

# Conservation Records

## *For Your Farm or Ranch*

Name: \_\_\_\_\_

Farm/Ranch: \_\_\_\_\_





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# Developing a Conservation Plan

Natural Resources Conservation Service

## Your Conservation Plan

A conservation plan is a voluntary, dynamic, and confidential document. This document will help you manage your natural resources for optimal production and sustainability. Developing a conservation plan is a voluntary process. You make the decisions, and ultimately, you are responsible for implementing your conservation plan. A conservation plan does not provide public access to your property. The landowner retains control of the rights of entry and use. Your conservation plan is confidential and no person or agency other than NRCS has access to your plan without your written authorization.

This voluntary conservation plan can address all land uses: cropland, pasture land, hayland, forest land, wildlife land, range land and head-quarters (feedlots and dairy's). This plan packet can also be used for both large and small farms.

Before you begin filling out the forms in this packet, it is important that you read the information on the following page. This displays a brief outline of the conservation planning process. You and a conservation planner will use to complete your plan. Natural Resource Conservation Service planners can provide you with technical assistance to develop and implement your plan. The information you develop throughout this packet will provide your conservation planner with the building blocks needed to complete your conservation plan.

## Benefits of a Conservation Plan:

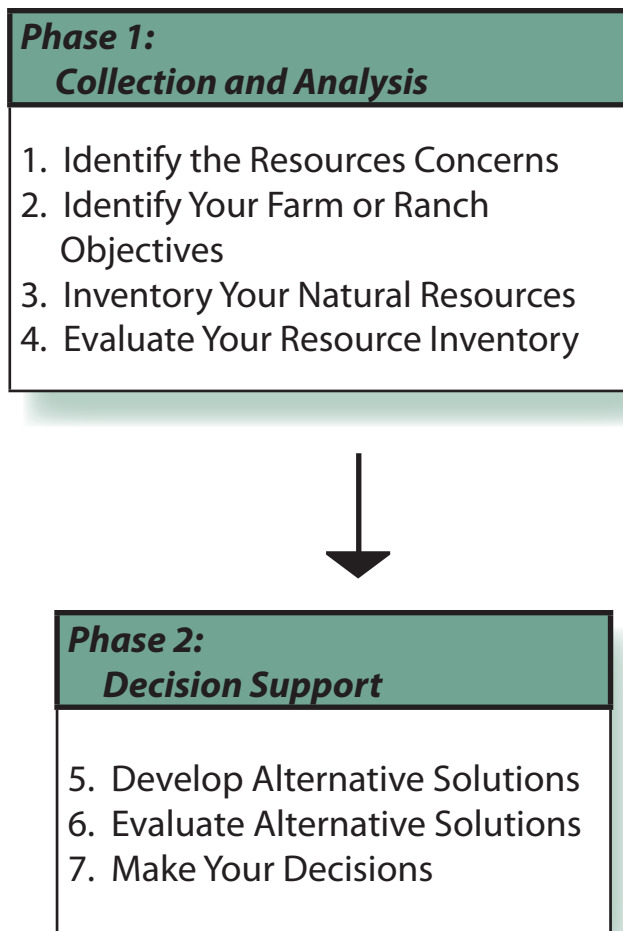
- **Saves your money long term**
- **Increases your land's productivity**
- **Helps you comply with current and future environmental regulations**
- **Sustains the natural resources on your land**
- **Increases your property value**
- **Saves time and labor**

# Developing a Conservation Plan

## The Conservation Planning Process

The Conservation Planning process should address your resource concerns and also meet your personal needs. Writing your own conservation plan is a nine-step process that consists of three phases. The information you develop in this packet will complete Phase 1 of the planning process. The worksheets you complete can then be utilized by you and your local conservation planner to complete Phase 2 and 3. The description below outlines the conservation planning process.

## Conservation Planning Process



## Developing your Conservation Plan

This packet of information contains sections you can tailor to fit your operation. The first section includes general information to describe your operation, establish the condition of your natural resources and identify your operations objectives. The next four sections are divided into specific land uses: crop and hay land, range and pasture land, grazed forest land, and feedlots and dairy's. When developing your conservation plan, only fill out the sections that are associated with your operation. It is not necessary to fill out the portions of the plan that do not fit your operation. The packet includes a number of worksheets to help you organize your information. Each worksheet will have a completed example, followed by a blank worksheet for you to fill out.

Once you have identified and completed the sections of the conservation plan that relate to your operation and if you plan to seek further assistance with NRCS, please fill out the privacy statement, located on page 14-15 in order to better assist your conservation planner. If you have any questions about your Conservation Plan, please call your local Natural Resources Conservation Service (NRCS) office, and they can assist you with your next steps.

# Land Operator Information

The following information is needed by your conservation planner to develop a quality conservation plan. A privacy statement is available for you to fill out on page 14-15. This ensures that the information you detail throughout this plan remains confidential between you and the Natural Resources Conservation Service.

**Name of Landowner(s)** \_\_\_\_\_

**Name of Land Manager(s)** \_\_\_\_\_

**Business or Farm Name** \_\_\_\_\_

**Address** \_\_\_\_\_

**City** \_\_\_\_\_ **State** \_\_\_\_\_

**County** \_\_\_\_\_ **Zip Code** \_\_\_\_\_

**Phone Numbers: Home** \_\_\_\_\_

**Business** \_\_\_\_\_

**Cell** \_\_\_\_\_

**E-mail Address** \_\_\_\_\_

# Property Information

## Property Location

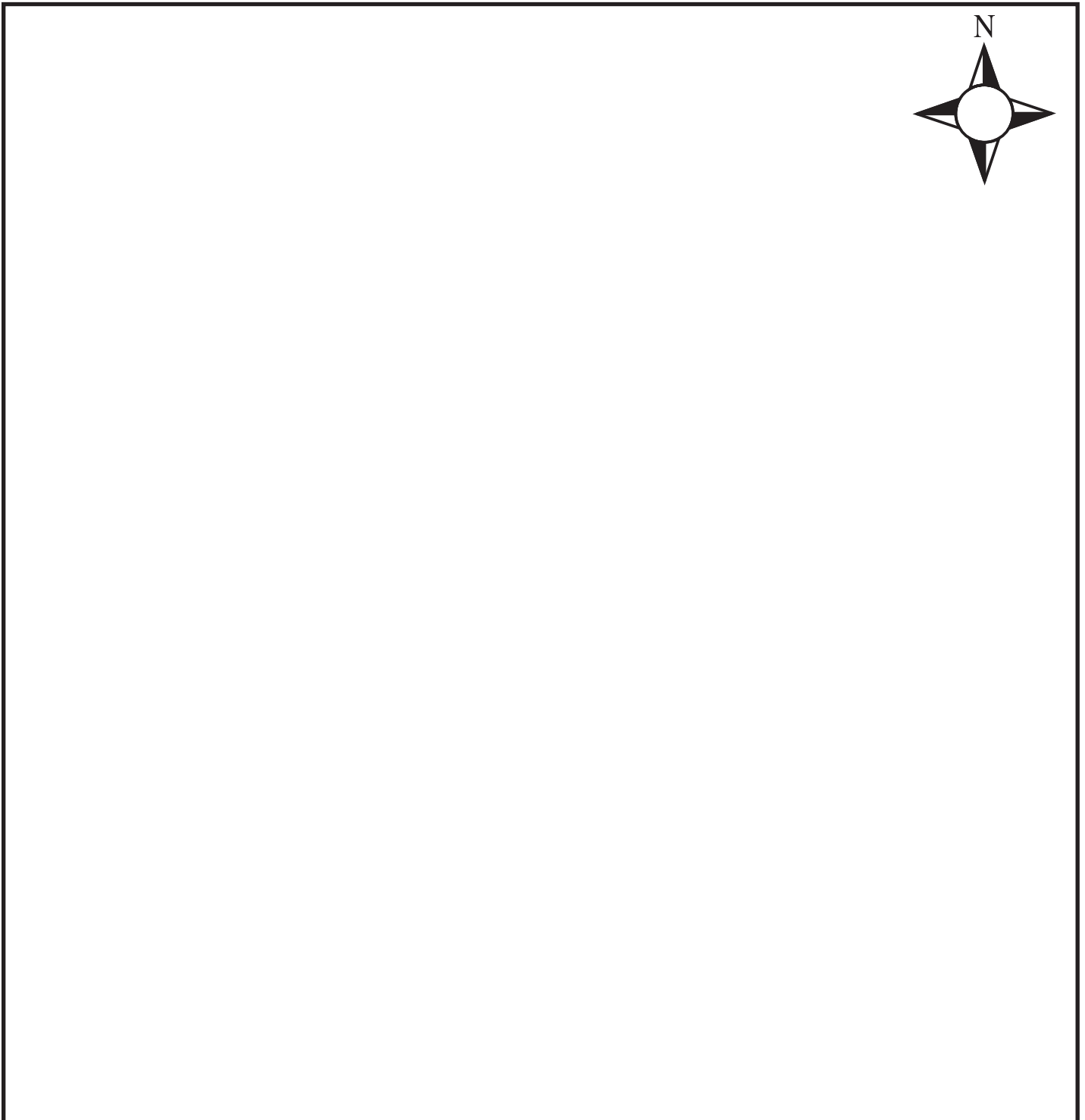
In order to identify the property location, please refer to the example and complete the table below. Your farm number, tract number and total acres can be located on an aerial map. Aerial map photocopies of your property can be obtained at your local US Department of Agriculture Service Center. Township, range, and section numbers can be located with the following resources: county soil survey book, 7.5 min. quad map (can be found at a bookstore or sporting goods store), tax lot number from the county courthouse, deed of land and the local irrigation district.

<i>Property Name</i>	<i>Farm or Tract Number</i>	<i>Field Numbers</i>	<i>Township</i>	<i>Range</i>	<i>Section(s)</i>	<i>Acres</i>	<i>Own</i>	<i>Operate</i>
Jones Farm	T251	1	135	3E	21	30		✓
Jones Farm	T251	2	135	3E	21	10		✓
Jones Farm	T251	3	135	3E	22	80		✓
Smith Farm	T252	1	135	3E	22	120	✓	✓
Smith Farm	T252	2	135	3E	22	95	✓	✓
Smith Farm	T252	HQ	135	3E	22	5	✓	✓
<i>Property Name</i>	<i>Farm or Tract Number</i>	<i>Field Numbers</i>	<i>Township</i>	<i>Range</i>	<i>Section(s)</i>	<i>Acres</i>	<i>Own</i>	<i>Operate</i>

# Farm Location Map

On this page, please draw or attach a map showing directions to your farm in relation to well-known features (highways, towns). On the following page, draw or attach a detailed map of your farm or ranch operation (field boundaries, access roads, streams, etc.). Include the location of conservation practices (fences, terraces, pipelines, etc.) you have installed on each field. Attach additional pages if necessary.

## Property Location Map















A large empty rectangular box for drawing a property location map. In the top right corner of the box, there is a compass rose with the letter 'N' above it, indicating North.



# Conservation Farm Map

Natural Resources Conservation Service

**Farm Map Legend**

 <b>Property Boundary</b>	 <b>Road</b>	 <b>Fence</b>	 <b>Homestead</b>
 <b>Stream</b>	 <b>Field Number</b>	 <b>Well</b>	 <b>Spring</b>
 <b>Water</b>	 <b>Ditch</b>	 <b>Pipeline</b>	 <b>Trough</b>

**Label Land Uses in Designated Fields**



# Identify Resource Concerns

## Instructions

The first step of the planning process is to identify the condition of your operation's natural resources. In order to efficiently catalog the condition of all of your resources, an Evaluation and Resource Inventory Checklist is provided. This worksheet will walk you through seven categories to inventory your operations natural resources. These categories include: soil erosion, soil condition, water quantity, water quality, air, plants and animals. Located below is an example of a filled in checklist. The worksheet for you to fill out is located on the next three pages.

The following are the steps to complete the Evaluation and Resource Inventory Checklist.

- 1) For your convenience use the land use abbreviations found in the box below to identify your primary land uses; you can use more than one land use. Fill in your land categories directly under the *Land Use Category* column heading in the table.
- 2) Then place a check mark in the boxes that identify the resource concerns that correspond with your identified land use. If applicable you can check more than one land use for a particular resource concern. This indicates that, yes, this resource concern does occur on the land use.
- 3) After identifying the resource concern and land use, continue to the *Notes* column and indicate the field numbers the concern occurs on as well as a brief description of the concern.
- 4) Continue this process through each of the six categories mentioned above.

**Land Use Category Abbreviations:**

C = Crop, F = Forest, GF = Grazed Forest, GR = Grazed Range, N = Native Pasture, NA = Natural Area, R = Recreation, U = Urban, W = Water, WL = Wildlife, H = Headquarters (feedlots and dairies)

## EXAMPLE: Evaluation and Resource Inventory Checklist

<i>Resource Concerns</i>	<i>Description of Resource Concerns</i>	<i>Land Use Category</i>					<i>Notes</i>
		C	H				
<b>SOIL EROSION</b>							
<b>Sheet and Rill Erosion</b>	Rain or melting snow causes soil movement.						
<b>Wind Erosion</b>	Wind causes soil movement.	✓					During early spring, field 4,5,6 get severe wind damage caused by blowing sand.
<b>Ephemeral Gully Erosion</b>	Runoff forms small channels that can be obscured by heavy tillage.		✓				
<b>Classic Gully Erosion</b>	Runoff causes deep, permanent channels.		✓				Gully in Field 9 continues to headcut.
<b>Streambank Erosion</b>	Accelerated loss of stream bank soils restricts land and water use and management.	✓					Bank of stream through Field 10 cutting back.

# Evaluation and Resource Inventory Checklist

Natural Resources Conservation Service

<i>Resource Concerns</i>	<i>Description of Resource Concerns</i>	<i>Land Use Category</i>					<i>Notes</i>
<b>SOIL EROSION</b>							
<b>Sheet and Rill Erosion</b>	Rain or melting snow causes soil movement						
<b>Wind Erosion</b>	Wind causes soil movement.						
<b>Ephemeral Gully</b>	Runoff forms small channels that can be obscured by heavy tillage.						
<b>Classic Gully Erosion</b>	Runoff causes deep, permanent channels.						
<b>Streambank Erosion</b>	Accelerated loss of stream bank soils restricts land and water use and management.						
<b>Irrigation Induced Erosion</b>	Improper application of irrigation water causes soil erosion.						
<b>SOIL CONDITION</b>							
<b>Organic Matter Depletion</b>	Decrease of soil organic matter.						
<b>Soil Compaction</b>	Soil compaction reduces infiltration and plant growth.						
<b>Contaminants - Animal Waste and Organics</b>	Over application of animal waste and other organics degrades plant health and vigor, or exceeds the soil capacity to retain nutrients.						
<b>Damage from Soil Deposition</b>	Sediment deposits restrict land use or harm ecological processes.						
<b>WATER QUANTITY</b>							
<b>Excessive Seepage</b>	Water seeping onto the surface restricts land use.						
<b>Excessive Runoff, Flooding, or Ponding</b>	Flooding or ponding restricts land use.						
<b>Excessive Subsurface Water</b>	Saturated soil restricts land use.						
<b>Inadequate Outlets</b>	Water outlets are too small to remove excess water in a timely manner.						
<b>Inefficient Water Use on Irrigated Land</b>	Use of irrigation water not optimal.						
<b>Reduced Capacity of Conveyances by Sediment Deposition</b>	Sediment in ditches, canals, culverts, etc. reduce the desired flow capacity.						
<b>Reduced Storage of Water Bodies by Sediment Accumulation</b>	Sediment deposits in ponds, lakes, etc. reduce the desired volume capacity.						
<b>Aquifer Overdraft</b>	Groundwater withdrawals exceed recharge rates.						
<b>Insufficient Flows in Water Courses</b>	Water flows unable to support ecological processes and land use management.						

