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**Los Alamos  
National Laboratory**

Environment and Remediation Support Services  
Division

**Quality  
Assurance  
Project  
Plan for the  
Federal Facility  
Compliance  
Agreement /  
Administrative  
Order  
Project**

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## General information about this procedure

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**Appendices**

This plan has the following appendices:

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A	Project Organization	1

**History of revision**

This table lists the revision history of this plan.

Revision	Date	Description Of Changes
0	5/2/07	New document.

## SECTION 1

### Quality Program

#### Organization

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**Introduction** The Federal Facility Compliance (FFCA)/Administrative Order (AO) project supports the LANL Water Stewardship Programs (LWSP) in the Environment and Remediation Support Services (ERSS) Division in efforts to protect public health and environment by implementing rigorous compliance programs designed to assure institutional compliance with state and federal environmental protection regulations. In addition, the FFCA/AO program supports the WSP goals to protect human health and the environment from exposure to hazardous, radioactive, and mixed wastes from past treatment, storage, and disposal practices.

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**Purpose of the project** The FFCA/AO Project establishes a compliance program for the regulation of storm water discharges from specifically identified Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) point sources at the Los Alamos National Laboratory (LANL) pursuant to the requirements of the Clean Water Act (CWA) National Pollution Discharge Elimination System (NPDES) until such time as those sources are regulated by an individual storm water permit issued by EPA pursuant to the NPDES. During the period that the FFCA/AO is in effect, LANL must comply with all requirements of the current Multi-Sector General Permits (MSGP) Permit Nos. NMR05A734 (NNSA) and NMR05A735 (LANL). These specific sites are identified as “FFCA Sites” and are identified in Appendix 6 of the SWMU SWPPP.

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**Applicable quality criteria** The driver for the quality plan is the U.S. Department of Energy (DOE) Order 414.1C, which has been interpreted within the following documents:

- LANL Quality Assurance Program (IP 300-SD3.3)
- ERSS Quality Assurance Plan (EP-ERSS-QAP-0001)
- ERSS Quality Plan Description (EP-ERSS-QAP-0002)
- ERSS Quality Plan Implementing Matrices (EP-ERSS-QAP-0003).

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**Structure of the quality program** This QA Project Plan, including implementing procedures, is a sub-tier document to the ERSS Division Quality Management program. Group-level plans and procedures may also be applicable to members of the project and may provide additional administrative requirements for safety, training, records, etc.

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**Program  
organization**

The LWSP supports the environmental restoration program and characterization efforts within the Environmental Programs Directorate of LANL. The program consists of a number of projects providing remediation support services.

The program is organized by projects or teams under the line management direction of the program manager. Projects and teams provide services, deliverables, or products to support overall LWSP missions. Project leaders have the responsibility to ensure the project is completed.

Appendix A provides the program organizational chart. The organization of the WSP is shown at [http://erinternal.lanl.gov/contacts/docs/WSP\\_OrgChart.pdf](http://erinternal.lanl.gov/contacts/docs/WSP_OrgChart.pdf).

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**Project  
organization**

A project organization chart is provided in Appendix A. At LANL, groups led by a group leader have line management responsibility for employees. Employees are assigned to work for projects as needed in a matrix structure. Employees from the Environmental Protection Division's Water Quality and RCRA Group (ENV-RCRA) and from the Environment and Remediation Support Services (ERSS) Division are members of the FFCA project team.

The LWSP within ERSS Division is responsible for the FFCA/AO Project. There are three programs in LWSP (see [http://erinternal.lanl.gov/contacts/docs/WSP\\_OrgChart.pdf](http://erinternal.lanl.gov/contacts/docs/WSP_OrgChart.pdf)) and the FFCA/AO project is managed under the Project Integration/Regulatory Strategy Program.

The FFCA/AO Project Leader, a member of the ENV RCRA group, provides direction and has overall responsibility for the daily operation of the project according to the requirements in this plan. The FFCA Project Leader reports to the Project Integration/Regulatory Strategy Program Manager of the LWSP Program.

The Storm Water and Sediments Operations Task Leader implements field activities for the project and reports to the Field Operations Integration Manager who reports to the Operations Program Manager of LWSP.

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**SWAT**

The Los Alamos Storm Water Assessment Team (SWAT) consists of representatives from the DOE, LANS, DOE Oversight Bureau, NMED Surface Water Quality Bureau, and NMED Hazardous Waste Bureau. The team will have an advisory role and not an approval role to provide input and recommendations to the project regarding analytes, wSALs, BMPs, and other technical issues.

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**Regulatory  
drivers**

- Clean Water Act, 33 U.S.C. §§ 1251-1387 (CWA)
- NPDES MSGP for Storm Water Discharges Associated With Industrial Activities, 65 FR 64801
- NPDES Permit Nos. NMR05A734 and NMR05A735
- FFCA Docket No. CWA-06-2005-1701, dated February 3, 2005
- AO Docket No. CWA-06-2005-1734, dated March 17, 2005 (superceded)
- AO Docket No. CWA-06-2007-1716, dated November 16, 2006
- State of New Mexico Standards for Interstate and Intrastate Streams, NMAC 20.6.4

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**Other project  
drivers**

- DOE Order 450.1, Environmental Protection Program
  - DOE Order 5400.5, Radiation Protection for Public and Environment
  - LIR 404-50-01.1, Water Pollution Control
-

## Organization, continued

**Implementa-  
tion** The following table lists specific responsibilities.

<b>Who</b>	<b>What</b>
Group Leaders	Ensure that qualified staff and resources are available to support the project as requested by the project leader.
Project Integration/ Regulatory Strategy Program Manager	Provide overall management of the FFCA/AO project. Approve the scope of the FFCA/AO project. Provide sufficient funding and other resources to support FFCA/AO project as described in this plan.
FFCA/AO Project Leader	Ensure the FFCA/AO project is conducted in accordance with requirements specified in this plan. Provide direction as required by the Project Integration/Regulatory Strategy Program Manager to the FFCA/AO project personnel. Provide technical, implementation, planning, and scheduling oversight of the FFCA/AO project.
Field Operations Integration Manager	Provide field implementation, field support, equipment operation and maintenance, and documentation of field activities in accordance with this plan. Provide planning and scheduling in conjunction with the FFCA/AO Project Leader. Ensure line safety of Surface Water and Sediments Operations Project members.
FFCA/AO Project Members	Conduct FFCA/AO activities in accordance with the requirements specified in this plan.

## SECTION 2

### Personnel Development

#### Personnel Training and Qualification

**Required personnel education/experience**

Qualified team members will be hired and trained as prescribed in the applicable group or division quality plan. The LANL personnel division maintains documentation of education qualifications.

The FFCA/AO project requires personnel with a variety of the following skills:

- Bachelors degree or higher in environmental sciences, engineering or equivalent studies
- Knowledge of federal and NM State environmental water quality laws
- Strong written and oral communication skills
- Proficiency with database, spreadsheet, and word processing computer software products

**Training of personnel**

All personnel performing FFCA/AO-related work are required to obtain appropriate training prior to performing work governed by a procedure or be directly mentored while performing work. Training for all project personnel will be performed and documented according to the team member's applicable training procedure.

**Implementation**

The following table lists specific responsibilities.

Who	What
Group Leader or other Line supervisor of employees	Ensure that a training program compliant with LANL requirements is implemented and that employees are current with their training. Authorize project personnel to perform work.
FFCA/AO Project Members	Ensure training and work authorization are current.



## SECTION 3

### Quality Improvement

#### Improving Quality

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**Policy** The FFCA/AO project subscribes to the principles of problem prevention and continuous improvement and all project members will commit to evaluating improvement opportunities identified by FFCA/AO monitoring activities. Regular team meetings will be held to communicate goals, discuss issues, and exchange ideas.

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**Team meetings** FFCA/AO project performance will be monitored through regular meetings with project personnel, to be held at least monthly. Meeting topics will include:

- Project related improvements and issues
- Current status of the FFCA/AO project
- Equipment needs and issues
- Personnel needs and issues
- Review of project priorities and requirements

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**Monthly status reports** The FFCA/AO Project Leader will provide monthly status reports to the WSP Director and the Project Integration/Regulatory Strategy (PI/RS) Program Manager defining project modifications required, issues identified, and planned corrective actions. The reports will address items such as:

- Regulatory compliance status
- Equipment performance
- Required system modifications/upgrades
- Issues identified during assessment activities or during routine performance of work, and corrective action plans

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**Trending of issues** The FFCA/AO Project Leader will monitor, trend, and document issues and corrective actions at least annually. Documentation of trend analysis and proposed corrective actions may be documented in a separate memo or in a monthly status report.

