Region 4
U.S. Environmental Protection Agency
Laboratory Services and Applied Science Division
980 College Station Rd
Athens, Georgia 30605

QUALITY MANAGEMENT PLAN

LSASDPLAN-1000-R05

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EPA Region 4
LSASD Quality Management Plan

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LIST OF ACRONYMS

ANSI-ASQ - American National Standards Institute-American Society of Quality
LSB – Analytical Services Branch
ATP – Alternate Test Procedure
CLP - Contract Laboratory Program
CO - Contracting Officer
CSI - Compliance Sampling Inspection
CWA - Clean Water Act
DAO - Designated Approving Official
DMRQA - Discharge Monitoring Report Quality Assurance
DCC – Document Control Coordinator
DOC - Demonstration of Competency
DQA - Data Quality Act
DQO - Data Quality Objectives
DW - Drinking Water
ESAT - Environmental Services Assistance Team
FAR - Federal Acquisition Regulations
AASB – Applied Science Branch
GW – Ground Water
IQGs - Information Quality Guidelines
ISO/IEC - International Organization for Standardizations/ International Electrotechnical Commission
LAN - Local Area Network
LOQAM - Laboratory Operations and Quality Assurance Manual
LQM - Laboratory Quality Manager
NPDES - National Pollutant Discharge Elimination System
NTSD - National Technology Services Division
OEI - Office of Environmental Information
OPM - Office of Policy and Management (Region 4)
OTOP - Office of Technology Operations and Planning
PAI - Performance Audit Inspection
PARS - Performance Appraisal and Recognition System
PC - Personal Computer
PE - Performance Evaluation
PO - Project Officer
PR - Procurement Request
PT - Proficiency Testing
QA – Quality Assurance
QC - Quality Control
QAC – Quality Assurance Coordinator
QAPP - Quality Assurance Project Plan
QAARWP – Quality Assurance Annual Report and Work Plan
QAFAP – Quality Assurance Field Activities Procedure
QAS – Quality Assurance Section
QAPSB - Quality Assurance & Program Services Branch
QMS - Quality Management System
R4LIMS - Region 4 laboratory information management system
RCRD - Resource Conservation and Restoration Division

RQAM - Regional Quality Assurance Manager
RA - Regional Administrator
SAP - Sampling and Analysis Plan
SDWA - Safe Drinking Water Act
LSASD - Laboratory Services and Applied Science Division
SHEMP - Safety, Health and Environmental Management Program
SOP - Standard Operating Procedure
SOW - Statement of Work
TDF – Technical Direction Form
WPD - Water Protection Division

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1.0 QUALITY MANAGEMENT PLAN, POLICY AND ETHICS

This Quality Management Plan (QMP) documents the quality management system (QMS) used in EPA Region 4 Laboratory Services and Applied Science Division (LSASD). This plan addresses all requirements of the Region 4 QMP.. The plan covers quality assurance policies, organizational roles and responsibilities, and quality assurance/quality control practices for planning, implementing and assessing environmental information collection activities. This includes the collection, analysis, evaluation, and use of environmental information produced by the LSASD and supporting contractors.

The QMP is used by both LSASD management and staff as a general reference document. All LSASD employees are required to read and be familiar with this basic document as it relates to their work. LSASD management uses the QMP as a tool to gauge whether the Quality System is being successfully implemented.

1.1 Quality Assurance Policy Statement

LSASD is strongly committed to sound science and quality assurance (QA) practices, which will produce environmental information of known and appropriate quality to be used for decision making. This commitment is consistent with the goals of EPA Order CIO 2105.0 (May 5, 2000) and associated procedures 2105-P-0l.0 and 2105-P-02.0, EPA's Principles of Scientific Integrity, as well as the Region 4 Quality Management Plan (QMP). Consistent with the EPA's Principles of Scientific Integrity, the Agency's Scientific Integrity Policy reaffirms the expectation that all Agency employees, including scientists, managers, and political appointees, regardless of grade level, position, or duties:

- Ensure that the Agency's scientific work is of the highest quality, free from political interference or personal motivations.
- Represent his/her own work fairly and accurately. Appropriately characterize, convey, and acknowledge the intellectual contributions of others.
- Avoid conflicts of interest and ensure impartiality. Be cognizant of and understand the specific programmatic statutes that guide their work.
- Welcome differing views and opinions on scientific and technical matters as a legitimate and necessary part of the scientific process.
- Accept the affirmative responsibility to report any breach of this Scientific Integrity Policy.

It is the policy of the LSASD that all decisions which are made to protect human health and safeguard the environment are based on data of sufficiently known and appropriate quality to support the level of decision required. The policy is achieved by ensuring that planning, implementation, and assessment procedures are utilized through all phases of projects/studies/tasks which require the generation of environmental information.

LSASD managers and staff ensure that there are appropriate QA activities conducted by LSASD that provide confidence that all environmental information generated are scientifically valid, of suitable statistical quantity, of known precision and bias, complete, representative, comparable, usable, and legally defensible. Environmental information quality is the responsibility of all EPA Region 4 LSASD staff who are directly or indirectly involved in the generation of data. Senior managers are responsible for assuring that adequate resources, including personnel, travel funds, and extramural funds, are available to implement the regional quality assurance system.

1.2 Ethics

It is the policy of the LSASD to conduct all business with integrity and in an ethical manner. Each staff member and manager are held to the highest ethical standard of professional conduct in the performance of all duties. Standards of ethical conduct are described in the Standards of Ethical Conduct for Employees of the Executive Branch, June 2009 and the Environmental Protection Agency Ethics Resource Guide, 2006.

2.0 MANAGEMENT AND ORGANIZATION

2.1 EPA Background

The United States Environmental Protection Agency (EPA) was created through an Executive reorganization plan (Reorganization Plan #3 of 1970) designed to consolidate a number of federal environmental activities into a single agency. EPA was formally established as an independent agency in the Executive Branch on December 2, 1970. The United States Congress authorized EPA to enforce environmental laws and to create environmental regulations. EPA's headquarters is located in Washington, DC. The Agency is comprised of ten Regions and more than a dozen laboratories. EPA is led by an Administrator who is appointed by the President of the United States.

2.2 LSASD Background

LSASD is a division of the U.S. EPA, Region 4 Office, and is the primary organization within Region 4 responsible for the generation of environmental information to support Region 4's regulatory media programs and for the oversight of regional quality assurance activities. Regulatory programs for which LSASD provides support includes, but is not limited to, Clean Air Act 40 CFR 58, Superfund Amendments and Reauthorization Act, Resource Conservation and Recovery Act (RCRA) CFR 260-268, Clean Water Act, and Safe Drinking Water Act 40 CFR 141 - 142.

LSASD is led by a Director and a Deputy Director, with Branch and Section Chiefs designated to supervise allocated resources. LSASD has an Immediate Office for the Director and three Branches: Laboratory Services Branch (LSB), Applied Science Branch (ASB), and Quality

Assurance and Program Services Branch (QAPSB). See Appendix A for LSASD's organizational structure.

2.2.1 Immediate Office

The Immediate Office consists of LSASD's senior leadership, Director and Deputy Director. The Region 4 Quality Assurance Manager and the LSASD Quality Assurance Coordinator report to the LSASD Immediate Office. The Immediate Office is the focal point for quality assurance activities. Personnel and facility management functions are provided with the support of the QAPSB Program Services personnel.

2.2.2 Laboratory Services Branch

The Laboratory Services Branch (LSB) is accredited under International Organization for Standardizations/ International Electrotechnical Commission (ISO/IEC 17025) requirements, including a forensic amplification of the International Standard. LSB is a full-service laboratory consisting of two sections, the Inorganic Chemistry Section and the Organic Chemistry Section. LSB provides environmental chemistry data for decision making in EPA's multi- media programs for the protection of human health and the environment. This is achieved by maintaining a fully equipped state of the art laboratory and a technically skilled, properly trained and dedicated staff that produce physical, biological and chemical data for meeting project data quality objectives. LSB generated data is utilized for support of National Pollutant Discharge Elimination System (NPDES), RCRA, Drinking Water, Superfund, Ecological Studies, Emergency Response and State Agencies by maintaining competency/accreditation for:

- Trace Metals Analysis in water, soil/sediment and tissue
- Nutrients including Ammonia, Nitrate/Nitrite, Phosphorus and Total Kjedahl Nitrogen
- Anions/Cations
- Wet Chemistry Methods for biological oxygen demand, total organic carbon, Solids, pH, Alkalinity, Acidity and Cyanide
- Hazardous waste determinations
- Volatile Organic Compounds in air, water, soil/sediments, tissue and waste
- Semi-Volatile Organics in water, soil/sediment, tissue and waste
- Pesticides/PolyChlorinated Biphenyls in water, soil, sediments, tissue and wastes
- Light hydrocarbons in water and air
- Ultra- Trace Mercury
- Hexavalent Chromium in soil and water
- Lead Bioavailability
- Per and Polyfluoroalkyl substances

2.2.3 Applied Science Branch

The Applied Science Branch (ASB) consists of two Sections: Superfund and Environmental Sampling. The field branch is accredited under International Organization for Standardizations/ International Electrotechnical Commission (ISO/IEC 17025) requirements, including a forensic amplification of the International Standard under the same scope of Accreditation as the Laboratory Services Branch. The branch provides a wide range of sampling, and technical service activities to support Region 4's regulatory media programs. This includes, but is not limited to:

- Surface water quality studies which include nutrient loading, algal toxicity and eutrophication.
- Benthic macroinvertebrate and sediment quality characterization in inland, estuarine, and marine systems.
- Wetlands characterization including functional assessments, jurisdictional delineations, and soils biogeochemistry.
- Water oxygen dynamics (sediment oxygen demand, reaeration, and community oxygen metabolism) and waste load allocation studies.
- Algal assay and chlorophyll a testing.
- Criminal Investigations including specialized water quality studies.
- State NPDES Program Overview Evaluations and technical support.
- Comprehensive diagnostic evaluations of wastewater treatment plants.
- QA and technical reviews of LSASD environmental study plans, Quality Assurance Project Plans (QAPPs) and reports.
- Site Characterizations and Criminal Investigations which include Superfund, RCRA, Water and Air Studies.
- Technical Assistance and Training.
- Review of environmental study plans and investigative reports. Overviews of State and private consulting environmental activities.
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2.2.4 Quality Assurance and Program Services Branch

The Quality Assurance and Program Services Branch (QAPSB) consists ofthe Quality Assurance Section and Program Services Team

