



NYE COUNTY WATER DISTRICT

QUALITY ADMINISTRATIVE PROCEDURE

TITLE: Preparation of Work Plans, Test Plans, and Technical Procedures	REVISION: 0 DATE: 12-10-14 PAGE: 1 of 14
PROCEDURE NUMBER: NCWD QAP-5.2	SUPERSEDES: None
APPROVAL _____ General Manager 1/20/15 Date	CONCURRENCE _____ Technical Manager 2-10-15 Date _____ Quality Assurance Officer 1/20/15 Date

1.0 PURPOSE

This quality administrative procedure (QAP) describes Nye County Water District (NCWD) requirements and responsibilities for the preparation, review, and approval of work plans (WPs), test plans (TPNs), and technical procedures (TPs). These plans and procedures, together with the QAPs, provide the basis for the NCWD QA Program.

2.0 APPLICABILITY

This QAP applies to the preparation of all WPs, TPNs, and TPs used in conducting NCWD technical investigations.

3.0 DEFINITIONS

3.1 *Change Notice (CN)*—a change to a QA document that is minimal and requires only the replacement of selected pages.

3.2 *Quality administrative procedure*—a procedure developed to implement the QA requirements of the NCWD QA program.

- 3.3** *Quality Assurance Program Manual*—the controlled document consisting of the NCWD QAPs.
- 3.4** *Quality Assurance Technical Program Manual*—the controlled document consisting of NCWD WPs, TPNs, and TPs.
- 3.5** *Quality Assurance Technical Program Manual Index*—the table of contents of the QA Technical Program Manual listing current WPs, TPNs, TPs, and CNs; including, where applicable, number, title, revision number, and date issued.
- 3.6** *Technical procedure*—generic step-by-step instructions that apply to a NCWD technical activity. When appropriate, external TPs prepared by an outside organization for similar work may be used for NCWD technical activities, but such TPs shall undergo the review and approval process described in this QAP before being issued.
- 3.7** *Test plan*—a detailed description of a specific test or activity conducted in support of a corresponding NCWD WP, or a one-of-a-kind technical activity that does not warrant a WP. The TPN specifies test parameters and instructions, including step-by-step instructions for field measurements, sample collection, and/or laboratory analyses.
- 3.8** *Work plan*—a detailed description of the planned work for a specific NCWD technical investigation, including the purpose of the work, background information, scope, and how the work shall be managed (e.g., personnel responsibilities and training requirements). WPs shall be supported by the appropriate QAP, TPN, TP, or other document that specifies relevant requirements, criteria, or procedures.

4.0 **RESPONSIBILITIES**

The requirements described in this QAP apply to all NCWD personnel who prepare, review, or implement WPs, TPNs, and TPs. The QA Officer (QAO), Technical Manager (TM), and Principal Investigator (PI) are the key NCWD personnel responsible for fulfilling these requirements.

When an activity cannot be accomplished as described in a WP, TPN, or TP and could result in an unsafe or undesirable condition, the activity shall be stopped and the affected plan(s) and/or procedure(s) corrected. Any NCWD individual involved in quality-affecting technical activities may identify the need for a revision of an existing plan or procedure or the preparation of a new one. However, a written request must be submitted to the TM and QAO for review and approval before initiating the revision or preparing a new document.

Plans and procedures controlling the quality-affecting activities of the NCWD technical program shall be developed and approved with a sufficient level of detail to enable the activities to be carried out in a technically defensible and timely manner. The documents shall be as brief as possible, with well-defined steps to facilitate implementation. If appropriate, flow diagrams and checklists shall be included for ease of implementation.

NCWD personnel shall possess the appropriate level of training required to implement WPs, TPNs, or TPs. Training shall be completed before implementation of the plan or procedure and documented on the Training Form (Attachment 1) depending on the level of training determined by the QAO.

4.1 General Manager

The General Manager or designee is responsible for approving WPs, TPNs, and TPs.

4.2 Quality Assurance Officer

The QAO is responsible for approving technical reviewers, performing a QA review of any new or revised WP, TPN, or TP, and approving these documents, as well as any subsequent CN, and submitting the technical review records package to the QA records center (QARC). The QAO shall issue the final WPs, TPNs, or TPs, and verify the training of personnel required to implement them. The QAO shall ensure that appropriate QA plans and procedures for technical activities are prepared before such activities take place, and verify compliance with relevant WPs, TPNs, and TPs through surveillances and/or audits.