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## Improving Quality, continued

**Status report distribution** The following receive copies of status reports:

- PI/RS Program Manager
- Storm Water and Sediment Operations Project Leader
- LWSP Program Director
- QA Specialist

**Corrective actions within the project** Corrective actions within the FFCA/AO Project will be initiated, tracked, corrected, and documented according to the applicable ERSS Division procedure and LANL requirements.

**Implementation** The following table lists specific responsibilities.

Who	What
Project Integration/Regulatory Strategy Program Manager	Promote an environment where all employees can identify performance improvement opportunities. Ensure that all employees know how to identify and report issues. Ensure that issues are corrected according to the applicable ERSS and LANL processes.
FFCA/AO Project Leader	Hold regular team meetings at least monthly to discuss needs, problems, corrective actions, and other project-related issues. Prepare monthly status reports to the LWSP Director and PI/RS Program Manager. Monitor and trend program performance and ensure issues are corrected in a timely manner. Perform trend analysis of deficiencies or issues at least annually and report in a memo or status report. Prepare annual QAPP assessment report to LWSP Director, PI/RS Program Manager, and ENV-RCRA Group Leader
Field Operations Integration Manager	Ensure that issues properly identified are corrected in a timely manner. Identify opportunities for process improvement. Contribute information and input to the FFCA/AO Project Leader.

<b>Who</b>	<b>What</b>
FFCA/AO Project Members	Identify opportunities for process improvement, health and safety enhancement, environmental protection, or other improvements of the program's operations.  Report all issues in a timely manner.  Support the correction of issues in a timely manner.

## SECTION 4

### Documents and Records

#### Project Plan and Procedures

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**Policy** Project documents such as QAPP and procedures will be maintained current to accurately reflect the essential work of the project.

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**Revising this plan** The FFCA/AO Project Leader, at least one reviewer, and the PI/RS Program Manager or designee will approve all revisions to this plan. Revisions to the plan will be provided to the QA Specialist.

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**Document control** This document will be controlled under the ERSS or ENV-RCRA group's document control system to ensure that those performing work for the project will have access to the latest revision of procedures and plans.

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**Procedures** Procedures will be developed as necessary and in accordance with the applicable procedure for ERSS or ENV-RCRA.

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**Annual review of procedures** QAPP and procedures will be reviewed at least annually to determine if revisions are necessary. Reviews will be documented as records.

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**Implementation** The following table lists specific responsibilities.

Who	What
FFCA/AO Project Leader	Ensure the QAPP and all procedures are reviewed at least annually and assign personnel to revise as necessary. Document the annual reviews of procedures. Provide revisions of this plan to the QA Specialist to be issued as a controlled document.
FFCA/AO Project Members	Review and revise QAPP and procedures as assigned by Project Leader.

## Project Records

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### Policy

The FFCA/AO Project will maintain sufficient records to demonstrate compliance with requirements for a period at least three years from the date that the facility's coverage under the MSGP and/or the FFCA/AO expires or is terminated. The number, type, and detail of all records to be kept will provide sufficient information to allow an individual with equivalent education and training to verify or reconstruct the results. Implementing procedures specify the records, forms, logbook entries, or other information to be kept as documentation of the performance of the procedure. Logbooks will be periodically (at a frequency determined by the project leader) copied to minimize the loss of information if the book is lost or damaged.

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### Records resulting from this program

Records to be kept in the records system in accordance with the ERSS Division records requirements include the following:

- Annual Storm Water Pollution Prevention Plan for SWMUs and AOCs
  - Logbook entries and/or field forms for sampling
  - Inspection and maintenance forms for BMP monitoring activities
  - Monthly wSAL Exceedance Reports
  - Quarterly Corrective Action Status Reports
  - Copies of correspondence with regulators
  - General correspondence that affects the project (e.g. phone calls, e-mails, log entries, faxes that provide directions or result in decisions, etc.)
  - Supporting analytical data packages
- 

### Records accessibility

A copy of the annual SWPPP and records required to establish compliance with the FFCA/AO must be retained at the facility (Laboratory) for inspection by the administrative authorities upon request. A copy of the SWPPP must be provided to the public if requested to do so in writing.

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### Records final disposition and retention period

All records will be maintained and available (after the deadline for submittal as given in applicable procedures) in the records center at the ERSS Record Processing Facility. At a minimum, records will be retained for a period of three years as required under the MSGP, and/or the FFCA/AO expires or is terminated, and a new individual permit is issued.

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### Implementation

The following table lists specific responsibilities.

<b>Who</b>	<b>What</b>
FFCA/AO Project Leader	Conduct annual review of records to ensure compliance with program requirements. Determine the frequency or interval at which logbooks will be copied for backup purposes.
FFCA/AO Project Members	Submit records according to implementing procedures. Submit copies of logbooks to the Records Coordinator periodically, but no less than annually.

## Electronic Media

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### Policy

The FFCA/AO project will utilize electronic means as necessary to maintain data and perform calculations on these data. Electronic means may be used for certain record types only to replace paper copy. Routine data reports will be kept in hard copy as the official record. Analytical data will be kept electronically in the Water Quality Database (WQDB) and follow its procedures.

Validated data will be made available for review to organizations external to the project and external to the Laboratory on the Water Quality Database (WQDB). The WQDB is located at <http://wqdbworld.lanl.gov/>.

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### Databases

Backups -- All databases used to hold data and generate reports to be used in demonstrating compliance will be maintained on a common drive of a server. These databases will be backed up daily to minimize potential losses of data.

Verification of data -- Data that are uploaded to the WQDB through manual means will undergo 100% verification by someone other than the data entry person. Data that are uploaded through electronic means (e.g., electronic data deliverables) will be spot checked (at least (10%) to ensure the upload performed as expected.

Verification of calculations -- A person other than the person who generated the query will review for accuracy all calculations performed in a database through queries. This review will be documented and forwarded to the appropriate record series.

Software control -- The integrity of all databases will be ensured by maintaining them on a common server. This will enable the database administrator to control access to these databases, allowing only trained authorized persons access to the databases.

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## Electronic Media, continued

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**Spreadsheets** Backups – All spreadsheets used to hold data and generate reports to be used in demonstrating compliance will be maintained in a secure location, preferably on the Pueblo server. Spreadsheets, both on personal hard drives and the Pueblo server, will be backed up at least weekly.

Verification of Data – All compliance-related data uploaded into a spreadsheet will be verified to be accurate against the original paper copy. Data that are uploaded through electronic means will undergo a 10% verification. Data that are uploaded through manual means will undergo a 100% review. Someone other than the data entry person must perform the 100% review. This review will be documented and forwarded to the appropriate record series.

Verification of calculations – A person other than the person who generated the spreadsheet will review for accuracy all compliance-related calculations performed in a spreadsheet. This review will be documented and forwarded to the appropriate record series. Modifications to the function of these spreadsheets will also be verified in this manner.

Software control -- the integrity of spreadsheets will be ensured by limiting access to the spreadsheets to only trained, authorized personnel. Additionally, at least once per year, the function of the spreadsheets will be verified by hand calculations. Documentation of this review will be forwarded to the appropriate record series.

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**Implementation** The following table lists specific responsibilities.

<b>Who</b>	<b>What</b>
FFCA/AO Project Leader	Ensure that project data are verified and all electronic media are appropriately backed up and maintained.
FFCA/AO Project Members	Backup data and spreadsheets that contain project data at least weekly.



## SECTION 5

### Work Processes

#### Planning and Performing Work

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**Policy**

Work that contributes to achieving the quality specification of the FFCA/AO deliverables will be planned and documented as described in this document and implementing procedures.

Work will be performed according to applicable plans, implementing procedures, and the Integrated Work Management process. The employee's line supervisor will provide first line supervision of personnel assigned to project tasks to ensure work is performed to achieve project quality specifications. Before changing a work process that affects the project quality specifications, the project leaders will ensure the same level of planning and review as used in the initial project planning steps.

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**Work processes**

All work should be regarded as a process. Each process consists of a series of actions and is planned and carried out by qualified workers using specified work processes and equipment under administrative, technical, and environmental controls established by management to achieve an end result. Workers are the best resource of contributing ideas for improving work processes and will be involved in work process design, process evaluation, and providing the feedback necessary for improvement.

All work is planned and performed using the principles of Integrated Safety Management and in compliance with the LANL requirements for *Integrated Work Management*.

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**Work performance**

The FFCA/AO Project Leader will ensure that the following are clearly identified and conveyed to workers prior to beginning work:

- Customer and data requirements for the work and final product
- Acceptance criteria applicable to work and final product
- Technical standards applicable to work and final product

The responsible line manager will ensure that the following are clearly identified and conveyed to workers prior to beginning work:

- Hazards associated with the work
  - Safety, administrative, technical, and environmental controls to be employed during the work.
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## Planning and Performing Work, continued

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**Implementa-  
tion** The following table lists specific responsibilities.