The Quality Assurance Section (QAS) provides support to all regional programs including the Safe Drinking Water Act (40 CFR 141 - 142) and Clean Water Acts (40 CFR 136) Superfund, RCRA (40 CFR 260-268), Clean Air Act (40 CFR 51, 53 and 58) and Criminal Investigations. The goal of the QAS is to assure environmental information of acceptable quality which can be used to make sound environmental decisions. The Quality Assurance Section includes a diverse group of chemists, microbiologists, and

environmental scientists who assist Agency, state, tribal, and private organizations in planning, implementing, and maintaining quality management systems. The QAS activities performed for the Region, include but are not limited to:

- Conducting assessments of State, Tribal and other external partner quality management systems.
- Reviewing QMPs and QAPPs and recommending approval status of these plans to the RQAM.
- Performing laboratory assessments of state, commercial, tribal, and/or other government laboratories as required by SDWA and CWA,.
- Overseeing the validation of CLP inorganic and organic data as well as being responsible for reviewing facility and Superfund PRP data.
- Overviewing the Regional Drinking Water Certification program. The Certification Authority for the State Primacy Laboratories and Satellite labs is the responsibility of the Regional Administrator (RA) in the Region. The RA has delegated this authority to the LSASD Division Director. The Regional Drinking Water Certification Officers are in the QAS.
- Performing assessments, including management system assessments, data quality audits, and performance audits.
- Providing technical and quality assurance training to Region 4 staff and entities external to EPA.
- Providing technical assistance/support to the RQAM to meet the requirements addressed in this QMP.
- A designated QAS staff member serves as the regional Alternate Test Procedure (ATP) Coordinator for NPDES and Wastewater. The ATP coordinator is responsible for approving alternative testing methods or method modification to those procedures already approved by EPA under 40 CFR Parts 136.4 and 136.5.
- Performing technical systems audits for 40 CFR Part 58 Appendix A ambient air monitoring, Air Performance Audits, and QA Reviews,.

LSASD's Program Services Team provides critical administrative support to maintain LSASD's daily operations. Activities include, but are not limited to:

- Personnel
- Payroll
- Property management
- Budget (travel, training, and procurement)
- Information management for Region 4
- Computer support and programming
- Fleet management, and
- Management of the Field Equipment Center (equipment and supplies for field investigations).

The Quality System for LSB, ASB, and QAPSB, is documented within this QMP. Since the nature of the work conducted by each branch is considerably different, the branches, where appropriate, have their own associated plans and procedures to describe their adherence to this QMP.

2.3 Roles and Responsibilities

The LSASD Quality System is applicable to sampling, measurement, assessment of certification programs, and analytical activities conducted by LSASD and is led by the Director and overseen by the Branch and Section Chiefs. It includes both administrative and technical functions. Authorized signatories for LSASD work products (including reports) are identified in relevant procedures, and this QMP. The signatories can include one or more of those listed in this QMP as having quality management responsibilities. The following sections outline quality system responsibilities.

2.3.1 Director

The Director provides policy definition, leadership and oversight for the Quality System and serves as the overall authority for directing LSASD activities in accordance with EPA policy. The Director's responsibilities, with regard to quality, include serving as the final authority for resolving quality related issues; ensuring the proper training is provided; ensuring the resources are available to support the LSASD quality approach; and ensuring managers and LSASD technical staff have quality system management responsibilities incorporated into their performance standards and an adequate QMP is in place. The Director also serves as the Region 4 Certifying Authority for Primacy State Laboratories and State’s laboratory certification program under the Safe Drinking Water Act.

2.3.2 Deputy Director

The Deputy Director reports to the Director and assists the Director with providing policy definition, leadership and oversight for the Quality System. The Deputy Director’s duties, with regard to implementation of the Quality System, are deliberately redundant with some of the responsibilities of the Director. The Deputy Director works with the Branch Chiefs to identify the resource needs for their branch; identify and provide opportunities for specific technical, quality and safety training for the staff; assure standard procedures are available to the staff and are understood by staff involved in measurement activities; and identify and implement the LSASD Quality System. In the event the Director is not available to perform his/her duties, the Deputy Director will serve as the Acting Director.

2.3.3 Regional Quality Assurance Manager (RQAM)

The RQAM has been delegated primary responsibility for the oversight of the Region 4 Quality System. The RQAM, administratively reports to LSASD's Deputy Director and is independent of any data generation activities within LSASD or the Region. The RQAM serves as the official regional contact for all QA matters within Region 4 by providing advice, guidance, assistance and training as needed or requested by regional managers and staff, The RQAM's duties include:

- Facilitates development of the Region's QMP and prepares updates to the approved QMP.
- Provides expert assistance to regional staff on QA/QC policies, requirements, and procedures applicable to technical activities/services.
- Provides, schedules, as appropriate, and/or notifies regional staff of QA trainings, as necessary
- Advises staff on development of QAPPs for internal data. This may include explanation of and/or review of the data quality objective process. The RQAM will not review a QAPP in which he/she has assisted in its development but will delegate the review to another staff member.
- Reviews and approves QAPPs for internal and external regional data operations.
- Reviews and approves QMPs submitted by Region 4 Divisions and Offices and by holders of extramural agreements.
- Performs periodic assessments of regional organizations conducting environmental information operations to determine the conformance of the mandatory quality systems to the approved QMPs and applicable standard operating procedures, and the effectiveness of the implementation.
- Coordinates and/or conducts system and performance audits of selected environmental monitoring programs.
- Distributes Agency QA guidance documents, policies, and procedures.
- Initiates and/or revises regional QA policy & procedures.
- Briefs senior staff on QA issues on approximately a semiannual basis or more often as needed.
- Provides QMP training to regional staff and management.

For additional RQAM Duties see Section 3.3.3 of Region 4's Quality Management Plan.

The RQAM may require suspension of environmental data collection projects and request corrective action if data quality/environmental technology QA activities do not meet Agency QA policy or requirements. If the RQAM determines any regional data collection activities (at the project or program level) do not meet Agency quality assurance policies or requirements, the RQAM shall make every effort to resolve disputes through discussion and negotiation. Disagreements will be resolved at the lowest administrative level possible. Should agreement not be reached at this level, the RQAM, after briefing the LSASD Director, shall take the issue to Region 4 Senior Management for resolution.

The RQAM has the authority to directly and independently interact and communicate with the Deputy Regional Administrator (DRA) on all QA matters. This direct access to the DRA allows the RQAM to independently elevate critical quality-related issues at his/her discretion without challenge. The RQAM does not need approval or pre-notification to initiate such communication. The RA/DRA shall have final dispute authority on all quality issues.

In the event the RQAM is not able to perform his/her duties, the Chief of the Quality Assurance and Program Services Branch will act on their behalf.

2.3.4 LSASD Quality Assurance Coordinator (QAC)

LSASD's Quality Assurance Coordinator (QAC) is independent from all laboratory and field operations. The QAC position is located in the Immediate Office and reports directly to the Deputy Director. When LSASD is subject to management system reviews conducted by the RQAM, the QAC is responsible for addressing any findings. The QAC has the overall responsibility for ensuring LSASDs conformance to the Quality System. The QAC or his/her designee:

- Ensures LSASD implements the Quality Management criteria in order to maintain compliance with International Organization for Standardizations/ International Electrotechnical Commission (ISO/IEC 17025) requirements, and the accrediting bodies requirements for forensic amplification of the International Standard.
- Ensures the development and implementation of Quality System training for LSASD staff.
- Revises this quality management plan as needed.
- Manages the internal audit, corrective action and quality improvement program.
- Coordinates external audits.
- Serves as the Document Control Coordinator to ensure all quality system documents are maintained and distributed.
- Trains personnel on Quality Management System activities.
- Monitors the Quality Management System.
- Reports on the performance of the LSASD Quality Management System to management for review and as a basis for improvement of the Management System.
- Oversees the internal competency evaluations and proficiency testing program for all personnel.
- Serves as the Laboratory Informational Management System Administrator
- Other duties as described in EPA Region 4's QMP.

In the event the QAC is not available to perform his/her duties, the Deputy Director will designate an Acting QAC.

2.3.5 Branch Chiefs

Branch Chiefs report to the Director and are responsible for branch staff, managing resources and evaluating work products within a branch. The Branch Chief is the technical manager who has overall responsibility for branch technical operations and for ensuring work assigned to his/her branch is carried out in a timely manner and meets the needs of the customers. A Branch Chief's duties, with regard to quality, are deliberately redundant with some of the responsibilities of the Section Chiefs and the Deputy Director. Branch Chiefs are responsible for ensuring the Section Chiefs identify the resource needs for their branches; recognize and provide opportunities for specific technical, quality and safety training for the staff; assure standard procedures are available to the staff and are understood by staff involved in sampling and measurement activities; and identify and implement LSASD's Quality System and project management improvements. In the event a Branch Chief is not available to perform their duties, he/she will designate an Acting Branch Chief.

2.3.6 Section Chiefs

Section Chiefs report to their respective Branch Chief and are responsible for the day to day activities and oversight, and supervision of their sections which includes providing training opportunities to section staff, managing resources, assigning work and evaluating work products within their section. The Section Chief is the technical director who, with the Branch Chief, has overall responsibility for branch technical operations and for ensuring work assigned to his/her Section is carried out in a timely manner and meets the needs of the customers. Section Chiefs work with their respective Branch Chief to identify the resource needs for their section; identify and provide opportunities for specific technical, quality and safety training for the staff; assure standard procedures are available to the staff and are understood by staff involved in measurement activities; and identify and implement the LSASD Quality System and project management improvements. In the event a Section Chief is not available to perform their duties, he/she will designate an Acting Section Chief.

2.3.7 Document Control Coordinator

The Document Control Coordinator (DCC) is appointed by management to maintain documents forming the LSASD quality system. The Quality Assurance Coordinator has been appointed to serve as the Divisional DCC. Responsibilities of the DCC include:

- Communicates with the lab and field quality managers, management, and staff regarding document development, control, distribution, review and revision.
- Maintains a master list of quality system documents.
- Ensures the most recent versions of quality system documents are on the LSASD Local Area Network (LAN) and internet.

- Assigns effective dates for quality system documents.
- Assigns document control numbers.
- Archives obsolete and retired documents.
- Tracks the review status of documents and notifying the quality managers, management, and staff of document requiring review and/or revision.
- Maintains records associated with the quality system document control requirements.

2.3.8 Equipment Managers

Branch Field Equipment Managers are staff members, designated by management, who are responsible for ensuring the procedures for Equipment Inventory and Management (SESDPROC-1009), and Equipment Certifications (SESDPROC-1011) are followed. LSB analysts are responsible for maintaining laboratory instrumentation as required by individual technical operating procedures.

2.3.9 LSASD Project Leader

The LSASD Project Leader is designated by management to coordinate the technical support requested by LSASD customers. The Project Leader has the primary responsibility for planning and conducting field investigations or other studies and evaluating the results and completing a report for the customer. During the planning of the project, the Project Leader and customer are responsible for developing data quality objectives appropriate for the regulations involved. These data quality objectives are noted in the QAPP and are used to define data quality objectives appropriate for the sampling/measurement methods selected. Throughout the project, the project leader is responsible for ensuring the quality of the information generated meets the data quality objectives of the project. This responsibility is fulfilled in consultation with assigned project team members, and, if needed, with the appropriate Section Chief.

