

STATEMENT OF WORK
Drainage Water Management Plan (130)
Missouri

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

DESIGN

Deliverables:

1. Design documentation that will demonstrate that the criteria in NRCS practice standard have been met and are compatible with other planned and applied practices.
2. Farm and field information:
 - a. Name of producer
 - b. Farm number
 - c. Tract number
 - d. Crops grown
 - e. Name of employee or contractor developing plan
 - f. Date of plan development
3. The objectives of the producer pertaining to Conservation Practice Standard (CPS) 554, Drainage Water Management.
4. A soils map that includes:
 - a. Field boundaries
 - b. The predominant soils listed and area quantified
 - c. The boundaries of the DWMP acreage delineated
5. A Drainage System Map that includes the materials, diameters or dimensions, and locations of the laterals and mains (depth and grade of tile or ditches not required for the DWMP).
6. A delineation of the area within the field drained by the system. The definition of the drained area is taken from the lateral spacing recommendations of the soil, as specified in the State Drainage Guide. The outer boundary of the drained area is delineated by a line around the drained area (tiled or ditched), at a distance of one-half of the tile or ditch lateral spacing.
7. A wetland delineation map, if applicable.
8. A Topographic Map on a maximum of 120-foot grid that shows elevation contours on a 6-inch increment (drainage system map and topographic map need to be the same scale). The topographic map should include, at a minimum, all of the drained area as defined above.
9. An overlay of the above maps (e.g., field boundaries, drain locations, contour map) with the location, size, and impacted area identified for each planned control structure.
 - If the control structures are set on a 2-foot elevation interval, the impacted area is defined as the drained area (from item 5) contained within the 2-foot contour above the control elevation.
 - If the control structures are set at an elevation interval less than 2 feet, then the impacted area is the drained area contained within the control elevation interval at which the control structures are set.
 - If the control structures are set at an elevation interval greater than 2 feet, then the impacted area is the drained area contained within the 2-foot contour above the control elevation.
 - The control elevation is the elevation of the soil surface at the lowest spot in the area of the field impacted by the operation of the water control structure.
10. The management instructions should follow the Operation and Maintenance section of CPS 554, which states that to reduce soil oxidation and to minimize wind erosion and nitrate transport, the outlet elevation at the water control structure shall be set to allow the water table to rise to within 6 inches or less of the ground surface at the designated control elevation during fallow periods and when practical. The DWMP also must include the following instructions:
 - a. The time after harvest to replace boards and the designated outlet elevation during the winter months (or fallow season),
 - b. The time in the spring to release water (this will vary depending on the crop: e.g. March for corn and April for soybeans), and
 - c. Guidelines for the control of drainage and the management of the water table during the growing season (see CPS 554), and
 - d. Evaluation of the DWMP's effect on wetlands and compliance with the National Food Security Act.
11. A summary sheet that lists the pipe diameter or dimensions of each water control structure and the area impacted by each structure.

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12. Associated Practice Standards. The DWMP should address the resource concerns identified, and the conservation practices needed to comprise a conservation system for DWM. In addition to the water control structures as described in Conservation Practice Standard (CPS) 554, Drainage Water Management, existing drainage systems may require augmentation, modification, or replacement of existing components. NRCS Conservation Practice Standards to be incorporated in a DWMP could include:
 - a. Drainage Water Management (554)
 - b. Subsurface Drain (606)
 - c. Surface Drain, Field Ditch (607)
 - d. Surface Drainage, Main or Lateral (608)
 - e. Wetland Creation (658)
 - f. Wetland Enhancement (659)
 - g. Wetland Restoration (657)
 - h. Nutrient Management (590)
 - i. Waste Utilization (633)
 - j. Shallow Water Development and Management (646)
 - k. Wetland Wildlife Habitat Management (644)
13. List of required permits to be obtained by the client
14. List of facilitating/component practices
15. Practice standard criteria related computations and analyses to develop plans and specifications including but not limited to:
 - a. Geology and Soil Mechanics (NEM Subpart 531a)
 - b. Hydrology/Hydraulics
 - c. Structural
 - d. Vegetation
 - e. Environmental Considerations
16. Certification that the design meets practice standard criteria and comply with applicable laws and regulations.
17. 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.
18. A District Conservationist checklist, covering each component of this statement of work, should also be included.
19. The DWMP should be packaged as one plan.
 - A template of a DWMP is available on the Illinois Drainage Guide (Online), on the webpage "Related Information", <http://www.wq.uiuc.edu/dg/>.

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.
5. Certification that the installation process and materials meets design and permit requirements.

NRCS

Deliverables for NRCS Field Office

1. Complete hardcopy and electronic copy of the client's plan (MsWord copy).

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2. Digital Conservation Plan Map with fields, features, and structural practices located.
3. Digital Soils Map.
4. Certification that the installation meets NRCS standards and specifications and is in compliance with permits.

REFERENCES

- NRCS Field Office Technical Guide (eFOTG), Section III, Drainage Water Management Plan Criteria, Practice/Activity Code 130
- NRCS Field Office Technical Guide (eFOTG), Section IV, Conservation Practice Standard - Drainage Water Management, 554
- NRCS National Engineering Handbook, Part 624, Section 16, Drainage
- NRCS National Engineering Handbook, Part 650, Chapter 14, Water Management (Drainage)
- NRCS National Environmental Compliance Handbook
- NRCS Cultural Resources Handbook