# Evaluation and Resource Inventory Checklist

Natural Resources Conservation Service

<b>Resource Concerns</b>	<b>Description of Resource Concerns</b>	<b>Land Use Category</b>					<b>Notes</b>
<b>WATER QUALITY - GROUND WATER CONTAMINANTS</b>							
<b>Pesticides</b>	Pesticide residues degrade groundwater quality.						
<b>Nutrients and Organics</b>	Excess nutrients degrade groundwater quality.						
<b>Salinity</b>	Excess salts degrade groundwater quality.						
<b>Other</b>	Other contaminants may include heavy metals, pathogens, and petroleum. Please describe in Notes section.						
<b>WATER QUALITY - SURFACE WATER CONTAMINANTS</b>							
<b>Pesticides</b>	Pesticides degrade surface water quality.						
<b>Nutrient and Animal Wastes</b>	Excess nutrients degrade surface water quality.						
<b>Suspended Sediments/ Turbidity</b>	Sediment degrades surface water quality.						
<b>Temperature</b>	Undesired temperature degrade surface water quality.						
<b>Other</b>	Other contaminants may include: salinity, heavy metals, pathogens, and petroleum. Please describe in notes section.						
<b>AIR</b>							
<b>Airborn Sediment</b>	Particulate matter in the air causes health hazards to humans and animals.						
<b>Chemical Drift</b>	Pesticide drift contaminates or injures non-targeted fields, crops, soils, water, animals and humans.						
<b>Objectionable Odors</b>	Land use operations produce offensive smells.						
<b>Reduced Visibility</b>	Sight distance is reduced due to airborne particles.						
<b>Other</b>	Other air concerns may be ammonia, air temperature or movement, excessive carbon dioxide. Please describe in Notes section.						

# Evaluation and Resource Inventory Checklist

Natural Resources Conservation Service

<i>Resource Concerns</i>	<i>Description of Resource Concerns</i>	<i>Land Use Category</i>					<i>Notes</i>
<b>PLANTS</b>							
<b>Plants not Adapted or Suited</b>	Plants are not adapted and/or suited to site conditions or objectives.						
<b>Productivity, Health and Vigor</b>	Plants do not produce the yields, quality, and soil cover to meet objectives.						
<b>Threatened or Endangered Species</b>	One or more plant species are in danger of extinction.						
<b>Noxious and Invasive Plants</b>	The site has noxious or invasive plants present.						
<b>Forage Quality and Palatability</b>	Plants do not have adequate nutritional value or palatability for the intended use.						
<b>Wildfire Hazard</b>	Fuel loading (plant biomass) poses a risk to human safety, structures, and resources should wildfire occur.						
<b>FISH AND WILDLIFE</b>							
<b>Inadequate Food</b>	Food is inadequate to meet the requirements of the species of concern.						
<b>Inadequate Cover/ Shelter</b>	Wildlife cover is inadequate. For aquatic species, this includes lack of hiding, thermal, and/or refuge cover.						
<b>Inadequate Water</b>	The quantity and quality of water is unacceptable for the species of concern						
<b>Imbalance Among and Within Populations</b>	Populations lack balance with available quantities and qualities of food, cover/shelter, water, and space and other life history requirements.						
<b>Threatened and Endangered Species</b>	One or more species or their habitat are in danger of extinction.						
<b>DOMESTICATED ANIMALS</b>							
<b>Inadequate Quantities and Quality of Feed &amp; Forage</b>	Feed and forage is insufficient to meet the nutritional and production needs for livestock.						
<b>Inadequate Shelter</b>	Shelter is inadequate to meet the production goals for livestock						
<b>Inadequate Stock Water</b>	Drinking water is insufficient (amount & distribution) to meet the production goals for livestock.						
<b>Stress and Mortality</b>	Animals exhibit illness or death from disease, parasites, insects, poisonous plants, or other factors						

# Identify your Business Objectives

Writing clear and focused objectives is one of the most important components of your conservation plan. A conservation plan with clearly identified objectives will help focus your resources and save time. Once your objectives are laid out on paper, it will assist you and your local conservation planner in developing a conservation plan that is right for you.

An objective is operational and tells specifically what you will be accomplishing in your plan; objectives are measurable. Goals on the other hand are broad statements of what you hope to accomplish, and are usually not measurable. For objectives to provide you with positive outcomes you need to state clearly what changes you want to make on your land by setting small achievable steps with a time frame. Use the form below or another sheet of paper to write down your objectives.

## ***Natural Resource Objectives***

**Short Term:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Long Term:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## ***Production and Economic Objectives***

**Short Term:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Long Term:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## ***Quality of Life Objectives***

**Short Term:** \_\_\_\_\_  
\_\_\_\_\_

**Long Term:** \_\_\_\_\_  
\_\_\_\_\_

***What would you like your operation to look like in five years?***

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



# The Privacy Act

## Privacy Act Statement for NRCS Conservation Program Applications

Your Conservation Plan is confidential. According to the Privacy Act, **none** of the information you provide in your conservation plan with the Natural Resources Conservation Service is allowed to be shared with other individuals without your written permission.

**Name:** \_\_\_\_\_

In order to process your program application, the Natural Resources Conservation Service (NRCS) and Soil and Water Conservation District (SWCD) employees, directors and board members while acting for NRCS may be required to release a minimum amount of your personal information. This release of information will only be in the course of processing the application, and will only consist of the information stated below. It will only be released to the person(s) listed below.

Disclosure of information by you is voluntary. Failure to provide information requested on this form may result in the government's inability to determine your suitability for the program for which you are applying. Please read the information form carefully, then sign and date where indicated.

**Do not release any of my application information**

**NRCS has my permission to release the following information:**

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Other Information: \_\_\_\_\_

**NRCS has my permission to release the above information in the following situations:**

Soil and Water Conservation District open meetings and minutes from the meeting.

Other Situations or Persons \_\_\_\_\_

Privacy Act of 1974 Compliance Information: Solicitation of information contained herein is authorized by Executive Order 10450, and/or Section 231 of the Crime Control Act of 1990 (42 U.S.C. 13041), and may be used as a basis for suitability determinations. Information may be transferred as a routine use to appropriate federal, state or local agencies when relevant to the issuance of a license, grant, or approval for participation in a conservation program.

USDA Nondiscrimination Statement: The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, and marital or family status (Not all prohibited bases apply to all programs). Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14<sup>th</sup> and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice or TDD.) USDA is an equal opportunity provider and employer.

Authorization and Release: I hereby authorize the Natural Resources Conservation Service (NRCS) to release certain information contained in the enclosed application. The information released will only be information needed to process my application. I have been informed of my rights under the Privacy Act of 1974 and the protection of my personal information under USDA NRCS General Manual Part 408.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_



# The Privacy Act

## Authorization for NRCS Release of Conservation Plan File Information

This form allows us to share specific information in your conservation plan with other agencies. By signing this form, NRCS has the ability to make sure that you and NRCS are both complying with the following laws: the Endangered Species Act, Wetland Reserve Act, National Historic Preservation Act and Clean Water Act. **If you do not sign this form, we are unable to provide you any technical or financial assistance for new conservation practices or activities.**

### Authorization for NRCS Release of Conservation Plan File Information

Persons receiving Federal funding or final designs/specifications through the USDA Natural Resources Conservation Service (NRCS) to implement conservation projects are required to comply with all Federal, State, and local laws, as well as obtain any required Federal, State, or local permits prior to construction of the project. In order to ensure compliance with Endangered Species Act (ESA) and the Magnuson-Stevens Act (MSA), NRCS is required to consult with US Fish and Wildlife Service (USFWS) and National Oceanic and Atmospheric Administration (NOAA) – Fisheries [formerly referred to as the National Marine Fisheries Service (NMFS)] if we determine our actions will affect Threatened or Endangered species or their habitat. The National Historic Preservation Act (NHPA) requires NRCS to cooperate with the State Historic Preservation Office (SHPO) and the Advisory Council on Historic Preservation (Advisory Council).

I, \_\_\_\_\_, have control of said project and/or property, and give my consent for NRCS to consult with and/or release pertinent information from my project or construction plans relating to said consultation with the USFWS, NOAA Fisheries, Advisory Council, and SHPO to ensure compliance with ESA, MSA, and NHPA. This does not authorize access to my private property by non-NRCS agencies, groups or individuals.

I, \_\_\_\_\_, have control of said project and/or property and choose **not** to give my consent for NRCS to consult with and/or release pertinent information from my project or construction plan relating to said consultation with the USFWS, NOAA Fisheries, Advisory Council, and SHPO to ensure compliance with ESA, MSA, and NHPA.

If you choose not to give your consent, you may work directly with these agencies when the need arises and provide assurance of ESA, MSA and NHPA compliance to the NRCS prior to implementation of your planned project. NRCS will provide you no further assistance until the consultation process has been completed.

Note: Failure to provide consent may affect your eligibility to receive USDA funding for your project. You may cancel this consent by written notice.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**USDA Nondiscrimination Statement**

“The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA’s TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410, or call (202) 720-5964 (voice or TDD). USDA is an equal opportunity provider and employer.”

# Conservation Records

## Crop and Hay Land Inventory

*C&H-2 ..... Crop Rotation and Management*  
*C&H-4 ..... Crop and Residue Management*  
*C&H-6 ..... Cultivation and Field Operations*  
*C&H-8 ..... Typical Field Operations List*  
*C&H-10 ..... Crop Fertilizer Input*  
*C&H-12 ..... Pest Management Input*

# Crop and Hay Land Inventory

## Crop Rotation and Management

This worksheet will provide information regarding your crop varieties as well as the rotation they are grown on your operations. Please fill out this form if you have cropland or hayland that has a rotational sequence. Use the example below to fill out your information on the following page.

### 1. EXAMPLE: Crop Rotation and Management Worksheet

Tract Numbers	Field Numbers or Names	Typical Rotation Sequences									
		Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10
486	3 & 4	Perennial/Rye Grass Seed			Crimson Clover	Winter Wheat					
695	5, 6, & 7	Alfalfa		Potatoes	Winter Wheat	Potatoes	Corn				
1311	1, 2, & 8	Winter Wheat	Spring Barley	Summer Fallow							

Additional Comments or Observations: \_\_\_\_\_

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# Crop and Hay Land Inventory

## 1. Crop Rotation and Management Worksheet

Tract Number	Field Numbers or Names	Typical Rotation Sequences									
		Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10

Additional Comments or Observations: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# Crop and Hay Land Inventory

## Crop Residue Management

This worksheet will provide information regarding the crop residue left on your fields as well as how it is removed. This worksheet does not apply to alfalfa, hay or other forage crops. You do not need to fill it out if you have forage crops, complete this form only if you have cropland.

Please refer to the example below for your reference and then fill out your information on the following page. Use the Residue Estimate table below when completing the *Estimated Amount of Residue* column.

<b>Estimated pounds of residue per unit of yield</b>	
<b>Crop</b>	<b>Pounds of residue per unit of yield</b>
Winter Wheat	80-110 pounds/bushel
Winter Barley	1.0-1.7 pounds/pound
Spring Wheat	70-100 pounds/bushel
Spring Barley	.85-1.5 pounds/pound
Spring Peas	.85-1.4 pounds/pound
Lentils	.85-1.4 pounds/pound
Oats	40-60 pounds/bushel
Corn / Grain	50-60 pounds/bushel
Grass / Seed	4.0-4.75 pounds/pound
Canola	2.5-2.75 pounds/pound
Clover Seed	.75-1.5 pounds/pound

**Example:** A 60 bushel per acre crop of winter wheat produces 4,800-6,600 pounds of residue per acre.

**Note:** The specific amount of residue produced by a crop depends on several factors. These include timing and amount of precipitation, temperatures, stored soil water, soil depth, crop variety and pests.

## 2. EXAMPLE: Crop and Residue Management Worksheet

<b>Crop Grown</b>	<b>Planting Date</b>	<b>Harvest Date</b>	<b>Average Yield per Acre</b>	<b>Estimated Amount of Residue</b>	<b>Is Residue Removed?</b>	<b>Removal Method</b>
Winter Wheat	10/1 to 10/5	8/1 to 8/10	100 bu (irr) 60 bu (NIrr)	10,000 lbs 5,500 lbs	N	----
Perennial Rye Grass	8/20	7/5 to 7/15	1500 lbs/ acre	7,000 lbs/acre	Y	Swath & Bale
Crimson Clover	8/15	6/25	800 lbs/acre	1,000 lbs/acre	N	----
Spring Barley	4/1	7/20	3,000 lbs/acre	3,700 lbs/acre	N	----
Corn	5/10	10/15 to 10/20	130 bu	7,800 lbs/acre	N	----
Potatoes	3/15 Early 5/1 Late	10/15 11/5		500 lbs/acre	N	----
Alfalfa Hay	Seed 5/15 year	4 cuttings	8 tons	----	----	Bale Remove Hay

# Crop and Hay Land Inventory

## 2. Crop and Residue Management Worksheet

<i>Crop Grown</i>	<i>Planting Date</i>	<i>Harvest Date</i>	<i>Average Yield per Acre</i>	<i>Estimated Amount of Residue</i>	<i>Is Residue Removed?</i>	<i>Removal Method</i>

Additional Comments/Observations:

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# Crop and Hay Land Inventory

Natural Resources Conservation Service

## Cultivation and Field Operations

The *Cultivation and Field Operation Worksheet* provides information on your typical tillage operations, pest control, residue management, harvest and irrigation water application, fill out a worksheet for each crop in your rotation. On pages C&H 8-9 you will find a list of typical tillage sequences to assist in the completion of the *Typical Operations for Crop* column, you can use the tillage number to complete the column rather than the wording. Refer to the example below for your reference and then fill out your information on the following page.

### 3. EXAMPLE: Cultivation and Field Operations Worksheet

<b>Tract(s):</b>	1778	<b>Field(s):</b>	1, 2, 3, 16, 20	
<b>Crop Planted and Yield:</b>	Potato 530 cwt., Winter Wheat 130 bu/acre	<b>Previous Crop and Yield:</b>	Alfalfa Hay 7 tons/acre	
<b>Include information on operations such as: tillage, spray, irrigation, grazing, harvest, pest control ect.</b>				
<b>Date of Operation(s)</b>	<b>Typical Operation(s) for Crop</b>	<b>Comments on Operation(s)</b>	<b>Monthly Irrigation Dates</b>	<b>Irrigation Application</b>
10/16	Heavy Offset Disk	12 inches deep		
10/20	Sub Soiler	30 inch spacing, 24 inch depth		
2/15	Tandem Disk		2/15-3/15	2 inches
3/15	Bedder, Disk Hiller			
4/1	Planter 30 inch Rows		4/1-5/1	3 inches
5/1	Cultivator, Disk Hiller on Beds		5/1-6/1	4 inches
5/10	Dammer Diker			
5/15	Insecticide Spray - Aerial			
6/1	Herbicide Spray - Aerial		6/1-7/1	6 inches
6/15	Insecticide Spray - Aerial			
7/1	Herbicide Spray - Aerial		7/1-8/1	8 inches
			8/1-9/15	6 inches
10/15	Harvest, Dig Potatoes		10/15-11/1	2 inches
10/18	Heavy Offset Disk + Harrow			
10/20	Surface Broadcast Fertilizer + harrow + cultipacker			
10/25	Double Disk Drill			
12/1	Herbicide Application - ground			
3/1	Herbicide Application - ground		3/1-5/1	5 inches
8/1	Harvest Wheat		3/1-5/1	12 inches



# Crop and Hay Land Inventory

## 3. Cultivation and Field Operations Worksheet

<b>Tract(s):</b>		<b>Field(s):</b>		
<b>Crop Planted and Yield:</b>		<b>Previous Crop and Yield:</b>		
<i>Include information on operations such as: tillage, spray, irrigation, grazing, harvest, pest control ect.</i>				
<b>Date of Operation(s)</b>	<b>Typical Operation(s) for Crop</b>	<b>Comments on Operation(s)</b>	<b>Monthly Irrigation Dates</b>	<b>Irrigation Application</b>