4.3 Technical Manager

The TM is responsible for assigning the PI to prepare a necessary WP, TPN, or TP. The TM is also responsible for participating in an independent technical review of any new or revised WP, TPN, or TP, as well as any subsequent CN(s).

4.4 Principal Investigator

The PI is responsible for ensuring that document preparation is completed in a timely manner in accordance with the requirements of this QAP. The PI shall ensure that the document is grammatically edited and formatted in accordance with NCWD guidelines before a formal independent technical review is initiated as specified in NCWD QAP-3.1, *Independent Technical Review*. After the technical review, the PI shall ensure that document revisions incorporate the comment resolutions.

5.0 PROCESS

WPs shall be prepared for each major NCWD investigation that involves gathering and/or using technical data. The WP shall identify the tasks necessary to achieve the overall purpose of the investigation and describe the sequence of activities to be accomplished in the field, laboratory, and/or project offices. TPNs shall be prepared when detailed instructions are needed to carry out test activities required by the WPs or in cases where WPs are not applicable. Appropriate TPs shall be written to support the generic (i.e., commonly repeated) activities in the WPs and TPNs and shall be in place before work is begun.

5.1 Title Block

Each WP, TPN, and TP shall include a title block, as shown on Attachment 2, with information that includes the following:

- A descriptive and informative title.
- A unique document number. Each WP shall be numbered in sequential order. When the number is available, each TP and TPN shall be numbered in sequential order with the first number corresponding to the first number of the WP it supports. (For example, a series of plans and procedures implemented for a specific project may include WP-11.0, TP-11.0, TP-11.1, TPN-11.4, and TPN-11.5.)

- The revision number. Revisions shall be issued after the third CN or when a single change is significant enough to require a revised WP, TPN, or TP. The original issue shall be designated Revision 0.
- The issue date
- The number of the previous version, if any, that the present document supersedes, and the issue date of the previous version
- Signature blocks for approval and concurrence

5.2 Format

5.2.1 Work Plan

WPs shall use the standard format shown on Attachment 3, as well as a table of contents. If any of the headings are not applicable to a particular WP, that section shall contain the words “not applicable.”

5.2.2 Test Plan

TPNs shall describe, at a minimum, the purpose and scope of the test activity, specific data collection procedures, and the data to be collected. TPNs shall also include data processing instructions and the testing schedule, as appropriate. The content of the TPN may be supplemented by referencing relevant WPs, TPs, and/or other technical documents. Data collected for a TPN shall be accurately recorded on a controlled scientific form and/or notebook, in accordance with NCWD QAP-3.2, *Documentation of Technical Investigations*.

5.2.3 Technical Procedures

TPs shall include the following sections:

- 1.0 Purpose
- 2.0 Scope
- 3.0 Definitions
- 4.0 Responsibilities
- 5.0 Process
- 6.0 Data Acquisition Methodology and Limitations
- 7.0 References
- 8.0 Records
- 9.0 Attachments

If a heading is not applicable to a particular TP, the section shall contain the words “not applicable.” TPs shall also address the following elements, as applicable:

- Test equipment
- Personnel requirements
- Special environmental conditions required for tests and/or sample storage
- Acceptable precision and accuracy levels

5.3 Technical Review

All WPs, TPNs and TPs shall be subject to the internal technical review described in NCWD QAP-3.1.

5.4 Approval

The final version of each WP, TPN, or TP shall be signed by the PI, TM, and QAO. The signed document shall be submitted to the General Manager or designee for approval. The new or revised document shall be issued by the QAO and QARS, as specified in NCWD QAP-6.1, *Issue and Control of Quality Assurance Documents*.

5.5 Revisions

Revision requests shall be submitted to the TM and QAO. The TM shall review the request and, if appropriate, approve it, with QAO concurrence, and assign the work to the appropriate PI.

Review and approval of document revisions shall be conducted in accordance with Sections 5.3 and 5.4 of this QAP. When a WP, TPN, or TP is revised, the entire document shall be reissued with each page identified by the new revision number.