<b>Who</b>	<b>What</b>
FFCA /AO Project Leader	Ensure the same level of planning and review as used in the initial program planning steps before changing a work process that affects the program quality specifications.  Plan all work using the principles of Integrated Safety Management and in compliance with applicable LIRs and the division quality requirements, as appropriate.  Define processes necessary to accomplish project work and meet requirements.  Communicate requirements for essential processes to project personnel and document the process requirements in this plan.
Line managers and supervisors	Communicate information on hazards and their mitigation to their employees.  Provide first line supervision of personnel assigned to project tasks to ensure work is performed to achieve project quality specifications

## Application for NPDES Individual Storm Water Permit

**Policy** The FFCA/AO requires LANL to apply for an NPDES individual storm water permit to regulate storm water discharges from point sources at SWMUs and AOCs that have the potential to impact surface waters. The individual permit will replace existing coverage for Sector K and L SWMUs under the MSGP. Other conventional industrial activities will continue to be regulated by the MSGP. The FFCA/AO will terminate upon issuance of an individual permit.

**Submittal of permit application** The NPDES Individual Storm Water Permit Application was submitted to the EPA Region 6 office and the NMED Surface Water Quality Bureau (SWQB) on March 30, 2005, as required by the FFCA/AO. EPA has documented that the application is administratively complete. The Laboratory will provide Supplemental Information submittals as requested by EPA Region 6 to facilitate development of the individual permit.

**Implementation** The following table lists specific responsibilities.

Who	What
Project Integration/Regulatory Strategy Program Manager	Supervise and lead preparation and development of individual permit strategy and permit conditions.
FFCA/AO Project Leader	Ensure that initial individual permit application is accurate and complete. Lead preparation of supplemental materials requested by EPA related to individual permit. Initiate workshops for public input and information exchange.
FFCA/AO Project Members	Assist in development of individual permit and supplemental materials requested by EPA related to individual permit.

## Storm Water Pollution Prevention Plan and Storm Water Monitoring Plan

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### Policy

The Storm Water Pollution Prevention Plan (SWPPP) will be maintained and updated as required by the MSGP and FFCA/AO. The Storm Water Monitoring Plan (SWMP) is required only by the FFCA/AO and will be updated annually and submitted to EPA Region 6 as an attachment to the SWPPP for review and approval (with copy provided to NMED) no later than March 31st of each year. The annual SWPPP document will be signed and certified by the duly authorized signatory for LANL (Associate Director for ESHQ).

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### Background requirements

The facility Storm Water Pollution Prevention Plan (SWPPP) is required by MSGP §4.0 and the FFCA/AO and the SWPPP document must be maintained current and available at all times for inspection by the administrative authorities (EPA and NMED). The FFCA/AO added the requirement to submit the SWPPP [with the Storm Water Monitoring Plan (SWMP)] to the EPA annually for their review and approval. A copy will also be provided to NMED. Note that EPA does not routinely require submittal and approval of SWPPPs. The FFCA/AO does not stipulate a deadline for EPA approval. To date, EPA has only approved the 2005 SWPPP, and has not provided comments on the 2006 SWPPP.

The Storm Water Monitoring Plan (SWMP) is required only by the FFCA/AO and must be updated annually.

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**SWPPP  
document  
contents**

The SWPPP will identify best management practices, inspection and maintenance schedules, and the approach to storm water monitoring. The SWPPP will:

- incorporate all the FFCA/AO requirements that pertain to site-specific monitoring and corrective action, as well as MSGP monitoring and BMP inspection and maintenance requirements applicable to SWMUs.
- include a summary of corrective actions to address action level exceedances.
- describe the monitoring and erosion control program to control and limit contamination migration and transport from sites within the Laboratory and within individual or combined site boundaries.
- address all MSGP requirements for SWPPP contents, including pollution prevention team, site description, receiving waters description, facility map, certified allowable non-storm water discharges, and documentation of permit eligibility related to endangered species and historic places.
- report status of SWPPP-required activities (MSGP 4.2) on a SWMU-specific basis, including potential pollutant sources, spills and leaks, BMPs, inspections, and monitoring results.
- summarize previous monitoring year analytical data (hardcopy and electronic formats).

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**SWPPP  
attachments**

In addition, the following reports and certifications will be retained with the current SWPPP document.

- Visual Monitoring Log
- Certifications of No Flow
- Adverse Climatic conditions Waiver
- Certification of No Exposure
- Inactive and Un-staffed Site Waiver
- Annual Site Compliance Evaluation Report

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**SWMP  
contents**

The SWMP describes where and how often FFCA/AO monitoring will be conducted. The annual SWMP update must include the following information:

- Locations proposed for reduced monitoring requirements.
- Sampling and analysis plan (see chapter *Sampling and Analysis Plan*) for the upcoming monitoring year; includes proposed changes to sampling.

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**Submission  
of the plan**

The annual revision of the SWMP will be combined with the latest revision of the SWPPP and submitted for approval to the EPA Region 6 office and for review by the NMED Surface Water Quality Bureau (SWQB) by March 31<sup>st</sup> following each monitoring year.

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**Note on  
Discharge  
Monitoring  
Reports**

The 2000 MSGP requires submittal of DMRs according to the schedule set forth at MSGP 7.1. The 2000 MSGP expired in October 2005, but has been administratively continued until reissuance or replacement. However, the EPA has not updated the DMR submittal schedule under the administratively continued permit. EPA Region 6 indicated they do require or expect DMR submittals from LANL until such time as a new permit (either general or individual) is issued.

**Implementa-  
tion**

The following table lists specific responsibilities.

<b>Who</b>	<b>What</b>
FFCA/AO Project Leader	Maintain a master controlled copy of the SWPPP and update it at least quarterly via revisions and updates of sections as needed.  Maintain a revision tracking log at the front of the document to record changes and updates.  Ensure that the SWMP is updated annually according to the FFCA/AO requirements.  Ensure that the combined SWPPP and SWMP documents are submitted to EPA Region 6 and NMED Surface Water Quality Bureau by March 31 <sup>st</sup> of each year.

## Review of wSALs

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### Policy

The water screen action levels (wSALs) will be revised as necessary to reflect applicable changes to State of New Mexico water quality standards. New wSALs will be developed as needed in cooperation with the SWAT and included in the SWPPP for EPA's review and approval. Review of wSALs will generally be needed only when new standards are issued by the State or EPA.

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### Background

The storm water screening action levels (wSALs) for each pollutant were previously determined in stepwise fashion by evaluating, in the following order:

- Requirements for any segment that is included in a classified water of the state in 20.6.4.101 through 20.6.4.899 NMAC
- Requirements for any surface water that is *not* included in a classified water of the state in 20.6.4.101 through 20.6.4.899 NMAC; then
- EPA Multi-Sector General Permit (MSGP) Sector K benchmark values.

Significant changes were made in the NMWQCC stream standards that became effective on July 17, 2005. The most significant change is the classification of all surface waters within the Laboratory boundary with segment-specific designated uses. As a result, two different types of wSALs will be derived and applied beginning in the 2006 monitoring year: Perennial wSALs and Ephemeral wSALs.

The derived wSALs are summarized in the annual update to the SWMU SWPPP.

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### Evaluation of applicable water quality standards

Under the FFCA/AO, the Laboratory conducts storm water monitoring at locations both within the Laboratory boundary and on non-DOE property formerly used for Laboratory activities. Segments within the Laboratory boundary are classified under two sections of NMAC 20.6.4:

- 20.6.4.126, perennial segments with designated uses of coldwater aquatic life, livestock watering, wildlife habitat, and secondary contact; and
- 20.6.4.128, ephemeral or intermittent segments with designated uses of livestock watering, wildlife habitat, limited aquatic life, and secondary contact.

Storm water discharges monitored under the FFCA/AO that are not included under 20.6.4.126 or 20.6.4.128 are designated as ephemeral (20.6.4.97), intermittent (20.6.4.98), or perennial (20.6.4.99) waters.

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**Numeric standard to use**

The Ephemeral and Perennial wSALs for a pollutant are designated as the lowest numeric criteria of the applicable NMWQCC WQS established in *State of New Mexico Standards for Interstate and Intrastate Surface Waters* (NMAC 20.6.4) (New Mexico 2005), if one exists.

- If there is one or more applicable standards for the total recoverable (TR) pollutant concentrations, the lower total recoverable criterion will be selected as the wSAL.
- If the pollutant is a metal and there is one or more applicable standards for the dissolved concentration, the dissolved standard will be converted to the TR value using the EPA conversion factors for dissolved metals taken from Appendix A to *National Recommended Water Quality Criteria: 2002* (EPA 2002a). The limiting calculated TR value will be selected as the wSAL.

