

STATEMENT OF WORK
Nutrient Management (590)
Wyoming

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.
 - a. Practice purpose(s) as identified in the conservation plan.
 - b. List of required permits the client needs to obtain.
 - c. Practice standard criteria-related computations and analyses to develop plans and specifications including but not limited to:
 - i. Results of applicable sampling, analyses, and tests provided by the client.
 - ii. Realistic yield goals for the crop(s) to receive nutrient applications.
 - iii. Planned nutrient and soil amendment application rates, methods, and timing of application in balance with the nutrient budget.
 - iv. Site risk assessment for nitrogen leaching (RUSLE2 Nitrogen Leaching Index or Wyoming Agronomy Technical Note 25 – Nitrogen Leaching Index).
 - v. Site risk assessment for phosphorus transport (Wyoming Agronomy Technical Note 15 – Phosphorus Index).
2. The planner will provide written plans and specifications to the client that adequately describes the requirements to implement the practice and obtain necessary permits. Plans & specifications include:
 - a. Maps that identify areas on which nutrients will be applied,
 - b. Location of setbacks or other sensitive areas with nutrient application restrictions,
 - c. Guidance for nutrient applications on setbacks or other sensitive areas,
 - d. A nutrient budget for nitrogen, phosphorus, and potassium that compares recommended to planned nutrient application rates,
 - e. Guidance for operation and maintenance plan,
 - f. Other requirements listed in the conservation practice standard Nutrient Management (Code 590).
3. Certification that the design meets practice standard criteria and complies with applicable laws and regulations for:
 - a. Agronomy Technical Note 19 – Nutrient Management and Comprehensive Nutrient Management Plan Components/Checklists,
 - b. Nutrient Management Design WY-ECS-44,
 - c. Solid Waste Utilization WY-ECS-45A,
 - d. Liquid Waste Utilization WY-ECS-45B,
 - e. RUSLE2 Nitrogen Leaching Index or Agronomy Technical Note 25 – Nitrogen Leaching Index,
 - f. Agronomy Technical Note 15 – Phosphorus Index,
 - g. Nutrient Management Planning Worksheet WY-ECS-58,
 - h. Conservation Crop Rotation Specification Worksheet WY-ECS-62,
 - i. Cropland/Hayland Recordkeeping WY-ECS-63,
 - j. Conservation Crop Rotation Yield Records WY-ECS-64,
 - k. NRCS WEPS calculation for wind erosion,
 - l. NRCS RUSLE2 calculations for water erosion and soil quality.
4. Design modifications during installation as required.

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INSTALLATION

Deliverables

1. Pre-implementation conference with client to review the plan.
2. Verification that client has obtained required permits, if required for installation.
3. Location of and communication of setback requirements for wetlands, water bodies, streams, and other nutrient- sensitive areas.
4. Installation guidance as needed.
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 application process and materials meets design and permit regulations for:
 - a. Agronomy Technical Note 19 – Nutrient Management and Comprehensive Nutrient Management Plan Components/Checklists,
 - b. Nutrient Management Design WY-ECS-44,
 - c. Solid Waste Utilization WY-ECS-45A,
 - d. Liquid Waste Utilization WY-ECS-45B,
 - e. RUSLE2 Nitrogen Leaching Index or Agronomy Technical Note 25 – Nitrogen Leaching Index,
 - f. Agronomy Technical Note 15 – Phosphorus Index,
 - g. Nutrient Management Planning Worksheet WY-ECS-58,
 - h. Conservation Crop Rotation Specification Worksheet WY-ECS-62,
 - i. Cropland/Hayland Recordkeeping WY-ECS-63,
 - j. Conservation Crop Rotation Yield Records WY-ECS-64,
 - k. NRCS WEPS calculation for wind erosion,
 - l. NRCS RUSLE2 calculations for water erosion and soil quality.

CHECK OUT

Deliverables

1. Records of implementation.
 - a. Extent of practice units applied, acres.
2. Guidance for record keeping (implementation records maintained by the producer or agent)
 - a. Records of crops produced, planting and harvest dates, yields, residue management,
 - b. Records of recurring soil tests, and other tests (e.g. manure, plant tissue, water) used to implement the plan,
 - c. Records of recommended nutrient application rates,
 - d. Records of nutrient applications including quantities, analyses, and sources of nutrients applied; dates and methods of application,
 - e. Records of recurring review of the plan including the dates or review, individual performing the review, and recommendations that resulted from the review.
3. Certification that the application meets NRCS standards and specifications and is in compliance with permits regulations for:
 - a. Agronomy Technical Note 19 – Nutrient Management and Comprehensive Nutrient Management Plan Components/Checklists,
 - b. Nutrient Management Design WY-ECS-44,
 - c. Solid Waste Utilization WY-ECS-45A,
 - d. Liquid Waste Utilization WY-ECS-45B,
 - e. RUSLE2 Nitrogen Leaching Index or Agronomy Technical Note 25 – Nitrogen Leaching Index,