In the event a Project Leader is unable to perform his/her duties, the responsible Section Chief will appoint someone to act on their behalf.

2.3.10 Technical Staff

LSASD's technical staff consists of highly trained engineers and scientists utilizing specialized knowledge, skills and expertise to conduct sampling, analysis and audits to support Region 4's mission. The specific duties of the technical staff are as follows:

- Review technical aspects of QAPPs and QMPs submitted to the Region as part of grant/assistance agreement and contract requirements.

- Identify QA needs, resolve technical problems, and answer requests for guidance or assistance in area of expertise.
- Conduct and/or participate in site field and laboratory system and technical internal/external audits.
- Participate in technical assistance and training of State/Tribal/local, and private laboratory personnel in EPA methods, instrumental and QA requirements.
- Perform field studies and investigations.
- Perform laboratory analyses.
- Assist RQAM with technical aspects of QA as related to their expertise in air, water, toxic substances, hazardous waste, engineering, chemistry, biology, microbiology, field operations and data operations.

2.3.11 Contract Staff

LSASD is supported by the Environmental Services Assistance Team (ESAT) contract. Contract staff includes chemists, biologists, and environmental scientists who provide analytical support, CLP - data validation, air monitoring and field analytical and logistical support integrated with the LSASD Field Equipment Center (FAS/FEC). ESAT personnel are required to follow the LSASD quality system and adhere to the requirements of this QMP as directed under the contract.

LSASD is also supported by other contractors for technical and administrative assistance. Where are appropriate, all contractors are required to follow this QMP.

2.3.12 Designated Approving Official (DAO)

A designated approving official (DAO) is a regional manager or staff person outside of the Quality Assurance Section who has been delegated the authority by the RQAM to approve quality assurance project plans. The DAO is expected to review the QAPP to ensure that it is compliant with the requirements specified in EPA's QA/R-5 document. In order to receive approval authorization as a DAO, the individual must fully meet the following requirements:

2.3.12.1 Should have obtained at least a bachelor's degree in any of the physical or biological sciences or demonstrates an in-depth understanding of these disciplines based on job experience obtained internal or external to the agency.

2.3.12.2 Must register with the RQAM or Divisions Quality Assurance Coordinator by filling out a technical competency form documenting the educational and technical background of the prospective DAO.

2.3.12.3 Satisfactorily complete a one-day training course provided by the RQAM on QAPP requirements and review. Completion of this training module shall be documented by the RQAM with a certificate naming the individual as a DAO and shall be tracked by the division in which the DAO resides, and by the RQAM.

2.3.12.4 The DAO must also attend annual refresher QA courses provided by QAS to maintain continuing certification.

2.3.12.5 If the DAO moves to another program, they must be re-certified in that new area/program to insure technical competency in their new position.

2.3.12.4 Possess the necessary expertise in project management to review the QAPP.

2.3.12.5 The prospective DAO must have a clear understanding of the analytical methodologies or biological analyses/determinations usually employed for environmental investigations and must be familiar with sampling techniques and QA requirements. If biological parameters require collection and analysis/determination, the prospective DAO must either consult with the RQAM on these issues or must be familiar with the requirements for collecting this information in order to approve the QAPP. A firm knowledge of EPA program and regulatory requirements is also necessary.

2.3.12.6 Have no direct conflict of interest. A project manager who writes a QAPP for a project under his/her direction cannot approve that same QAPP.

2.3.12.7 Document the QAPP review process using a checklist developed by QAS and prepares specific comments addressing document deficiencies.

Annually the RQAM will randomly select QAPPs that have been reviewed by one or more of the divisions DAOs to determine whether they have reviewed the document in accordance with EPA QA/R-5 requirements and have properly identified the deficiencies associated with this document. The RQAM may revoke DAO certification status if non-compliance with any of the above requirements is encountered or when random review of a DAO's work product warrants this action.

3 QUALITY SYSTEM COMPONENTS

3.1 Purpose of Quality System

Quality Assurance and Quality Control activities apply to the generation and use of environmental information. Environmental information is a critical input for Region 4 program decisions to protect human health and the environment. Decisions made in the Region concerning the management of the environment and the reduction of risk typically requires the use of environmental information generated by LSASD. Therefore, it is critical that decision

makers know the origin and quality of the environmental information that LSASD provides. The quality of environmental information is known when all components associated with the derivation (precision, bias, completeness, comparability, sensitivity, representativeness, and usability) or other performance criteria are documented, available, and systematically applied to environmental decision making.

3.2 Quality System Framework

The LSASD Quality System is a structured and documented system describing policies, procedures, guidance, management plans and manuals; and organizational authority and responsibilities for building quality into LSASD work processes, products and services. The quality system provides a framework for planning, implementing, recording and assessing work conducted by LSASD. The Quality System is structured to reflect the requirements of EPA Order CIO 2105.0 (May 5, 2000) and associated procedures 2105-P-0l.0 and 2105-P-02.0, *ANSI/ASQ E4-20l4, Quality Systems for Environmental Data and Technology Programs - Requirements with Guidance for Use*, EPA's Principles of Scientific Integrity, Office of Water Drinking Water Certification Manual, Region 4 Quality Management Plan (QMP), and ISO/IEC 17025:20175, General Requirements for the Competence of Testing and Calibration Laboratories, with forensic amplification of the International Standard.

To facilitate compliance with the policy requirements, LSASD environmental information operations function under provisions of ISO/IEC 17025, General Requirements for the Competence of Testing and Calibration Laboratories. Although ASB and LSB are accredited under one certificate, branch specific policies and procedures are maintained to accommodate the differing workload and quality system requirements. A scope of accredited activities is available upon request. Although the work performed by QAPSB is not included in the scope of accreditation, QAPSB staff are required to adhere to the requirements of The Office of Water Drinking Water Certification Program, the Code of Federal Regulations (CFR) Parts 50 and 58 and associated guidance documents for air quality monitoring and the requirements set forth in the LSASD quality management procedures.

Work conducted by each branch is performed within the the requirements of the LSASD Quality Management System outlined in this plan and the branches' associated documents. For field and laboratory operations not covered within the Accreditation Scope, a statement indicating the work is outside of the scope of accreditation is clearly communicated to the customer when the results are presented.

The LSASD quality system has the following components:

- Quality System Documentation
- Annual Reviews and Planning
- Management Assessment

- Training
- Project Planning
- Quality Assessment

3.2.1 Quality System Documentation

The quality system documentation described below provides the information needed to produce work products and services to support environmental information collection. These are:

- LSASD Quality Management Plan (QMP)
- LSB's Laboratory Operations and Quality Assurance Manual (LOQAM)
- EPA/LSASD Policies
- LSASD Operating Procedures
- Quality Assurance Project Plans
- Sampling and Analysis Plans

EPA or LSASD policies, procedures, guidance and management plans are not intended to supersede sound professional judgment. LSASD personnel are encouraged to use their knowledge, skills and abilities when providing support to environmental investigations. If support includes variance from current quality system documentation, then LSASD personnel shall record the variance in the project records, with a brief description that is authorized, dated, and signed by the appropriate Section Chief. The QAC should also be informed of the specific variance.

3.2.2 LSASD Operating Procedures

Operating procedures are developed to provide consistency in activities performed in support of LSASD's environmental information operations and are the foundation for the Quality System. A comprehensive list of LSASD standards, plans, policies and procedures, that make up the Quality System, is maintained on the LSASD local area network (LAN) and is presented in Appendix B. All technical SOPs are maintained on the LSASD LAN and the Region 4 website.

LSASD operates under a core set of division wide quality manage system operating procedures (Appendix B). In addition, since the nature of the work conducted by each branch is different, the branches may have additional policies, plans and procedures describing how they are complying with this QMP (Appendix B).

Procedures are reviewed periodically to address changes in the quality system. Suggestions for changes come from staff proposals for improvements, experience gained from LSASD involvement in environmental studies, internal/external audits and

administrative reviews. LSASD's review and approval process is described in LSASD's Operating Procedure for Document Control (LSASDPROC-1000). See Section 6 of this plan for further details.

3.3 Annual Reviews

LSASD conducts a management review of the Quality System to evaluate its continuing suitability and effectiveness and to introduce necessary changes and improvements. The review is conducted at least annually by the Director, Deputy Director, Branch and Section Chiefs, QAC, and the RQAM. The management review is conducted in accordance with LSASD's procedure, Management Review (LSASDPROC-1007). Any findings of nonconformance within the quality system resulting from the Management Review will be handled as a corrective action according to the LSASD Procedure for Corrective Actions, Preventive Actions and Quality Improvements (LSASDPROC-1005), by the QAC.

The LSASD Director provides policy definition, leadership, and oversight for the Quality System. The LSASD branches' management is responsible for allocating resources, so the Quality Policy can be implemented. LSASD senior managers must ensure the integrity of the Quality System is maintained when changes are planned and implemented.

3.4 Inclusion of QA Responsibility in Performance Standards

LSASD uses the EPA Performance Appraisal and Recognition System (PARS) to describe and identify the activities and responsibilities of each employee within their designated role. PARS agreements are reviewed biannually and are renewed annually. Quality assurance responsibilities are incorporated within employee PARS agreements.

4 PERSONNEL QUALIFICATIONS AND TRAINING

4.1 Personnel Qualifications

EPA operates its hiring procedures under the federal government's Office of Personnel Management (OPM) regulations. The OPM qualification and classification standards describe the educational and experience requirements which a potential employee must meet to satisfy the OPM requirements for a specific job series and grade. Before an employee is hired, the Agency's Human Resources staff verifies the applicant meets the OPM education and experience requirements for the appropriate series and grade. After the verification process is complete, LSASD managers are allowed to hire an applicant who meets the OPM requirements from a certificate of eligible candidates.

4.2 Training

LSASD's training program is described in the Operating Procedure for Training and Demonstration of Competency (LSASDPROC-1003). The objectives of the program are to provide technical staff with the necessary knowledge, skills and abilities to perform work activities and to meet agreed upon customer requirements. All new employees are required to take new employee training identified by this training program.

LSASD management maintains a commitment to personnel development and training. LSASD encourages supervisors and employees to identify training needs and opportunities. The QAC, or designee, maintains records of all professional development and quality system training received for personnel within LSASD.

LSASD employs full time government employees to conduct sampling, measurements, analytical activities, and audits whenever possible. Where other than government employees (e.g., contract personnel, grantees, students, interns, etc.) are tasked to perform work under LSASD's quality system, the QAC and/or Section Chiefs, ensure such personnel work within the parameters of the Quality System.