**Development of alternate criterion for wSAL**

If there is no applicable NMWQCC water quality standard or applicable EPA MSGP benchmark for the pollutant, and if the pollutant is detected in storm water runoff, the criterion for a wSAL may be developed in cooperation with the SWAT using protocols described at NMAC 20.6.4.12 (F)(2) and in *National Recommended Water Quality Criteria: 2002* (EPA 2002a).

- Alternatively, protocols used by the EPA to develop NPDES effluent limitations and benchmark values may be applied.
- Where no appropriate criterion or protocol is available, an acceptable wSAL may be developed in consultation with the NMED and EPA Region 6.

**Implementation**

The following table lists specific responsibilities.

Who	What
FFCA/AO Project Leader	Ensure wSALs are developed and applied in accordance with FFCA/AO requirements. Ensure new or revised wSALs are implemented and documented in the annual SWPPP as appropriate. Work with the SWAT to get their input and review comments on new or revised wSALs.



## Selection of Analytical Suites

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**Policy** Analysis parameters for each monitoring station will be defined in detail in the annual SWMP for the monitoring year. Analytical suites for the watershed-scale monitoring stations are defined in Table 1 of the FFCA/AO. The EP-ERSS Sample Management Office (SMO) is responsible for procuring the required analytical services from external analytical laboratories (see chapter *Laboratory Analytical Services*).

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**Determination of analytical suites at Site-specific locations** For Site-specific monitoring, the analytical suites will be determined by evaluating existing surface soil data, storm water monitoring data, and/or site operating history. Additionally, Site-specific monitoring will include the MSGP Sector K benchmark pollutants for the analytical monitoring periods specified in the MSGP. Under the administratively continued MSGP, LANL will perform benchmark monitoring during the 2008 monitoring year.

Analytical suites may be reduced or modified as allowed in the FFCA/AO. The detailed storm water sampling plan for each monitoring year must be included in the SWMP.

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**Determination of analytical suites at watershed monitoring stations** Analytical suites will be assigned to each watershed monitoring station according to the station-specific suites listed in Table 1 of the FFCA/AO. Additional suites may be added in annual updates to the SWMP based on discussions with EPA and NMED personnel. The FFCA suites include any combination of dioxins/furans, high explosives (HE), metals (dissolved and total recoverable), perchlorate anion, polychlorinated biphenyl compounds (PCBs), and radionuclides (based on MOU from DOE). The analytical suites assigned to a monitoring station may also change with each annual monitoring period. The detailed storm water sampling plan for each monitoring year must be included in the SWMP.

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**Suspended sediment concentration** All storm water runoff samples will be analyzed for suspended sediment concentration (SSC) to improve understanding of mobilization of contaminants in sediments (not required by FFCA/AO or MSGP but used internally for data interpretation).

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**Analytical methods** Chemical analytical methods used for storm water runoff sampling will be those set forth in 40 CFR Part 136 and the New Mexico Water Quality Control Commission (WQCC) regulations. The use of alternative methods will be detailed in the annual SWMP, and must be approved by EPA prior to use.

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**Evaluate reduced monitoring requirements**

The FFCA/AO stipulates that after four samples are collected at a particular monitoring station, the data will be evaluated and changes to the SWMP proposed, as appropriate, to the EPA for approval in the annual update submitted by March 31<sup>st</sup> following the monitoring period.

- If four consecutive samples have been collected at an FFCA/AO monitoring station and the measured analytical results are less than the wSAL, then the Laboratory will recommend that the analytical monitoring requirements of the FFCA/AO be reduced or discontinued.
- If the monitoring station is also collecting data for the MSGP (e.g., the Site-specific stations), the Laboratory will continue to monitor for only sector K parameters until the MSGP is reissued or replaced, or until an individual permit is in place. The MSGP monitoring will continue regardless of whether an analytical result is greater or less than a benchmark value.
- If flow is observed at a monitoring station during one year and no sample is collected, the sample trip settings and/or the sample suction line height above the streambed will be re-evaluated and adjusted, if possible, to collect water.
- If no flow is observed at a station for eight consecutive quarters, and the lack of documented flow is not due to a mechanical error or lack of local precipitation, then the Laboratory may recommend that the sampling frequency be reduced.
- Additionally, when the monitoring results indicate that a corrective action has successfully mitigated pollutant release and/or transport (as determined by four consecutive sample results below the wSAL), the Laboratory will recommend that the analytical monitoring requirements of the FFCA/AO be reduced or discontinued. The change in monitoring requirements will be proposed to the EPA for approval in the annual update to the SWMP submitted by March 31<sup>st</sup> following the monitoring period.

**Implementation**

The following table lists specific responsibilities.

Who	What
FFCA/AO Project Leader	Ensure analytical suites are developed and specified in the SWMP in accordance with the policy above.  Communicate analytical suite requirements to the EP-ERSS SMO Team Leader via the sample plan.  Evaluate analytical results to determine if monitoring requirements may be reduced.  Document proposed analytical suites in the sampling plan and include it in the SWMP.

## Sample Location Determination

### Policy

Under the FFCA/AO, the Laboratory will conduct two types of storm water runoff monitoring, each of which is governed by the SWMP document.

- Sampling on a watershed-scale basis at approximately 60 automated gage stations listed in Table 1 of the FFCA, sited within the Laboratory canyon drainage systems.
- Site-specific sampling at or near Sites listed in Table 2 of the FFCA, as updated in Appendix 6 of the annual SWPPP. The Laboratory groups Sites located in common drainage areas into Site Monitoring Areas (SMAs).

The sampling locations for each monitoring year will be specified in the annual SWMP.

### Removal from sampling

Sampling locations may be proposed in the SWPPP for removal from analytical monitoring requirements and will be removed upon EPA approval of the SWPPP.

### Implementation

The following table lists specific responsibilities.

Who	What
FFCA/AO Project Leader	Review stations to be sampled and maintain the official list. Communicate station list to appropriate field sampling task leader.

## Sampling and Analysis Plan

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### Policy

After determination of analytical suites and selection of sampling locations (see chapters *Selection of Analytical Suites* and *Sample Location Determination*), a draft sampling and analysis plan (in both written and spreadsheet forms) will be developed for internal LANL review. Analysis parameters for each monitoring station will be defined in detail in the plan for the monitoring year. The reviewed and approved sampling plan will be submitted to the EP-ERSS SMO for incorporation into the WQDB (or successor database) for planning and scheduling of the field sampling teams, and for sample planning by the SMO. The final sampling plan will be documented in the required SWMP (see chapter *Storm Water Pollution Prevention Plan and Storm Water Monitoring Plan*).

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### Contents of sampling plan

The sampling plan submitted to the SMO will contain the following information:

- sampling locations and names, media to be sampled
  - sampling times and schedules
  - special instructions for sampling methodology if different from existing SOPs
  - analytes to be collected and analytical methods (specified as order codes), analytical laboratory if different
  - sample collection priority for codes
  - field preparation, bottle, and preservation requirements
  - field QC and special analytical laboratory QC requirements
  - field parameters
  - special data handling requirements such as database security or web release limitations
  - charge codes
- 

### Implementation

The following table lists specific responsibilities.

<b>Who</b>	<b>What</b>
FFCA/AO Project Leader	<p>Draft a sampling plan (in both written and spreadsheet forms) that describes the samples and sampling schedule to comply with project requirements.</p> <p>Consult with the Field Operations Integration Manager regarding sampling requirements, feasibility, and scheduling.</p> <p>Obtain review of the draft sampling plan by customers, the sample management office, Field Operations Integration Manager, data management team, and others as appropriate.</p> <p>Submit the written and spreadsheet plans to the SMO for entry into the sample management database application.</p> <p>Review entry of the plan in WQDB to ensure correctness.</p>
Sample Management Office	<p>Review draft sampling plan for feasibility, scheduling concerns, and analytical capability issues.</p> <p>Enter sampling plans in the WQDB as requested by the Facility-wide Monitoring Project Leader.</p>

## Sample Collection

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### Policy

The FFCA/AO monitoring stations will be operated to collect up to four complete samples for analytical monitoring each monitoring year following precipitation events that produce a discharge in volumes large enough to allow for sample collection. Details of the sample collection process are given in the SWPPP.

Additionally, the monitoring stations will be operated to collect a quarterly sample for MSGP visual monitoring requirements (see below).

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### Sampling procedures

Sample collection will be carried out in accordance with approved field operating procedures maintained by the Field Operations Integration Manager. Additional requirements may be provided in the annual update to the SWMP.

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### Requirements for sampling

The FFCA/AO requires LANL to follow the MSGP requirements to collect a grab sample, defined as a discrete, individual sample taken within a short period of time, usually less than 15 minutes. The MSGP states that the grab samples will be collected within the first 30 minutes of flow from the discharge resulting from a storm event that is greater than 0.1 inches in magnitude and that occurs at 72 hours from the previously measurable (i.e., greater than 0.1 inch rainfall) storm event. The 72-hour storm interval is waived when the preceding measurable storm did not yield a measurable discharge, or if the facility can document that less than a 72-hour interval is representative for local storm events during the sampling period (65 FR 64746, Section 5.2.2).

