

U.S. DEPARTMENT OF AGRICULTURE  
NATURAL RESOURCES CONSERVATION SERVICE

QUALITY ASSURANCE WORKSHEET

MLRA \_\_\_\_\_

\_\_\_\_\_ (County, State)  
\_\_\_\_\_ (stssaid)

(date of review)

This quality assurance report is to ensure that: the soil survey is science-based; that the legend and correlation use the MLRA concept; and that the survey meets the standards and specifications of the National Cooperative Soil Survey.

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All negative responses identified in this report must be adequately addressed in a narrative.

## QUALITY ASSURANCE REVIEW

\_\_\_\_\_ (County, State) - a subset of MLRA(s) \_\_\_\_\_  
(date of review)

### GENERAL INFORMATION and SCHEDULING

Agency in charge of survey:

Cooperating agencies:

Survey team (name and agency):

Total acres (land, census water):

Acres updated/mapped and percent of survey:

Status of Memorandum of Understanding (e.g. current, signed):

List quality assurance reviews (type and date):

Scheduled date - next quality assurance review:

Scheduled date - mapping completion:

Scheduled date - final correlation:

Scheduled date - manuscript to the MLRA office for technical review:

Scheduled date - map compilation completion:

Participants at this review:

### MANAGEMENT ISSUES

\_\_\_\_\_ Are deficiencies and agreed-to items stated in previous Quality Assurance Reviews satisfied?

\_\_\_\_\_ Are management documents for the survey (e.g. Strategic Plan, Plan of Operations) and standards of performance current?

\_\_\_\_\_ Are any management problems associated with this survey?

\_\_\_\_\_ Does each member of the survey party have access to the latest version of the NSSH, MLRA guidance documents, past quality assurance reports, and MLRA steering committee reports?

\_\_\_\_\_ Is the Information in the soil survey schedule correct?

List in a narrative the specific technical training needs of survey party members.

## EO AND CIVIL RIGHTS

\_\_\_\_\_ Has the office posted all required EO and Civil Rights material in a prominent location?

\_\_\_\_\_ Has the office maintained a work environment free from gender, age, cultural and disability bias?

\_\_\_\_\_ Have all landowners received services and requests for information in a nondiscriminatory manner?

\_\_\_\_\_ Are actions taken to ensure that minorities and females are fully aware of available NRCS services and employment opportunities?

## CORRELATION and DESCRIPTIVE LEGEND

All map units correlated must have data to support the correlation -- if not from the subset, then from the MLRA. The MLRA concept must be used for developing the legend.

\_\_\_\_\_ Do all project members and participants understand the concept of data mapunits and the MLRA process?

\_\_\_\_\_ Is there an active MLRA Steering Committee in the MLRA(s) where this survey is taking place?

Two legends are maintained for the survey -- a provisional legend and an identification legend. The identification legend is the official, approved, progressively correlated MLRA legend. The map units in the identification legend have been approved by the Region 11 MLRA Office. The provisional legend contains map units that are being mapped but that have insufficient acreage or documentation required for their addition to the identification legend. The type and amount of documentation required for the addition of map units to the identification legend depends on the complexity of the map unit, existing documentation for the map unit within the MLRA, and previous correlation decisions within the MLRA.

Attach the latest identification legend and provisional legend. Include a list of map units added, dropped, or changed since the last review. Summarize the documentation gathered and provide a narrative of the field stops seen on this review.

\_\_\_\_\_ Is documentation sufficient for data mapunits on the ID legend?

\_\_\_\_\_ Do all new components (series) of map units to be added to the ID legend classify in accordance with current soil taxonomy?

\_\_\_\_\_ Are the properties of all new components of map units as mapped in the survey area within the range of the named series?

\_\_\_\_\_ Is the official soil series description up-to-date for all series used in the survey area?

\_\_\_\_\_ Have names for new series been reserved?

\_\_\_\_\_ Are the map unit names and design consistent with purposes and scale of the soil survey?