The Section Chiefs are responsible for ensuring the qualifications that are required for effective participation in a specific study are met by the project staff. This process can include the use of competency evaluations and proficiency testing. Also, supervisors, in consultation with their staff, determine what program-specific training is required by EPA.

4.3 Demonstration of Competency

All ASB and LSB technical staff and contractors must go through a demonstration of competency (DOC) before being authorized to work independently, as required by ISO 17025. The DOC is designed to evaluate personnel to determine if they have acquired the required skills and knowledge to independently perform technical operations. All DOCs are conducted in accordance with the Operating Procedure for Training and Demonstration of Competency (LSASDPROC-1003).

QAS Drinking Water (DW) Certification Officers are required to pass the appropriate laboratory DW course for the discipline for which they certify (chemistry, biology) as described in EPA's Drinking Water Certification Manual (2005).

4.4 Proficiency Testing

Following completion of the initial DOC, all ASB and LSB technical staff and contractors who have established competency must complete a Continued Demonstration of Proficiency Testing (CDOP) at least every 4 years. As required by ISO 17025, the CDOP program is used to assess and re-qualify LSASD staff to independently perform environmental information collection and analytical work. All CDOPs are conducted in accordance with LSASD's Operating Procedure for Training and Demonstration of Competency (LSASDPROC-1003).

QAS DW Certification Officers are required to attend refresher training courses at least every five years to maintain knowledge of the DW methods.

4.5 Safety Training

The LSASD Safety and Occupational Health Manager identifies mandatory safety and health training and certifications and notifies employees and managers of requirements as described in the Region 4 Safety Manual. Supervisors are advised of the training and certification status of their staff in this area and are responsible for their staff completing required training. The respective Branch Safety Officers and Section Chiefs review and approve the Safety Plans developed for LSASD activities prior to work. The Safety Officers and Section Chiefs also verify the training, certifications and medical monitoring for employees involved in LSASD activities are current.

4.6 Other Training

Required and general interest training courses are made available to LSASD personnel. Training courses offered can include scientific/engineering courses, ethics, safety and environmental management, quality management, basic statistics, sampling and analytical methodology, project management and courtroom training. Quality management training includes keeping LSASD personnel, and ESAT contract personnel apprised of the elements of the EPA and LSASD's Quality System that relate to their duties and responsibilities. LSASD provides ethics training for EPA personnel which includes a review of the LSASD Ethics Policy and discussing EPA ethics requirements. Individual on-the-job training by peers is also widely practiced.

4.7 Region 4 Training

In addition to LSASD specific training, LSASD provides numerous training opportunities for regional staff and state/tribal partners. These include, but are not limited to, Superfund contractor training, Designated Approving Official (DAO) training via webinars, and QMP training.

4.8 Training Records

For personnel within LSASD, training, work experience and records of individual competency and proficiency evaluations are documented in personal qualification files maintained by the QAC or Section Chief. Personnel files containing, but not limited to, transcripts of college courses, verification of college degrees received, and other miscellaneous hiring records are maintained by EPA's Office of Administration and Resources Management's (OARM) Office of Human Resources (OHR) Shared Service Center.

4.9 ESAT Personnel

ESAT contractor management is responsible for ensuring contract personnel are properly trained and qualified to perform technical operations for LSASD, as described under the contract Statement of Work (SOW). ESAT employee training will be provided by qualified ESAT personnel.

In cases where specialized training can only be provided by EPA personnel, a Technical Direction Form (TDF) is submitted to and approved by the EPA ESAT Contract Officer Representative (COR), or other contract representative. All ESAT employees subject to LSASD's quality system must demonstrate periodic proficiency based on EPA's designated schedule.

Upon the request of the COR or other contract representative, ESAT must provide documentation of all required training. The QAC and/or Section Chief evaluates ESAT employee skills, and may recommend additional training through the EPA ESAT COR, or other contract representative. The QAC maintains records of evaluation of proficiency testing results, internal audits, and external assessments as a means of measuring the effectiveness of the training given to ESAT personnel. These recommendations are based on areas of non-conformance or through proficiency testing.

All ESAT contract personnel education level, training, work experience and other personnel information are maintained by the ESAT contract holder.

LSASD's training requirements, process, and frequency are described in the LSASD Operating Procedure Training and Demonstration of Competency (LSASDPROC-1003).

5.0 PROCUREMENT OF ITEMS AND SERVICES

5.1 General Procurement Requirements

LSASD has established procedures for purchasing supplies, equipment and services. Equipment and supplies used in environmental measurement activities must be of known quality and meet the technical requirements of the activity for which they are to be used. The purchasing official has the experience, training and certification necessary to ensure all purchases of services are conducted in accordance with the Federal Acquisition Regulations, Office of Federal Procurement Policy, EPA's Agency Acquisition Guide (Chapter 42), and LSASD's SOP for Purchasing Services and Supplies (LSASDPROC-1008).

Procurement is the coordinated responsibility of LSASD personnel, administrative, technical staff and managers. LSASD Operating Procedure for Purchasing of Services and Supplies (SESDPROC-1008) details personnel and management responsibilities; Quality Assurance and

Quality Control requirements; records management requirements; and labeling and storage of purchased goods.

The individual initiating the purchase of services and supplies is required to: 1) obtain management's approval to commit funds, 2) establish specifications for the item to be purchased including quality criteria, 3) establish acceptance criteria and procedures for use in verifying/evaluating the purchased item upon receipt or prior to use, and 4) provide procurement source recommendation(s).

The purchase of services and supplies can be initiated with a procurement request (PR) or bankcard order (bankcard orders have a maximum of $10,000). Once the PR or bankcard order has been prepared, management must then review the documentation to ensure the information is accurate and complete and contains a clear description of the services or supplies needed. Management will then authorize and sign the PR or bankcard order prior to forwarding to the purchasing official. Upon receipt of the item(s) the individual initiating the purchase will inspect the item(s) to ensure agreement with the PR or bankcard order and the packing slip.

5.2 Contracting

Contract-level Contracting Officers' Representatives require at least Level II COR certification. The requirements for obtaining and maintaining COR certification are found in the EPA Federal Acquisition Certification Guide for Contracting Officer's Representatives. Refer to Subsection 1.6.5 for further details.

LSASD requires the QA/QC Program Orientation offered by Region 4 QA staff for all new staff including contract-level CORs who have higher-level quality requirements in their contracts. The COR will work in conjunction with a member of the Quality Assurance Section, who is familiar with contracting of analytical services, to ensure all relevant information particularly with regard to the quality of the data required is included in the PR or bankcard order. All purchasing will be conducted as described in Section 5.1 above.

6.0 DOCUMENT CONTROL AND RECORDS MANAGEMENT

6.1 Document Control

LSASD has implemented and documented a process to control documents and information related to the LSASD's Quality System. This systematic process is documented in the LSASD's Operating Procedure for Document Control (LSASDPROC-1001) to include the roles and responsibilities of the staff and management. This Operating Procedure outlines LSASD's systematic approach to:

- Document development, formatting, approval and review.

- Generating, indexing, disseminating, and retiring the policies, procedures, guidance, management plans and information documenting the Quality System.
- Identifying the current version of Quality System documents, distribution of those documents to personnel, and for precluding the use of obsolete documents.
- Retention of obsolete documents for legal and/or institutional knowledge by archiving documents and identifying them as retired.

Processes that are candidates for standardization are identified by LSASD management, the quality staff or technical staff. The process documents are written by staff who are deemed technically competent by management, based on their knowledge, skills and abilities. The documents in draft form are reviewed and evaluated or tested by staff prior to final approval by LSASD management in order to become an official SOP or Guidance document. Approved documents are modified, or new ones are developed, when existing documents are inadequate or inappropriate to meet the needs of the organization. All edits to existing technical and administrative documents must be completed in accordance with LSASDPROC-1001.

6.2 Records Management

For LSASD, a record provides objective evidence of actions taken or observations made while implementing the Quality System. Types of records include, but are not limited to, Quality Assurance Project Plans, audit/assessment reports, laboratory data and reports, and field data and reports. Systematic and documented processes for generating, identifying, controlling, storing, and accessing records have been developed and are documented in LSASD's Operating Procedure for Control of Records (LSASDPROC-1001). The records management system provides a secure environment to prevent damage, deterioration or loss and promote customer confidentiality. Records retention and disposal schedules are consistent with the EPA Records Management Policy (EPA CIO 2155.1). Records are retained according to the EPA records schedule dictated by each program's requirements. The most current EPA records schedules are available on the EPA website (https://www.epa.gov/records/epa-records-schedules-detailed-information). For reference, LSASD's current records retention schedules are presented in Appendix C of this QMP. However, the records scheduled presented on EPAs website takes precedent over the schedule provided in Appendix C.

7.0 COMPUTER HARDWARE AND SOFTWARE

7.1 Hardware and Software Standards

EPA's Office of Technology Operations and Planning (OTOP) is responsible for managing the hardware, software and communications components which form the foundation of the Agency's information technology. OTOP has established the hardware and software standards with which the Region must conform. Region 4 managers and staff, including LSASD, observe all hardware and software standards as detailed in the OTOP Directives System at:

http://basin.rtpnc.epa.gov/ntsd/directives.nsf.

This directive system is applicable to the personal computer (PC) platform, local area network and server platforms, open systems platforms, Agency electronic mail service, IBM Compatible Mainframe Platform, and Supercomputer Platform.

7.2 Evaluating Hardware and Software Standards

LSASD procures Agency-approved hardware and software conforming to Agency-wide information management structure. Region 4's Mission Support Division IT and Operations Management Branch (IOMB) assesses significant changes in the Agency's hardware and software policy to determine the effect on the Region. When changes are required, IOMB managers work with regional managers to plan and implement appropriate modifications.

In the event LSASD has a need to purchase or develop application software which is not on Agency contract, the software will be evaluated prior to purchase or development. Software evaluation will be performed against written performance/capability standards developed by the PC site coordinators and/or system administrators. For this software, QAPSB ensures vendors comply with the Agency standards provided by the EPA's National Technology Services Division.

