal review according to Florida law. Specifically, quality documents such as the [DEP SOPs](#) and [QA Rules](#) are reviewed by the AEQAS periodically for effectiveness, content and consistency with State and Federal (USEPA) requirements. Changes or amendments to the Department's SOPs and QA Rules must be made according to the process outlined in the Administrative Procedures Act (Title X, [Chapter 120](#)) of the Florida Statutes and as specified in the Florida Administrative Code.

Programs or work units are responsible for ensuring that documents specific to the unit comply with applicable regulatory requirements. The originator of a document must ensure that the final version is dated, and that subsequent revisions are noted as revisions to the original document. There is no department-wide policy for assigning a document control identifier to department publications, and each program or work unit may adopt numbering schemes specific to program documents. As an example, published quality documents originated by the AEQAS are assigned a number that identifies the year of origination, the type of document (e.g., SOP) if necessary, and a consecutive number (if more than one document of the same

type is published during the same calendar year).

Confidentiality procedures for document management are described in DEP Directive 375.

The department provides general, evidentiary chain-of-custody (COC) requirements in DEP SOP [FD 1000](#), subpart FD 7000, and DEP SOP [FS 1000](#), subpart FS 1009. Evidentiary COC procedures may only be required in specific criminal investigations. Staff in the applicable program or work unit are responsible for maintaining evidentiary custody records according to these general requirements and any additional requirements or procedures developed by the work unit.

#### **4.4.1 Field and Laboratory Records – Internal and External**

[Chapter 62-160, F.A.C.](#), requires that all records associated with field activities (including sample collection) and laboratory analysis must be retained by the generating entity for at least 5 years after the completion of records for a project, sample collection event, permit cycle or other activity. This requirement is applicable to all environmental data used by DEP, regardless of the originator of the data. There must be sufficient information in the records to allow a DEP auditor to independently reconstruct the sampling or analysis event. Lists of the types of records to be maintained are outlined in the QA Rules (Chapter 62-160, F.A.C.) and the [DEP SOPs](#).

Laboratories must also meet documentation requirements according to the [TNI standards](#) as a condition of accreditation by [DoH ELCP](#).

#### **4.4.2 Internal Records Archives**

The department has general policies for retaining records in archives. The implementation of the policies and the period of time such records are retained are dependent on the nature of the records and the anticipated future need. Organizational work units within DEP include specific storage procedures for archival records in the Quality Plans for the units, and all work units must manage documents according to the DEP Records Retention Schedule and DEP Directive 335 (included as separate files supporting the QMP). Many documents are now stored by programs or work units using an [OCULUS™](#) system for department records.

Quality Assurance Records that are retained for ten years include laboratory records, field records, materials associated with rulemaking activities, and all audit records, including communications with auditors and audited parties, preliminary and final audit reports, communications with the relevant program and all corrective actions.

Electronic Records are backed-up and retained per the Information Technology Resource Management Directive 370 (OTIS), which is included as a separate reference file to this QMP.

### **5. QUALITY ASSURANCE COMMUNICATION**

#### **5.1 State Rules and Associated Workshops**

General QA requirements for field and laboratory work conducted in support of water, waste, water policy, ecosystem restoration, and land & recreation programs are identified in the DEP [QA Rules](#), Chapter 62-160, F.A.C., and apply to all internal and external projects, monitoring, studies, or other activities that are required for the generation or use of environmental data by DEP. Requirements for laboratory certification are identified in Chapter 64E-1, F.A.C., [Certification of Environmental Testing Laboratories](#). Additional QA

requirements may also be identified in program-specific rules. Changes to these rules are discussed in public workshops that must be noticed in the [Florida Administrative Register](#).

## 5.2 Standard Operating Procedures

Department-wide [SOPs](#) have been developed and published by the AEQAS within the WQSP. The documents, *Standard Operating Procedures for Field Activities* (DEP-SOP-001/01, January 2017), *Standard Operating Procedures for Laboratory Activities* (DEP-SOP-002/01, January 2017), and *Standard Operating Procedures for Selected Bioassessment Activities* (DEP-SOP-003/11, January 2017) represent an effective tool for QA communication. They may be incorporated into QAPPs by reference. The QA Rules, Chapter 62-160, F.A.C., require the use of these SOPs for applicable field activities and biological assessments.

## 5.3 Internet/Intranet-Based Communications

DEP maintains an active internet presence ([www.floridadep.gov](http://www.floridadep.gov)) and on the department's intranet (for internal communication). All quality documents originating in the [AEQAS](#) (SOPs, rule, QMP, audit results, method approvals, presentations, etc.) are published on its department webpages. The AEQAS also provides access to laboratory certification status and certification history through a web-based application ([NELAP Certified Laboratories](#)).