# Crop and Hay Land Inventory

Natural Resources Conservation Service

## Typical Field Operations

1. Aerator, field surface, ground driven
2. Aerial seeding
3. Bale straw or residue
4. Bed shaper
5. Bed shaper, 12 in
6. Bedder, hipper, disk hiller
7. Bedder, hipper, hiller 12 in high
8. Bedder, hipper, hiller 15 in high
9. Bedder, hipper, hiller 18 in high
10. Burn residue
11. Chisel, st. pt.
12. Chisel, st. pt. 12 in deep
13. Chisel, st. pt. 15 in deep
14. Chisel, sweep shovel
15. Chisel, twisted shovel
16. Cultipacker, roller
17. Cultivator, field 6-12 in sweeps
18. Cultivator, field w/ spike points
19. Cultivator, hipper, disk hiller on beds
20. Cultivator, off bar w/disk hillers on beds
21. Cultivator, row - 1st pass ridge till
22. Cultivator, row - 2nd pass ridge till
23. Cultivator, row 1 in ridge
24. Cultivator, row 3 in ridge
25. Cultivator, row, high residue
26. Disk, offset, heavy
27. Disk, offset, heavy 12 in depth
28. Disk, offset, heavy 15 in depth
29. Disk, tandem heavy primary op.
30. Disk, tandem light finishing
31. Disk, tandem secondary op.
32. Drill or air seeder single disk openers 7-10 in space.
33. Drill or air seeder, hoe opener in hvy residue
34. Drill or air seeder, hoe/chisel openers 6-12 in space.
35. Drill or air seeder, double disk
36. Drill or air seeder, double disk opener, w/ fertilizer openers
37. Drill or air seeder, double disk, w/ fluted coulters
38. Drill or air seeder, offset double disk openers
39. Drill, air seeder, sweep or band opener

40. Drill, deep furrow 12 to 18 in spacing
41. Drill, heavy, direct seed, double disk opener
42. Drill, heavy, direct seed, double disk opener w/row cleaners
43. Drill, semi-deep furrow 12 to 18 in spacing
44. Fertilizer application. anhyd knife 12 in
45. Fertilizer application. deep plcmt hvy shank
46. Fertilizer application. surface broadcast
47. Fertilizer application, anhyd knife 30 in
48. Fertilizer application, strip-till 30 in
49. Furrow diker
50. Furrow shaper, torpedo
51. Graze, continuous
52. Graze, intensive rotational
53. Graze, rotational
54. Graze, stubble or residue
55. Harrow, coiled tine
56. Harrow, heavy
57. Harrow, rotary
58. Harrow, spike tooth
59. Harrow, tine, on beds
60. Harvest, grass or legume seed, leave forage
61. Harvest, grass seed, remove forage
62. Harvest, hay, grass
63. Harvest, hay, legume
64. Harvest, hay, no regrowth
65. Harvest, small grains, corn, peas, canola, mustard
66. Harvest, legume seed, remove forage
67. Harvest, root crops, digger
68. Harvest, silage
69. Harvest, snapper header
70. Harvest, stripper header
71. Knife, windrow dry beans
72. Land plane
73. Lister, 40 in
74. Manure injector
75. Manure spreader
76. Mower, swather, windrower
77. Mulch treader
78. Para-plow or para-till
79. Permeable weed barrier applicator
80. Planter, double disk opener

# Crop and Hay Land Inventory

## Typical Field Operations

81. Planter, double disk opener w/fluted coulter
82. Planter, double disk opener, 18 in rows
83. Planter, in-row subsoiler
84. Planter, small veg seed
85. Planter, strip till
86. Planter, transplanter, vegetable
87. Planter, transplanter, vegetable, no-till
88. Planting, broadcast seeder
89. Plastic mulch applicator 100 percent cover
90. Plastic mulch applicator 40 percent cover
91. Plastic mulch applicator 75 percent cover
92. Plastic mulch, 05 percent removal
93. Plastic mulch, 10 percent removal
94. Plastic mulch, 25 percent removal
95. Plastic mulch, 50 percent removal
96. Plastic mulch, remove
97. Plow, disk
98. Plow, moldboard
99. Plow, moldboard, conservation
100. Plow, moldboard, up hill
101. Plow, reversible
102. Pruning
103. Rodweeder
104. Roller, corrugated packer
105. Roller, on beds
106. Roller, residue

107. Roller, smooth
108. Rotary hoe
109. Rototiller, field
110. Rototiller, field, add residue
111. Rototiller, row cult add residue
112. Rototiller, row cultivator
113. Seedbed finisher
114. Shredder, flail or rotary
115. Shredder, rotary, regrow veg
116. Shredder, rotary, remove residue
117. Sprayer, kill weeds, volunteer for reduced/ no till
118. Sprayer, post emergence
119. Striptiller w/middlebuster on beds
120. Subsoiler
121. Subsoiler bedder (ripper/hipper)
122. Subsoiler ripper, 24 to 40 in. deep
123. Sweep plow 20-40 in wide
124. Sweep plow wider than 40 in w/mulch treader
125. Sweep plow, wider than 40 in
126. Water mulch; off
127. Water mulch; on

# Crop and Hay Land Inventory

Natural Resources Conservation Service

## Crop Fertilizer Input

This worksheet contains information on the nutrient applications on your operation. In the *Soil Test* column please indicate if your fertilizer application rate is based on soil test results. Please attach a copy of the latest soil test for each field.

Please refer to the example below for your reference and then fill out your information on the following page.

### 4. EXAMPLE: Crop Fertilizer Input Worksheet

<b>Crop Grown</b>	<b>Field Number</b>	<b>Fertilizer Formulation</b>	<b>Application Rate lbs/ac</b>	<b>Application Method and Date</b>	<b>Application Depth</b>	<b>Soil Test</b>
Perennial Rye Grass Seed	3 & 4	16-20-0	100 lbs/acre	Banded at fall planting	2 inches	Yes
Perennial Rye Grass	3 & 4	45-0-0	300 lbs/ acre	Broadcast in Feb. & application in April	Surface	No
Crimson Clover	3 & 4	None	----	----	----	----
Winter Wheat	3 & 4	16-20-0	100 lbs/acre	Banded at seeding in fall	2 inches	No
Winter Wheat	3 & 4	45-0-0	350 lbs/acre	Broadcast	----	No
Corn	5, 6, & 7	Feedlot Manure	10 tons/acre	Broadcast April	Disk to 4 inch depth	No
Alfalfa	5, 6, & 7	0-0-50-18	200 lbs/acre	Broadcast at seeding	Disk in	No
Potato	5, 6, & 7	20-10-10	500 lbs/acre	Banded at Planting	4 inches	Yes
Potato	5, 6, & 7	46-0-0	200 lbs/acre	Broadcast	Irrigated in	No

If irrigated, has water been tested for nitrates? Yes \_\_\_\_\_ No \_\_\_\_\_

If you have the results from this test, please attach them to this page for your planners reference.

Additional Comments/Observations: \_\_\_\_\_  
 \_\_\_\_\_

# Crop and Hay Land Inventory

## 4. Crop Fertilizer Input Worksheet

<i>Crop Grown</i>	<i>Field Number</i>	<i>Fertilizer Formulation</i>	<i>Application Rate lbs/ac</i>	<i>Application Method and Date</i>	<i>Application Depth</i>	<i>Soil Test</i>

If irrigated, has water been tested for nitrates? Yes \_\_\_\_\_ No \_\_\_\_\_

If you have the results from this test, please attach them to this page for your planners reference.

Additional Comments/Observations: \_\_\_\_\_

# Crop and Hay Land Inventory

## Pest Management Input

This worksheet includes information on the methods used to control pests and weeds on your operation. The following bullets include additional information to assist in completing this worksheet.

- Under the *Suppression Method* column please include the product name or the active ingredient of the method used to manage the target pest listed, if you know the EPA Registration Number list that as well.
- Under the *Pesticide Application Rate* column include the pounds or ounces of the active ingredient (ai).
- In the *Broadcast or Banded* column, indicate if the pesticide was broadcast applied (more than 50% of field) or banded (less than 50% of field) if these options do not apply simply indicate not applicable.
- In the *Surface, Soil Incorporated or Foliar Applied* column, indicate if the pesticide was surface applied (applied to soil surface), soil incorporated (mixed into the soil with light tillage or irrigation), or foliar applied (sprayed on a nearly full crop/weed canopy and/or on a more than 50 percent residue cover). If none of these practices apply simply indicate not applicable.
- Under the *Application Method* column indicate if fertilizer was ground or aerial applied.

Please refer to the example below for reference and then fill out your information on the following page.

### 5. EXAMPLE: Pest Management Input Worksheet

<b>Crop Grown</b>	<b>Field Number</b>	<b>Target Pest</b>	<b>Suppression Method</b>	<b>Pesticide Application Rate</b>	<b>Date Applied</b>	<b>Broad-cast or Banded</b>	<b>Surface, Soil Incorp., or Foliar Applied</b>
Winter Wheat		Downy Brome	Metribuzin	.3 lbs of ai	10/1	Broadcast	Surface
Spring Barley		Broadleaf Weeds	2, 4-D	.75 lbs of ai	Late May	Broadcast	Foliar
Corn		Weeds	Row cultivation 2x	----	5/1 to 5/20	----	----
Alfalfa		Clover Leaf Weevil	Malathion	1.0 lbs of ai	When needed	Broadcast	Foliar
Potatoes		Wireworm	Phorate	3.02 lbs ai per 1,000 feet if row	At planting	Banded	Soil Incorporated

# Crop and Hay Land Inventory

## 5. Pest Management Input Worksheet

<i>Crop Grown</i>	<i>Field Number</i>	<i>Target Pest</i>	<i>Suppression Method</i>	<i>Pesticide Application Rate</i>	<i>Date Applied</i>	<i>Broad-cast or Banded</i>	<i>Surface, Soil Incorp., or Foliar Applied</i>

Additional Comments/Observations:

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# Conservation Records

## Range and Pasture Land Inventory

<i>R&amp;P-2</i> .....	<i>Livestock Inventory</i>
<i>R&amp;P-4</i> .....	<i>Forage Inventory</i>
<i>R&amp;P-6</i> .....	<i>Grazing System Plan</i>
<i>R&amp;P-8</i> .....	<i>Grazing Records - Range</i>
<i>R&amp;P-10</i> .....	<i>Grazing Records - Pasture</i>
<i>R&amp;P-12</i> .....	<i>Pasture Nutrient Input</i>
<i>R&amp;P-14</i> .....	<i>Pasture &amp; Range Pest Management</i>
<i>R&amp;P-16</i> .....	<i>Pasture Irrigation Management</i>

# Range and Pasture Land Inventory

Natural Resources Conservation Service

## Livestock Inventory

The next two worksheets will break down your herd inventory needs (demands) and corresponding forage and roughage inventory available (supply). This will help you and your conservation planner determine if your grazing system is balanced for the most sustainable use of your grazing land.

This worksheet will provide an overall description of your livestock operation, including the number of animals you have and their corresponding animal unit equivalents (aue). One animal unit is equivalent to the intake required for one 1,000 pound mature cow and her calf (see chart below). This worksheet will also help to identify the appropriate number of Animal Units per Month (AUM) needed for your livestock. An AUM is the amount of forage needed to sustain one animal unit, or its equivalent, for one month. This equates to 26 pounds of dry feed for one day and 790 pounds of dry feed for one month. Your total AUMs/year (indicated with an asterisk\* in the example) will determine the number of AUMs of forage or roughage needed for your operation. Use the chart below to help you determine the appropriate animal unit for your livestock type for column 3 of the worksheet titled *Animal Unit Equivalent*. Please refer to the example for your reference and then fill out your information on the following page.

<b>Determining Animal Unit Equivalent</b>	
<b>Type of Livestock</b>	<b>Animal Unit (au)</b>
1,000 lb Cow w/calf	1.0 au
1200 lb Cow w/calf	1.15 au
850 lb Replacement Heifers	.9 au
1,500 lb Bull	1.35 au
1,500 lb Horse	1.25 au
200 lb Ewe/Doe	.16 au

## 1. EXAMPLE: Livestock Inventory, Total AUMs Needed Worksheet

1	2	3	4	5	6
<b>Livestock Type</b>	<b>Number of Animals</b>	<b>Animal Unit Equivalent (aue)</b>	<b>Total AUs (multiply columns 2 &amp; 3)</b>	<b>Months on Unit</b>	<b>Total AUMs Needed per year (Multiply column 4 by column 5)</b>
Cow w/calf (1,200 lb)	350	X 1.15 au	= 403 AUs	X 12	= 4,836 AUMs/year
Replacement Heifers	30	0.9 au	27 AUs	12	324 AUMs/year
Bulls	20	1.35 au	27 AUs	12	324 AUMs/year
<b>Total</b>	400		457 AUs		* 5,484 AUMs/year

# Range and Pasture Land Inventory

## 1. Livestock Inventory, Total AUMs Needed Worksheet

1	2	3	4	5	6
<i>Livestock Type</i>	<i>Number of Animals</i>	<i>Animal Unit Equivalent (aue)</i>	<i>Total AUs (multiply columns 2 &amp; 3)</i>	<i>Months on Unit</i>	<i>Total AUMs Needed per year (Multiply columns 4 and 5)</i>
	Animals X Animal Unit = AU's X Months = AUMs/year				
<b>Totals</b>					

# Range and Pasture Land Inventory

## Forage Inventory

The following worksheet will determine the total amount of forage on your operation. Utilizing this and the livestock inventory will allow you to create a balanced grazing program.

If you are unable to determine the amount of AUMs your pasture or range produces in a year, please contact your local NRCS conservation planner. This information is critical in order to complete the rest of the Rangeland Worksheets.

In order to calculate total AUMs on your field (column 4) one of the following two calculations will be needed.

- 1) If your yield/acre per year (column 3) is calculated number of Acres per AUM then:  
Total Acres (column 2) divided by #Acres per AUM (column 3) equals Total AUMs per year (column 4).
- 2) If your yield/acre per year (column 3) has been calculated as number of AUMs per Acre then:  
Total Acres (column 2) multiplied by #AUMs (column 3) equals Total AUMs per year (column 4).

\*Note: If your yield is in tons multiply the total number of tons by 2.54 to get the number of AUMs.

Please refer to the example for your reference and then fill out your information on the following page.

## 2. EXAMPLE: Forage Inventory, Number of AUMs Available Worksheet

1	2	3	4	5
Field Number/ Name	Acres	Yield/Acre per Year	Total AUMs Available	Type of Forage or Feed
Field 11,15, & 16	18.4 ac	X 3.74 AUM/ac	= 68.8 AUMs	Alfalfa aftermath
Tract 523	5000 ac	/ 4 ac/AUM	= 1250 AUMs	Rangeland
Tract 2395	103	4.5 ac/AUM	464 AUMs	Irrigated Pasture
Miller Place	2000	0.33 ac/AUM	660 AUMs	Rangeland
Home Place	55	1.36 AUM/ac	75 AUMs	Irrigated Pasture
<b>Totals</b>	7,176.4		2,619.8 AUMs	

# Range and Pasture Land Inventory

## 2. Forage Inventory, Number of AUMs Available Worksheet

<i>Field Number/ Name</i>	<i>Acres</i>	<i>Yield/Acre per Year</i>	<i>Total AUMs Available</i>	<i>Type of Forage or Feed</i>		
	Acres	X	AUM/Acre	=	Total AUMs	
	Acres	/	Acre/AUM	=	Total AUMs	
<b>Totals</b>		X			X	

# Range and Pasture Land Inventory

Natural Resources Conservation Service

## Grazing System Plan

The following worksheet can be used to assist in your grazing management. Use the information identified in Worksheet 2 Forage Inventory, specifically, field, and total AUMs, to fill in the first two columns and then simply identify the herd or movement group and their AUs from column 4 of the Worksheet 1 Livestock Inventory and mark the corresponding time grazed or fed in each field or pasture. This worksheet needs to show the grazing system for each of herd or movement group for your operation. Use additional sheets to document each year.

### 3. EXAMPLE: Grazing System Plan Worksheet

YEAR: 2003

Field	AUMs	Herd	AUs	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Tract 2395	464 AUMs	Pairs	403 au	Fed Hay			X						X	Fed Hay	
Miller Place	660 AUMs	Pairs	403 au				X	X	X						
Tract 523	1250 AUMs	Pairs	403 au						X	X	X	X			
Home Place	75 AUMs	Heifers	27	Fed Hay			X	X	X						
Fields 11, 15, 16	69	Heifers	27						X	X	X	X	Fed Hay		



# Range and Pasture Land Inventory

## 3. Grazing Systems Plan Worksheet

YEAR: \_\_\_\_\_

Field	AUMs	Herd	AUs	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

# Range and Pasture Land Inventory

Natural Resources Conservation Service

## Grazing Records for Range

This worksheet will combine the information you have determined and developed in the last three worksheets. The following worksheets are provided for your use in keeping track of your grazing records on rangeland and will help you determine the current balance of forage and animals on each field.

