Natural Resources Conservation Service

Overview of the NRCS Conservation Planning Process and RUSLE2

What is a conservation plan?

- A voluntary, site specific, comprehensive, and action-oriented plan…
- Based on natural resource information and a record of decisions made by the client…
- Which describes a system of practices and activities needed to solve identified natural resource problems and take advantage of opportunities.

Types of Plans and Associated Planning Requirements:

- ACS and BCS Plans

  Alternative Conservation System and Basic Conservation System Plans – Developed to carry out the provisions of the Food Security Act

- RMS Plans

  Resource Management System Plan

- Progressive Planning

- CNMPs

  Comprehensive Nutrient Management Plans – Developed for Animal Feeding Operations

How do we get there?

- Nine Step Planning Process:
  - 1 – Identify Problems and Opportunities
  - 2 – Determine Objectives
  - 3 – Inventory Resources
  - 4 – Analyze Resources
  - 5 – Formulate Alternatives
  - 6 – Evaluate Alternatives
  - 7 – Make Decisions
  - 8 – Implement the Plan
  - 9 – Evaluate the Plan

Technical Criteria

- National Planning Procedures Handbook
- Field Office Technical Guide (FOTG)
  - I. General Resource References
  - II. Natural Resource Information
  - III. Conservation Management Systems
  - IV. Practice Standards and Specifications
  - V. Conservation Effects

Quality Criteria

Natural Resource Concern	Description of Concern	Virginia Quality Criteria	Assessment Tools for Quality Criteria Evaluation	Measurement Unit
Soil Erosion - Sheet and Rill	Detachment and transport of soil particles caused by rainfall splash and runoff (sheet flow) degrade soil quality.	**SAME AS NATIONAL** Sheet and rill erosion does not exceed the Soil Loss Tolerance "T".	• Visual assessment (pedestals, rills) • RUSLE2	Tons/Acre/Year – average annual tons of erosion reduced per acre for the field or planning area/unit
Soil Erosion - Ephemeral Gully	Small channels caused by surface water runoff (concentrated flow) degrade soil quality and tend to increase in size. On cropland, they can be obscured by heavy tillage.	**SAME AS NATIONAL** Concentrated surface water runoff is controlled sufficiently to stabilize the small channels and prevent reoccurrence of new channels.	• Visual assessment • Volume calculation	Tons/Year – average annual tons of erosion reduced for the field or planning area/unit
Water Quality - Excessive Nutrients and Organics in Surface Water	Pollution from natural or human induced nutrients such as N, P, and S (Including animal and other wastes) degrades surface water quality.	Nutrients and organics are stored, handled, disposed of, and managed such that surface water uses are not adversely affected. Nutrient application in accordance with VA 590 Standard (follow Nutrient Management Plan)	• Stream Visual Assessment Protocol – USDA/NRCS (SVAP) • P index • National Engineering Handbook, Part 651, Ag. Waste Mgt. Field Handbook • Surface water chemical/particle sampling and assay • DCR 303d report • Visual Assessment • CNMP • Risk Assessment for Water Impairment from concentrated/feeding livestock areas.	Non Measurable

Conservation Practice Standards and Specifications

COVER CROP

(Ac.)

CODE 340

DEFINITION

Crops including grasses, legumes, and forbs for seasonal cover and other conservation purposes.

PURPOSE

- Reduce erosion from wind and water.
- Increase soil organic matter content.
- Capture and recycle or redistribute nutrients in the soil profile.
- Promote biological nitrogen fixation and reduce energy use.
- Increase biodiversity.
- Suppress weeds.
- Manage soil moisture.
- Minimize and reduce soil compaction.

Ensure that plants designated as noxious weeds in Virginia shall not be used as cover crops.

Ensure that cover crop residue is not burned.

Additional Criteria to Reduce Erosion from Wind and Water

Select and manage cover crops to ensure adequate protection of the soil during critical erosion periods.

Current erosion prediction technology shall be used to determine the amount of cover crop biomass and/or residue needed to achieve site-specific erosion reduction objectives.

Additional Criteria to Increase Soil Organic Matter Content

Select and manage cover crops to produce and return to the soil large quantities of above- and below-ground organic material.

To maximize *total* soil organic matter (total soil C), select and manage cover crops to produce

Environmental Evaluation

U.S. Department of Agriculture — NRCS-CPA-52
Natural Resources Conservation Service — 10-3-2011