The AEQAS provides a QA listserv subscription for all interested parties. Subscribers receive periodic "[Quality of Science](#)" e-Newsletters with quality assurance information about various topics.

## 5.4 Technical Meetings

DEP Program Meetings - All DEP programs have periodic meetings during which QA issues may be discussed. These include periodic teleconferences for the drinking water, groundwater, solid waste, waste cleanup, and ambient monitoring programs. The AEQAS participates in program meetings at the invitation of the program managers. In addition, the AEQAS organizes other meetings and workshops such as the following:

- The department's Biocriteria Meetings, during which department bioassessment and surface water monitoring staff, as well as external stakeholders benefit from topical presentations, training sessions, discussion and coordination concerning current bioassessment and monitoring activities and issues
- Meetings and teleconferences with the department's QAOs
  - EPA Region 4 State Chemists, Directors, and Certification Officers Meeting - This meeting is a forum for the exchange of technical and regulatory information and updates. Attendees represent the state agencies within Region 4 that are involved in environmental testing and laboratory certification
- Non-DEP sponsored conferences and symposia – Departmental representatives are often invited as speakers or attendees at conferences that focus on environmental issues. These meetings provide opportunities for dissemination of information and interaction among parties affected by QA decisions
- Regularly scheduled meetings and workshops organized by the [Florida Society of Environmental Analysts \(FSEA\)](#) – The DEP QAC and AEQAS staff routinely participates in FSEA events. This forum provides the

opportunity to engage the regulated environmental sampling and laboratory community with information and training on DEP QA Program topics

## **6. PEER REVIEW**

The purpose of peer review is to ensure that selected policies, management decisions, and technical documents reflect appropriate scientific and legal judgment. Qualified individuals or organizations independent from those responsible for the original work product conduct this review process. Individuals within DEP conduct internal peer review. External peer review relies on the insight of experts not formally associated with the department.

All DEP programs utilize internal peer review as a quality management tool for the development of regulatory rules, resource management policy, technical reports, and other documents. Program managers are encouraged to utilize peer review extensively but are allowed wide discretion in its application.

Many programs also incorporate external peer review into their management process. The external peer review process often involves the establishment and utilization of technical advisory committees (TACs) or formal peer review panels. External peer review may also be solicited from one or more recognized experts who evaluate department work products independently.

## **7. TRAINING**

Program managers are responsible for ensuring that their staff receives QA training appropriate to their job assignments. This responsibility is explicitly required in the DEP [QA Directive](#) and will be supported with the necessary resources for training by the DEP District and Division Directors. Training requirements, procedures and criteria are described in the [Quality Plans](#) written by DEP organizational work units. The department QAOs are charged with coordinating training activities with program managers and documenting all training activities received or given by the program or work unit.

### **7.1 Training Needs Assessment and Implementation**

The AEQAS coordinates with the designated DEP QAOs, other management and technical staff, and the [DoH ELCF](#) to identify the QA training needs of field and laboratory staff, QAOs, data users and DEP managers. Based on the training needs, the AEQAS develops presentations, technical guidance, and educational materials and conducts QA training workshops and meetings. The training presentations prepared by the AEQAS and other department programs, as well as other written materials, are placed on department webpages for access by anyone who wants to use the presentations and guidance ([see example link for AEQAS presentation page](#)).

The QAOs in the department are encouraged to attend any quality training, since these individuals are expected to be familiar with all applicable QA requirements and coordinate appropriate training for their programs.

DEP divisions and districts develop an annual employee development plan in which they request funds and permission to send employees to various trainings or conferences for professional development, and those plans are approved by the DEP Secretary or designees.

## **7.2 Training Modules Developed or Offered by the Aquatic Ecology and Quality Assurance Section**

The AEQAS conducts comprehensive “hands-on” field [SOP](#) training for monitoring stakeholders in Florida via a cooperative relationship with the University of Florida’s center for “Training, Research and Education for Environmental Occupations ([TREEO](#)).” The DEP SOP training courses for general water sampling and groundwater sampling are held at the TREEO Center in Gainesville, Florida.

Training courses in the use of biological assessment tools are offered at the department’s Biocriteria meetings and other scheduled workshops. Training in data assessment and data usability evaluation is offered at the request of DEP programs and external stakeholders. The venues include annual meetings or specifically scheduled workshops.