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### Sampling frequency for FFCA requirements

Up to four analytical monitoring samples will be collected each monitoring year following precipitation events that produce a discharge in volumes large enough to allow for sample collection. Runoff flows include both runoff from snowmelt and rainfall, with the following conditions.

- No more than one snowmelt runoff sample will be collected per year.
- If no snowmelt runoff sample is collected in a given monitoring year, four storm water runoff samples will be collected as flow permits.

The FFCA/AO has no requirement that the annual samples be collected during any particular quarter of the monitoring year; though the MSGP requires quarterly monitoring (below).

- Samples will be collected from separate precipitation runoff events; however, there is no minimum elapsed time required between sampled events for the purposes of the FFCA/AO.
-

**Sampling frequency for MSGP requirements**

To meet MSGP requirements, four samples per year are required, but it is not necessary to collect them in separate quarters as long as climatic conditions prevent evenly spaced quarterly sampling (see chapter *Adverse Climatic Conditions Waiver*). LANL has filed a general waiver from quarterly monitoring under the MSGP, and collects four samples annually. This is consistent with the FFCA requirement for four annual samples.

**Visual monitoring**

Quarterly visual monitoring of runoff is required by the MSGP and referenced by the FFCA. Visual monitoring collects information that may indicate the migration of pollutants in runoff. Accordingly, field personnel will conduct and document visual monitoring at least quarterly of storm water collected at the monitoring stations according to field operating procedures. If no samples are collected in a quarter, there is no requirement to conduct “make-up” visual monitoring in subsequent quarters.

Visual monitoring does not need to be done on water collected for analytical samples, and vice versa. For example, if a sample has previously been collected during a quarter to satisfy analytical requirements but no visual monitoring was done and there is water available to conduct visual monitoring, the water used for visual monitoring does not need to be collected for analysis.

**Sampler inspections**

Sampling equipment deployed to the field will be inspected at regular intervals to ensure proper operation and identify maintenance requirements for continued functioning under field conditions.

**Implementation**

The following table lists specific responsibilities.

Who	What
Storm Water and Sediments Operations Task Leader	<p>Ensure monitoring stations are sampled in accordance with the applicable procedures and in accordance with FFCA/AO requirements.</p> <p>Maintain watershed gage stations and collect storm water samples in accordance with this QA Project Plan and the SWMP.</p> <p>Collect flow and discharge data for sampled storm events. Submit collected samples in accordance with applicable procedures to the Sample Management Office for processing.</p>
FFCA/AO Project Leader	Work with Storm Water and Sediments Operations Task Leader to ensure monitoring activities are completed according to the FFCA/AO.

## Flow Measurement

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**Policy** When sampling personnel are present at a gage monitoring station where additional or supporting quantification of discharge rate is needed and water is flowing, flow measurements will be taken at the gage station location using either a current meter (or appropriate equivalent) or a modified Parshall Flume (or appropriate equivalent). If water is not flowing, appropriate survey measurements will be recorded to allow for a subsequent estimate of peak flow. Flow measurement data will be collected in accordance with field operating procedures maintained by the Field Operations Integration Manager.

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**Storm Event Data** Storm water monitoring data will include:

- date of the storm event during which samples are collected;
- at gage stations, the approximate discharge volume, duration, and peak of storm water runoff; and
- precipitation measurements from existing regional rain gages, supplemental rain gages, or other applicable readily available data.

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**Regulatory** The results of flow measurement measurements will be used to support the following requirements:

- storm event discharge volume reported on annual flow report;
- quarterly no flow certifications; and
- determination that flow detection occurred without sample collection attributed to equipment failure.

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**Implementation** The following table lists specific responsibilities.

Who	What
Storm Water and Sediments Operations Task Leader	Ensure flow measurements are made in accordance with the policy above and the applicable operating procedures. Ensure flow measurement devices are operating properly Enter data from flow measurements into the appropriate database and check for proper and accurate entry of data.
FFCA/AO Project Leader	Work with Storm Water and Sediments Operations Task Leader to ensure flow monitoring activities are completed according to the FFCA/AO.
Hydrologist	Prepare flow summaries from gage data. Make recommendations for gage location and improvements. Perform flow and hydrograph calculations as requested.



## Laboratory Analytical Services

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### Policy

The Sample Management Office (SMO) will be the central point for all analytical laboratory selection, evaluations, sample submittal, and data return. The SMO will evaluate potential analytical laboratories, prepare analytical statements of work that include requirements given below, and arrange contracts with selected laboratories for analysis of all samples. The SMO will accept samples from field collection personnel, process the sample, ship the samples to the analytical laboratories, and receive the data packages from the laboratories.

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### Analytical standards

The subcontractor analytical laboratory will perform all sample analyses pursuant to the most recent version of the DOE *Model Statement of Work for Analytical Laboratories* (DOE 2005) prepared for the National Nuclear Security Agency (NNSA) Service Center located in Albuquerque, New Mexico. The analytical statement of work will specify analytical and quality control requirements for the requested analytical methods that are consistent with the promulgated regulatory procedures in 40 CFR Part 136, including initial and continuing calibrations, analysis of surrogate compounds, and analysis of method blank, matrix spike, duplicate, and laboratory control samples. All procedures and requirements for laboratory sample analysis will address any detailed requirements provided in the annual update to the SWMP.

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### Implementation

The following table lists specific responsibilities.

Who	What
FFCA/AO Project Leader	Make appropriate arrangements with the SMO to accept, process, and submit samples to an analytical laboratory for required analyses as specified in the sampling plan.

Who	What
Sample Management Office	<p>Develop Statements of Work (SOW) for all analytical laboratories that perform analytical work for the FFCA/AO project.</p> <p>Ensure analytical laboratories comply with the DOE's SOW. Conduct annual audit of laboratory to ensure compliance with SOW.</p> <p>Approve Statements of Work for analytical laboratories that are contracted to analyze water samples.</p> <p>Approve analytical laboratories that are contracted to analyze water samples for regulatory compliance purposes.</p> <p>Accept samples and submit to analytical laboratory for analysis.</p> <p>Track progress of samples at analytical laboratory and resolve issues with sample analysis.</p> <p>Receive data packages from the analytical laboratory and enter data into database.</p> <p>Provide FFC/AO Project Leader with monthly invoice updates.</p>

## Data Verification and Validation

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### Policy

All analytical data will be received from analytical laboratories in electronic format and uploaded into a database. All received data will be checked for completeness and adherence to contract requirements. After uploading, all data will undergo verification and validation (V&V) for evidence of laboratory contamination, improper analytical method, and other analytical issues which could potentially affect data quality.

Field data collected by sample collection personnel will be verified and validated by the SMO when field personnel deliver samples to the SMO.

If significant V&V issues are identified, results will be forwarded to and discussed with the Data Assessment Project Leader and responsible project leads for inclusion in the monthly data review.

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### Documenting data issues

The source of and follow-up on data quality issues that are discovered through data V&V or by other means will be documented in the database with appropriate quality flags by the Chemistry Support Team. Data V&V issues may include checking on validity of results of concern and may result from field data collection issues or from analytical laboratory issues.

Examples of field data collection issues may include (but are not restricted to):

- incorrect preservation
- lack of supporting data or documentation
- sampling system issues
- potential cross contamination issues
- sample collection issues

Examples of analytical laboratory issues may include (but are not restricted to):

- systematic analytical laboratory errors such as process or contamination issues,
- reanalysis of samples resulting in related analytical results of (for example) non-detection.
- Using non-approved methods for analysis

Data issues that result from procedural failures, personnel errors, or other failures to follow requirements will be documented as deficiencies and corrected according to the applicable deficiency procedure (see Section 3).

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**Implementation** The following table lists specific responsibilities.

<b>Who</b>	<b>What</b>
SMO	Perform V&V of field data submitted and uploaded from forms or logbooks when samples are submitted to the SMO.
Chemistry Support Team Leader	Perform V&V of data packages uploaded by the SMO or send data packages to a subcontractor company for independent V&V. Enter appropriate flags and remarks into the database to identify and otherwise qualify analytical results based on the V&V process. Incorporate results of V&V in the requested data sets. Forward results of concern to the Data Assessment Task Leader.
Data Management Team Leader	Provide database and programming expertise and support to manage databases and queries for the SMO and the Chemistry Support Team Leader.
FFCA/AO Project Leader	Assure that IM support is provided to meet regulatory requirements and deadlines.