\_\_\_\_\_ Are all proposed changes in the legend recorded and reported in an accepted systematic procedure?

\_\_\_\_\_ Is a record maintained of the location and acreage of provisional map units until they are approved for the ID legend?

\_\_\_\_\_ Is a note-keeping system in-place and are there instructions as to kind and quality of field notes needed?

\_\_\_\_\_ Does each project member have an up-to-date copy of the descriptive legend?

\_\_\_\_\_ Is the descriptive legend adequate to ensure consistency of the mapping by all project members and to ensure a timely completion of the manuscript?

\_\_\_\_\_ Is an electronic data input program, such as the Pedon Description Program, used?

\_\_\_\_\_ Are field notes, transect data, and laboratory data summarized regularly? Is the descriptive legend brought up to date?

\_\_\_\_\_ Is a conversion legend generated? Is it up-to-date?

The project leader is responsible for updating the section "Notes to Accompany Classification and Correlation of the Soils." Refer to NSSH exhibit 609-1, item 17 for an example. Attach the notes or the plans for developing this document.

## SOIL INVESTIGATIONS

\_\_\_\_\_ Is a soil investigation work plan prepared and approved by the MLRA steering committee and the MLRA office?

\_\_\_\_\_ Is the soil classification of lab data current with soil taxonomy?

\_\_\_\_\_ Are NRCS-SOI-8 forms prepared? Are pedons properly classified? Is the disposition of the laboratory data given?

The project leader is responsible for updating the section "Classification of Pedons Sampled for Laboratory Analysis." Refer to NSSH exhibit 609-1, item 15 for an example. Attach the document or the plans for developing this document.

## SOIL MAPPING

Describe in a narrative the process used by the survey project office to ensure:

quality control of mapping and approval by the project leader;

an exact join as described in NSSH 609.05; or

join statements to allow an exact join in the future (consider metadata).

\_\_\_\_\_ Is there a process for ensuring security of the original maps, compiled maps, and data files (e.g., fire-safe copies, back-up disks at a secure location, etc.)?

Attach a list of field sheets reviewed.

\_\_\_\_\_ Is recent and/or update mapping consistent throughout the subset and MLRA?

\_\_\_\_\_ Do delineations represent the landform, position, and other information written in the map unit descriptions?

\_\_\_\_\_ Do map unit boundaries generally conform to landscape features and other features visible on the photobase?

\_\_\_\_\_ Is the level of detail in mapping consistent and does the level of detail conform to the specifications in the memorandum of understanding?

\_\_\_\_\_ Do map sheets join?

\_\_\_\_\_ Is Features and Symbol Legend for Soil Survey 37A (exhibit 627-5) applied properly and consistently?

\_\_\_\_\_ Is the 37A current and are major/minor codes completed?

\_\_\_\_\_ Are typical pedons located in a delineation with the component named?

\_\_\_\_\_ Is there a system in place to track for each field sheet, the surveyors name, dates, acreage mapped, acreage reported, and date of completion of the field sheet?

\_\_\_\_\_ Do completed maps show: survey name and state, date of survey, name of soil scientist, "advance copy"?

\_\_\_\_\_ Are legible and oriented symbols in all delineations?

\_\_\_\_\_ Are typifying pedons accurately located on the map?

\_\_\_\_\_ Are all ad hoc features clearly defined?

\_\_\_\_\_ Where appropriate, are section corners marked?

\_\_\_\_\_ Is a progress map maintained?

\_\_\_\_\_ Are maps color checked?

\_\_\_\_\_ Is the provisional general soil map concurrent with mapping?

#### MAP COMPILATION and DIGITIZING

Describe the process to ensure quality control of map compilation activities (100% check).

\_\_\_\_\_ Is the compilation performed according to the NRCS specifications as described in the NSSH, part 647?

\_\_\_\_\_ Is the soil survey compiled to NRCS approved base maps?