Use the following descriptions to determine your *Use Class* for the last column of the chart. At or near the end of the grazing period determine the degree of use from the chart below. When properly grazed, the vegetation left will supply adequate cover for soil protection and will maintain or improve the quantity and quality of desirable vegetation (identified as "Moderate" use below).

<b>Degree of Use</b>	<b>Description</b>
None: 0-15 percent	Very little or no use of key forage plants. Only choice areas and choice forage grazed.
Light: 16-35 percent	Key forage plants lightly to moderately used. Practically no use of low-value forage plants. Most of accessible range shows grazing. Very little trailing to grazing.
Moderate: 36-65 percent	Key forage plants used correctly for the season of grazing. Some use of low-value forage plants. All fully accessible areas are grazed; some trampling damage may be evident.
Heavy: 66-80 percent	Key forage plants closely cropped. Low value forage plants generally being grazed. Trampling damage is widespread in accessible areas.
Severe: 81-100 percent	Key forage plants are weakened from continual grazing of regrowth and mechanical damage. Low-value forage plants carrying the grazing load and are closely cropped.

## 4. EXAMPLE: Grazing Record - Range

<b>Grazing Record - Range</b>							
<b>Field Name</b>	Miller Place						
<b>Year or Season</b>	2003 - Summer				<b>Total Acres</b>	2000	
<b>Livestock Type</b>	<b>Livestock Number</b>	<b>Date In</b>	<b>Date Out</b>	<b>Days Grazed</b>	<b>Animal Units</b>	<b>AUMs (Days x AUs / 30.4)</b>	<b>Use Class Percent</b>
Cow w/calf	350	5/1	6/15	46	403	610	Moderate
<b>Totals</b>	350			46		610	

AUMs Available (From Forage Inventory Worksheet 2): 660

AUM Balance (AUMs Available - Total AUMs Column): + 50

# Range and Pasture Land Inventory

## 4. Grazing Record - Range

Grazing Record - Range							
Field Name							
Year or Season					Total Acres		
Livestock Type	Livestock Number	Date In	Date Out	Days Grazed	Animal Units	AUMs (Days x AUs / 30.4)	Use Class Percent
<b>Totals</b>		X	X		X		X

AUMs Available (From Forage Inventory Worksheet 2): \_\_\_\_\_

AUM Balance (AUMs Available - Total AUMs Column): \_\_\_\_\_

Grazing Record - Range							
Field Name							
Year or Season					Total Acres		
Livestock Type	Livestock Number	Date In	Date Out	Days Grazed	Animal Units	AUMs (Days x AUs / 30.4)	Use Class Percent
<b>Totals</b>		X	X		X		X

AUMs Available (From Forage Inventory Worksheet 2): \_\_\_\_\_

AUM Balance (AUMs Available - Total AUMs Column): \_\_\_\_\_

# Range and Pasture Land Inventory

Natural Resources Conservation Service

## Grazing Records for Pastureland

The following charts are provided for your use in keeping track of your grazing records on pastureland.

### 5. EXAMPLE: Grazing Record - Pasture

<i>Grazing Record - Pasture</i>							
<b>Pasture Name</b>	Tract 2395						
<b>Year or Season</b>	2003				<b>Total Acres</b>	103	
<b>Soil Test (year)</b>	1999				<b>Forage type</b>	Orchardgrass	
<b>Fertilizer-date applied</b>	March 10, 2003: Broadcast				<b>Fertilizer type</b>	46-0-0 100 pounds/ac	
<b>Livestock Type</b>	<b>Livestock Number</b>	<b>Last Irrigation</b>	<b>Date In</b>	<b>Forage Height</b>	<b>Date Out</b>	<b>Forage Height</b>	<b>Notes</b>
Cow w/calf	350	3/15	4/1	10 inches	5/1	4 inches	About 400 AUMs harvested.

**Additional Comments/Observations:**

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# Range and Pasture Land Inventory

## 5. Grazing Record - Pasture

<i>Grazing Record - Pasture</i>							
<i>Pasture Name</i>							
<i>Year or Season</i>					<i>Total Acres</i>		
<i>Soil Test (year)</i>					<i>Forage type</i>		
<i>Fertilizer-date applied</i>					<i>Fertilizer-type</i>		
<i>Livestock Type</i>	<i>Livestock Number</i>	<i>Last Irrigation</i>	<i>Date In</i>	<i>Forage Height</i>	<i>Date Out</i>	<i>Forage Height</i>	<i>Notes</i>

<i>Grazing Record - Pasture</i>							
<i>Pasture Name</i>							
<i>Year or Season</i>					<i>Total Acres</i>		
<i>Soil Test (year)</i>					<i>Forage type</i>		
<i>Fertilizer-date applied</i>					<i>Fertilizer-type</i>		
<i>Livestock Type</i>	<i>Livestock Number</i>	<i>Last Irrigation</i>	<i>Date In</i>	<i>Forage Height</i>	<i>Date Out</i>	<i>Forage Height</i>	<i>Notes</i>

# Range and Pasture Land Inventory

## Pasture Nutrients Input

This worksheet contains information on the nutrient applications on your pastures. In the *Soil Test* column please indicate if your fertilizer application rate is based on soil test results.

Please refer to the example below for your reference and then fill out your information on the following page.

### 6. EXAMPLE: Pasture Nutrient Input

<b>Forage Grown</b>	<b>Field Number</b>	<b>Nutrient Source</b>	<b>Application Rate lbs/ac</b>	<b>Application Method and Date</b>	<b>Application Depth</b>	<b>Soil Test</b>
Irrigated Orchardgrass	3 & 4	20-0-0	400 lbs/ac	Surface Broadcast 3 times	---	No
Int. Wheatgrass and Alfalfa	6	20-10-10	150 lbs/ac	Surface Broadcast 1 time	----	Yes

If irrigated, has water been tested for nitrates? Yes \_\_\_\_\_ No ✓

If you have the results from this test, please attach them to this page for your planners reference.

Additional Comments/Observations:

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# Range and Pasture Land Inventory

## 6. Pasture Nutrient Input Worksheet

<i>Forage Grown</i>	<i>Field Number</i>	<i>Nutrient Source</i>	<i>Application Rate lbs/ac</i>	<i>Application Method and Date</i>	<i>Application Depth</i>	<i>Soil Test</i>

If irrigated, has water been tested for nitrates? Yes \_\_\_\_\_ No \_\_\_\_\_

If you have the results from this test, please attach them to this page for your planners reference.

Additional Comments/Observations: \_\_\_\_\_  
\_\_\_\_\_

# Range and Pasture Land Inventory

Natural Resources Conservation Service

## Pasture and Range Pest Management Input

This worksheet includes information on the methods used to control pests and weeds on your operation. The following bullets include additional information to assist in completing this worksheet.

- Under the *Suppression Method* column please include the product name or the active ingredient of the method used to manage the target pest listed.
- Under the *Pesticide Application Rate* column include the pounds or ounces of the active ingredient (ai).
- In the *Broadcast or Banded* column, indicate if the pesticide was broadcast applied (more than 50% of field) or banded (less than 50% of field) if these options do not apply simply indicate not applicable.
- In the *Application Surface, Soil Incorporated or Foliar Applied* column, indicate if the pesticide was surface applied (applied to soil surface), soil incorporated (mixed into the soil with light tillage or irrigation), foliar applied (sprayed on a nearly full crop/weed canopy and/or on a more than 50 percent residue cover), if none of these practices apply simply indicate not applicable.
- Under the *Application Method* column indicate if fertilizer was ground or aerial applied.

Please refer to the example below for reference and then fill out your information on the following page.

### 7. EXAMPLE: Pasture and Range Pest Management Inputs

<i>Forage Grown</i>	<i>Field Number</i>	<i>Target Pest</i>	<i>Suppression Method</i>	<i>Pesticide Application Rate</i>	<i>Date Applied</i>	<i>Broad-cast or Banded</i>	<i>Surface, Soil Incorp., or Foliar Applied</i>
Irrigated Orchard-Grass	3 & 4	Canada Thistle	Clipping/ Mowing	None	----	----	----
Inter-mediate Wheatgrass and Alfalfa	1	Sagebrush	Tebuthiuron	1.0 ai/ acre	November	Broadcast	Surface



# Range and Pasture Land Inventory

## 7. Pasture and Range Pest Management Inputs Worksheet

<i>Forage Grown</i>	<i>Field Number</i>	<i>Target Pest</i>	<i>Suppression Method</i>	<i>Pesticide Application Rate</i>	<i>Date Applied</i>	<i>Broad-cast or Banded</i>	<i>Surface, Soil Incorp., or Foliar Applied</i>

Additional Comments/Observations:

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# Range and Pasture Land Inventory

## Pasture Irrigation Management

This worksheet includes information on your irrigation method and description. Please refer to the information below to help complete this worksheet.

The following information will help to complete the *Irrigation System Description* column.

Sprinkler System Description:

- Mainline Size
- Lateral Spacing
- Sprinkler Head Spacing
- Nozzle Size
- Revolution/Set Time
- Speed of Gun
- Operating Pressure of Line
- Pressure Regulator Rating
- Flow to Irrigation System (GPM)

Surface System Description:

- Length of Fields
- Furrow/Border Spacing
- Grade at the end of the field: flat, moderate, steep
- Furrow Method: siphon tubes, gated pipe, dirt ditch, concrete ditch

Please refer to the example below for your reference and then fill out your information on the following page.

## 8. EXAMPLE: Pasture Irrigation Management Worksheet

<b>Forage Grown</b>	<b>Tract Number</b>	<b>Field Numbers</b>	<b>Do you measure or monitor your water? If yes, explain</b>	<b>Irrigation System Description</b>	<b>Irrigation Dates</b>
Alfalfa	696	5 & 6	Tensiometer	100 acre Center Pivot	5/15 - 7/15
Meadow Foxtail	100	7	Hand feel method for moisture testing	5,000 ft of dirt ditch, earth cutouts to graded	5/1 - 7/15

# Range and Pasture Land Inventory

## 8. Pasture Irrigation Management Worksheet

<i>Forage Grown</i>	<i>Tract Number</i>	<i>Field Numbers</i>	<i>Do you measure or monitor your water? If yes, explain</i>	<i>Irrigation System Description</i>	<i>Irrigation Dates</i>

Additional Comments/Observations:

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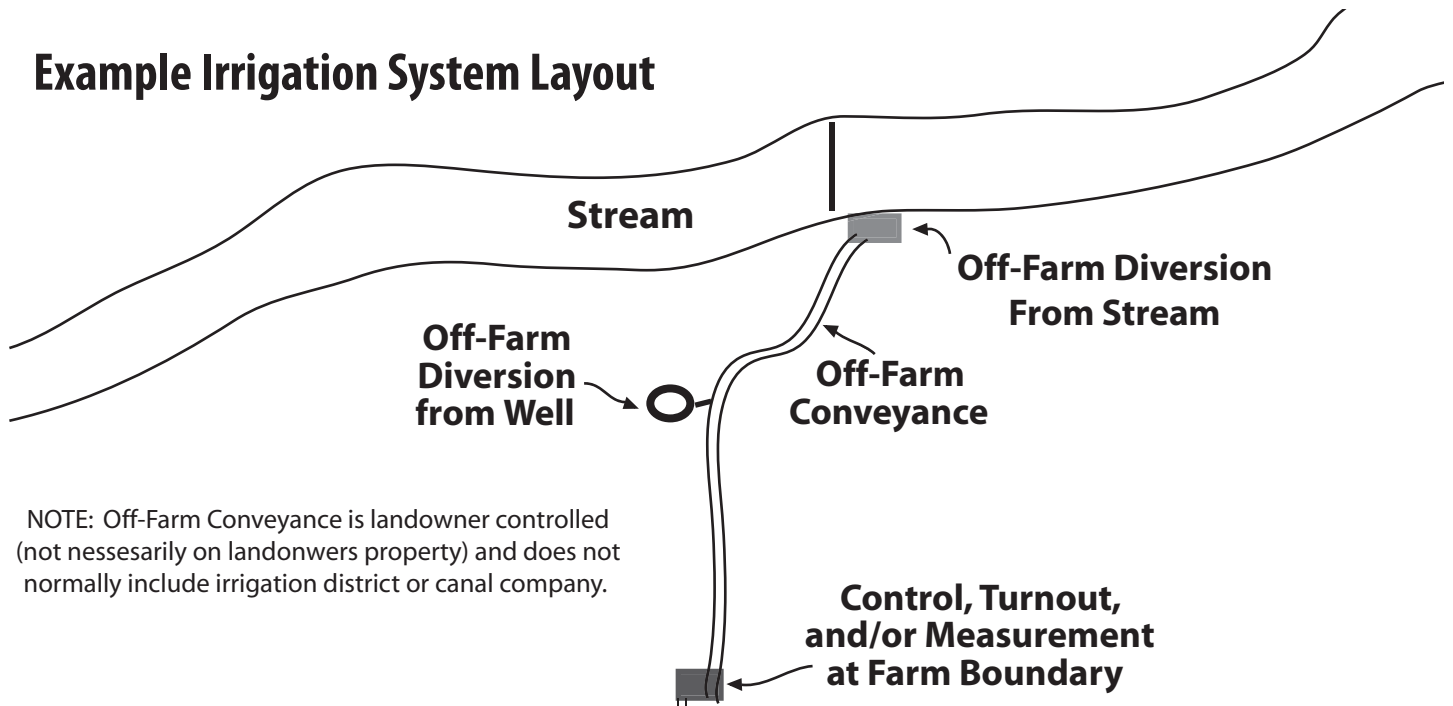
# Conservation Records

## Irrigation System Description

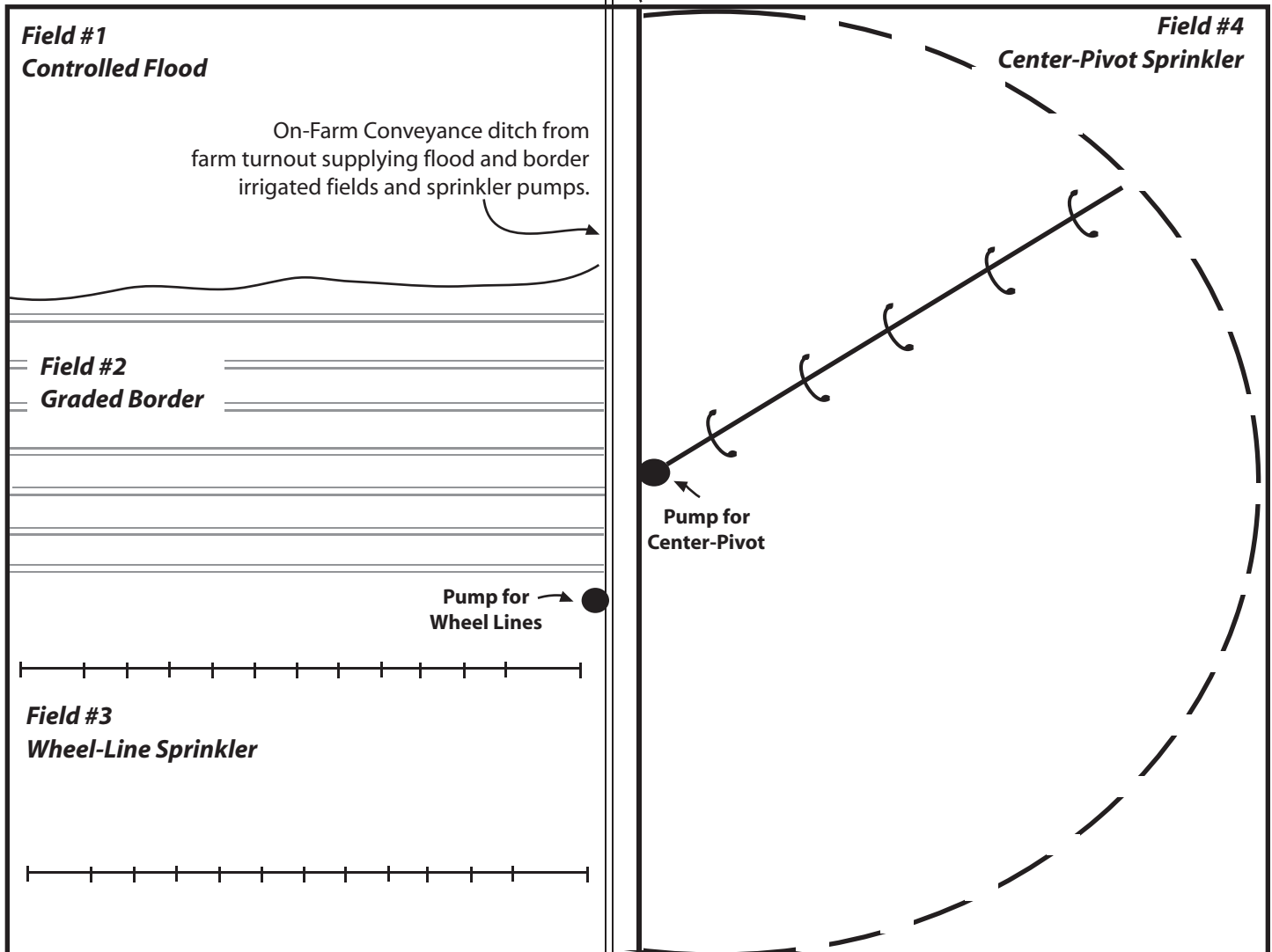
*Irr-2..... Irrigation Definitions*  
*Irr-3..... Irrigation System Layout*  
*Irr-4..... Water Supply Inventory*  
*..... Water Source*  
*..... Water Allocation*  
*Irr-6..... Water Diversion*  
*..... Off-Farm Conveyance*  
*Irr-8..... Farm Turnout/Boundary*  
*..... On-Farm Conveyance*

# Irrigation Inventory

## Example Irrigation System Layout



NOTE: Off-Farm Conveyance is landowner controlled (not necessarily on landowners property) and does not normally include irrigation district or canal company.