## Data Review and Assessment

### Policy

Analytical data will be reviewed for accuracy and completeness and assessed on an on-going basis. Assessment results will be presented monthly and only assessed data will be used for data reporting. All analytical data will be evaluated to identify:

- data that exceed or approach State water quality standards
- data that exceed or approach wSALs
- amount of contaminants that can be attributed to natural sources (using statistical tools)
- trends or patterns in anomalous results to determine potential source areas and corrective actions.

Results of concern identified according to the criteria above will be forwarded to the project leader and other managers to review and discuss any required notifications to EPA or NMED.

### Implementation

The following table lists specific responsibilities.

Who	What
FFCA/AO Project Leader	Assure that database support is provided to meet regulatory deadlines.
Data Assessment Task Leader	Review analytical data results for conformance to data quality requirements and report on the quality of the data to the responsible project lead and in the monthly FFCA/AO Team meeting. Develop and revise, as necessary, implementing procedures for data assessment. Conduct screening evaluations to identify results of concern. Bring results of concern to the attention of management for appropriate action and response.
Data Management Team Leader	Coordinate with Project Leader to assure that data and information management and needs of FFCA/AO Project are met.

## Corrective actions at SWMUs

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### Policy

FFCA/AO Project will initiate corrective actions within 30 days of receipt of the monitoring results for locations where wSAL exceedances have been observed according to the decision criteria defined in Paragraph 24, pp. 8-9 of the FFCA. Best Management Practices (BMPs) serve as corrective actions under the FFCA/AO. A BMP serves to control the movement of sediment and its associated contaminant load. Corrective action may include: installation, re-examination, repair and/or modification of BMPs; or source identification to control or eliminate the source or migration of pollutants or contaminants.

Access to and installation of BMPs in Nuclear Environmental Sites (NESs) may require special permissions and training.

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### Evaluating potential corrective actions

After a wSAL limit exceedance has been identified, the following criteria will be used to determine a corrective action:

- Validate data based on analytical laboratory quality control measurements.
  - Identify potential source term(s) for the pollutant.
    - Evaluate available information for Sites located within the SMA drainage area and/or upstream of the watershed monitoring station.
    - Evaluate potential non-Laboratory sources of the pollutant.
  - Determine if the presence of the pollutant is attributable in whole or part to Laboratory operations.
  - LANL may use existing Laboratory data sets for naturally-occurring background levels of inorganic and/or fallout concentrations of radionuclide constituents in mesa-top soils (LANL 1998) and canyon sediments (LANL 2003a) to inform the decision. If LANL determines that additional background or baseline sampling is appropriate, the FFCA/AO Project Leader will propose a sampling plan to the NMED.
  - If it is determined that the presence of the pollutant is not attributable to Laboratory operations, the corrective action process may be re-evaluated.
-

**Scope and priority for corrective action implementation**

Based on the results of the assessment of the cause of wSAL exceedances, the scope of corrective actions will be determined.

- Corrective action conducted within the scope of this Plan is implemented as part of the NPDES compliance program established by the FFCA/AO. Actions implemented on a Site-specific basis may include reexamination of existing BMPs, installation of BMPs, and modification or repair of BMPs. BMPs include controls such as silt fences, rock check dams, seeding, or run-on diversion.
- Section VII.A of the Consent Order governs RCRA-related corrective actions including source term removal at Sites. LANL will prioritize locations for corrective action, taking into consideration the ratio of the measured pollutant concentrations to the wSALs; the number of pollutants observed; and the frequency with which wSALs are exceeded.

**Implementation**

The following table lists specific responsibilities.

<b>Who</b>	<b>What</b>
FFCA/AO Project Leader	Serve as Subcontractor Technical Representative (STR) to assure BMP Installation, Inspection, and Maintenance Program is implemented at SWMUs, in accordance with FFCA/AO.  Ensure contractors are selected and hired to perform needed BMP installation and maintenance.
BMP Installation, Inspection & Maintenance Task Leader	Oversee subcontractor support for BMP inspection and maintenance in the contractor's statement of work.  Contact managers of NESs to coordinate access and training of field personnel for BMPs in NESs.  Coordinate development of IWDs for corrective actions

## Inspection and Maintenance of BMPs

**Policy** BMPs will be inspected and maintained according to requirements specified in the annual SWPPP. BMP inspections will be made at each Site listed in Appendix 6 of the SWMU SWPPP and inspection results will be documented and signed by the inspector(s). BMPs will be installed and maintained in accordance with *Storm/Surface Water Pollution Prevention Best Management Practices Guidance Document*, LANL 1998 (in revision).

**BMP installation and inspection** A list of current BMPs installed at each FFCA/AO site will be maintained in the Storm Water Tracking System (SWTS) module of the WQDB and updated as necessary to reflect BMP installation, removal, or abandonment. The site map will also be updated by drawing in the locations and types of BMP installations.

BMPs will be inspected and maintained in accordance with field operating procedures. Reports of periodic and annual BMP inspections, including date, findings, and deficiencies, will be completed and entered into the SWTS module. Maintenance requirements identified during BMP inspections will be tracked and documented. If site inspections identify BMPs that are not operating effectively, maintenance must be performed before the next anticipated storm event, or as soon as practicable as necessary to maintain the continued effectiveness of storm water controls.

Reports from SWTS will be provided to the FFCA/AO Project Leader to meet the quarterly and annual reporting requirements under the FFCA/AO.

**Implementation** The following table lists specific responsibilities.

Who	What
FFCA/AO Project Leader	Serve as Subcontractor Technical Representative (STR) to assure BMP installation, inspection, and maintenance activities are implemented at SWMUs, in accordance with FFCA/AO. Ensure contractors are selected and hired to perform needed BMP installation and maintenance. Coordinate development of IWDs for implementation and maintenance of BMPs.
BMP Installation, Inspection & Maintenance Task Leader	Oversee contractor support for BMP inspection and maintenance in the contractor's statement of work. Contact managers of NESs to coordinate installation and maintenance in BMPs in NESs.



<b>Who</b>	<b>What</b>
Subcontractors	Implement BMP Installation, Inspection & Maintenance Program as defined by the Scope of Work. Provide routine inspection and maintenance reports to the FFCA/AO Project Leader and enter appropriate required information into the SWTS module of the WQDB.

## Annual Comprehensive Site Compliance Evaluation

**Policy** A Comprehensive Site Compliance Evaluation (CSCE) will be performed for each regulated SWMU/AOC annually. The inspections must address the requirements listed in MSGP Section 4.9.2.

**Annual CSCE inspections** The annual CSCE inspection for each FFCA Site will be documented on the appropriate form, and the individual site maps will be updated based on field observations. Based on the results of the inspection, the SWPPP will be modified as required following the inspection. This MSGP requirement is impractical and difficult to meet, therefore, LANL intends to meet with EPA to agree upon a more reasonable time period. If existing BMPs need to be modified, or if additional BMPs are necessary, implementation must be completed before the next anticipated storm event, if practicable, but not more than twelve weeks after completion of the CSCE.

**Annual Compliance Evaluation Report** A report summarizing the scope of the inspection, names of inspection personnel, inspection dates, and major observations relating to the implementation of the SWPPP will be completed and retained as part of the SWPPP. The description of observations will address the requirements listed in MSGP Section 4.9.4.

The Annual Compliance Evaluation Report will be signed and certified by the duly authorized LANS representative.

**Implementation** The following table lists specific responsibilities.

Who	What
FFCA/AO Project Leader	Serve as Subcontractor Technical Representative (STR) to assure BMP Installation, Inspection, and Maintenance Program is implemented at SWMUs, in accordance with FFCA/AO. Ensure that the Annual Comprehensive Site Compliance Evaluations are scheduled in a timely manner. Ensure contractors are selected and hired to perform needed inspections and corrective actions.
BMP Installation, Inspection & Maintenance Task Leader	Oversee contractor support for inspections and corrective actions in the contractor's statement of work. Oversee preparation and certification of the Annual Compliance Evaluation Report.

<b>Who</b>	<b>What</b>
Subcontractors	Conduct Annual Comprehensive Site Compliance Evaluations as defined by the Scope of Work. Provide annual inspection reports to the FFCA/AO Project Leader and enter appropriate required information into the SWTS module of the WQDB. Conduct follow up maintenance as identified in the CSCE.

## Generation of FFCA Reports

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**Policy** Annual, monthly, and quarterly reports will be submitted as required by the FFCA/AO. All reports submitted to the EPA and/or NMED pursuant to the FFCA/AO will be signed by a duly authorized representative of DOE and LANS in accordance with 40 CFR Part 122.22(b).

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**FFCA annual data report** The FFCA/AO annual data report will present results of the previous calendar year's storm water runoff monitoring.

- water samples collected at each monitoring station, including the sample collection date, the field preparation (i.e., filtered or unfiltered), the field QC sample type, and the analytical suites submitted
- analytical results that are greater than wSAL
- summary statistics for inorganic and organic pollutants
- analytical results and summary statistics for radionuclides (provided voluntarily under a DOE Memorandum of Understanding).

