

**STATEMENT OF WORK**  
Irrigation Water Management (449)  
Iowa

**These deliverables are the minimum requirements that apply to this individual practice. For other planned practice deliverables refer to those specific Statements of Work.**

## **DESIGN**

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### **Deliverables:**

1. Survey notes which show that a thorough and detailed site survey was completed.
  - a. Survey notes shall be in accordance with NRCS Technical Release 62, Engineering Field Handbook, Chapter 1 and/or standard industry practice.
  - b. If survey equipment with automatic / electronic data collection devices is used, a print out of the data shall be included in the file.
  - c. Rod Readings or Elevations shall be referenced to a bench mark. A temporary bench mark is acceptable. Examples of a TBM could be a nail in a post, the top of a post, or a wooden hub in the ground.
2. Design documents that demonstrate criteria in practice standard have been met and are compatible with planned and applied practices.
  - a. Practice purpose(s) as identified in the conservation plan.
  - b. NEPA requirements have been met and documented on the IA CPA52 (i.e. cultural resources and T&E species).
  - c. Documentation that adequate land rights have been obtained if needed.
  - d. List of required permits to be obtained by the client.
  - e. Compliance with NRCS national and state utility safety policy (NEM Part 503 – Safety, Subpart A – Engineering Activities Affecting Utilities, Section 503.00 through 503.22 and NEM 503.02(d)).
    - i. A note on the drawings stating that the contractor is responsible for calling Iowa One Call at 1-800-292-8989 at least 48 hours prior to beginning any excavation work.
  - f. Practice standard substantiating data, computations, and analyses to develop plans and specifications including but not limited to:
    - i. System Capacity
    - ii. Volume of Water (per irrigation and per season)
    - iii. Depth of Application, Rate, Frequency, Pressure, and Uniformity
    - iv. Hydraulics
    - v. Environmental Considerations
3. Written plans and specifications including sketches and drawings (location map, plan view, profiles, cross-sections, and details) shall be provided to the client that adequately describes the requirements to install the practice and obtain necessary permits.
  - a. IA-5 Pollution Control Construction Specification is to be included on all projects.
  - b. Bill of Materials and Itemized Cost Estimate.
4. Design Report and Inspection Plan as appropriate (NEM Part 511, Design Documentation, 511.11 and Part 512, Construction, 512.30 through 512.32).
  - a. The design report shall include, but not be limited to the following: summary of project objectives, site assessment, and design documentation from item 2 listed above.
  - b. The inspection plan must describe the type and frequency of testing, items requiring inspection, the documentation required, and the qualifications of the person doing the work.
5. Operation and maintenance plan.
6. Provide an anticipated installation schedule.
7. All design documentation is shown as checked.
8. Engineering job class is shown on the drawings.
9. Certification that the design meets practice standard criteria and complies with applicable laws and regulations (NEM Subpart A, 505.03) or approved by an employee with the appropriate delegated engineering job approval authority (NEM Subpart A, 501).
10. Design modifications required during installation are properly documented.

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**INSTALLATION**

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**Deliverables**

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.
4. Installation inspection documented in the case file.
  - a. Actual materials used.
  - b. Inspection records.
  - c. Maintain a job diary with the dates and record of inspections made, testing completed, instruction provided to the contractor, etc., to document compliance with standards and specifications.
5. Facilitate and implement required design modifications with client, original designer, and permitting and funding agencies.
6. Irrigation system evaluation and irrigation water management guidance as needed.
7. Advise client/NRCS on compliance issues with all federal, state, tribal, and local laws, regulations and NRCS policies during installation.
8. Certification that the installation process and materials meets design and permit requirements (NEM Subpart A, 505.03).

**CHECK OUT**

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**Deliverables**

1. Survey for Checkout.
2. As-built documentation (450-GM, IA407).
  - a. Extent of practice units applied.
  - b. Actual amount of water applied during growing season
  - c. Record of system evaluation and completion of required follow up actions
  - d. Drawings with changes from the original construction plans clearly shown.
  - e. Materials documentation including final quantities
  - f. Testing reports
  - g. Survey notes for layout, inspections, and final checkout documenting compliance with standards and specifications.
3. Certification that the practice meets NRCS standards and specifications and is in compliance with permits (NEM Part 505, Non-NRCS Engineering Services, 505.03(c) (1)).
4. Progress reporting.

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**REFERENCES**

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- Field Office Technical Guide (eFOTG), Section IV, Conservation Practice Standard – Irrigation Water Management, 449.
- NRCS National Engineering Handbook, Part 652, National Irrigation Guide
- NRCS National Engineering Manual (NEM)
- NRCS National Environmental Compliance Handbook
- NRCS Cultural Resources Handbook
- General Manual

**STATE CONTACT**

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Allen Gehring, State Conservation Engineer  
515-284-4357  
allen.gehring@ia.usda.gov