Hardware and Software Requirements

LSASD has computer specialists within QAPSB who are responsible for system applications development, installation and maintenance of computers. In the event of a hardware or software failure on a PC or laptop, LSASD personnel contact a computer specialist for support. The computer specialists are responsible for network application software upgrades and hardware upgrades for PCs. Computer specialists are responsible for upgrades of any specialized commercial software installed on PCs and laptops, and for backing up files stored on PCs and laptops. Employees are required to request and receive Branch Chief approval to have any non-standard software installed on Agency computers by the specialists in QAPSB. Files stored on the LSASD LAN are backed-up to magnetic tapes Monday through Saturday evenings using a redundant network backup system. One backup is conducted remotely from the Office of Research and Development computer center and another locally from the LSASD computer center. After successful backups, the daily tapes located at LSASD are placed in a fire-proof media safe and a copy of the Friday evening backup is routed to the Atlanta EPA office for offsite storage. Detailed backup procedures can be found in the 'ADP Disaster Recovery Plan for Region 4' dated June 10, 2004 (and any future updates). The custodian of the document is the Region 4 Information Security Officer in the Atlanta office. An electronic copy is available from the Athens LAN administrator, and a hard copy is located in the safe in room B107. LSASD's QAPSB staff also maintains:

- Region 4's Laboratory Information Management System (Project Log), the centralized project management data base for Region 4 CLP analytical data.
- Region 4's database (Data Archival and ReTrieval - DART), the main repository for storing Superfund data, which includes locational, geological and analytical data from Superfund sites across the Region.
- LSB's analytical raw data resides on dedicated instrument laptop or PC hard drives.
- LSB's internal Promium™ ("Element") laboratory information management system.

Software updates released by Promium are reviewed and evaluated by PSB staff prior to performing a system upgrade. The entire functionality of the system is evaluated on a test database prior to release to staff.

8.0 PLANNING

8.1 Purpose

The primary function of LSASD is to provide technical support to the Region 4 Program Offices through sample and measurement collection, field observations, sample analyses, technical and quality audits. This support is usually provided on a project-specific basis. Systematic planning, implementation and quality assessments enable LSASD to conduct project-specific planning, verify and document the integrity and accuracy of work products, evaluate the effectiveness of the quality system and report the results to LSASD management. LSASD follows the EPA Guidance for the Data Quality Objectives (DQO) Process (QA/G-4), EPA/600/R-96/055, and EPA Guidance for Quality Assurance Project Plans (QA/G-5), EPA/600/R-98/018 in support of project planning.

Having identified a need for environmental information collection, the LSASD Project Leader is responsible for initiating the DQO process. During the early planning phase of the project, the data end user must clearly establish the intended use of the data, time and resource constraints and in general terms, the quality of data needed. The Project Leader is responsible for development of DQOs facilitating the generation of data of sufficient quality and quantity to support environmental decisions. The DQO process requires interaction between the Project Leader, field and laboratory management, QA staff, and primary and secondary data users as appropriate. The DQOs developed are used for the detailed design of the investigation and preparation of the QAPP or Sampling and Analysis Plan (SAP). Either a statistical or a judgmental sampling design may be selected. Often, a judgmental sampling design is selected. For statistical designs, a rigorous treatment of the statistical hypotheses and decision error types, as outlined in Chapter 6 of the EPA QA/G-4 document, may require consultation with a statistician.

All LSASD projects requiring collection of environmental information or the use of environmental technology must have an approved QAPP or SAP prior to beginning work. The

QAPP or SAP captures the key discussions of the planning process in a formal document. An exception to this requirement is found in the EPA Quality Policy 2105.0 as follows: "...QAPPs must be approved prior to any data gathering work or use, except under circumstances requiting immediate action to protect human health and the environment or operations conducted under police powers".

8.2 Planning Procedures

The ASB planning policies are outlined in LSASD's Operating Procedure for Project Planning (SESDPROC-016) located on the LSASD LAN. The planning processes for QAS's Drinking Water assessments, which is governed by 40 CFR 141 and EPA's Manual For The Certification Of Laboratories Analyzing Drinking Water: Criteria And Procedures Quality Assurance, Fifth Edition (EPA815-R-05-004), Quality System Assessment of the Region 4 States Responsible for Drinking Water Laboratory Certification (QAS-SOP-001), Quality System Assessment of the Region 4 States Responsible for Implementing a Drinking Water Certification Program (QAS-SOP-003), are also located on the LSAD LAN.

Field personnel can depart from existing written procedures and plan on a project-specific basis. Planned departures are acceptable if needed to meet project objectives and/or data quality objectives. Planned departures will be described in the project specific QAPP. Unplanned departures that may occur during field operations are communicated to and discussed with the Project Leader and management prior to being exercised and they must be fully authorized and documented appropriately. Reported unplanned departures are addressed as soon as practicable and are handled in accordance with the LSASD Operating Procedures for Complaint Resolution and Control of Nonconforming Work (LSASDPROC-1006), or Actions and Improvements (LSASDPROC-1005).

8.3 Equipment Maintenance and Calibration

The LSASD Operating Procedure for Equipment Inventory and Management (LSASDPROC-1009) establishes and implements a process for maintaining and calibrating equipment that is adequate for the type and range of environmental information collection and measurement activities it conducts. Records will be maintained of each item of equipment and all reference materials significant to the environmental information collection performed.

Equipment used for sampling and analysis will be maintained so that it is capable of achieving the accuracy required and conform to the specifications relevant to the measurement activities of concern. Prior to use, equipment will be calibrated or otherwise checked to establish it meets equipment specifications and relevant procedure requirements. Calibration status of equipment will be noted on the instrument, where appropriate. Calibrations will use standards traceable to national or international standards, where possible.

Any defective equipment, suspected to be in error, mishandled, etc., will be taken out of service and clearly identified until repairs, calibration, or verification of equipment has been performed. Field equipment used at LSASD for environmental measurements will be handled, transported, shipped, stored and used in a manner preventing damage, contamination and deterioration. Field equipment will be handled in accordance with safety precautions and guidelines. Equipment that has been used or has been outside LSASD's permanent control, transported or otherwise moved, will be calibrated or otherwise checked to establish it meets the equipment specification requirements and relative procedure requirements prior to use. Personnel using equipment for measurement activities will be trained and authorized to do so in accordance with the LSASD Operating Procedure for Training and Demonstration of Competency (LSASDPROC-1003).

9.0 IMPLEMENTATION OF WORK PROCESSES

9.1 Standard Operating Procedures

To ensure consistent and scientifically credible environmental information is collected, analyzed and reported, , LSASD follows all EPA Requirements for project planning and operates under a system of standard operating procedures (SOPs) consisting of quality system and technical operating procedures and guidance documents. The QAC conducts technical and administrative review processes (Section 10.2), and internal and external audits (Section 10.3) of work processes to ensure compliance with LSASD quality system requirements. Control and handling of SOPs and guidance documents is described in Document Control (Section 6.1).

9.2 Implementation of Work Processes

LSASD management has developed a process for participation in every phase of a project, from the preliminary planning discussions through request, implementation, reporting and technical support. Once a project is initiated and appropriate planning completed, progress is tracked in various forms by the Section Chiefs and Project Leaders. Project status is tracked using various electronic databases. As unanticipated events conflict with scheduled activities, management intervenes to set new priorities, reassign staff or otherwise influence the pace of project implementation. Changes in timelines and resource needs are discussed and reconciled with the customer.

As stated in Section 3.2 of this document, LSASD's LSB and ASB lab and field activities are accredited in accordance with the recognized International Standard ISO/IEC 17025. Maintaining accreditation requires LSASD to follow stringent standard operating procedures while conducting field and laboratory work to ensure quality. Although QAS activities are not accredited, they follow many of the same procedures to ensure integrity of their work products, see Section 3.2. These procedures include quality system, technical operating procedures, and guidance documents that cover all aspects of LSASD's environmental information gathering.

LSASD uses an in-house Project Log tracking system, for project scheduling. Each project entered into Project Log is assigned a unique project number that is used throughout its life for providing project requirements, tracking, reporting, and filing.

Once a project is initiated and appropriate planning completed, progress is tracked by the Section Chiefs and Project Leader.

9.3 Laboratory Services Branch Operations

Analysis involves the determination of the chemical, physical and/or biological characteristics of samples and results in raw data generated from instrumental examination, chemical laboratory analysis, biological identification or physical testing. The analytical methods used should be specific and sensitive enough to answer the project question and meet the data quality objectives associated with the project. See LSB's LOQAM for details on the laboratory's quality assurance and quality control policies.

The purpose of a laboratory quality assurance program is to determine when the analytical measurement uncertainty has exceeded acceptance limits for precision and bias, and to notify the end user of the exceedances. The operating procedures and quality control checks outlined in LSB's LOQAM are implemented to minimize the analytical error associated with data generation and to identify situations when the acceptance limits for precision and bias data quality indicators are not met.

LSB laboratory samples are tracked using Promium™ ("Element"), which is a production-oriented LIMS solution that streamlines sample management and tracking, automates instrument integration, facilitates compliance with EPA requirements and industry standards, and enhances reporting and access to information.

After sample analysis is completed, all data undergoes a minimum of two tiers of review, by the primary analyst and a technical reviewer who if familiar with the methods being reviewed. LSB's data verification process is described in LSB's procedure for Entering, Verifying and Report Data in Element and Preparing a Complete Project File (ASB 118G).

9.4 Applied Science Branch Operations

Upon completion of the appropriate planning process, the Project Leader ensures copies of the approved QAPP or SAP are distributed to the requestor and all involved parties. Once the project is underway, the specific strategy and planning are often modified on-site as additional information is gained by the Project Leader. Activities in the field are documented, including all modification as they occur and become part of project records.

All samples and measurements collected in the field are subject to procedures outlined in the approved QAPP and all associated SOPs. A record of the sampling and/or measurement

protocol(s) used and any deviations from written procedures become part of project records. Departures from existing written sampling procedures are allowed if given the latitude by the applicable requirements, if warranted by the sampling situation, if requested by the customer or if safety concerns dictate a change or variance. Departures are communicated to and discussed with the Project Leader and documented in the field logbook in accordance with the LSASD Operating Procedure for Logbooks (LSASDPROC-1002).

If appropriate and approved by management and the QAC, personnel may also modify or develop new procedures for environmental information operations. Procedures are modified, or new ones are developed when existing procedures are inadequate or inappropriate to meet the needs of the investigation effort or when new procedures may result in improved resource efficiency. The information used to develop, validate or establish uncertainty of the procedure must be documented, as well as the steps followed in implementing the procedure. New technical procedures are developed according to LSASD's Field Sampling and Measurement Procedures and Procedure Validation (SESDPROC-012). Modifying existing procedures are completed in accordance with LSASD's Operating Procedure for Document Control (LSASDPROC-1000).

The Project Leader is typically responsible for all field quality control and quality assurance activities and for ensuring the project is being implemented according to the appropriate planning document (QAPP or SAP). For large scale projects, a Quality Assurance Officer, who is responsible for conducting on-site assessments and ensuring the project is being implemented according to the plan, may be appointed. If changes to the plan are implemented during a field investigation, it is the responsibility of either the Project Leader or the Quality Assurance Officer to communicate the changes to affected participants.