## **7.3 Audit Training**

Individuals that are involved with auditing the quality aspects of any activity are expected to:

- Be familiar with the department’s general audit procedures and criteria as described in the DEP [QA Rules](#), and have working knowledge of any program-specific auditing requirements described in the relevant program Quality Plan or audit SOP and any other applicable QA documents
- Have training and or prior experience in the technical fields that are audited (e.g. sample collection, microbiology, nutrient analysis, etc.)
- Understand and be able to apply relevant quality principles
- Be objective
- Where possible, have no direct involvement with the audited activity
- Understand the purpose of the specific audit
- Know which project or program DQOs provide the context for the audit
- Identify the data and analytes to be audited
- Determine the relationship between analytical results, decision or action levels, and laboratory MDLs and PQLs
- Evaluate calibration, quality control, and other supporting data using DQIs established by the project or program
- Establish the pattern, frequency and magnitude of any QC failures or other deficiencies found as the result of the audit
- Determine the extent to which the audited data fulfills the project or program DQOs
- Evaluate corroborative data, where applicable
- Provide usability recommendations to the project or program data user, based on the audit findings

The AEQAS provides training on auditing techniques for specific technical areas as one of its responsibilities under the QA Directive. The AEQAS will actively pursue audit training as an important tool for promoting and maintaining a distributed QA function throughout the department. The AEQAS relies on the designated QAOs within DEP programs and organizational work units to assist with the coordination of audits and audit training.

Potential auditors (trainees), experienced auditors, and designated QAOs are regularly

invited to participate in audits conducted by the AEQAS to develop hands-on audit experience, exchange technical information, and develop practical auditing skills.

## **8. QUALITY IMPROVEMENT**

The procedures and criteria described in this QMP outline the scope of the department's quality system for environmental data collection and use. Embedded in the execution of this quality system is the ongoing effort of supervisory and technical staff to continually improve the management of the system through evaluation and revision of procedures and criteria, in order to identify, correct and prevent conditions that adversely affect data quality. The department's QA policy relies on a distributed approach that assigns responsibilities for management of the quality system to all staff levels as specifically described in the DEP [QA Directive](#). As indicated in the Directive, it is the intent of the DEP Secretary that the QA requirements and activities outlined in [Section 403.0623, F.S.](#), [Chapter 62-160, F.A.C.](#), and the QMP will be implemented throughout the agency. The annual reporting of QA activities by the AEQAS within the WQSP provides an opportunity to identify areas of need and make recommendations for improvement.

## Appendix: List of Supporting Documents

The following support documents, which are discussed in the QMP, are included in a separate electronic folder. A list of references cited in the QMP is also included in the folder.

1. List of DEP Programs receiving EPA funding
2. Organization Charts for DEP Programs and Work Units
3. Project Sampling Design Examples
  - a. QAPP, Phosphorus Removal in Lake Apopka Using Nclear/Aclear Treatment Technologies-Phase II, November 2017, FDEP Agreement Number: S0647. Prepared by Vclear Environmental, LLC.
  - b. QAPP, Paynes Prairie Sheetflow Restoration Project, Monitoring, November 2015. FDEP Agreement No. G0312, Prepared for City of Gainesville by Public Works Department and Gainesville Regional Utilities.
  - c. QAPP, Presidential Street Stormwater Improvements, March 2015, FDEP Agreement NO. S0659, Prepared by City of Sebastian for FDEP.
  - d. QAPP, Monitoring Effectiveness of Forest Fertilization and Special Management Zone BMP for Preventing Nutrient Loading, December 2015, FDEP Contract No G0427. EPA Grant No. C9-99451512-0, GM02413. Prepared by University of Florida for FDEP.
  - e. QAPP, Upper Lake Lafayette Nutrient Reduction Facility, July 2014, FDEP Grant Agreement No. S0614, Prepared by City of Tallahassee for FDEP.
  - f. QAPP, Bay Lake Stormwater Retrofit: Performance, Management, Monitoring, July 2013, DEP Agreement No. G0336, Prepared by Geosyntec Consultants for Orange County Environmental Protection Division and DEP Nonpoint Source Management Program
  - g. Wastewater Treatment Plant Outfalls to the St. Johns River – Revised Final Plan of Study for Sampling and Analysis of Total and Dissolved Metals in the Effluent and Diluted Waste Field, Prepared by Camp, Dresser & McKee, Inc. for JEA
  - h. SE Florida Coast Numeric Nutrient Criteria Study, prepared by NOAA-AOML, June 28, 2012
  - i. Mercury Species Fluxes and Cycling in Gulf of Mexico Estuaries, DEP Agreement No., RM 115
  - j. Wacissa River Monitoring, Plan of Study, DEP Bureau of Laboratories
4. DEP Records Retention Schedules (DEP Intranet, February 2019)
5. DEP Directives - Policy, Standards, and Procedures:
  - a. 300 - Purchasing and Procurement of Commodities and Services; Development and Management of Recipient/Sub-Recipient Agreements; Contract Administration
  - b. 301 – My Florida Market Place Confidential Information Policy
  - c. 335 – Records Management
  - d. 370 – Information Technology Resource Management
  - e. 375 – Public Records
  - f. 390 – Information Technology Security Policies and Standards
6. List of References for DEP QMP Rev. 9
7. DEP QA Officers for Water, Waste, Ecosystem Projects, and Land & Recreation Programs, July 2020