ENVIRONMENTAL EVALUATION WORKSHEET

A. Client Name:

B. Conservation Plan ID # (as applicable):
Program Authority (optional):

C. Identification # (farm, tract, field #, etc as required):

D. Client's Objective(s) (purpose):

E. Need for Action:

G. Alternatives

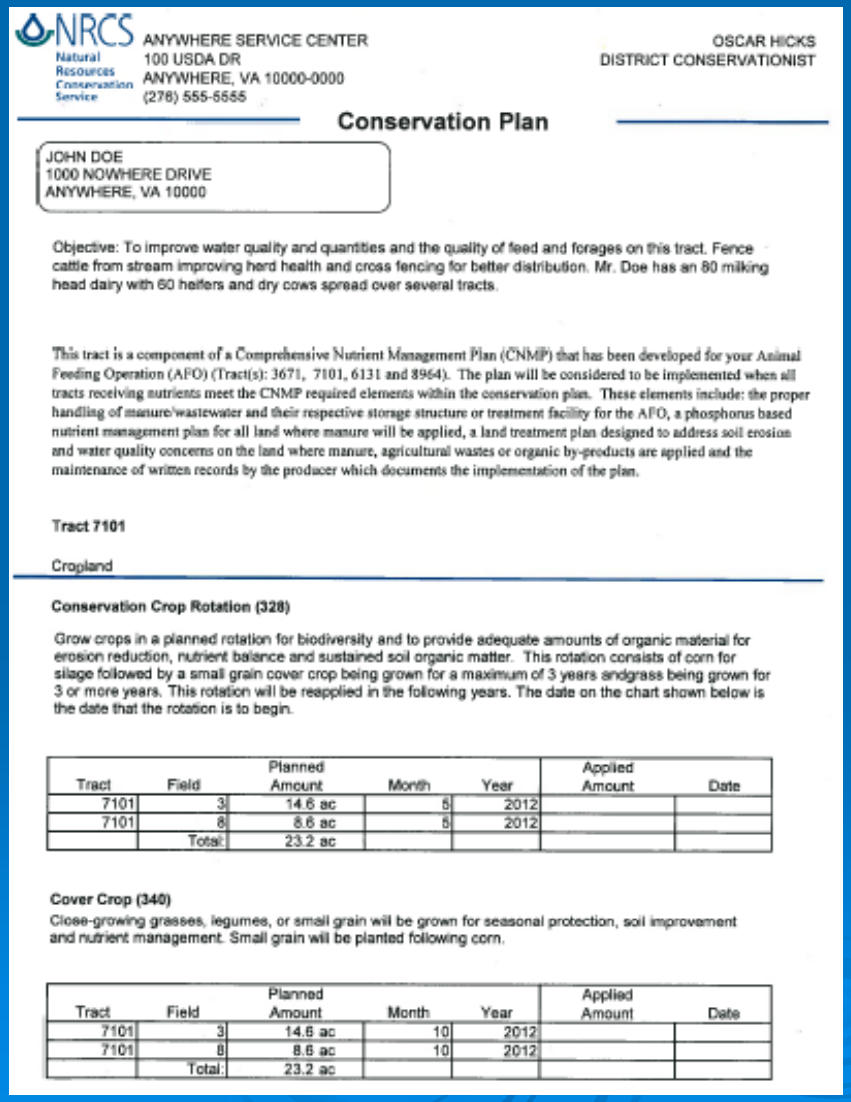
No Action	√ if RMS	Alternative 1	√ if RMS	Alternative 2	√ if RMS

Resource Concerns

In Section "F" below, analyze, record, and address concerns identified through the Resources Inventory process.
(See FOTG Section III - Resource Quality Criteria for guidance).

F. Resource Concerns and Existing / Benchmark Conditions (Analyze and record the existing/benchmark conditions for each identified concern)	H. Effects of Alternatives: No Action — Amount, Status, Description (short and long term)	√ if does NOT meet QC	Alternative 1 — Amount, Status, Description (short and long term)	√ if does NOT meet QC	Alternative 2 — Amount, Status, Description (short and long term)	√ if does NOT meet QC
SOIL						
		NOT meet ☐ QC		NOT meet ☐ QC		NOT meet ☐ QC

Conservation Plan



NRCS Natural Resources Conservation Service

ANYWHERE SERVICE CENTER
100 USDA DR
ANYWHERE, VA 10000-0000
(276) 555-5555

OSCAR HICKS
DISTRICT CONSERVATIONIST

Conservation Plan

JOHN DOE
1000 NOWHERE DRIVE
ANYWHERE, VA 10000

Objective: To improve water quality and quantities and the quality of feed and forages on this tract. Fence cattle from stream improving herd health and cross fencing for better distribution. Mr. Doe has an 80 milking head dairy with 60 heifers and dry cows spread over several tracts.

This tract is a component of a Comprehensive Nutrient Management Plan (CNMP) that has been developed for your Animal Feeding Operation (AFO) (Tract(s): 3671, 7101, 6131 and 8964). The plan will be considered to be implemented when all tracts receiving nutrients meet the CNMP required elements within the conservation plan. These elements include: the proper handling of manure/wastewater and their respective storage structure or treatment facility for the AFO, a phosphorus based nutrient management plan for all land where manure will be applied, a land treatment plan designed to address soil erosion and water quality concerns on the land where manure, agricultural wastes or organic by-products are applied and the maintenance of written records by the producer which documents the implementation of the plan.

Tract 7101

Cropland

Conservation Crop Rotation (328)

Grow crops in a planned rotation for biodiversity and to provide adequate amounts of organic material for erosion reduction, nutrient balance and sustained soil organic matter. This rotation consists of corn for silage followed by a small grain cover crop being grown for a maximum of 3 years andgrass being grown for 3 or more years. This rotation will be reapplied in the following years. The date on the chart shown below is the date that the rotation is to begin.

Tract	Field	Planned Amount	Month	Year	Applied Amount	Date
7101	3	14.6 ac	5	2012		
7101	8	8.6 ac	5	2012		
	Total:	23.2 ac				

Cover Crop (340)

Close-growing grasses, legumes, or small grain will be grown for seasonal protection, soil improvement and nutrient management. Small grain will be planted following corn.

Tract	Field	Planned Amount	Month	Year	Applied Amount	Date
7101	3	14.6 ac	10	2012		
7101	8	8.6 ac	10	2012		
	Total:	23.2 ac				

NRCS Conservation Planning Policy

- Certification Levels:
  - Certified Conservation Planner Designation
  - CNMP Planner Designation
    - Manure and Wastewater Treatment Specialist
    - Land Treatment Specialist
    - Nutrient Management Specialist
    - Feed Management Specialist