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- f. Agronomy Technical Note 15 – Phosphorus Index,
 - g. Nutrient Management Planning Worksheet WY-ECS-58,
 - h. Conservation Crop Rotation Specification Worksheet WY-ECS-62,
 - i. Cropland/Hayland Recordkeeping WY-ECS-63,
 - j. Conservation Crop Rotation Yield Records WY-ECS-64,
 - k. NRCS WEPS calculation for wind erosion,
 - l. NRCS RUSLE2 calculations for water erosion and soil quality.
4. Progress reporting.

REFERENCES

NRCS Field Office Technical Guide (eFOTG), Section IV:

- Conservation Practice Standard Nutrient Management – 590,
 - Nutrient Management Work Sheet WY-ECS-44,
 - Nutrient Management Planning Work Sheet WY-ECS-58,
- Conservation Practice Standard Waste Utilization – 633,
 - Solid Waste Utilization Work Sheet WY-ECS-45a,
 - Liquid Waste Utilization Work Sheet WY-ECS-45b,
 - AFO/CAFO Inventory Data Planning Work Sheet WY-ECS-60
- Conservation Practice Standard Irrigation Water Management – 449
 - IWM Work Sheet WY-ECS-73
- Conservation Practice Standard Conservation Cover – 328
 - Conservation Cover Work Sheets WY-62, 63, and 64

NRCS Field Office Technical Guide (eFOTG), Section I, Table of Contents:

- Agronomy Technical Note 3 – Nitrogen Fixation and Legume Inoculation
- Agronomy Technical Note 10 – University of Wyoming Guide to Fertilizer Recommendations B-1045
- Agronomy Technical Note 11.1 – Nutrient Management Practice Narrative
- Agronomy Technical Note 11.2 – Nutrient Management Job Sheet
- Agronomy Technical Note 11.3 – Atmospheric Nitrogen Deposition Summary
- Agronomy Technical Note 11.4 – National Atmospheric Nitrogen Deposition Site Map Links
- Agronomy Technical Note 11.5 – Atmospheric Nitrogen Deposition Website
- Agronomy Technical Note 11.6 – Nutrient Management Design Form WY- ECS-44
- Agronomy Technical Note 11.7 – Nutrient Management Design Form Instructions WY-ECS-44
- Agronomy Technical Note 12.1 – Waste Utilization Plan Excel Worksheet
- Agronomy Technical Note 12.2 – Instructions for the WY-ECS-45a Waste Utilization Excel Worksheet
- Agronomy Technical Note 12.3 – Solid Waste Utilization Plan- PDF Format
- Agronomy Technical Note 12.4 – Solid Waste Form for Animal Outputs – PDF Form
- Agronomy Technical Note 12.5 – Crop Nutrient Requirements
- Agronomy Technical Note 12.6 – Liquid Waste Utilization WY-ECS-45b
- Agronomy Technical Note 12.7 – Liquid Waste Utilization WY-ECS-45b Instructions
- Agronomy Technical Note 12.8 – Liquid Waste Utilization for Rangeland, Hayland & Pastureland
- Agronomy Technical Note 13 – Soil Testing and Fall/Snow Manure Application Guidelines
- Agronomy Technical Note 14 – Waste Utilization Application Guidelines
- Agronomy Technical Note 15 – Phosphorus Index

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- Agronomy Technical Note 19 – Nutrient Management and Comprehensive Nutrient Management Plan Components/Checklists
- Agronomy Technical Note 20 – Liquid Waste Utilization Application Guidelines/Sizing Vegetated Areas
- Agronomy Technical Note 24 – Ag Waste Available Water Holding Capacity Example
- Agronomy Technical Note 25 – Nitrogen Leaching Index

NRCS RUSLE2 program for predicting soil loss by water erosion, calculating soil quality index (SCI), and determining Nitrogen Leaching Index

NRCS WEPS program for predicting soil loss by wind erosion

NRCS General Manual Title 450, Part 401.03 (Technical Guides, Policy and Responsibilities) and Title 190, Part 402 (Ecological Sciences, Nutrient Management, Policy)

NRCS National Planning Procedures Handbook (NPPH), CNMP Technical Guidance Document

NRCS National Agronomy Manual (NAM) Section 503

NRCS Agricultural Waste Management Field Handbook, Chapter 4 – Agricultural Waste Characteristics

NRCS National Environmental Compliance Handbook

NRCS Cultural Resources Handbook