9.4.1 Data Interpretation/Review

Project data must be evaluated to determine if the results of sampling and measurement activities are adequate to satisfy their intended purpose and are properly documented. The requirements and responsibilities for project data review are discussed in field, laboratory, and quality assessment operating procedures. The Project Leader, with input from technical staff, review the field notes, field measurement data, analytical and quality assessment results in the context of the study objectives. The ASB process is described in the LSASD Operating Procedure for Report Preparation and Distribution (ASBPROC-003).

9.4.2 Report Development

The results of ASB's environmental sampling and measurement must be reported accurately, clearly, and objectively in accordance with the LSASD Operating Procedure for Report Preparation and Distribution (ASBPROC-003). QAS reports are generated as detailed in the Preparation for Drinking Water Laboratory Reports Procedure (QASPROC--005). Authorized signatories for LSASD reports are identified in relevant

quality system documents and can include one or more of those listed in this QMP as having quality management responsibilities.

9.5 Quality Assurance Section (QAS) Operations

The Quality Assurance Section (QAS) is part of the Quality Assurance and Program Services Branch within LSASD. Staff within QAS provide support to all of the media divisions in Region 4. This includes drinking water laboratory evaluations/certifications for state and tribal laboratories; coordination of the regional Discharge Monitoring Report Quality Assurance (DMR/QA) program; ambient air monitoring technical systems audits; reviews/approvals of Quality Management Plans (QMPs) and Quality Assurance Project Plans (QAPPs); and technical training.

Audits for drinking water laboratories and air monitoring agencies are completed on a triennial basis. At the beginning of each fiscal year, the QAS Section Chief and staff determine which labs and air monitoring agencies are due for audits and a schedule is developed to ensure all commitments are completed in a timely manner. After establishing the schedule, each audit leader notifies the appropriate lab/agency to see if the date selected is mutually agreeable. The audit leaders and audit teams plan and conduct the audits in accordance with the requirements of applicable Code of Federal Regulations (Clean Air Act 40 CFR 51, 53 and 58; Clean Water Act (40 CFR 136) Safe Drinking Water Act (40 CFR 141 – 142) , EPA national guidance (QA Handbook for Air Pollution Measurement Systems: “Volume II: Ambient Air Quality Monitoring Program”; Conducting Technical Systems Audits of Ambient Air Monitoring Programs; and the Manual for the Certification of Laboratories Analyzing Drinking Water) and LSASD operating procedures.

After the audits have been completed, a summary report is prepared and sent to the lab/agency. Formal corrective actions are submitted and tracked until all issues identified during the audits have been successfully addressed. At that time, for drinking water laboratories, a certification letter is issued and for air monitoring agencies the audits are closed out.

10.0 QUALITY ASSESSMENT AND RESPONSE

10.1 Quality Assessments Overview and Scope

The QAC is responsible for coordinating quality assessments as required by ISO/IEC 17025, and ensuring any non-conformances and/or opportunities for improvement are communicated to management. All non-conformances will be addressed at the lowest administrative level possible, however, corrective actions will be approved by the Section Chief and the QAC. If the QAC is unable to resolve a non-conformance, they will consult with LSASD management. The dispute/finding are addressed in accordance with LSASD Operating Procedure for Complaint Resolution and Control of Non-Conforming Work (LSASDPROC-1006) or Actions and Improvements (LSASDPROC-1005). It is the responsibility of the QAC and the Section Chiefs

to ensure all non-conformances from quality assessments are communicated to the staff. This may be accomplished through emails, training or direct communication.

Assessments are used to evaluate work products for integrity and quality and to define the usability of the information generated. Quality assessments include:

- Administrative and Technical Review of work products
- Internal and External Audits
- Competency Evaluation and Proficiency Testing Program
- Management Review
- Customer Feedback
- Nonconforming Work
- Complaints
- Opportunities for improvement
- Corrective Action

10.2 Administrative and Technical Review

Administrative and technical reviews are conducted for every QAPP, SAP, and report, generated by ASB and QAPSB. Review processes are described in the LSASD Operating Procedures for Project Planning (LSASDPROC-016) and Report Preparation and Distribution (LSASDPROC-003). Administrative review of QAPPs/SAPs and reports can include identifying and correcting typographical errors, determining if report pages are numbered, determining if project records show project numbers, the name of the sampler and dates associated with performance of the measurement activities. Administrative reviews are also conducted for project files. The review includes a check to determine if records are complete and accurate and appropriate records are present. Technical review of QAPPs/SAPs and reports consists of verifying information included is complete and accurate and interpretations of data and other technical findings are correct.

All analytical data generated by LSB is entered into and reported from Element®. The primary analyst generating the results and a technical reviewer are responsible for entering and verifying the results in Element®. The Section Chief (or designee) reviews data for completeness and accuracy and produces a final report for the project file. LSB's process for verifying data is described in LSB's SOP for , Data Reporting Preparing Project File.

10.3 Internal and External Audits

Internal and external audits are conducted annually to determine if quality management and technical operations within LSASD are in compliance with requirements of the LSASD Quality System. The audit processes are described in the LSASD Operating Procedure for Internal Audits (LSASDPROC-1004). Each year, the QAC develops and maintains an audit schedule for the upcoming year. The schedule addresses both internal and external audits. An internal audit

that has not been scheduled can be requested by management or quality staff. Internal audits are conducted by trained staff who are, whenever possible, independent of the activity to be audited. In the event audit findings cast doubt on the correctness and/or validity of reported results, the QAC initiates a corrective action to address those audit findings, including notifying the customer whose work has been affected in a timely manner.

Internal audits are conducted by the QAC and other trained auditors. The QAC and management are responsible for identifying training opportunities for internal auditors. The training addresses the basics needed to plan, conduct, record and report audits of LSASD's Quality System and technical operations and their associated documentation. Auditor training can also be provided by trained auditors during internal audits. The QAC maintains records for each auditor showing training and experience accumulated by conducting internal audits.

Annually, ASB and LSB undergo an external audit to assess conformance to ISO/IEC 17025:2017, General Requirements for the Competence of Testing and Calibration Laboratories as well as the supplemental requirements for Forensic Laboratories. LSB undergoes a drinking water audit bi-annually by its accrediting body which has been approved by Office of Water. The external audit is conducted by LSASD's contracted accrediting body. The audit schedule includes:

- Full Onsite Assessment
- Partial Offsite Assessment
- Partial Onsite Assessment
- Partial Offsite Assessment
- Full Onsite Assessment for Reaccreditation
-

Every three years, QAS undergoes an onsite external assessment conducted by EPA's Office of Ground Water (GW) and Drinking Water (DW) to assess the adequacy of LSASD's Drinking Water Certification Program. The assessment evaluates QAS's scope, staffing, resources, policies, procedures, and effectiveness. In addition, Office GW DW conducts an annual assessment through a questionnaire. In addition, every three years, EPA's Office of Mission Support Enterprise Quality Management Division conducts a Quality System Assessment of all EPA Regions to evaluate conformance with the Agency's quality policy and regional requirements.

10.4 External Proficiency Testing

Each year, LSB and ASB participate in an externally administered proficiency test for measurement procedures to satisfy ISO/IEC 17025 and Drinking Water Certification requirements. The QAC is responsible for coordinating the external proficiency testing program and all related documentation.

10.5 Management Review

Annually, the Director, Deputy Director, Brach Chiefs and Section Chiefs in conjunction with the QAC conduct a review of the LSASD Quality System to gauge whether the quality system is being successfully implemented and to identify opportunities for improvement. Patterns or issues affecting project commitments or performance quality are identified using audit findings, corrective actions, external complaints, customer feedback, briefings, progress reports and other internal assessments. This review also fosters effective two-way communication to promote an environment in which properly trained personnel can perform their jobs. The QAC evaluates project efforts and work products which may be used for refining acceptance criteria for projects. Furthermore, LSASD management supports the QAC in efforts to assess situations, identify any problems/issues and recommend appropriate solutions. The management review process is

described in the LSASD Operating Procedure for Management Review (LSASDPROC-1007). The review considers, but is not be limited to the following:

- Suitability of Policies and Procedures
- Reports from Managerial and Supervisory Personnel
- The outcome of recent internal audits
- Active Corrective and Preventative Actions
- Assessments by external bodies
- The results of inter-laboratory comparisons or proficiency tests
- Changes in volume and type of work
- Customer Feedback
- Complaints
- Results of risk evaluations
- Recommendations for improvement
- Other relevant factors, such as quality control activities, resources and staff training

As problems that need attention are identified through the various assessments, management facilitates a corrective action process to determine satisfactory solutions, while recognizing those who actually do the work are best suited to focus on the issues and recommend the most effective solutions.

10.6 Customer Feedback

Branch and Section Chiefs work closely with their counterparts in the regional office to adjust the priorities of LSASD to ensure the data provided meets each program's needs. Management also seeks feedback from customers to monitor the performance of LSASD operations in relation to the work performed.

10.6.1 Field Investigations and Audits

Section Chiefs within LSASD's ASB seek feedback from customers to assess the quality of their work products. Although the Section Chiefs and technical staff typically receive customer feedback as a regular part of their interaction with their customers, a formal evaluation of customer satisfaction is sought either using customer feedback surveys or during meetings with customers.

For ASB projects with interaction between LSASD Project Leaders and the customer, customer satisfaction will typically be evaluated using surveys. A Customer Feedback Form (LSASDFORM-019) is transmitted to the customer, for a minimum of 10 percent of field projects. The actual percentage of number of Customer Feedback Forms that are transmitted is determined by the Section Chiefs.

When feedback is sought during meetings, the Customer Feedback Form 2 (LSASDFORM-022) is completed by LSASD management.
QAS sends out the Customer Feedback Form 2 (SESDFORM-1022) at least once a year to Region 4's Drinking Water Section Chief in Atlanta.

The Section Chiefs forward the original copies of the feedback forms to the QAC. Feedback will be evaluated by the QAC and LSASD management managers during the annual Management Review to identify opportunities for improvement with the Quality System.

10.6.2 Laboratory Services

LSB solicits customer feedback for each project. A customer survey via an URL hyperlink accompanies each final data report requesting feedback on the services provided by the lab. The survey allows the data recipients the opportunity to comment on the timeliness and quality of work and communication provided. Additional comments can be provided. The results of the surveys are received and filed by the QAC Results requiring follow-up are forwarded to the Section Chiefs. Customer feedback results are discussed during the annual Management Review. Any survey results that require action regarding the quality system are conducted in accordance with LSASD's Procedure for Actions and Improvements (LSASDPROC-1005).

10.7 Complaints and Nonconforming Work

Complaints include any field sampling, measurement, laboratory or other work performed by personnel under the scope of LSASD's QMS that does not follow the requirements of this QMP or the LSASD Operating Procedures or approved QAPPs. Complaints may originate from internal or external sources. If complaints associated with LSASD's quality management system or technical operations are received by staff members, the complaints are forwarded to the appropriate Section Chief and the QAC. The Section Chief documents complaints and nonconforming work in accordance with LSASD's Operating Procedure for Complaint Resolution and Control of Nonconforming Work (LSASDPROC-1006). Any corrective actions necessary to address nonconforming work are conducted in accordance with LSASD's Operating Procedure for Actions and Improvements (LSASDPROC-1005).