The FFCA/AO annual data report will be provided as an attachment to the annual SWPPP for submittal to the EPA and NMED.

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**Summary statistics in annual report** The summary statistics in the FFCA/AO annual data report for a pollutant will include the following calculations.

Number of analyses:	The number of samples submitted for analysis of the pollutant (filtered and unfiltered samples are counted separately)
Number of detections:	the number of detected results
Number of detections greater than wSAL:	the number of detected results greater than wSAL
Number of detections greater than DOE	the number of detected results greater than DOE's DCGs
Derived Concentration Guidelines (DCG):	

Additionally, the annual update to the SWPPP includes all analytical results for inorganic pollutants, detected organic pollutants, and radionuclides (provided voluntarily).

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**Quarterly status reports**

Quarterly status reports will be submitted to EPA Region 6 and NMED-SWQB no later than sixty (60) days after the end of each quarter. This report will state and describe the cause of any failure to comply with the FFCA/AO and at a minimum will include:

- the deadlines and other milestones which DOE/LANS are required to meet during the reporting period;
- the progress made toward meeting the deadlines and other milestones;
- the reasons for any noncompliance;
- corrective actions taken to address exceedances of wSALs; and
- a description of any matters relevant to the status of its compliance with the FFCA/AO.

The quarterly reports will be submitted in addition to any other reporting or certification required under the FFCA/AO or pursuant to law or regulation.

**Monthly wSAL exceedance reports**

Monthly letter reports will be submitted to EPA and NMED by the 28th day of the following month in which analytical results are received. This report will summarize any exceedances of wSALs and water quality standards.

**Implementation**

The following table lists specific responsibilities.

<b>Who</b>	<b>What</b>
FFCA/AO Project Leader	Conduct review of quality of data during preparation of monthly, quarterly, and annual reports.  Ensure that FFCA/AO reporting is complete and accurate, in accordance with FFCA/AO requirements, and submitted on schedule.
FFCA/AO Project members	Prepare data and information tables for monthly and quarterly requirements. Prepare data tables for annual submittal with the SWMP.

## Documentation of Station Status

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### Policy

The project will document the status of storm water monitoring stations each quarter on an appropriate checklist or database report that records the operational status of the station. This documentation will be used to support the certification of no flow reports (see chapter *Certification of No Flow* ), adverse climatic condition waivers (see chapter *Adverse Climatic Conditions Waiver* ), and provide a summary of station and sampler performance during a quarter.

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### Quarterly station status report

The quarterly report documenting the status of storm water monitoring stations will include number of samples collected, flow information, visual monitoring performed, reasons why samplers failed or were non-operational, any damage to samplers that resulted in a non-collection of a sample, condition of the station, and other relevant information.

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### Implementation

The following table lists specific responsibilities.

Who	What
FFCA/AO Project Leader	Ensure appropriate procedures implement the use of checklists or a database to record station status.
Assigned team member	Use the checklist or database to record required station and sampler information.

## Adverse Climatic Conditions Waiver

**Policy** The MSGP (MSGP § 5.3.1) provides for the removal from service of samplers during periods of adverse weather (e.g., freezing conditions) and other conditions that prevent safe access. LANL opts to exercise the adverse climatic conditions waiver due to the typical seasonal climatic variations experienced on the Pajarito Plateau. Every quarter, a waiver will be prepared pursuant to MSGP requirements that lists the specific stations where a waiver has been exercised, provides the dates a station was taken out and put back into service, and gives the reasons the station was not in use. This quarterly waiver will be signed and certified by the duly authorized signatory and retained with the SWPPP.

**General waiver** LANL exercises a “general waiver” due to the harsh winter conditions that prevent four (4) evenly spaced samples per monitoring year to be collected and because it is impractical to sample within the first 30 minutes of a discharge. During the winter months and summer monsoon season, adverse weather conditions prevent evenly spaced sampling with freezing conditions and the potential occurrence of flash floods, flooding, electrical storms (lightning), wildfires, and hail that result in dangerous conditions that can damage sampler installations and prevent personnel from accessing sites. Under the MSGP, if a general waiver is used, a substitute sample may be taken from a qualifying storm event in the next sampling period.

**Station-specific waiver** On a quarterly basis, LANL will prepare a list of the specific storm water monitoring stations where the adverse climatic conditions waiver was exercised. The station-specific waiver will be based on the documentation prepared for the quarterly station status report (see chapter *Documentation of Station Status*).

**Implementation** The following table lists specific responsibilities.

Who	What
FFCA/AO Project Leader	Prepare adverse weather waivers for each station that was out of service due to weather or other natural conditions (excluding sampler failure) and add the waiver to the SWPPP.  Ensure waiver documents are signed and certified by the duly authorized signatory official.
Field Operations Integration Manager?	Provide supporting documentation to FFCA\AO Project Leader

## Certification of No Flow

### Policy

MSGP §5.1.1.2 provides for an exception to the quarterly visual monitoring requirements if no qualifying storm event resulted in runoff from the facility during a monitoring quarter provided that it is documented in the monitoring records that no qualifying storm event occurred that resulted in storm water runoff during that quarter. The documentation must be signed and certified by the duly authorized signatory and retained with the SWPPP.

### Quarterly 'no flow' certification

For every quarter in which no sample was collected at a station because of a lack of qualifying flow (i.e., not due to sampler failure), a 'no flow' certification document will be prepared to certify that there are acceptable reasons for no sample collection at the site. A no flow certification may be made for a station at which 1) there was no flow due to the lack of precipitation, or 2) a storm event occurred but there was insufficient flow to trigger sample collection. A no flow certification will not be made if the sampler is not operational (e.g., taken out of service for the winter months) or if the sampler malfunctions. The certification will be based on the station status documentation (see chapter *Documentation of Station Status*).

### Implementa- tion

The following table lists specific responsibilities.

Who	What
FFCA/AO Project Leader	Prepare certifications of no flow for each station at which a sample was not collected during a quarter due to lack of flow (not due to sampler failure) and add the certification to the SWPPP.  Ensure certification document is signed and certified by duly authorized official.



## Instrumentation and Equipment

**Policy** LANL will ensure that instrumentation and equipment required to achieve compliance with the requirements of the FFCA/AO, MSGP, and SWPPP are properly calibrated, installed, and maintained. Compliance will be tracked by performing inspections of samplers and flow measuring equipment (see chapter *Sample Collection*), BMP inspections (see chapter *Inspection and Maintenance of BMPs*), and annual site compliance evaluations (see chapter *Annual Comprehensive Site Compliance Evaluation*). Adequate records will be maintained to demonstrate the operating history of essential instrumentation and equipment.

**Proper operation and maintenance** Per the requirements of MSGP §9.14, LANL will properly operate and maintain all systems of treatment and control and related appurtenances which are installed or used to achieve compliance with the MSGP and the SWPPP. Backup instrumentation and equipment will be timely deployed in the event of equipment failure.

**Equipment calibration and maintenance** Instrument calibration is essential for documenting the quality of data obtained with the instrument. All technical work that depends upon the accuracy of data will be performed using equipment for which the calibration status and limits of accuracy are known and controlled. Field instrumentation used for environmental measurements will be calibrated on a routine basis as prescribed by appropriate procedures.

Field team personnel will calibrate and perform maintenance procedures on all monitoring and analytical field instruments to ensure accuracy of measurements and will maintain appropriate records of such activities. All field calibrations will be documented as prescribed by procedures or manufacturer's instructions.

**Implementation** The following table lists specific responsibilities.

Who	What
FFCA/AO Project Leader	Ensure data are collected and equipment operation and maintained in accordance with project requirements. Provide equipment maintenance and calibration and ensure operations personnel conduct field activities in accordance with implementing procedures and project requirements.
Field Operations Integration Manager	Maintain appropriate procedures for the maintenance and calibration of field equipment. Ensure implementing procedures are used for equipment and instrumentation used in data collection.

## Requests for Data

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### Policy

With the exception of proprietary data which may be released after the required waiting period specified above, LANL will make all sample results and measurements available to external agencies or the public upon formal request. The ERSS Division's public relations personnel will be notified of all requests and may coordinate the response. LANL's Tribal Relations Office will be notified of any requests from the Pueblos.

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### Implementa- tion

The following table lists specific responsibilities.

<b>Who</b>	<b>What</b>
Data Assessment Task Leader	Ensure data that have been assessed are appropriately flagged for public release.
FFCA/AO Project Leader	Serve as point of contact for any release of data. Ensure required classification reviews of data, photos, etc., released to the public.
FFCA/AO Project Members	When data requests from external agencies or the public are received, notify ERSS Division's public relations personnel; if request is from a Pueblo, notify the LANL Tribal Relations Office. Inform the FFCA Project Leader of the request.

