

STATEMENT OF WORK
Irrigation Water Management Plan (118)
Missouri

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

DESIGN

Deliverables:

1. Design documents that demonstrate criteria in NRCS practice standard have been met and are compatible with planned and applied practices.
2. Farm and field information:
 - a. Name of producer
 - b. Farm number
 - c. Field and/or tract number
 - d. Crops grown, and planned rotation by field
 - e. Name of employee or consultant developing plan
 - f. Date of plan development
3. The objectives of the producer pertaining to the Conservation Practice Standard 449, Irrigation Water Management
4. Identification of management scheme (Demand Management or Supply Management)
5. A soils map that includes:
 - a. Field boundaries
 - b. Predominant soils listed, and area quantified
 - c. The boundaries of the IWMP acreage delineated
6. An irrigation system map that includes the size, materials, and locations of the mains, laterals, and application systems
7. Documentation of past water withdrawals and applications, by crop
8. The methods planned to measure or quantify future water withdrawals and irrigation application
9. Planned water application volumes, on a seasonal and/or annual basis, and by crop
10. Soil tests, to include nutrient levels and salinity
11. Water tests, to include nutrients, pathogens, salinity, pH, and trace elements
12. Estimates of irrigation uniformity, based on testing, evaluation, or observation. Distribution Uniformity (DU) should be based on the ratio of the average depth infiltrated in the low one-quarter of the field, to the average depth infiltrated over the entire field.
13. Documentation of the scientific method planned for scheduling the timing and amount of irrigation applications, based on the measurement or estimation of soil moisture, and the measurement or prediction of evapotranspiration (E_t) of the crops(s). The proposed irrigation scheduling method should include:
14. Estimated volume of water applied, by field, irrigation event, season, and/or year
15. Estimated frequency or timing of irrigation applications, by field
16. Estimated application rates and depths of irrigation events
17. Conservation plan (record of decisions) (*Utilizing Customer Service Toolkit – Plug-In or MsWord Document*) to address the identified environmental risks associated with pest suppression activities with implementation specifications and other resource concerns. The record of decisions shall include the planned practice(s), schedule for implementation, and site specific specifications to apply the conservation practice. The site specific specifications can be on an NRCS Jobsheet available for the conservation practice or in a narrative form for the non-engineering type practices. Planned engineering type practices shall include the conservation practice, schedule of implementation, and identified on the plan map. The plan may include, but are not limited to the conservation practices listed below:
 - a. Irrigation Water Management (449)
 - b. Irrigation System, Microirrigation (441)
 - c. Irrigation System, Sprinkler (442)
 - d. Irrigation System, Surface and Subsurface (443)
 - e. Irrigation Pipeline (430)
 - f. Structure for Water Control (587)
 - g. Irrigation Reservoir (436)
 - h. Pumping Plant (533)
 - i. Irrigation Land Leveling (464)
 - j. Anionic Polyacrylamide (PAM) Application (450)

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- k. Nutrient Management (590)
- l. Waste Utilization (633)
- 18. List of required permits to be obtained by the client
- 19. List of facilitating practices
- 20. Practice standard criteria-related computations and analyses to develop plans and specifications including but not limited to:
 - a. Volume of water (per irrigation & per season) as determined by Irrigation Water Requirements (IWR) or equivalent.
 - b. Frequency of irrigation
 - c. Application rate
 - d. Water holding capacity of soils and methods of measuring water to determine rate of application
- 21. Environmental considerations
- 22. A signature page, with names, dates, and signatures of all contract holders and the person who prepared the plan. The signature page should also contain a space for approval by NRCS.
- 23. The IWMP developed by the TSP shall include the following statement:

Any landowner with equipment capable of withdrawing 100,000 gallons or more of water per day (70 gallons per minute) is required to report water use to the Missouri Department of Natural Resources. The website to download the forms is <http://www.dnr.mo.gov/env/wrc/waterusestatutes.htm>. A new form is posted each year. Copies of the submitted forms will be provided to the NRCS along with the yearly irrigation records and placed in the case file for certification and payment.
- 24. Operation and maintenance plan, to include a check list of items to eliminate non-beneficial system losses.
- 25. Certification that the design meets practice standard criteria and comply with applicable laws and regulations.
- 26. The IWMP components shall be assembled into one complete plan.

CLIENT

Deliverables for the Client:

1. A hardcopy of the plan that includes:
 - Cover page – name, address, phone of client and TSP; Total Acres of the Plan, signature blocks for the TSP, producer, and a signature block for the NRCS acceptance.
 - Soils map and appropriate soil descriptions
 - Resource assessment results (wind and water erosion, water availability, soil fertility, and others that may be needed)
 - For management practices. The planned practices and the site specific specifications on how each practice will be applied; when the practice will be applied, and the extent (acres or number) that will be applied.
 - For engineering/structural practices. The planned practice when it will be applied and extent, and located on the conservation plan map.
2. Certification that the installation process and materials meet design and permit requirements.

NRCS

Deliverables for NRCS Field Office:

1. Complete hardcopy and electronic copy of the client's plan (MsWord copy).
2. Digital Conservation Plan Map with fields, features, and structural practices located.
3. Digital Soils Map.
4. Certification that the application meets NRCS standards and specifications and is in compliance with permits.

REFERENCES

- NRCS Field Office Technical Guide, Irrigation Water Management Plan Criteria Practice/Activity Code 118
- NRCS Field Office Technical Guide, Irrigation Water Management, 449
- NRCS National Engineering Handbook, part 652, National Irrigation Guide
- NRCS National Engineering Manual
- NRCS National Environmental Compliance Handbook
- NRCS Cultural Resources Handbook

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- NRCS National Water and Climate Center, Irrigation Water Requirements computer program