

STATEMENT OF WORK
Pond (378)
Wyoming

These deliverables apply to this individual practice. For other planned practice deliverables refer to those specific Statements of Work.

Items that are marked **(TSP or Non-NRCS Engineer)** need to be completed only if design is provided by a TSP or Non-NRCS Engineer. Items that are marked **(NRCS Employee)** need to be completed only if design is provided by an NRCS Employee. All other items are required by all designers.

DESIGN

Deliverables and Documentation Requirements:

1. Design survey
 - a. Topographic survey of pool or pit area, embankment area, and auxiliary spillway area.
 - b. Profile along centerline of dam and auxiliary spillway.
 - c. Profile and alignment of conduits and principal spillway.
 - d. Cross sections on dam and auxiliary spillway centerline.
 - e. Basin topography to the extent needed for design.
 - f. Foundation and soils investigation.
 - g. Drainage area.
 - h. Possible borrow area.
2. Design documentation that will demonstrate that the criteria in NRCS practice standard have been met and are compatible with other planned and applied practices.
 - a. Practice purpose(s) as identified in the conservation plan.
 - b. List of required permits to be obtained by the client.
 - c. Impacts on adjacent properties and structures.
 - d. Verify with the Field Office conservation planner that all concerns under the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA) have been adequately addressed.
 - e. Compliance with NRCS national and state utility safety policy (NEM Part 503-Safety, Subpart A - Engineering Activities Affecting Utilities 503.0 through 503.6).
 - f. Practice standard criteria related computations and analyses to develop plans and specifications including but not limited to:
 - i. Geology and Soil Mechanics (NEM Subpart 531a)
 - ii. Hydrology/Hydraulics
 - iii. Stage-storage data
 - iv. Structural including hazard class as appropriate
 - v. Quantity computations
 - vi. Vegetation
3. Written plans and specifications including sketches and drawings shall be provided to the client that adequately describes the requirements to install the practice and obtain necessary permits including but not limited to:
 - a. Plan view of the layout of the pond showing location and stationing of the embankment, pool area, and location and stationing of the auxiliary spillway.
 - b. Location map with legal description and north arrow.
 - c. Plan, profile and maximum cross section of embankment or excavation and auxiliary spillway.
 - d. Profile along centerline of principal spillway and drawdown conduit.
 - e. Conduit location, size, type of pipe, and grade.
 - f. Location, dimensions, and gradation requirements of filter diaphragm.
 - g. Stage storage data.
 - h. Spillway hydraulics.
 - i. Inlet and outlet structure details showing dimensioning and reinforcement details, if needed.
 - j. Table of quantities.
 - k. Cut off trench details and/or special foundation treatment, if needed.
 - l. Foundation drain layout, details, and drainfill gradation, if needed.
 - m. Special requirements for diverting water, dewatering, and keeping the work area dry.
 - n. Borrow area location(s).
 - o. Fill material and compaction requirements.
 - p. Cooperator's signature of review and acceptance to construct the pond according to the plans and specifications.
4. Design Report as appropriate (NEM Part 511, Subpart B Documentation, 511.10 and 511.11).

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5. Quality Assurance Plan (NEM Part 512 – Construction, Subpart D – Quality Assurance Activities, 512.30 through 512.33).
4. Operation and Maintenance Plan
5. Certification that the design meets practice standard criteria and comply with applicable laws and regulations (NEM Part 505 – Non-NRCS Engineering Services, Subpart A – Introduction, - 505.0 and 505.3). **(TSP or Non-NRCS Engineer)**
6. Engineering job classification is shown and proper engineering approval is obtained. **(NRCS Employee)**
7. Design modifications during installation as required.

INSTALLATION

Deliverables and Documentation Requirements

1. Pre Installation conference with client and contractor.
2. Verification that client has obtained required permits.
3. Staking and layout according to plans and specifications including applicable layout notes.
 - a. Centerline and slope stakes for the embankment pond and auxiliary spillway.
 - b. Slope stakes for an excavated pond.
 - c. Grade and alignment stakes for conduits and principal spillway.
 - d. Slope stakes for cutoff trench and drains.
 - e. Verify with the Field Office conservation planner that the location of the staked practice is within the original scope of the practice and is still in compliance with the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA).
4. Installation inspection (according to quality assurance plan as appropriate).
 - a. Actual materials used (NEM Part 512, - Construction, Subpart C – Evaluation of Construction Materials, 512.20 through 512.33; Subpart D - Quality Assurance Activities, 512.33)
 - b. Inspection records
 - c. Profile and cross section of cut off trench.
 - d. Dimensions and materials used for filter diaphragm.
 - e. Profile along centerline of completed embankment and auxiliary spillway.
 - f. Cross section of embankment and auxiliary spillway.
 - g. Dimensions, elevations, materials of principal spillway, drawdown conduits, and inlet and outlet structures.
 - h. Size, material, type and joint connections of all conduits.
 - i. Size, type, and model of all valves, gates, hoists, and other appurtenances.
 - j. Material test results.
5. Facilitate and implement required design modifications with client and original designer.
6. Advise client/NRCS on compliance issues with all federal, state, tribal, and local laws, regulations and NRCS policies during installation.
7. Certification that the installation process and materials meets design and permit requirements.

CHECK OUT

Deliverables and Documentation Requirements

1. As-Built documentation.
 - a. Extent of practice units applied
 - b. Drawings
 - c. Final quantities
2. Certification that the installation meets NRCS standards and specifications and is in compliance with permits (NEM Part 505 – Non-NRCS Engineering Services, Subpart A – Introduction, 505.3). **(TSP or Non-NRCS Engineer)**
3. Statement of compliance signed by NRCS personnel with applicable job approval authority that the work meets the plans and specifications. **(NRCS Employee)**
4. Progress reporting.

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REFERENCES

- NRCS Field Office Technical Guide (eFOTG), Section IV, Conservation Practice Standard - Pond, 378.
- NRCS National Engineering Manual (NEM).
- NRCS National Environmental Compliance Handbook
- NRCS Cultural Resources Handbook