## Other Processes

### Policy

The FFCA specifies steps and actions to be taken for several other processes that are not described in the plan, such as VII Entry and Inspection, VIII Dispute Resolution, and IX Modification. In the event these processes are needed, the Project Leader will ensure LANL and DOE management is notified and all requirements in the FFCA and AO are completed.

### Implementation

The following table lists specific responsibilities.

Who	What
FFCA/AO Project Leader	Notify DOE and LANL management of any dispute or modification to FFCA/AO. Ensure all requirements in the FFCA/AO are met.

## SECTION 6

### Design

#### Design

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**Design requirements** Design standards under this program include, but are not limited to, temporary and permanent BMPs, Corrective Action Measures, and surface water monitoring equipment.

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**Design process** Design inputs will be specified and approved on a timely basis for making design decisions. Inputs will contain the level of detail required to permit the performance of design activities correctly.

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**Design review** Form design reviews, including design verifications and evaluation of design changes, will be conducted to ensure that the design input is correctly incorporated into the design output. Changes to design will undergo the same level of review as the original design.

Verification and validation of the adequacy of designs will be conducted before relying on the performance of the design function. Verification and validation will be conducted in accordance with implementing procedures.

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**Implementation** The following table lists specific responsibilities.

Who	What
FFCA/AO Project Leader	Provide input to the design process in accordance with appropriate standards, requirements, and implementing procedures. Determines the qualifications required to perform a review of design documents. Identify a resource with skills, knowledge, ability, training, and certifications required to complete the review of the design. Communicate the results of the review to the requestor.
FFCA/AO Project Members	Review design documents and requests as assigned. Inform the Project Leader of concerns regarding the design.
Contractors	Follow established Laboratory design review processes. Implement designs as directed by Project Leader and Project Members.

## **SECTION 7**

### **Procurement**

#### **Procurement**

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**Procurement of items and services** Procurement of items and services used in this project will follow the Laboratory procurement process and the requirements in the applicable division- or group-level plans. Most items and services required for this project are commercial grade in nature and no special procurement requirements or needs are necessary. For items for which special requirements are necessary, the FFCA/AO Project Leader and project members will identify such items or services.

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**Implementation** The following table lists specific responsibilities.

<b>Who</b>	<b>What</b>
FFCA/AO Project Leader	Recommend contracting needed items and services. Develop acceptance criteria.
Field Operations Integration Manager	Recommend needed contracted items and services. Provide for the procurement of items needed to complete work. Provide acceptance of procured items in accordance with developed criteria. Develop SOWs for Task Order Contractors for sample collection activities.
Sample Management Office	Develop SOWs for all analytical work to be procured. Conduct pre-award assessment of analytical laboratories to determine the lab's capability to supply needed analytical services.

## SECTION 8

### Inspection and Acceptance Testing

#### Inspection and Acceptance Testing

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**Policy**

Any materials or services will be inspected and/or tested prior to acceptance for use in this project. Most supplies used during performance of project activities are commercial grade in nature and require no special acceptance practices or procedures.

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**Implementa-  
tion**

The following table lists specific responsibilities.

Who	What
Personnel who procure items or services	Perform acceptance testing as required on designated materials and services. Establish inspection and acceptance criteria when needed for procured items or services. Verify that all materials and services meet any established acceptance criteria.

## SECTION 9

### Management Assessment

#### Management Assessment

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**Internal assessments**

The ERSS Division conducts internal management assessments of all projects and programs in the division in accordance with requirements in the division's quality plan. Assessments of the project are documented and filed as records.

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**Responding to assessments**

When deviations of requirements are found during a management assessment, an issues notification report is initiated. Corrective actions are tracked and documented in accordance with the applicable division or group procedure for issue tracking and correcting.

When areas for improvement or potential future problems are found, but are not violations of requirements, the assessment team members discuss them with the FFCA/AO Project Leader and note them for the final report.

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**Implementation**

The following table lists specific responsibilities.

Who	What
Division or Group Leader	Appoint team to conduct management assessment. Select topics to be assessed.
FFCA/AO Project Leader	Participate in management assessments. Oversee implementation of resulting corrective actions.
Field Operations Integration Manager	Support management assessments.

## SECTION 10

### Independent Assessment

#### Independent Assessment

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**Policy** Independent assessments are those assessments conducted by organizations external to the WSP, the ENV Division, and ERSS Division. Support to the FFCA/AO may be assessed by outside organizations.

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**Internal audits** Annual audits/assessments will be conducted, with input from the Project Leader identifying one or more areas of the project to be audited each year.

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**Implementation** The following table lists specific responsibilities.

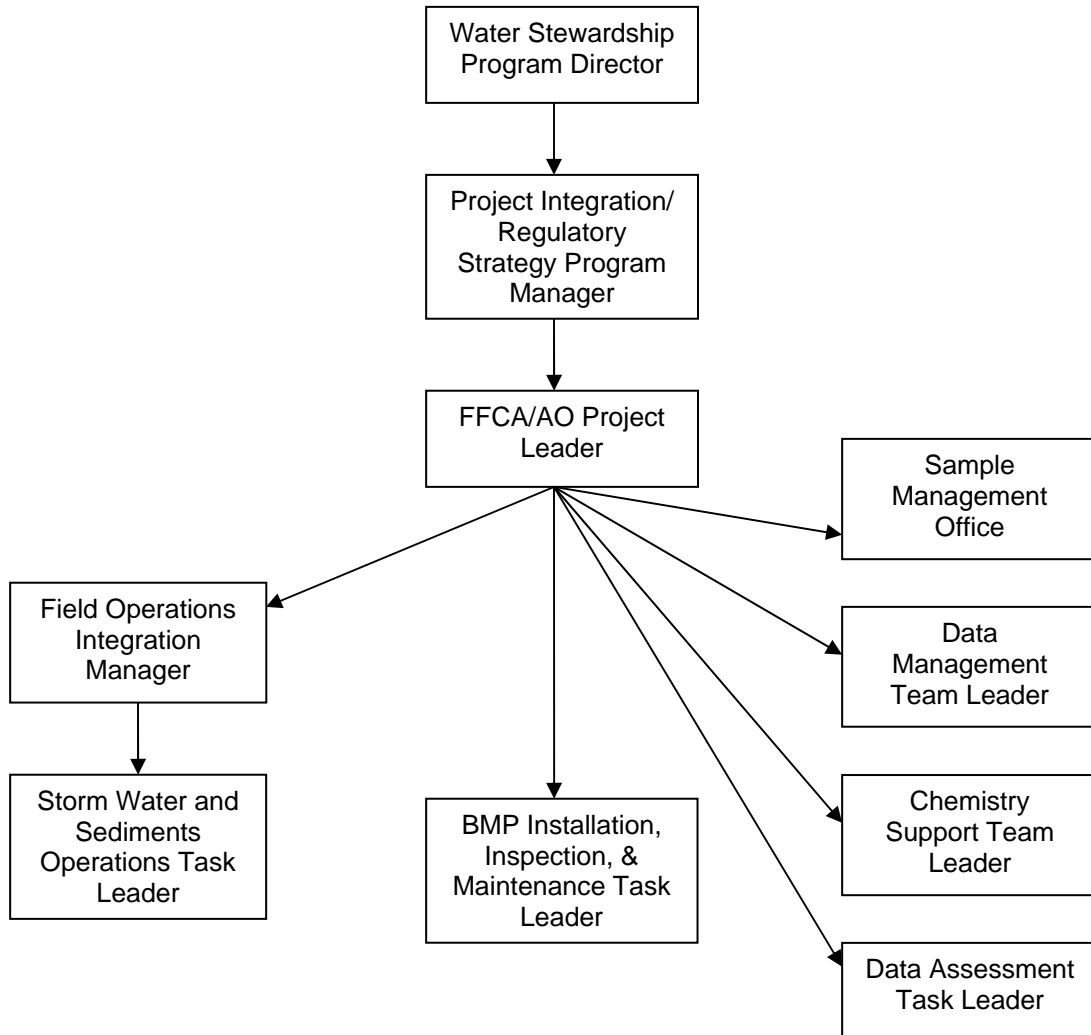
Who	What
WSP Director	Ensure independent assessments are conducted and meet applicable requirements of the LANL QA program.
FFCA/AO Project Leader	Provide input to the LANL audit team as required. Review audit reports for factual accuracy. Address all findings and implementation corrective actions as appropriate.
FFCA/AO Project Members	Cooperate with auditors by providing information, data, etc. Implement corrective actions as directed by the Team Leader or Project Leader.

[Using a CRYPTOCard, click here to record "self-study" training to this procedure.](#)

If you do not possess a CRYPTOCard or encounter problems, contact the ERSS training specialist.



## Appendix A FFCA/AO Project Organization



**Note:** Chart shows only programmatic roles and does not show supervisory lines of authority.