5.6 Change Notice

A CN shall be issued when changes to a WP, TPN, or TP are not extensive enough to warrant a revision (i.e., less than one or two paragraphs) (Attachments 4 through 6). A CN may result from an undesirable or unsafe condition identified by NCWD technical personnel; QA nonconformance, audit finding, or required corrective actions; and/or the need for an immediate correction of a deficiency until a revision of the document can be prepared.

The review and approval requirements specified in Sections 5.3 and 5.4 of this QAP are not required for CNs. The TM, PI, and QAO shall concur on the CN.

Changes that are more extensive than one or two paragraphs require a revision. The maximum number of CNs that may be issued for a specific revision is three; if a fourth CN is required, the document shall be revised, as specified in this QAP, incorporating the changes issued as CNs.

CNs shall be controlled according to requirements in NCWD QAP-6.1.

5.6 Field Change Approval

It is the responsibility of the NCWD person in charge in the field to execute fieldwork in accordance with all applicable WPs, TPNs, and TPs. Conditions may require changes to existing plans and procedures. When at all possible, field changes that may have significant impact shall be approved prior to the implementation of the change. All changes must be approved by the TM and PI and documented on the Field Change Approval Form (FCAF).

A FCAF form shall be issued when changes to a WP, TPN, or TP are encountered while performing field work and there is no other way to accomplish the task other than

temporarily changing the specific process. The person in charge in the field shall recommend the change to the PI and TM. The FCN shall be filled out by field personnel, approved by the TM and PI, and filed in the QARC. All personnel responsible for performing work in the subject WP, TPN, or TP shall be notified of the FCAF and a copy shall be displayed in the field. All changes must also be documented in the scientific notebook for the appropriate borehole or project.

6.0 RECORDS

Documents generated by this QAP are QA records and shall be submitted to the QARC by the responsible individual. Prior to submittal the sender shall ensure that each document is complete, legible, and adequately identifiable, as specified in NCWD QAP-17.1, *Records Management*.

In addition, a copy of any document mentioned in the references of a WP, TPN, or TP that is not readily available in a technical library or on the Internet shall be submitted to the QARC. All WPs, TPNs and TPs that are no longer in use shall be archived in the QARC.

The records generated by this QAP include the following:

- The final approved WP, TPN, or TP
- Other review package documents as specified in NCWD QAP-3.1
- An updated Technical Program Manual Index
- Applicable CNs

7.0 REFERENCES

NCWD QAP-3.1, *Independent Technical Review*. Quality Administrative Procedure. Nye County Water District (NCWD). Pahrump, Nevada.

NCWD QAP-3.2, *Documentation of Technical Investigations*.

NCWD QAP-6.1, *Issue and Control of Quality Assurance Documents*.

NCWD QAP-17.1, *Records Management*.

8.0 ATTACHMENTS

Attachment 1 Nye County Water District Quality Assurance Procedures Training Record

Attachment 2 Work Plan, Test Plan, and Technical Procedure Title Blocks

Attachment 3 Standard Work Plan Format

Attachment 4 Work Plan Change Notice

Attachment 5 Test Plan Change Notice

Attachment 6 Technical Procedure Change Notice

Attachment 7 Field Change Approval Form

Attachment 1
Nye County Water District
Quality Assurance Procedures
Training Record

Form NCWD QAP-5.2-1 Rev 0
12-10-14

Please complete this form when trained in a Nye County NCWD Quality Assurance Procedure.

Date: _____

Trainee Name: _____

Trainee Organization: _____

I have been trained in the following Quality Assurance Procedure(s):

I have read the procedure(s): _____ YES _____ NO

I have the qualifications/education required to perform the procedure(s): ___ YES ___ NO

I have submitted my current resume to the NCWD QA files: ___ YES ___ NO

Signature: _____

I have trained the named personnel on the above QA procedure(s):

(Trainer Name and Title) _____ Date _____

(Trainer Name and Title) _____ Date _____

Attachment 2 Title Blocks for Work Plan, Test Plan, and Technical Procedure



NYE COUNTY WATER DISTRICT

WORK PLAN

TITLE:		REVISION:
		DATE:
		PAGE: 1 of
PROCEDURE NUMBER:	SUPERSEDES:	
APPROVAL	CONCURRENCE	
General Manager Date	Technical Manager Date	
	Quality Assurance Officer Date	