## Irrigation Description Notes

Throughout the following irrigation sections please use the designated note areas on pages Irr-10 and Irr-44-46 if you need to explain or describe further your answers in the worksheets.

## Irrigation Definitions

The definition below are of terms related to the Center Pivot and Later Move Sprinkler section on pages Irr-28 and Irr-32.

### **LEPA** - Low Energy Precision Application

- a) Farmed in Circular Rows (except Linear Move Systems)
- b) Nozzle Height is no more than 18 inches above soil surface
- c) Nozzle Spacing is alternate row, up to a maximum of 80 inches
- d) Discharge is through a drag sock or hose on the ground, or through a bubble shield or pad
- e) Only applicable to crops planted with furrows or beds
- f) Maximum of 1% slope in most of field
- g) Furrow Diked or other means of preventing irrigation water movement away from point of application

### **LESA** - Low Elevation Spray Application

- a) Farmed in any row direction
- b) Nozzle Height is no more than 18 inches above soil surface
- c) Nozzle Spacing is alternate row, up to a maximum of 80 inches
- d) Discharge is through spray nozzles
- e) Applicable on crops flat planted, drilled, or planted with furrows or beds
- f) Maximum of 3% slope in most of field
- g) Furrow Diked or other means of preventing irrigation water movement away from point of application

### **LPIC** - Low Pressure In Canopy

- a) Farmed in any row direction
- b) Nozzle Height is 18 inches to 36 inches above soil surface
- c) Nozzle Spacing up to 120 inches (10 feet)
- d) Discharge is in the crop canopy
- e) Maximum of 3% slope in most of field
- f) Systems that utilize bubble nozzles or drag hoses for a portion of the crop year and spray nozzles for a portion of the crop year but do not meet all LEPA criteria should be considered LPIC systems

### **MESA** - Mid Elevation Spray Application

- a) Farmed in any row direction
- b) Nozzle Height is more than 36 inches (3 feet) and less than 84 inches (7 feet) above soil surface
- c) Nozzle Spacing up to 120 inches (10 feet)
- d) Discharge is above the crop canopy
- e) Maximum of 3% slope in most of field

# Irrigation Inventory

The irrigation section should be completed only if you are utilizing irrigation in order to manage your crop, hay or pasture land. To complete this worksheet list your field numbers or names with the corresponding information. The following worksheets will provide an overall summary of your irrigation system.

## 1. EXAMPLE: Water Supply Inventory Worksheet

<i>Field Number</i>	<i>Acres</i>	<i>Crops Grown</i>	<i>Soil Type</i>	<i>Irrigation System</i>
1	160	Alfalfa	Sandy Loam	Wheeline

## 2. EXAMPLE: Water Source

Select the source for irrigation water on your farm. Indicate all sources if more than one source is utilized.

<i>Water Source</i>	
<b>Well</b> (Note the number of wells utilized)	
<b>Stream</b>	X
<b>Lake or Pond</b>	
<b>Other Sources Used</b> (Please explain)	

## 3. EXAMPLE: Water Right/Allocation

Indicate the amount of water allocated for your operation along with the flow rate in the worksheet below.

<i>Water Right/Allocation</i>	
<b>Flow Rate in Cubic Feet per Second (cfs) or Gallons per Minute (gpm)</b>	2 cfs
<b>Volume in Acre-Feet per Season</b> (Indicate if per-acre or entire farm)	320 acre-ft per season for entire farm
<b>Other (Explain)</b>	

# Irrigation Inventory

## 1. Water Supply Inventory Worksheet

<i>Field Number</i>	<i>Acres</i>	<i>Crops Grown</i>	<i>Soil Type</i>	<i>Irrigation System</i>

## 2. Water Source

Select the source for irrigation water on your farm. Indicate all sources if more than one source is utilized.

<i>Water Source</i>	
<b>Well</b> (Note the number of wells utilized)	
<b>Stream</b>	
<b>Lake or Pond</b>	
<b>Other Sources Used</b> (Please explain)	

## 3. Water Right/Allocation

Indicate the amount of water allocated for your operation along with the flow rate in the worksheet below.

<i>Water Right/Allocation</i>	
<b>Flow Rate in Cubic Feet per Second (cfs) or Gallons per Minute (gpm)</b>	
<b>Volume in Acre-Feet per Season</b> (Indicate if per-acre or entire farm)	
<b>Other (Explain)</b>	

# Irrigation Inventory

## 4. EXAMPLE: Water Diversion

Are you able to control the flow rate from your water source to the farm?  Yes  No

If Yes, please answer the questions below.

<i>Diversion Description</i>		
Are there fish screens installed on the diversion structure?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
If no, would you be interested in installing fish screens?	<input type="radio"/> Yes	<input type="radio"/> No
Do you measure the water at the point of the diversion?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
If so, are flows recorded manually or automatically?	<input checked="" type="radio"/> Manually	<input type="radio"/> Automatically
If not, are you interested in adding a measuring device?	<input type="radio"/> Yes	<input type="radio"/> No

## 5. EXAMPLE: Off-Farm Conveyance

Use the worksheet below to describe the Off-Farm Conveyance (delivery system) from water source to farm boundary, if water source is located on-farm please move to next section.

<i>Off-Farm Conveyance Type</i>		
	Conveyance Type	Length (Feet or Miles)
Pipeline (Including both gravity and pressurized pipelines)		
Lined Ditch or Canal	X	500 Feet
Unlined Ditch or Canal (Indicate soil type)		
Other (Explain)		

<i>Off-Farm Conveyance</i>	
If you selected Unlined Ditch, would you be interested in switching to a lined ditch or pipeline?	
Please estimate the percentage of water lost between the point of diversion and the farm turnout/boundary.	10%
Is a pump included in the off-farm conveyance system? If more than one indicate how many.	Yes
If a pump is included, what is the energy source, capacity, size of motor and pressure (head) at inlet?	Electric, 900 gpm, 5 hp, 25 feet
When was the pump(s) installed?	1992
When was the last major maintenance / overhaul (please describe)?	None

# Irrigation Inventory

## 4. Water Diversion

Are you able to control the flow rate from your water source to the farm?    **Yes**    **No**

If Yes, please answer the questions below.

<i>Diversion Description</i>		
Are there fish screens installed on the diversion structure?	<i>Yes</i>	<i>No</i>
If no, would you be interested in installing fish screens?	<i>Yes</i>	<i>No</i>
Do you measure the water at the point of the diversion?	<i>Yes</i>	<i>No</i>
If so, are flows recorded manually or automatically?	<i>Manually</i>	<i>Automatically</i>
If not, are you interested in adding a measuring device?	<i>Yes</i>	<i>No</i>

## 5. Off-Farm Conveyance

Use the worksheet below to describe the Off-Farm Conveyance (delivery system) from water source to farm boundary.

<i>Off-Farm Conveyance Type</i>		
	<i>Conveyance Type</i>	<i>Length (Feet or Miles)</i>
Pipeline (Including both gravity and pressurized pipelines)		
Lined Ditch or Canal		
Unlined Ditch or Canal (Indicate soil type)		
Other (Explain)		

<i>Off-Farm Conveyance</i>	
If you selected Unlined Ditch, would you be interested in switching to a lined ditch or pipeline?	
Please estimate the percentage of water lost between the point of diversion and the farm turnout/boundary.	
Is a pump included in the off-farm conveyance system? If more than one indicate how many.	
If a pump is included, what is the energy source, capacity, size of motor and pressure (head) at inlet?	
When was the pump(s) installed?	
When was the last major maintenance / overhaul (please describe)?	

# Irrigation Inventory

## 6. EXAMPLE: Farm Turnout/Boundary

<i>Farm Turnout/Boundary Description</i>		
Do you measure the water at the farm turnout/boundary?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
If so, are flows recorded manually or automatically?	<input checked="" type="radio"/> Manually	<input type="radio"/> Automatically
If not, are you interested in adding a measurement device?	<input type="radio"/> Yes	<input type="radio"/> No

## 7. EXAMPLE: On-Farm Conveyance

In the worksheet below describe the of On-Farm Conveyance (delivery system) between your farm turnout/boundary and the individual fields.

<i>On-Farm Conveyance Description</i>						
<i>Field Name/Number</i>	1					
Indicate below how the water is conveyed from the farm turnout/boundary to the listed fields.						
Pipeline Length (Indicate both gravity and pressurized pipelines)						
Lined Ditch/Canal Length						
Unlined Ditch/Canal Length (Indicate soil type)	120 Feet Sandy Loam					
Other (Explain)						
If you selected Unlined Ditch, would you be interested in switching to a Lined ditch or Pipeline?	Yes					
Please estimate the percentage of water lost between the farm turnout/boundary and each field.	10%					
Is a pump included in the conveyance system? (List the number of pump(s) used for each field)	1 pump					
If pumps are used, what is the energy source and size of the motors?	Diesel, 60 Hp					
When was the pump installed?	1998					
When was the last major maintenance/overhaul? Describe.	See Notes					

# Irrigation Inventory

## 6. Farm Turnout/Boundary

<i>Farm Turnout/Boundary Description</i>		
Do you measure the water at the farm turnout/boundary?	Yes	No
If so, are flows recorded manually or automatically?	Manually	Automatically
If not, are you interested in adding a measurement device?	Yes	No

## 7. On-Farm Conveyance

In the worksheet below describe the of On-Farm Conveyance (delivery system) between your farm turnout/boundary and the individual fields.

<i>On-Farm Conveyance Description</i>						
<i>Field Name/Number</i>						
Indicate below how the water is conveyed from the farm turnout/boundary to the listed fields.						
Pipeline Length (Indicate both gravity and pressurized pipelines)						
Lined Ditch/Canal Length						
Unlined Ditch/Canal Length (Indicate soil type)						
Other (Explain)						
If you selected Unlined Ditch, would you be interested in switching to a Lined ditch or Pipeline?						
Please estimate the percentage of water lost between the farm turnout/boundary and each field.						
Is a pump included in the conveyance system? (list the number of pump(s) used for each field)						
If pumps are used, what is the energy source and size of the motors?						
When was the pump installed?						
When was the last major maintenance/overhaul? Describe.						

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# Irrigation System Descriptions By Type

*At this point please complete ONLY the sections that apply to the irrigation system type utilized for your operation.*

*Irr-12 ..... Border Irrigation  
Irr-16 ..... Furrow Irrigation  
Irr-20 ..... Flood Irrigation  
Irr-24 ..... Sprinkler Irrigation  
Irr-28 ..... Center-Pivot Sprinkler Irrigation  
Irr-32 ..... Lateral Move Sprinkler Irrigation  
Irr-36 ..... Microirrigation  
Irr-40 ..... Sub-Irrigation*

# Irrigation Inventory: Border Irrigation System

Natural Resources Conservation Service

The following sections provide further information on your irrigation type. Please fill out only the sections that relate to your irrigation type. The Irrigation Type Sections include: Border, Furrow, Flood, Sprinkler, Center-Pivot Sprinkler, Lateral-Move Sprinkler, Microirrigation and Sub-irrigation.

## 8. EXAMPLE: Border Irrigation System Description

<b>Border Irrigation System Description</b>						
<b>Field Name/Number</b>	1					
<b>Indicate the number of acres in each field with the corresponding type of Border system.</b>						
<b>Graded Border</b>	40 acres					
<b>Level Border or Basin</b>						
<b>Guide</b>						
<b>Contour Levee: Field Crop</b>						
<b>Border Ditch</b>						
<b>Other (Explain)</b>						
<b>Are you interested in changing to a different irrigation system type? If so what type.</b>	Yes, to Center Pivot					
<b>What is the total system flow rate to this field? (cfs or gpm)</b>	2 cfs					
<b>Are you able to control the flow rate to this field?</b>	No					
<b>Are you able to control the flow rate to each border strip or basin?</b>	No					
<b>Do you measure water to this field?</b>	No					
<b>If so, are flows recorded manually or automatically?</b>						
<b>If not, would you consider adding a water measuring device?</b>						
<b>What is the average area of a basin or border strip in this field?</b>	1.2 acres					
<b>What is the average irrigation set time?</b>	12 hours					
<b>How many basins or border strips do you irrigate per set?</b>	4					
<b>What is the gross depth of application for the given set time? (inches)</b>	5 inches					
<b>When was the system installed?</b>	1990					

# Irrigation Inventory: Border Irrigation System

The following sections provide further information on your irrigation type. Please fill out only the sections that relate to your irrigation type. The Irrigation Type Sections include: Border, Furrow, Flood, Sprinkler, Center-Pivot Sprinkler, Lateral-Move Sprinkler, Microirrigation and Sub-irrigation.

## 8. Border Irrigation System Description

<b>Border Irrigation System Description</b>						
<b>Field Name/Number</b>						
Indicate the number of acres in each field with the corresponding type of Border system.						
Graded Border						
Level Border or Basin						
Guide						
Contour Levee: Field Crop						
Border Ditch						
Other (Explain)						
Are you interested in changing to a different irrigation system type? If so what type.						
What is the total system flow rate to this field? (cfs or gpm)						
Are you able to control the flow rate to this field?						
Are you able to control the flow rate to each border strip or basin?						
Do you measure water to this field?						
If so, are flows recorded manually or automatically?						
If not, would you consider adding a water measuring device?						
What is the average area of a basin or border strip in this field?						
What is the average irrigation set time?						
How many basins or border strips do you irrigate per set?						
What is the gross depth of application for the given set time? (inches)						
When was the system installed?						

# Irrigation Inventory: Border Irrigation System

Natural Resources Conservation Service

The following worksheet continues the description of your border system. Please copy the field name/ number from the previous worksheet to continue this section.

## 8a. EXAMPLE: Border Irrigation System Description Continued

<b>Border Irrigation System Description- Continued</b>						
<b>Field Name/Number</b>	1					
<b>What is the degree of land leveling on the field? (Choose from below and indicate when it was completed)</b>						
Land Smoothed						
Land Leveled						
Land Precision-Leveled	1990					
Land Precision-Leveled and slope is less than 0.5%						
<b>Is any additional pumping required to supply this field?</b>	No					
<b>If so, what is the energy source and size of the motor?</b>						
<b>When was the pump installed?</b>						
<b>When was the last major maintenance/overhaul? (Describe)</b>						
<b>Do you schedule irrigations? If so, select the method from below.</b>	Yes					
Based on Water Availability						
Visual Crop Stress	Yes					
Irrigation Scheduler, Scheduling Check Book						
Using Data from Pan Evaporation or Atmometer for Field						
Use information from regional weather network						
Using Gypsum Blocks, Moisture Probe, etc.						
Continuous measurements of soil moisture, water applied and evapotranspiration						
<b>Are you interested in implementing better ways to schedule irrigations?</b>	No					
<b>Do you capture and re-use the irrigation tailwater from this field?</b>	No					
<b>If no, would you be interested in recapturing tailwater?</b>	Yes					
<b>If yes, what percentage of the tailwater do you capture?</b>						

# Irrigation Inventory- Border Irrigation System

The following worksheet continues the description of your border system. Please copy the field name/ number from the previous worksheet to continue this section.