10.8 Actions and Improvements

The LSASD Operating Procedure for Actions and Improvements (LSASDPROC-1005) describes how corrective actions are addressed within LSASD. Corrective actions initiated when nonconforming work or departures from the policies and procedures in the quality system or technical operations are identified that may create the potential for the nonconformance to recur or cause an adverse impact on the quality of the work generated. Management in conjunction

with the QAC designates personnel to conduct an evaluation to determine the root cause of the problem. The designated personnel formulate a recommendation for addressing the issue. The recommendation should be commensurate with the magnitude and risk of the problem. The QAC documents and maintains the LSASD Action and Improvement Form (SESDFORM-1001), which contains a summary of the root cause and recommended actions. Management approves the recommendation and ensures the action(s) are implemented. The QAC monitors the results of the corrective action to ensure the action(s) taken are effective. Records of the corrective action are maintained by the QAC.

11.0 QUALITY IMPROVEMENTS

11.1 Ensuring Continuous Quality Improvements

In addition to operating under LSASD's quality management system, LSASD Management actively support quality improvement by encouraging staff to:

- Continually evaluate the adequacy, implementation and effectiveness of current policies, procedures and practices through preventive actions and internal auditing.
- Apply innovative approaches while maintaining integrity and accuracy.
- Respond to corrective action requests and search for the root cause.
- Take appropriate actions by planning, documenting and implementing responses to findings in a timely manner.

11.2 Identification of Quality Improvements

Personnel use the external and internal audit processes to identify opportunities for continually improving work practice and procedures. Upon identification of quality improvement opportunities, the QAC will be notified for implementation of the procedure for quality improvements. Improvement can take the form of preventing quality problems from occurring by adjusting current work processes.

11.3 Implementation of Quality Improvements

LSASD personnel are encouraged to continually search for improved ways to conduct work practices. LSASD personnel actively participate in discussions defining project objectives and data quality requirements and in developing, and assessing, operating procedures. LSASD personnel are involved in establishing specifications for suppliers of goods and services. These efforts can lead to the introduction of new quality management tools and requests for on-site training or individual off-site training. The LSASD Operating Procedure for Actions and Improvements (LSADPROC-1005) describes how quality improvements are addressed within LSASD.

12.0 REFERENCES

EPA Requirements for Quality Management Plans (EPA QA/R2).

Laboratory Operations and Quality Assurance Manual, most current version.

Federal Acquisition Regulations.

Office of Federal Procurement Policy.

LSASD's Operating Procedure for Purchasing of Services and Supplies (LSASDPROC-1008).

LSASD's Operating Procedure for Control of Records (LSASDPROC-1001)

LSASD's Operating Procedure for Document Control (LSASDPROC-1000).

Environmental Protection Agency Records Management Policy (EPA CIO 2155.1).

Office of Technology Operations and Planning Directives System, http://basin.rtpnc.epa.gov/ntsd/directives.nsf.

ADP Disaster Recovery Plan for Region 4, June 10, 2004.

Policy and Program Requirements for the Mandatory Agency-wide Quality System (EPA CIO 2105.0).

Standards of Ethical Conduct for Employees of the Executive Branch, June 2009.

Environmental Protection Agency Ethics Resource Guide, 2006.

ISO/IEC 17025:2017; General Requirements for the Competence of Testing and Calibration Laboratories.

LSASD's Operating Procedure for Training and Demonstration of Capability (LSASDPROC-1003).

EPA Guidance for the Data Quality Objectives Process (QA/G-4), EPA/600/R-96/055

EPA Guidance for Quality Assurance Project Plans (QA/G-5), EPA/600/R-98/018

Quality Assurance Section Standard Operating Procedure for Quality System Assessment of the Region 4 States Responsible for Drinking Water Laboratory Certification (QASPROC--001).

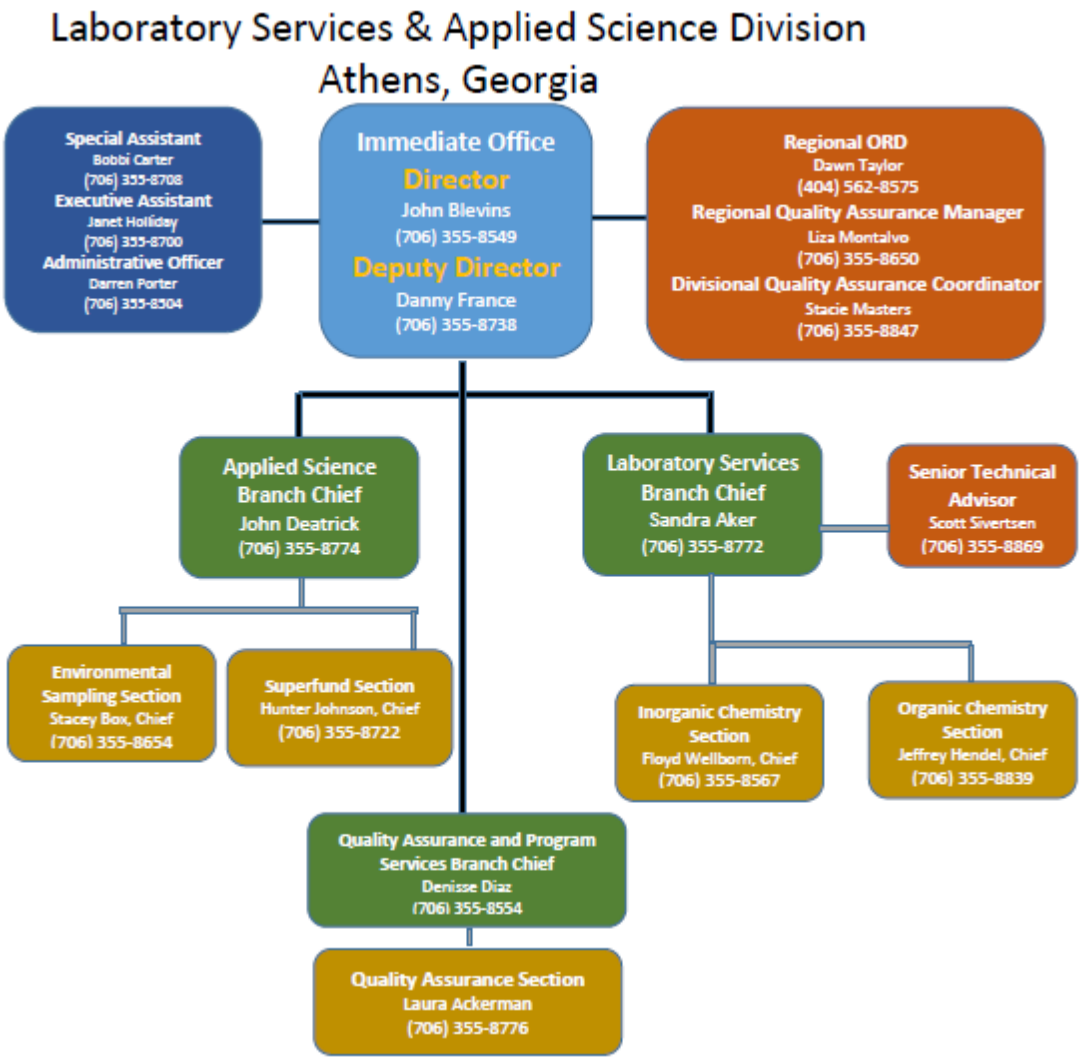
Quality Assurance Section Standard Operating Procedure for Quality System Assessment of the Region 4 States Responsible for Implementing a Drinking Water Certification Program (QASPROC-003).

Quality Assurance Section Standard Operating Procedure for Quality System Assessment of Selected Projects Completed within SESD (QASPROC-018).

LSASD's Operating Procedure for Internal Audits (LSASDPROC-1004).

LSASD's Standard Operating Procedure for Actions and Improvements (LSASDPROC-1005)

Appendix A: LSASD Organization Chart



APPENDIX B: LSASD POLICIES AND PROCEDURES

LSASDS PLANS, POLICIES AND OPERATING PROCEDURES

LSASD Division Wide Management System Documents

Actions and Improvements (LSASDPROC-1005)
Complaint Resolution and Control of Nonconforming Work LSASD-1006)
Control of Records (LSASDPROC-1001)
Document Control (LSASDPROC-1000)
Equipment Certifications (LSASDPROC-1011)
Equipment Inventory and Management (LSASDPROC-1009)
Internal Audits (LSASDPROC-1004)
Logbooks (LSASDPROC-1002)
Maintaining Chemical Inventory (LSASDPROC-1010)
Management Review (LSASDPROC-1007)
Purchasing Services and Supplies (LSASDPROC-1008)
Testimony Evaluation (LSASDPROC-1012)
Training and Demonstration of Competency (LSASDPROC-1003)
Quality Policy (LSASDPLCY-1000)

Applied Science Branch Quality System Documents

Sample and Evidence Management (ASBPROC-005)
Report Preparation and Distribution ASBPROC-003)
Project Planning (ASBPROC-016)
Field Sampling Quality Control (ASBPROC-011)
Field Measurement Uncertainty (ASBPROC-014)
Field Sampling and Measurement Procedures and Procedure Validation (ASBPROC-012)

Laboratory Services Branch Quality System Documents

Laboratory Operation and Quality Assurance Manual
Sample Disposal (LSBPROC- 104G)
Sample Receiving and Custody (LSBPROC- 105G)
Data Reporting and Preparing a Project File (LSBPROC- 118G)
Determining MDLs and Minimum Reporting Limits (LSBPROC- 119G)
Screening of Supplies (LSBPROC- 121G)

Dickson Temperature Monitoring System (LSB-PROC 122G)

Quality Assurance Section Quality System Documents

DW Lab Assessment Procedure (QASPROC-001)
Assessment of DW Cert Program (QASPROC-003)
Preparation of DW Laboratory Audit Reports (QASPROC-005)
SESD QA Assessment Procedure (QASPROC-018)
Data Validation for CLP Organics (QASPROC-025)