NYE COUNTY WATER DISTRICT

TEST PLAN

TITLE:		REVISION:
		DATE:
		PAGE: 1 of
PROCEDURE NUMBER:	SUPERSEDES:	
APPROVAL	CONCURRENCE	
General Manager Date	Technical Manager Date	
	Quality Assurance Officer Date	



NYE COUNTY WATER DISTRICT

TECHNICAL PROCEDURE

TITLE:		REVISION:
		DATE:
		PAGE: 1 of
PROCEDURE NUMBER:	SUPERSEDES:	
APPROVAL	CONCURRENCE	
General Manager Date	Technical Manager Date	
	Quality Assurance Officer Date	

Attachment 3 Standard Work Plan Format

1.0 INTRODUCTION

This section references the applicable NCWD plan or procedure (e.g., QAP-5.2) and describes the following:

- The technical activities addressed in the work plan (WP).
- The WP in the broader perspective of the NCWD technical program (i.e., the significance of the planned work to the overall scope of the technical program).
- Relationship of the document to other relevant NCWD QA plans and procedures.
- How the plan is organized.

Other relevant information not included in any of the following sections is also included in this section.

2.0 PURPOSE

This section explains why the WP is necessary and lists its objectives.

3.0 BACKGROUND

This section summarizes, by referencing details to the source documents where possible, what is already known and how it was established, and explains why items identified in the scope of work were determined by the NCWD to be necessary.

4.0 SCOPE OF WORK

This section identifies the planned work or defines the types of tests to be conducted, and specifies who has responsibility for each activity, including the following, if applicable:

- Types of investigations planned (e.g., pump tests, groundwater flow modeling, or tracer testing).
- The investigation extent or scale.
- Locations where the investigations are to be conducted.
- Investigators and their responsibilities.
- Equipment and related calibration requirements.
- Number and types of samples to be collected, along with borehole information, specimen depth intervals, and lists of parameters to be analyzed.
- References to the plans and procedures necessary to support the WP.
- As necessary, appropriate qualitative (e.g., field test and laboratory analytical conditions needed to achieve the work objectives) and quantitative (e.g., dimensions, tolerances, or operating limits) acceptance criteria; the technical expertise required; site or laboratory prerequisites; and health and safety precautions.

5.0 MANAGEMENT

This section describes the organization and management structure that will ensure that the work is accomplished in accordance with the project's scope, objectives, and quality assurance requirements. It describes training needs and compliance verification responsibilities.

6.0 REFERENCES

This section presents complete references in standard NCWD format to all documents cited in the WP.

**Attachment 4
Work Plan Change Notice**

Form NCWDQAP-5.2-4 Rev 0
12/10/14



NYE COUNTY WATER DISTRICT

WORK PLAN

TITLE:		REVISION:
		DATE:
		PAGE:
WORK PLAN NUMBER:	SUPERSEDES:	

CHANGE NOTICE NO.

EFFECTIVE DATE:

PURPOSE:

CONCURRENCE:

Technical Manager Date

Principal Investigator Date

Quality Assurance Officer Date

**Attachment 5
Test Plan Change Notice**

Form NCWD QAP-5.2-5 Rev 0
12/10/14



**NYE COUNTY WATER DISTRICT
TEST PLAN**

TITLE:		REVISION:
		DATE:
		PAGE: 1 of
TEST PLAN NUMBER:	SUPERSEDES:	

CHANGE NOTICE NO.

EFFECTIVE DATE:

PURPOSE:

CONCURRENCE:

Technical Manager Date

Principal Investigator Date

Quality Assurance Officer Date

Technical Procedure Change Notice

Form NCWD QAP-5.2-6 Rev 0
12/10/14



NYE COUNTY WATER DISTRICT TECHNICAL PROCEDURE

TITLE:		REVISION:
		DATE:
		Page: 1 of
TECHNICAL PROCEDURE NUMBER:	SUPERSEDES:	

CHANGE NOTICE NO.

EFFECTIVE DATE:

PURPOSE:

CONCURRENCE:

Technical Manager Date

Principal Investigator Date

Quality Assurance Officer Date