\_\_\_\_\_ Do compiled map unit delineations and their symbols match across map boundaries? Has an exact or acceptable (choose one for each adjacent survey) join been achieved with adjacent surveys?

\_\_\_\_\_ Do plans ensure a 100% edit of the compilation prior to sending the maps to the MLRA office for quality assurance and map compilation certification?

Attach plans to digitize the survey, including plans for preparing the maps for publication.

## MANUSCRIPT

Date the following manuscript items that are complete. Address incomplete items in the narrative.

\_\_\_\_\_ Map unit descriptions

\_\_\_\_\_ Taxonomic unit descriptions

\_\_\_\_\_ General soil Map

\_\_\_\_\_ General soil map unit descriptions

\_\_\_\_\_ Edited Pre-written material

\_\_\_\_\_ General Nature of the County section

\_\_\_\_\_ Climate tables and narrative

\_\_\_\_\_ Interpretive tables

\_\_\_\_\_ Database populated for generation of interpretations and map unit descriptions

\_\_\_\_\_ Pictures and captions

\_\_\_\_\_ Block diagrams or other graphics

\_\_\_\_\_ Input from appropriate partners

\_\_\_\_\_ Input from other disciplines

\_\_\_\_\_ Soil formation section

\_\_\_\_\_ Use and management narratives

\_\_\_\_\_ Draft manuscript for technical review

## NASIS and DATABASES

\_\_\_\_\_ Is access to NASIS available?

\_\_\_\_\_ Are all data elements for all map unit components including miscellaneous areas populated with data?

Attach plans to populate the database. Include NASIS training received and training needed for all project members, along with the staff member(s) who have responsibility for editing.

## INTERPRETATIONS

\_\_\_\_\_ Are interpretations adequate for the purposes of the survey as described in the memorandum of understanding?

\_\_\_\_\_ Are data in interpretive tables being tested?

In a narrative, describe:

What special interpretations or interpretive tables are needed?

What assistance have other disciplines provided or scheduled for making, testing, and coordinating interpretations?

What soil performance data (e.g. crop yields, site indices) are collected and how?

## MISCELLANEOUS ISSUES

Attach responses to these in a narrative:

What are the roles and responsibilities of the resource soil scientist with this survey? Conversely, what are the roles and responsibilities of the survey party with the resource soil scientist?

What input and involvement is there from soil survey partners?

Describe the survey party's involvement with technical soil services (i.e. CRP, soil quality, global climate change, FOTG, etc.).

What are the plans for certifying and updating the field office technical guide?

Does this office have access to the Internet? If not, state plans to obtain access. Is the office utilizing the Internet for obtaining OSDs, and lab data?

What are the plans to provide advanced information and support to users?

How is the survey being publicized?

What are the plans to update STATSGO when the survey is completed?

Other issues.

## ATTACHMENTS and NARRATIVES

All negative responses are to be addressed. In addition, include the following with this report:

- Identification legend
- Provisional legend
- List the map units added, dropped, or changed
- Conversion legend
- Summary of documentation
- Field Stops report
- Notes to accompany classification and correlation of the Soils
- Classification of pedons sampled for laboratory analysis
- Field sheets reviewed
- Plans to digitize the survey, including plans for preparing the maps for publication
- How manuscript items not completed are being addressed
- Technical training needs
- Response to miscellaneous issues
- Quality control process of soil maps
- Quality control process of soil compilation
- Plans to populate the database
- Commendable items
- Recommended or significant items
- Action items (agreed-to items)

## SIGNATURE PAGE

We, the undersigned, have reviewed this report and concur with its findings.

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Project Leader
date

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Soil Data Quality Specialist
date

NCSS Partner(s)	date
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State Soil Scientist
date

NRCS Management (AC, Team Leader, etc)	date
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## CERTIFICATION PAGE

As of \_\_\_\_\_, this soil survey meets the standards and specifications of the National Cooperative Soil Survey. The survey is science-based and joins adjacent survey areas using the MLRA concept

Region 11 MLRA Office Team Leader