APPENDIX C: LSASD RECORDS RETENTION SCHEDULES

							Applicable Records Schedule for each Branch		
FCN	**Schedule**	**Item**	**Medium**	**Close**	**Final**	**Arrangement**	**LSB**	**ASB**	**QAPSB**
0 Nonrecord Materials	0008 Nonrecords	0008a – Nonrecord copy	Paper	Close when obsolete, superseded or no longer needed for reference.	Destroy immediately after file closure.	By state, then alphabetically by title.	●	●	●
108 Environmental Management	1035 Environmental Programs and projects	1035a – Historically significant environmental program and project records	Paper	Close when activity, project, or topic completed.	PERMANENT: Transfer to the National Archives 15 years after file closure.	Numerically by project number.		●	●
108 Environmental Management	1035 Environmental Programs and projects	1035c – Routine environmental program and project records	Paper	Close when activity, project, or topic completed.	Destroy 10 years after file closure.	Numerically by project number.	●	●	●
108 Environmental Management	1035 Environmental Programs and projects	1035d – Routine environmental program and project records	Paper	Close when activity, project, or topic completed.	Destroy 5 years after file closure.	Numerically by project number.		●	●
108 Environmental Management	1035 Environmental Programs and Projects	1035e – Other environmental program and project records	Paper	Close when superseded, updated, replaced, or no longer needed	Destroy immediately after file closure.	Numerically by project number.			●

APPENDIX C: LSASD RECORDS RETENTION SCHEDULES

							Applicable Records Schedule for each Branch		
FCN	**Schedule**	**Item**	**Medium**	**Close**	**Final**	**Arrangement**	**LSB**	**ASB**	**QAPSB**
				for current agency business.					
108Environmental Management	1036 (Draft) Environmental Programs and Projects – Site-Specific	1036a (Draft)* – Historically significant Superfund and oil spill site-specific records	Paper	Close Superfund and Oil Spill site-specific records, except landmark cases, upon deletion of site from the NPL or archived status (see Guidance for explanation of archived status) in the Superfund Enterprise Management System (SEMS) if not listed on the NPL. Close landmark cases	PERMANENT:Transfer to the National Archives 30 years after file closure.	Numerically by project number.		•	

APPENDIX C: LSASD RECORDS RETENTION SCHEDULES

							Applicable Records Schedule for each Branch		
FCN	**Schedule**	**Item**	**Medium**	**Close**	**Final**	**Arrangement**	**LSB**	**ASB**	**QAPSB**
				when case is closed.					

APPENDIX C: LSASD RECORDS RETENTION SCHEDULES

							Applicable Records Schedule for each Branch		
FCN	**Schedule**	**Item**	**Medium**	**Close**	**Final**	**Arrangement**	**LSB**	**ASB**	**QAPSB**
108 Environmental Management	1036 (Draft) Environmental Programs and Projects – Site-Specific	1036b (Draft)* – Site assessment records	Paper	Close upon remediation determination. If final remediation decision has not been made, review every 5 years. Records may be stored under a "Contingent Temporary" status until a decision is made and the appropriate disposition is assigned. File records for NPL and removal sites with the related site file (item a).	Destroy 40 years after file closure.	Numerically by project number.		●	

APPENDIX C: LSASD RECORDS RETENTION SCHEDULES

							Applicable Records Schedule for each Branch		
FCN	**Schedule**	**Item**	**Medium**	**Close**	**Final**	**Arrangement**	**LSB**	**ASB**	**QAPSB**
108 Environmental Management	1036 (Draft) Environmental Programs and Projects – Site-Specific	1036c (Draft) / 018A; 025A – Long term site-specific records	Paper	Close when activity, project, or topic is completed.	Destroy 30 years after file closure.	Numerically by project number.	●	●	●
108Environmental Management	1036 (Draft) Environmental Programs and Projects – Site-specific	1036e (Draft) / 001A – Short-term site-specific records	Paper	Close when activity, project, or topic is completed.	Destroy 7 years after file closure.	Numerically by project number.			
108 Environmental Management	1044 Compliance and Enforcement	1044a – Historically significant compliance and enforcement records	Paper	Close when activity, project, or case is completed.	PERMANENT: Transfer to the National Archives 15 years after file closure.	Numerically by project number.		●	●
108 Environmental Management	1044 Compliance and Enforcement	1044b – Long-term compliance and enforcement records	Paper	Close when activity, project, or case is completed.	Destroy 20 years after file closure.	Numerically by project number.		●	

APPENDIX C: LSASD RECORDS RETENTION SCHEDULES

							Applicable Records Schedule for each Branch		
FCN	**Schedule**	**Item**	**Medium**	**Close**	**Final**	**Arrangement**	**LSB**	**ASB**	**QAPSB**
108 Environmental Management	1044 Compliance and Enforcement	1044c – Routine compliance and enforcement records	Paper	Close when activity, project, or case is completed.	Destroy 10 years after file closure.	Numerically by project number.		●	
108 Environmental Management	1044 Compliance and Enforcement	1044d – Short-term compliance and enforcement records	Paper	Close when case is completed or end of calendar year.	Destroy 5 years after file closure.	Numerically by project number.		●	
108 Environmental Management	1047 Permits	1047c – Routine Permits	Paper	Close when administrative record is issued, or permit is renewed or terminated, or when no longer needed for current agency business.	Destroy 10 years after file closure.	By state, then alphabetically by title.		●	

APPENDIX C: LSASD RECORDS RETENTION SCHEDULES

							Applicable Records Schedule for each Branch		
FCN	**Schedule**	**Item**	**Medium**	**Close**	**Final**	**Arrangement**	**LSB**	**ASB**	**QAPSB**
301 Controls and Oversight	1016 Controls and Oversight	1016c – Routine controls and oversight records	Paper	Close when case is closed, or activity or report is completed or superseded.	Destroy 10 years after file closure.	Numerically by project number.		●	●
305 Public Affairs	1022 Public Affairs	1022a – Historically significant public affairs records	Paper	Close upon issuance or publication, or when superseded or inactive	PERMANENT: Transfer electronic records to the National Archives 5 years after file closure. Transfer	By topic/ chronology.		●	
305 Public Affairs	1022 Public Affairs	1022c – Short-term public affairs records	Paper	Close at end of calendar year or when no longer needed for current agency business.	Destroy 3 years after file closure.	By topic/ chronology	●	●	●
401 Administrative Management	1010 Travel	1010a – Travel records	Paper, Electronic	Close at end of fiscal or calendar year.	Destroy 6 years after file closure.	Alphabetically by employee's name.		●	●

APPENDIX C: LSASD RECORDS RETENTION SCHEDULES

							Applicable Records Schedule for each Branch		
FCN	**Schedule**	**Item**	**Medium**	**Close**	**Final**	**Arrangement**	**LSB**	**ASB**	**QAPSB**
401 Administrative Management	1006 Administrative Management	1006b – Other administrative management records	Paper	Close when discontinued, superseded, or canceled, or when no longer needed for current agency business.	Destroy 6 years after file closure.	By state, then alphabetically by title.	●	●	●
401 Administrative Management	1006 Administrative Management	1006d – Short-term administrative management records	Paper	Close when no longer needed for current agency business.	Destroy 90 days after file closure.	By state, then alphabetically by title.	●	●	
401Administrative Management	1006Administrative Management	1006e – Transitory files.	Paper	Close when no longer needed for current agency business.	Destroy 180 days after file closure.	By state, then alphabetically by title.	●	●	
402 Financial Management	1005 Financial Management	1005b – Accounting and appropriation allotment records	Paper	Close when end of fiscal year has occurred, or when fiscal year close- out activities are concluded, or	Destroy 10 years after file closure.	Chronologically by year.		●	●

APPENDIX C: LSASD RECORDS RETENTION SCHEDULES

							Applicable Records Schedule for each Branch		
FCN	**Schedule**	**Item**	**Medium**	**Close**	**Final**	**Arrangement**	**LSB**	**ASB**	**QAPSB**
				when period covered by the account has ended.					
402 Financial Management	1005 Financial Management	1005c – Payroll support	Paper	Close at end of pay cycle.	Destroy 56 years after file closure.	Chronologically by year.	●	●	
402 Financial Management	1005 Financial Management	1005d – Payroll records not covered elsewhere	Paper	Close after GAO audit or when 3 years old, whichever is sooner.	Destroy immediately after file closure.	Chronologically.	●	●	●
402 Financial Management	1005 Financial Management	1005f – Time and attendance source records	Paper	Close after GAO audit or when 6 years old, whichever is sooner.	Destroy after file closure.	Chronologically.	●	●	●

APPENDIX C: LSASD RECORDS RETENTION SCHEDULES

							Applicable Records Schedule for each Branch		
FCN	**Schedule**	**Item**	**Medium**	**Close**	**Final**	**Arrangement**	**LSB**	**ASB**	**QAPSB**
403 Human Resources Management	0039 Alternate Worksite Records	0039a – Approved requests or applications	Paper	Disposable.	Destroy 1 year after end of employee's participation in the program.	Chronologically/ Alphabetically		●	●
403 Human Resources Management	0039 Alternate Worksite Records	0039b – Unapproved requests	Paper	Disposable.	Destroy 1 year after request is rejected.	Chronologically/ Alphabetically		●	●
403 Human Resources Management	0122 Supervisors' Personnel Files and Duplicate OPF Documentation	0122a – Supervisors' personnel files	Paper	Close inactive records when employee separates from EPA, is reassigned within EPA, or transfers to another agency.	Destroy 1 year after file closure.	Alphabetically and/or chronologically (supervisor preference)	●	●	●
403 Human Resources Management	0122 Supervisors' Personnel Files and Duplicate OPF Documentation	0122b – Duplicate documentation	Paper	Close inactive records at the end of the month.	Destroy 6 months after file closure.	Alphabetically and/or chronologically (supervisor preference)	●	●	●

APPENDIX C: LSASD RECORDS RETENTION SCHEDULES

							Applicable Records Schedule for each Branch		
FCN	**Schedule**	**Item**	**Medium**	**Close**	**Final**	**Arrangement**	**LSB**	**ASB**	**QAPSB**
404Technology Management	1012Information and IT Technology Management	1012a – Historically significant IT management records	Paper, Electronic	Close input and source documents and system documentation when system data is transferred to the National Archives, and QIC records at the end of the calendar year.	PERMANENT:Transfer system documentation to the National Archives with the related electronic file. Transfer other electronic records to the National Archives 5 years after file closure. Transfer non- electronic records to the National Archives 15 years after file closure.	Chronologically		●	●

APPENDIX C: LSASD RECORDS RETENTION SCHEDULES

							Applicable Records Schedule for each Branch		
FCN	**Schedule**	**Item**	**Medium**	**Close**	**Final**	**Arrangement**	**LSB**	**ASB**	**QAPSB**
404 Technology Management	1012 Information and IT Technology Management	1012e – Transitory IT management records	Paper, Electronic	Close when superseded, updated, replaced, or no longer needed for current agency business.	Destroy immediately after file closure.	Chronologically		●	●
405 Supply Chain Management	1004Acquisitions and Contracts	1004b – Routine acquisitions and contracts	Paper	Close when activity completed or contract is completed or terminated.	Destroy 6 years after file closure.	Chronologically			●