## 8a. Border Irrigation System Description Continued

<i>Border Irrigation System Description- Continued</i>						
<i>Field Name/Number</i>	1					
<b>What is the degree of land leveling on the field? (Choose from below and indicate when it was completed)</b>						
<b>Land Smoothed</b>						
<b>Land Leveled</b>						
<b>Land Precision-Leveled</b>	1990					
<b>Land Precision-Leveled and slope is less than 0.5%</b>						
<b>Is any additional pumping required to supply this field?</b>	No					
<b>If so, what is the energy source and size of the motor?</b>						
<b>When was the pump installed?</b>						
<b>When was the last major maintenance/overhaul? (Describe)</b>						
<b>Do you schedule irrigations? If so, select the method from below.</b>	Yes					
<b>Based on Water Availability</b>						
<b>Visual Crop Stress</b>	Yes					
<b>Irrigation Scheduler, Scheduling Check Book</b>						
<b>Using Data from Pan Evaporation or Atmometer for Field</b>						
<b>Use information from regional weather network</b>						
<b>Using Gypsum Blocks, Moisture Probe, etc.</b>						
<b>Continuous measurements of soil moisture, water applied and evapotranspiration</b>						
<b>Are you interested in implementing better ways to schedule irrigations?</b>	No					
<b>Do you capture and re-use the irrigation tailwater from this field?</b>						
<b>If no, would you be interested in recapturing tailwater?</b>						
<b>If yes, what percentage of the tailwater do you capture?</b>						

# Irrigation Inventory: Furrow Irrigation System

Natural Resources Conservation Service

Please fill out the Furrow Irrigation System section only if it relates to your irrigation type.

## 9. EXAMPLE: Furrow Irrigation System Description

<b>Furrow Irrigation System Description</b>						
<b>Field Name/Number</b>	1					
Indicate the number of acres in each field with the corresponding type of Furrow system.						
Level Furrow or Basin						
Graded Furrow	30 acres					
Contour Furrow						
Corrugations						
Surge						
Other (Explain)						
Are you interested in changing to a different irrigation system type? If so what type.	No					
What is the total systems flow rate to this field? (cfs or gpm)	1 cfs					
Are you able to control the flow rate to this field?	Yes					
Are you able to control the flow rate to each furrow or basin?	Yes					
Do you measure water to this individual field?	Yes					
If so, are flows recorded manually or automatically?	Manual					
If not, would you consider adding a water measuring device?						
What is the average length of a furrow in this field?	800 Feet					
What is the furrow spacing?	30 inches					
What is the average field slope?	1 %					
What is the average set time?	12 hours					
How many furrows are irrigated per set?	80					
What is the gross depth of application for the given set time? (inches)	3.3 inches					
When was the system installed?	1990					

# Irrigation Inventory: Furrow Irrigation System

Please fill out the Furrow Irrigation System section only if it relates to your irrigation type.

## 9. Furrow Irrigation System Description

<i>Furrow Irrigation System Description</i>						
<i>Field Name/Number</i>						
Indicate the number of acres in each field with the corresponding type of Furrow system.						
Level Furrow or Basin						
Graded Furrow						
Contour Furrow						
Corrugations						
Surge						
Other (Explain)						
Are you interested in changing to a different irrigation system type? If so what type.						
What is the total systems flow rate to this field? (cfs or gpm)						
Are you able to control the flow rate						
Are you able to control the flow rate to each furrow or basin?						
Do you measure water to this individual field?						
If so, are flows recorded manually or automatically?						
If not, would you consider adding a water measuring device?						
What is the average length of a furrow in this field?						
What is the furrow spacing?						
What is the average field slope?						
What is the average set time?						
How many furrows are irrigated per set?						
What is the gross depth of application for the given set time? (inches)						
When was the system installed?						

# Irrigation Inventory: Furrow Irrigation System

Natural Resources Conservation Service

The following worksheet continues the description of your furrow system. Please copy the field name/ number from the previous worksheet to continue this section.

## 9a. EXAMPLE: Furrow Irrigation System Description Continued

<i>Furrow Irrigation System Description- Continued</i>						
<b>Field Name/Number</b>	1					
<b>What is the degree of land leveling that has been done to the field? (Choose from the options below and indicate when it was done by field)</b>						
Land Smoothed						
Land Leveled						
Land Precision-Leveled	1990					
Land Precision-Leveled and slope is less than 0.5%						
<b>Is any additional pumping required to supply this field?</b>	No					
<b>If so, what is the energy source and size of the motor?</b>						
<b>When was the pump installed?</b>						
<b>When was the last major maintenance/overhaul? (Describe)</b>						
<b>Do you schedule irrigations? If so, please select the type below.</b>	Yes					
Based on Water Availability						
Visual Crop Stress						
Irrigation Scheduler, Scheduling Check Book	Yes					
Use Data from Pan Evaporation or Atmometer for Field						
Use information from regional weather network						
Use gypsum, moisture probe , etc.						
Continuous measurements of soil moisture, water applied and evapotranspiration						
<b>Would you like to implement better ways to schedule your irrigations?</b>	Yes					
<b>Do you capture and re-use the irrigation tailwater from this field?</b>	No					
<b>If no, would you be interested in recapturing tailwater?</b>	No					
<b>If yes, what percentage of the tailwater do you capture?</b>						



# Irrigation Inventory: Furrow Irrigation System

The following worksheet continues the description of your furrow system. Please copy the field name/ number from the previous worksheet to continue this section.

## 9a. Furrow Irrigation System Description Continued

<i>Furrow Irrigation System Description- Continued</i>						
<i>Field Name/Number</i>						
What is the degree of land leveling that has been done to the field? (Choose from the options below and indicate when it was done by field)						
Land Smoothed						
Land Leveled						
Land Precision-Leveled						
Land Precision-Leveled and slope is less than 0.5%						
Is any additional pumping required to supply this field?						
If so, what is the energy source and size of the motor?						
When was the pump installed?						
When was the last major maintenance/overhaul? (Describe)						
Do you schedule irrigations? If so, please select the type below.						
Based on Water Availability						
Visual Crop Stress						
Irrigation Scheduler, Scheduling Check Book						
Use Data from Pan Evaporation or Atmometer for Field						
Use information from regional weather network						
Use gypsum, moisture probe , etc.						
Continuous measurements of soil moisture, water applied and evapotranspiration						
Would you like to implement better ways to schedule your irrigations?						
Do you capture and re-use the irrigation tailwater from this fields?						
If no, would you be interested in recapturing tailwater?						
If yes, what percentage of the tailwater do you capture?						

# Irrigation Inventory: Flood Irrigation System

Natural Resources Conservation Service

Please fill out the Flood Irrigation System section only if it relates to your irrigation type.

## 10. EXAMPLE: Flood Irrigation System Description

<b>Flood Irrigation System Description</b>						
<b>Field ID Name/Number</b>	1					
<b>Indicate the number of acres in each field with the corresponding type of Flood system.</b>						
<b>Controlled</b>	40 Acres					
<b>Uncontrolled</b>						
<b>Contour Ditch</b>						
<b>Other (Explain)</b>						
<b>Are you interested in changing to a different irrigation system type? If so, indicate what type.</b>	Graded Border					
<b>What is the total system flow rate to this field? (cfs or gpm)</b>	2 cfs					
<b>Are you able to control the flow rate to this field?</b>	Yes					
<b>Do you measure water to this individual field?</b>	No					
<b>If so, are flows recorded manually or automatically?</b>						
<b>If not, would you consider adding a water measuring device?</b>	Yes					
<b>What is the average set time?</b>	24 Hours					
<b>What is the gross depth of application for the given set time? (inches)</b>	6 inches					
<b>What is the average slope of the field?</b>	1 %					
<b>When was the system installed?</b>	1980					
<b>What degree of land leveling has been completed on this field? (Choose from the options below and indicate when it was done by field)</b>						
<b>Land Smoothed</b>	Yes					
<b>Land Leveled</b>						
<b>Land Precision Leveled</b>						
<b>Land precision leveled and slope is less than 0.5%</b>						

# Irrigation Inventory: Flood Irrigation System

Please fill out the Flood Irrigation System section only if it relates to your irrigation type.

## 10. Flood Irrigation System Description

<i>Flood Irrigation System Description</i>						
<i>Field ID Name/Number</i>						
Indicate the number of acres in each field with the corresponding type of Flood system.						
Controlled						
Uncontrolled						
Contour Ditch						
Other (Explain)						
Are you interested in changing to a different irrigation system type? If so, indicate what type.						
What is the total system flow rate to this field? (cfs or gpm)						
Are you able to control the flow rate to this field?						
Do you measure water to this individual field?						
If so, are flows recorded manually or automatically?						
If not, would you consider adding a water measuring device?						
What is the average set time?						
What is the gross depth of application for the given set time? (inches)						
What is the average slope of the field?						
When was the system installed?						
What degree of land leveling has been completed on this field? (Choose from the options below and indicate when it was done by field)						
Land Smoothed						
Land Leveled						
Land Precision Leveled						
Land precision leveled and slope is less than 0.5%						

# Irrigation Inventory: Flood Irrigation System

Natural Resources Conservation Service

The following worksheet continues the description of your flood irrigation system. Please copy the field name/number from the previous worksheet to continue this section.

## 10a. EXAMPLE: Flood Irrigation System Description Continued

<i>Flood Irrigation System Description Continued</i>						
<b>Field ID Name/Number</b>	1					
<b>Is any additional pumping required to supply this field?</b>	No					
<b>If so, what is the energy source and size of the motor?</b>						
<b>When was the pump installed?</b>						
<b>When was the last major maintenance/overhaul? Describe.</b>						
<b>Do you schedule irrigations? Please indicate the method used below.</b>	Yes					
<b>Based on Water Availability</b>	Yes					
<b>Visual Crop Stress</b>						
<b>Irrigation Scheduler, Scheduling Check Book</b>						
<b>Using data from pan evaporation or atmometer for field</b>						
<b>Using information from regional weather network</b>						
<b>Using Gypsum blocks, moisture probe, etc</b>						
<b>Continuous measurements of soil moisture, water applied and evapotranspiration</b>						
<b>Are you interested in implementing better ways to schedule irrigations?</b>	Yes					
<b>Do you capture and re-use irrigation tailwater from this field?</b>	No					
<b>If not, would you be interested in recapturing tailwater?</b>	Yes					
<b>If yes, what percentage of the tailwater do you capture?</b>						

# Irrigation Inventory: Flood Irrigation System

The following worksheet continues the description of your flood irrigation system. Please copy the field name/number from the previous worksheet to continue this section.

## 10a. Flood Irrigation System Description Continued

<i>Flood Irrigation System Description Continued</i>						
<b>Field ID Name/Number</b>						
<b>Is any additional pumping required to supply this field?</b>						
<b>If so, what is the energy source and size of the motor?</b>						
<b>When was the pump installed?</b>						
<b>When was the last major maintenance/overhaul? Describe.</b>						
<b>Do you schedule irrigations? Please indicate the method used below.</b>						
<b>Based on Water Availability</b>						
<b>Visual Crop Stress</b>						
<b>Irrigation Scheduler, Scheduling Check Book</b>						
<b>Using data from pan evaporation or atmometer for field</b>						
<b>Using information from regional weather network</b>						
<b>Using Gypsum blocks, moisture probe, etc</b>						
<b>Continuous measurements of soil moisture, water applied and evapotranspiration</b>						
<b>Are you interested in implementing better ways to schedule irrigations?</b>						
<b>Do you capture and re-use irrigation tailwater from this field?</b>						
<b>If not, would you be interested in recapturing tailwater?</b>						
<b>If yes, what percentage of the tailwater do you capture?</b>						

# Irrigation Inventory: Sprinkler Irrigation System

Natural Resources Conservation Service

Please fill out the Sprinkler Irrigation System section only if it relates to your irrigation type.

## 11. EXAMPLE: Sprinkler Irrigation System Description

<i>Sprinkler Irrigation System Description</i>						
<b>Field Name/Number</b>	1					
<b>Indicate the number of acres in each field with the corresponding type of Sprinkler system.</b>						
<b>Hand-Line</b>	60 acres					
<b>Side-Roll</b>						
<b>Big Gun</b>						
<b>Solid-Set</b>						
<b>Other (Explain)</b>						
<b>Are you interested in changing to a different irrigation system type? If so what type.</b>	Yes, to Center Pivot					
<b>Indicate the flow rate for each field? (cfs or gpm)</b>	480 gpm					
<b>Do you measure water to the field?</b>	Yes					
<b>If so, are flows recorded manually or automatically?</b>	Automatic					
<b>If not, would you consider adding a water measuring device?</b>						
<b>At what pressure does your system operate? (psi)</b>	55 psi					
<b>What is your irrigation set time?</b>	23 hours					
<b>What is the gross depth of application for the given set time? (inches)</b>	5 inches					
<b>When was the system installed?</b>	1985					
<b>When was the last major maintenance completed on sprinkler heads and gaskets?</b>	1985					

# Irrigation Inventory: Sprinkler Irrigation System

Please fill out the Sprinkler Irrigation System section only if it relates to your irrigation type.

## 11. Sprinkler Irrigation System Description

<i>Sprinkler Irrigation System Description</i>						
<i>Field Name/Number</i>						
Indicate the number of acres in each field with the corresponding type of Sprinkler system.						
Hand-Line						
Side-Roll						
Big Gun						
Solid-Set						
Other (Explain)						
Are you interested in changing to a different irrigation system type? If so what type.						
Indicate the flow rate for each field? (cfs or gpm)						
Do you measure water to the field?						
If so, are flows recorded manually or automatically?						
If not, would you consider adding a water measuring device?						
At what pressure does your system operate? (psi)						
What is your irrigation set time?						
What is the gross depth of application for the given set time? (inches)						
When was the system installed?						
When was the last major maintenance completed on sprinkler heads and gaskets?						

# Irrigation Inventory: Sprinkler Irrigation System

Natural Resources Conservation Service

The following worksheet continues the description of your sprinkler system. Please copy the field name/ number from the previous worksheet to continue this section.

## 11a. EXAMPLE: Continued Sprinkler Irrigation System Description

<i>Sprinkler Irrigation System Description -Continued</i>						
<b>Field Name/Number</b>	1					
<b>Is any additional pumping required to supply this field?</b>	Yes					
<b>If so, what is the energy source and size of motor?</b>	Electric, 25 hp					
<b>When was the last major maintenance/overhaul? (Describe)</b>	1985 See Notes					
<b>When was the pump installed?</b>	1985					
<b>Do you schedule irrigations? Please indicate the method used below.</b>	Yes					
<b>Based on Water Availability</b>						
<b>Visual Crop Stress</b>	Yes					
<b>Irrigation Scheduler, Scheduling Check Book</b>						
<b>Using Data from Pan Evaporation or Atmometer for Field</b>						
<b>Using Information from Regional Weather Network</b>						
<b>Using Gypsum Blocks, Moisture Probe, etc.</b>						
<b>Continuous Measurement of Soil Moisture, Water Applied and Evapotraspiration (ET)</b>						
<b>Are you interested in implementing better ways to schedule irrigation?</b>	Yes					



# Irrigation Inventory: Sprinkler Irrigation System

The following worksheet continues the description of your sprinkler system. Please copy the field name/number from the previous worksheet to continue this section.

## 11a. Continued Sprinkler Irrigation System Description

<i>Sprinkler Irrigation System Description -Continued</i>						
<b>Field Name/Number</b>						
<b>Is any additional pumping required to supply this field?</b>						
<b>If so, what is the energy source and size of motor?</b>						
<b>When was the last major maintenance/overhaul? (Describe)</b>						
<b>When was the pump installed?</b>						
<b>Do you schedule irrigations? Please indicate the method used below.</b>						
<b>Based on Water Availability</b>						
<b>Visual Crop Stress</b>						
<b>Irrigation Scheduler, Scheduling Check Book</b>						
<b>Using Data from Pan Evaporation or Atmometer for Field</b>						
<b>Using Information from Regional Weather Network</b>						
<b>Using Gypsum Blocks, Moisture Probe, etc.</b>						
<b>Continuous Measurement of Soil Moisture, Water Applied and Evapotranspiration (ET)</b>						
<b>Are you interested in implementing better ways to schedule irrigation?</b>						

# Irrigation Inventory: Center-Pivot Sprinkler System

Natural Resources Conservation Service

Please fill out the Center-Pivot Sprinkler Irrigation System section only if it relates to your irrigation type.

## 12. EXAMPLE: Center-Pivot Sprinkler Irrigation Description

<b>Center-Pivot Sprinkler Irrigation Description</b>						
<b>Field ID Name/Number</b>	1					
<b>Indicate the number of acres in each field with the corresponding type of Center-Pivot system.</b>						
<b>Generic (High-Pressure with Impact Sprinklers)</b>						
<b>Low Pressure Improved</b>	126 acres					
<b>LEPA</b>						
<b>LESA</b>						
<b>LPIC</b>						
<b>Variable Rate Irrigation (VRI)</b>						
<b>MESA</b>						
<b>Other (Explain)</b>						
<b>Are you interested in changing to a different irrigation system type? If so what type?</b>	Yes, to LESA					
<b>What is the length of the pivot? (feet)</b>	1320 feet					
<b>What is the total system flow rate? (cfs or gpm)</b>	900 gpm					
<b>Do you measure the water to the field?</b>	No					
<b>If so, are flows recorded manually or automatically?</b>						
<b>If not, would you consider adding a water measuring device?</b>	Yes					
<b>What is the nozzle operating pressure?</b>	20 psi					
<b>What is the operating pressure at the pivot point? (psi)</b>	45 psi					
<b>What percent of a full circle does the pivot cover (50% for half circle)</b>	100%					
<b>How many hours are normally required to cover the area above?</b>	84 hours					
<b>What is the gross depth of application for the time noted above? (inches)</b>	1.3 inches					
<b>When was the system installed?</b>	1985					

# Irrigation Inventory: Center-Pivot Sprinkler System

Please fill out the Center-Pivot Sprinkler Irrigation System section only if it relates to your irrigation type.

## 12. Center-Pivot Sprinkler Irrigation Description

<i>Center-Pivot Sprinkler Irrigation Description</i>						
<i>Field ID Name/Number</i>						
Indicate the number of acres in each field with the corresponding type of Center-Pivot system.						
Generic (High-Pressure with Impact Sprinklers)						
Low Pressure Improved						
LEPA						
LESA						
LPIC						
Variable Rate Irrigation (VRI)						
MESA						
Other (Explain)						
Are you interested in changing to a different irrigation system type? If so what type?						
What is the length of the pivot? (feet)						
What is the total system flow rate? (cfs or gpm)						
Do you measure the water to the field?						
If so, are flows recorded manually or automatically?						
If not, would you consider adding a water measuring device?						
What is the nozzle operating pressure?						
What is the operating pressure at the pivot point? (psi)						
What percent of a full circle does the pivot cover (50% for half circle)						
How many hours are normally required to cover the area above?						
What is the gross depth of application for the time noted above? (inches)						
When was the system installed?						

# Irrigation Inventory: Center-Pivot Sprinkler System

Natural Resources Conservation Service

The following worksheet continues the description of your Center-Pivot Sprinkler irrigation system. Please copy the field name/number from the previous worksheet to continue this section.

## 12a. EXAMPLE: Center-Pivot Sprinkler System Description Continued

<i>Center-Pivot Sprinkler System Description Continued</i>						
<b>Field ID Name/Number</b>	1					
<b>When was the last major maintenance completed on sprinkler heads or gaskets?</b>	2003					
<b>Is any additional pumping required to supply this field?</b>	Yes					
<b>If so, what is the energy source and size of the motor?</b>	Electricl, 30 hp					
<b>When was the pump installed?</b>	1985					
<b>When was the last major maintenance/overhaul? Describe.</b>	2003 See Notes					
<b>Do you schedule irrigations? Please indicate the method used below.</b>	Yes					
<b>Based on Water Availability</b>						
<b>Visual Crop Stress</b>						
<b>Irrigation Scheduler, Scheduling Check Book</b>						
<b>Using data from pan evaporation or atmometer for field</b>						
<b>Using information from regional weather network</b>	Yes					
<b>Use Gypsum, moisture probe, etc</b>						
<b>Continuous measurements of soil moisture, water applied and evapotranspiration</b>						
<b>Are you interested in implementing better ways to schedule irrigation?</b>	No					

# Irrigation Inventory: Center-Pivot Sprinkler System

The following worksheet continues the description of your Center-Pivot Sprinkler irrigation system. Please copy the field name/number from the previous worksheet to continue this section.

## 12a. Center-Pivot Sprinkler System Description Continued

<i>Center-Pivot Sprinkler System Description Continued</i>						
<i>Field ID Name/Number</i>						
When was the last major maintenance completed on sprinkler heads or gaskets?						
Is any additional pumping required to supply this field?						
If so, what is the energy source and size of the motor?						
When was the pump installed?						
When was the last major maintenance/overhaul? Describe.						
Do you schedule irrigations? Please indicate the method used below.						
Based on Water Availability						
Visual Crop Stress						
Irrigation Scheduler, Scheduling Check Book						
Using data from pan evaporation or atmometer for field						
Using information from regional weather network						
Use Gypsum, moisture probe, etc						
Continuous measurements of soil moisture, water applied and evapotranspiration						
Are you interested in implementing better ways to schedule irrigation?						

# Irrigation Inventory: Lateral Move Sprinkler System

Natural Resources Conservation Service

Please fill out the Lateral Move Sprinkler Irrigation System section only if it relates to your irrigation type.

## 13. EXAMPLE: Lateral Move Sprinkler Irrigation Description

<i>Lateral Move Sprinkler Irrigation Description</i>						
<i>Field ID Name/Number</i>	1					
Indicate the number of acres in each field with the corresponding type of Lateral Move Sprinkler system.						
Generic (High-Pressure with Impact Sprinklers)	80 acres					
Low Pressure Improved						
LEPA						
LESA						
LPIC						
MESA						
Other (Explain)						
Are you interested in changing to a different irrigation system type? If so what type?	Yes, to LESA					
What is the length of the lateral?	1320 feet					
What is the total system flow rate? (cfs or gpm)	600 gpm					
Do you measure the water to the field?	No					
If so, are flows recorded manually or automatically?						
If not, would you consider adding a water measuring device?	Yes					
What is the nozzle operating pressure?	40 psi					
What is the operating pressure at the system outlet? (psi)	65 psi					
How many hours are normally required to irrigate the field?	84 hours					
What is the gross depth of application for the time noted above? (inches)	1.4 inches					
When was the system installed?	1985					
When was the last major maintenance completed on sprinkler heads or gaskets?	2003					

# Irrigation Inventory: Lateral Move Sprinkler System

Please fill out the Lateral Move Sprinkler Irrigation System section only if it relates to your irrigation type.

## 13. Lateral Move Sprinkler Irrigation Description

<i>Lateral Move Sprinkler Irrigation Description</i>						
<i>Field ID Name/Number</i>						
Indicate the number of acres in each field with the corresponding type of Lateral Move Sprinkler system.						
Generic (High-Pressure with Impact Sprinklers)						
Low Pressure Improved						
LEPA						
LESA						
LPIC						
MESA						
Other (Explain)						
Are you interested in changing to a different irrigation system type? If so what type?						
What is the length of the pivot? (feet)						
What is the total system flow rate? (cfs or gpm)						
Do you measure the water to the field?						
If so, are flows recorded manually or automatically?						
If not, would you consider adding a water measuring device?						
What is the nozzle operating pressure?						
What is the operating pressure at the system outlet? (psi)						
How many hours are normally required to irrigate the field?						
What is the gross depth of application for the time noted above? (inches)						
When was the system installed?						
When was the last major maintenance completed on sprinkler heads or gaskets?						

# Irrigation Inventory: Lateral Move Sprinkler System

Natural Resources Conservation Service

The following worksheet continues the description of your Lateral Move Sprinkler irrigation system. Please copy the field name/number from the previous worksheet to continue this section.

## 13a. EXAMPLE: Lateral Move Sprinkler System Description Continued

<i>Lateral Move Sprinkler Description Continued</i>						
<b>Field ID Name/Number</b>	1					
<b>Is any additional pumping required to supply this field?</b>	Yes					
<b>If so, what is the energy source and size of the motor?</b>	Diesel, 50 hp					
<b>When was the pump installed?</b>	1985					
<b>When was the last major maintenance/overhaul? Describe.</b>	2003 See Notes					
<b>Do you schedule irrigations? Please indicate the method used below.</b>	Yes					
<b>Based on Water Availability</b>						
<b>Visual Crop Stress</b>	Yes					
<b>Irrigation Scheduler, Scheduling Check Book</b>						
<b>Using data from pan evaporation or atmometer for field</b>						
<b>Using information from regional weather network</b>						
<b>Using Gypsum blocks, moisture probe, etc</b>						
<b>Continuous measurements of soil moisture, water applied and evapotranspiration</b>						
<b>Are you interested in implementing better ways to schedule irrigation?</b>	Yes					



# Irrigation Inventory: Lateral Move Sprinkler System

The following worksheet continues the description of your Lateral Move Sprinkler irrigation system. Please copy the field name/number from the previous worksheet to continue this section.

## 13a. Lateral Move Sprinkler System Description Continued

<i>Lateral Move Sprinkler Description Continued</i>						
<i>Field ID Name/Number</i>						
Is any additional pumping required to supply this field?						
If so, what is the energy source and size of the motor?						
When was the pump installed?						
When was the last major maintenance/overhaul? Describe.						
Do you schedule irrigations? Please indicate the method used below.						
Based on Water Availability						
Visual Crop Stress						
Irrigation Scheduler, Scheduling Check Book						
Using data from pan evaporation or atmometer for field						
Using information from regional weather network						
Using Gypsum blocks, moisture probe, etc						
Continuous measurements of soil moisture, water applied and evapotranspiration						
Are you interested in implementing better ways to schedule irrigation?						

# Irrigation Inventory: Microirrigation System

Natural Resources Conservation Service

Please fill out the Microirrigation System section only if it relates to your irrigation type.

## 14. EXAMPLE: Microirrigation System Description

<b>Microirrigation System Description</b>						
<b>Field ID Name/Number</b>	1					
<b>Indicate the number of acres in each field with the corresponding type of Microirrigation system.</b>						
<b>Point Source</b>						
<b>Sprays</b>						
<b>Continuous Tape</b>	40 acres					
<b>Subsurface Drip Irrigation</b>						
<b>Other (Explain)</b>						
<b>Are you interested in changing to a different irrigation system type? If so what type?</b>	No					
<b>What is the total system flow rate? (cfs or gpm)</b>	450 gpm					
<b>Do you measure the water to the field?</b>	Yes					
<b>If so, are flows recorded manually or automatically?</b>	Automatic					
<b>If not, would you consider adding a water measuring device?</b>						
<b>At what pressure does your system operate? (psi)</b>	15 psi					
<b>How many hours per day does the system usually run on each field?</b>	12 hours					
<b>What is the gross depth of application for the time noted above? (inches)</b>	.30 inches					
<b>When was the system installed?</b>	2001					
<b>When was the last major maintenance completed on gaskets, emitters or tape?</b>	2003					

# Irrigation Inventory: Microirrigation System

Please fill out the Microirrigation System section only if it relates to your irrigation type.

## 14. Microirrigation System Description

<i>Microirrigation System Description</i>						
<i>Field ID Name/Number</i>						
Indicate the number of acres in each field with the corresponding type of Microirrigation system.						
Point Source						
Sprays						
Continuous Tape						
Subsurface Drip Irrigation						
Other (Explain)						
Are you interested in changing to a different irrigation system type? If so what type?						
What is the total system flow rate? (cfs or gpm)						
Do you measure the water to the field?						
If so, are flows recorded manually or automatically?						
If not, would you consider adding a water measuring device?						
At what pressure does your system operate? (psi)						
How many hours per day does the system usually run on each field?						
What is the gross depth of application for the time noted above? (inches)						
When was the system installed?						
When was the last major maintenance completed on gaskets, emitters or tape?						

# Irrigation Inventory: Microirrigation System

Natural Resources Conservation Service

The following worksheet continues the description of your Microirrigation system. Please copy the field name/number from the previous worksheet to continue this section.

## 14a. EXAMPLE: Microirrigation System Description Continued

<i>Microirrigation System Description Continued</i>						
<b>Field ID Name/Number</b>	1					
<b>Is any additional pumping required to supply this field?</b>	Yes					
<b>If so, what is the energy source and size of the motor?</b>	Electric, 15 hp					
<b>When was the pump installed?</b>	2003					
<b>When was the last major maintenance/overhaul? Describe.</b>	2003 See Notes					
<b>Do you schedule irrigations? Please indicate the method used below.</b>	Yes					
<b>Based on Water Availability</b>						
<b>Visual Crop Stress</b>						
<b>Irrigation Scheduler, Scheduling Check Book</b>						
<b>Using data from pan evaporation or atmometer for field</b>						
<b>Using information from regional weather network</b>						
<b>Using Gypsum blocks, moisture probe, etc</b>						
<b>Continuous measurements of soil moisture, water applied and evapotranspiration</b>	Yes					
<b>Are you interested in implementing better ways to schedule irrigation?</b>	No					

# Irrigation Inventory: Microirrigation System

The following worksheet continues the description of your Microirrigation system. Please copy the field name/number from the previous worksheet to continue this section.

## 14a. Microirrigation System Description Continued

<i>Microirrigation System Description Continued</i>						
<b>Field ID Name/Number</b>						
<b>Is any additional pumping required to supply this field?</b>						
<b>If so, what is the energy source and size of the motor?</b>						
<b>When was the pump installed?</b>						
<b>When was the last major maintenance/overhaul? Describe.</b>						
<b>Do you schedule irrigations? Please indicate the method used below.</b>						
<b>Based on Water Availability</b>						
<b>Visual Crop Stress</b>						
<b>Irrigation Scheduler, Scheduling Check Book</b>						
<b>Using data from pan evaporation or atmometer for field</b>						
<b>Using information from regional weather network</b>						
<b>Using Gypsum blocks, moisture probe, etc</b>						
<b>Continuous measurements of soil moisture, water applied and evapotranspiration</b>						
<b>Are you interested in implementing better ways to schedule irrigation?</b>						

# Irrigation Inventory: Sub-Irrigation System

Natural Resources Conservation Service

Please fill out the Sub-Irrigation System section only if it relates to your irrigation type.

## 15. EXAMPLE: Sub-Irrigation System Description

<i>Sub-Irrigation System Description</i>						
<i>Field ID Name/Number</i>	1					
Indicate the number of Sub-Irrigated acres in each field.	60					
Are you interested in changing to a different irrigation system type? If so what type?	No					
What is the total system flow rate to the field? (cfs or gpm)	2 cfs					
Are you able to control the flow rate to this field?	No					
Do you measure the water to the field?	No					
If so, are flows recorded manually or automatically?						
If not, would you consider adding a water measuring device?						
What is the typical water table depth below surface?	18 inches					
When was the system installed?	1930					
What degree of land leveling has been done to the field?						
Land Smoothed	Yes					
Land Leveled						
Land Precision Leveled						
Land Precision Leveled and slope is less than 0.5%						
When was this last completed?						

# Irrigation Inventory: Sub-Irrigation System

Please fill out the Sub-Irrigation System section only if it relates to your irrigation type.

## 15. Sub-Irrigation System Description

<i>Sub-Irrigation System Description</i>						
<i>Field ID Name/Number</i>						
Indicate the number of Sub-irrigated acres in each field.						
Are you interested in changing to a different irrigation system type? If so what type?						
What is the total system flow rate to the field? (cfs or gpm)						
Are you able to control the flow rate to this field?						
Do you measure the water to the field?						
If so, are flows recorded manually or automatically?						
If not, would you consider adding a water measuring device?						
What is the typical water table depth below surface?						
When was the system installed?						
What degree of land leveling has been done to the field?						
Land Smoothed						
Land Leveled						
Land Precision Leveled						
Land Precision Leveled and slope is less than 0.5%						
When was this last completed?						

# Irrigation Inventory: Sub-Irrigation System

The following worksheet continues the description of your Sub-Irrigation system. Please copy the field name/number from the previous worksheet to continue this section.

## 15a. EXAMPLE: Sub-Irrigation System Description Continued

<i>Sub-Irrigation System Description Continued</i>						
<b>Field ID Name/Number</b>	1					
<b>Is any additional pumping required to supply this field?</b>	No					
<b>If so, what is the energy source and size of the motor?</b>						
<b>When was the pump installed?</b>						
<b>When was the last major maintenance/overhaul? Describe.</b>						
<b>Do you schedule irrigations? Please indicate the method used below.</b>	No					
<b>Based on Water Availability</b>						
<b>Visual Crop Stress</b>						
<b>Irrigation Scheduler, Scheduling Check Book</b>						
<b>Using data from pan evaporation or atmometer for field</b>						
<b>Using information from regional weather network</b>						
<b>Using Gypsum blocks, moisture probe, etc</b>						
<b>Continuous measurements of soil moisture, water applied and evapotranspiration</b>						
<b>Are you interested in implementing better ways to schedule irrigations?</b>						
<b>Do you capture and re-use the drainage water from this field?</b>						
<b>If not, are you interested in recapturing tailwater?</b>						
<b>If yes, what percentage of the tailwater do you capture?</b>						



# Irrigation Inventory: Sub-Irrigation System

The following worksheet continues the description of your Sub-Irrigation system. Please copy the field name/number from the previous worksheet to continue this section.

## 15a. Sub-Irrigation System Description Continued

<i>Sub-Irrigation System Description Continued</i>						
<b>Field ID Name/Number</b>						
<b>Is any additional pumping required to supply this field?</b>						
<b>If so, what is the energy source and size of the motor?</b>						
<b>When was the pump installed?</b>						
<b>When was the last major maintenance/overhaul? Describe.</b>						
<b>Do you schedule irrigations? Please indicate the method used below.</b>						
<b>Based on Water Availability</b>						
<b>Visual Crop Stress</b>						
<b>Irrigation Scheduler, Scheduling Check Book</b>						
<b>Using data from pan evaporation or atmometer for field</b>						
<b>Using information from regional weather network</b>						
<b>Using Gypsum blocks, moisture probe, etc</b>						
<b>Continuous measurements of soil moisture, water applied and evapotranspiration</b>						
<b>Are you interested in implementing better ways to schedule irrigations?</b>						
<b>Do you capture and re-use the drainage water from this field?</b>						
<b>If not, are you interested in recapturing tailwater?</b>						
<b>If yes, what percentage of the tailwater do you capture?</b>						

# Notes

Lined area for notes with horizontal ruling lines.





# Conservation Records

## Forest Land Inventory

*F-2 ..... Forest Stand Description*

*F-4 ..... Forest Management*

# Forest Land Inventory

## Forest Description

The following information will provide your conservation planner with the information needed to determine the condition and conservation opportunities on your forest stand.

### 1. EXAMPLE: Forest Stand Description

*Briefly describe your forest land, include total acres, kind of trees, management goals or strategy, etc.*

I have owned a 120 acres Douglas-fir forest for 18 years. 35 acres of Douglas-fir in plantation, 85 acres natural stand. My goal is to have a forest that I can remove trees periodically for income and also to keep the stand healthy. I also enjoy the wildlife, the aesthetics, and would like to leave the place for my children to enjoy.

The place needed lots of work when I bought it. 35 acres had been clearcut and the remaining 85 acres had been heavily thinned. In 1988, 35 acres were planted to about 250-300 trees per acre. The 85 acres natural stand has been improved by thinning clumps of trees and cutting out poor quality trees. Tree growth has improved by spacing trees farther apart. Cut trees have been used for firewood. Work on 85 acres has been completed over the past 15 years. The roads were also in poor shape when the property was purchased, but have since been repaired and maintenance completed as needed.

<i>List Your Management Units</i>						
<i>Management Units Number or Name</i>	<i>Total Acres</i>	<i>Forest Type</i>	<i>Age</i>		<i>Last Harvest</i>	
			<i>Uneven aged (Enter age of oldest com- ponent)</i>	<i>Even Aged (Enter Year Planted)</i>	<i>Kind (PCT*, Selection, Clearcut)</i>	<i>Date</i>
North Unit	35	Douglas Fir	-----	1987	PCT	2000
Unit 5	85	Douglas Fir	60	-----	Selection	1994

\* PCT is Pre-Commercial Thin

# Forest Land Inventory

## 1. Forest Stand Description

*Briefly describe your forest land, include total acres, kind of trees, management goals or strategy, etc*

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<i>List Your Management Units</i>						
<i>Management Unit(s) Number or Name</i>	<i>Total Acres</i>	<i>Forest Type</i>	<i>Age</i>		<i>Last Harvest</i>	
			<i>Uneven aged (Enter age of oldest component)</i>	<i>Even Aged (Enter Year Planted)</i>	<i>Kind (PCT*, Selection, Clearcut)</i>	<i>Date</i>

\* PCT is Pre-Commercial Thin

# Forest Land Inventory

## 2. EXAMPLE: Forest Management Plan

<i>Forest Management Plan</i>	<b>Yes</b>	<b>No</b>
Do you have a Oregon Department of Forestry Forest Stewardship Plan?		✓
If Yes, is it more than ten years old?		
Has part of your plan been implemented?		
Do you have a forest management plan developed?		✓
If Yes, who was it developed by?	Year:	

## 3. EXAMPLE: Forest Management Activities

<i>Forest Management Activities (occurring in the last ten years)</i>	<b>Unit</b>	<b>Year</b>
Fertilized Trees	-----	
Name and Amount of Fertilizer Applied:		
Prescribed Burn	-----	
Have Chemicals been applied to unwanted vegetation?	30	1990
Was desired control accomplished? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
What type of chemical was applied? Roundup, 2, 4-D		
Was grass seeded after logging?	-----	
Are there areas of active erosion?		<del>X</del>
Describe:		
Do livestock graze in the forest?	-----	
Is wildlife actively managed?	-----	
Were management activities completed in the last 5 years?	Unit 5, North Unit	-----
List: Limited pruning completed when PCT was finished. Road Maintenance is completed yearly.		
Are management activities planned in the next 5 years?	Unit 5, North Unit	2006-2008
List: Additional Pre-Commercial Thinning, Road grading, water bar installation		

## 4. Please Include the Following Items on your Farm Map:

- Forest Unit
- Fire Breaks
- Log Landings
- Forest Roads
- Culverts



# Forest Land Inventory

## 2. Forest Management Plan

<i>Forest Management Plan</i>	Yes	No
Do you have a Oregon Department of Forestry Forest Stewardship Plan?		
If Yes, is it more than ten years old?		
Has part of your plan been implemented?		
Do you have a forest management plan developed?		
If Yes, who was it developed by?	Year:	

## 3. Forest Management Activities

<i>Forest Management Activities (occurring in the last ten years)</i>	Unit	Year
Fertilized Trees		
Name and Amount of Fertilizer Applied:		
Prescribed Burn		
Have Chemicals been applied to unwanted vegetation?		
Was desired control accomplished?    Yes _____    No _____		
What type of chemical was applied?		
Was grass seeded after logging?		
Are there areas of active erosion?		X
Describe:		
Do livestock graze in the forest?		
Is wildlife actively managed?		
Were management activities completed in the last 5 years?		
List:		
Are management activities planned in the next 5 years?		
List:		

## 4. Please Include the Following Items on your Farm Map:

- Forest Unit
- Fire Breaks
- Log Landings
- Forest Roads
- Culverts

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# Conservation Records

## Feedlot and Dairy Inventory

- F&D-2..... Operation Description*
- F&D-4..... Solid Waste Storage Description*
- F&D-6..... Water Waste Storage Description*
- F&D-8..... Equipment and Manure Application*

# Feedlot and Dairy Inventory

## Operation Description

Complete this section if you have an animal feeding operation. If you have crop or hayland associated with this operation complete the Crop and Hayland section as well.

Type of Operation:  Dairy  (Dairy, Beef, Swine, Poultry, etc.)

### 1. EXAMPLE: Current Operation Description

Livestock Type	Number of Animals	Average Weight, Lbs	Dates Confined		Dates Grazed	
			Begin	End	Begin	End
Holstein Milker	225	1300	January	December	----	----
Holstein Dry Cow	30	1400	November	March	April	October
Holstein Heifer	40	600	December	March	April	October
Calves	60	250	December	December	----	----

### 2. EXAMPLE: Future Operation Description

Livestock Type	Number of Animals	Average Weight, Lbs	Dates Confined		Dates Grazed	
			Begin	End	Begin	End
Holstein Milker	350	1300	November	March	April	October
Holstein Dry Cow	35	1400	November	March	April	October

# Feedlot and Dairy Inventory

## 1. Current Operation Description

<i>Livestock Type</i>	<i>Number of Animals</i>	<i>Average Weight, Lbs</i>	<i>Dates Confined</i>		<i>Dates Grazed</i>	
			<i>Begin</i>	<i>End</i>	<i>Begin</i>	<i>End</i>

## 2. Future Operation Description

<i>Livestock Type</i>	<i>Number of Animals</i>	<i>Average Weight, Lbs</i>	<i>Dates Confined</i>		<i>Dates Grazed</i>	
			<i>Begin</i>	<i>End</i>	<i>Begin</i>	<i>End</i>

# Feedlot and Dairy Inventory

## Solid Waste Storage

Complete this section if you have a feedlot or dairy.

Type of Operation: Dairy (Dairy, Beef)

### 3. EXAMPLE: Solid Waste Storage

Type of Bedding: Paper Pulp

Volume: 02.6 CF/Day

Type of Separator: Gravity Basin- Planned

Percent Solids Separated: 40 %

Existing Solids Storage Dimensions: None

Volume: \_\_\_\_\_ CF

Dimensions: \_\_\_\_\_

Volume: \_\_\_\_\_ CF

Is the Existing Solids Storage roofed? YES NO

Unroofed Surface Area: \_\_\_\_\_ Sq Ft

Desired Solids Storage Time: 90 Days

Additional Description:

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# Feedlot and Dairy Inventory

## Solid and Water Waste Storage

Complete this section if you have a feedlot or dairy.

Type of Operation: \_\_\_\_\_ (Dairy, Beef)

### 3. Solid Waste Storage

Type of Bedding: \_\_\_\_\_

Volume: \_\_\_\_\_

Type of Separator: \_\_\_\_\_

Percent Solids Separated: \_\_\_\_\_%

Existing Solids Storage Dimensions: \_\_\_\_\_

Volume: \_\_\_\_\_ CF

Dimensions: \_\_\_\_\_

Volume: \_\_\_\_\_ CF

Is the Existing Solids Storage roofed? YES NO

Unroofed Surface Area: \_\_\_\_\_ Sq Ft

Desired Solids Storage Time: \_\_\_\_\_ Days

Additional Description:

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# Feedlot and Dairy Inventory

## Water Waste Storage

### 4. EXAMPLE: Waste Water Storage Descriptions

Cow Preparation: Manual 3.0 gals/milker/day

Examples: Auto Single Cow: 5-15 gal/milker/day  
 Auto Multiple Cow: 25-40 gal/milker/day  
 Manual: 3-7 gal/milker/day

<i>Water Uses</i>	<i>Gallon/Wash</i>	<i>Number of Washes</i>
<b>Bulk Tank (Manual: 30-50 gal/wash, Auto: 60-110 gal/wash)</b>	<b>60</b>	<b>2</b>
<b>Milkhouse &amp; Parlor (300-700 gal/wash)</b>	<b>500</b>	<b>2</b>
<b>Pipelines (75-150 gal/wash)</b>	<b>75</b>	<b>2</b>
<b>Holding Area (500-1200 gal/wash)</b>	-----	-----
<b>Miscellaneous Equipment ( 25-35 gal/wash)</b>	<b>25</b>	<b>2</b>

Lot Area Contributing to Liquid Storage Facility: Paved 36,875 Sq Ft Unpaved 0 Sq Ft

Is Paved Area Scraped Daily? YES  NO

Roof Area Contributing to Liquid Storage Facility: 0 Sq Ft

Does Silage Seepage Enter Liquid Storage Facility? YES  NO

<i>Existing Liquid Storage Descriptions</i>	<i>Volume (CF)</i>	<i>Is Storage Facility Roofed?</i>	<i>Surface Area of Unroofed Area</i>
<b>50 Feet Diameter Concrete Tank</b>	<b>19,625</b>	<b>Yes</b>	-----

Desired Liquids Storage Period: 120 Days



# Feedlot and Dairy Inventory

## 4. Waste Water Storage Descriptions

Cow Preparation: \_\_\_\_\_ gals/milker/day

Examples: Auto Single Cow: 5-15 gal/milker/day  
 Auto Multiple Cow: 25-40 gal/milker/day  
 Manual: 3-7 gal/milker/day

<i>Water Uses</i>	<i>Gallon/Wash</i>	<i>Number of Washes</i>
<b>Bulk Tank (Manual: 30-50 gal/wash, Auto: 60-110 gal/wash)</b>		
<b>Milkhouse &amp; Parlor (300-700 gal/wash)</b>		
<b>Pipelines (75-150 gal/wash)</b>		
<b>Holding Area (500-1200 gal/wash)</b>		
<b>Miscellaneous Equipment ( 25-35 gal/wash)</b>		

Lot Area Contributing to Liquid Storage Facility: Paved \_\_\_\_\_ Sq Ft Unpaved \_\_\_\_\_ Sq Ft

Is Paved Area Scraped Daily? YES \_\_\_\_\_ NO \_\_\_\_\_

Roof Area Contributing to Liquid Storage Facility: \_\_\_\_\_ Sq Ft

Does Silage Seepage Enter Liquid Storage Facility? YES \_\_\_\_\_ NO \_\_\_\_\_

<i>Existing Liquid Storage Descriptions</i>	<i>Volume (CF)</i>	<i>Is Storage Facility Roofed?</i>	<i>Surface Area of Unroofed Area</i>

Desired Liquids Storage Period: \_\_\_\_\_ Days

# Feedlot and Dairy Inventory

## Equipment and Manure Application Description

### 5. EXAMPLE: Nutrient Application Equipment Description

<i>Equipment</i>	<i>Description</i>	<i>Flow Rate (gpm)/ Volume (CF or Gal)</i>	<i>Spread Area (ft)</i>
Big Gun Sprinkler	Traveler	300 gpm	250 ft wetted diameter
Tractor Spreader	160 Bushel Tractor Spreader	199 CF	15 feet
Tank Wagon	-----		
Other	-----		

### 6. EXAMPLE: Fields and Crops Receiving Manure/Organic Application

<i>Field Number/ Name</i>	<i>Crop</i>	<i>Acres</i>	<i>Present Yield (units/acre)</i>	<i>Target Yield (units/acre)</i>	<i>Crop Condition (Good, Fair, Poor)</i>
1, 8-18	Irrigated Hay Pasture 14% Protein	187.5	6 ton	6 ton	Good
6, 7, 18	Dryland Hay Pasture 10% Protein	70	3 ton	3 ton	Good

# Feedlot and Dairy Inventory

## 5. Nutrient Application Equipment Description

<i>Equipment</i>	<i>Description</i>	<i>Flow Rate (gpm)/ Volume (CF or Gal)</i>	<i>Spread Area (ft)</i>
Big Gun Sprinkler			
Tractor Spreader			
Tank Wagon			
Other			

## 6. Fields and Crops Receiving Manure/Organic Application

<i>Field Number/ Name</i>	<i>Crop</i>	<i>Acres</i>	<i>Present Yield (units/acre)</i>	<i>Target Yield (units/acre)</i>	<i>Crop Condition (Good, Fair, Poor)</i>





