Conservation Security Program

Pastureland

Self Assessment and Records Workbook

Name: _____

Farm/Ranch: _____

Washington NRCS
Natural Resources Conservation Service

Table of Contents

About This Workbook 3

About the Conservation Security Program 3

Determine Initial Eligibility 5

Producer Eligibility 6

Land Eligibility 7

Land Use Self - Assessment 8

If you are eligible at this time 12

If you are not eligible at this time 12

Records: Pasture and Rangeland Inventory 13

Glossary of Terms 30

Conservation Planning 41

Conservation Programs and Assistance 42

Conservation Practice Sheets 44

About This Workbook

As you go through this workbook and answer questions about your operation, you will get a good idea about whether you are eligible for the Conservation Security Program (CSP) at this time. You will answer "yes" or " no" or "not applicable" to most questions, and be asked to describe your operation. If the question covers a topic that is not relative to your part of the state, mark NA for not applicable. Lastly, you will find out the next steps to start the application process.

Complete the producer eligibility questions

Complete the land eligibility questions

Complete the self-assessmment for each applicable land use

Complete the records document

Apply for CSP

About the Conservation Security Program

CSP supports ongoing conservation stewardship of agricultural lands by providing assistance to producers to maintain and enhance natural resources.

CSP is designed to reward the best conservationists and motivate the rest. CSP is a voluntary program that provides financial and technical assistance to promote the conservation and improvement of soil, water, air, energy, and plant and animal life on Tribal and private working lands. Working lands include cropland, grassland, prairie land, improved pasture, and rangeland, as well as forested land that is an incidental part of an agriculture operation.

The program is available in all 50 States, the Caribbean area, and the Pacific Basin area. The program provides equitable access to benefits to all producers, regardless of size of operation, crops produced, or geographic location.

CONSERVATION SECURITY PROGRAM (CSP)

CSP is a voluntary program that has a unique role among USDA conservation programs. CSP identifies and rewards the Nation's premier farm and ranch land conservationists who meet the highest standards of conservation environmental management.

Initial Eligibility

CSP is available to agricultural producers, including Tribal producers. Private agricultural land (including cropland, grassland, prairie land, improved pasture land, and rangeland), land under the jurisdiction of an Indian tribe, and forested land that is an incidental part of the agricultural operation are eligible for enrollment in CSP. Land enrolled in the Conservation Reserve Program, Wetlands Reserve Program, and Grassland Reserve Program, and land converted to cropland after the enactment of the CSP legislation are not eligible.

Self-Assessment

The CSP self-assessment process enables farmers and ranchers to evaluate their eligibility for the Conservation Security Program.

You may apply on all or on a portion of your land. You will identify and describe the land unit in the self-assessment.

Because of the rigorous eligibility criteria required for this year's CSP, the current level of conservation activity on your operation may not qualify for a CSP contract at this time. However, you may be eligible for a wide range of other conservation assistance programs that can help you address natural resource concerns to a level that could help you qualify for CSP in the future.

If you are not eligible this year, your next steps will include setting your objectives based on your natural resource concerns and farming/ranching operation, developing a conservation plan, and finding the appropriate educational, financial, and technical assistance to help you.

Treatment Requirements

- All CSP producers must meet minimum treatment criteria for soil quality and water quality
- Techniques to achieve soil and water criteria will vary, depending on your farm's slope, climate and other characteristics
- Treatment may include managing nutrients and pesticides, erosion control, and buffers

At this time, CSP is available in selected priority watersheds only. Producers located within these watersheds are eligible to apply for the program. For more information about the watersheds selected, contact your local NRCS office, or go to the Washington NRCS Web page:
http://www.wa.nrcs.usda.gov

List the location for the land, or portion of land, you wish to enroll.

Note: The name or parcel identifier can be whatever term (or number) you want to use for the operation you wish to enroll in CSP.

Name or identifier for parcel or land unit _____

_____

_____

ZIP CODE _____

WATERSHED _____

And/or LEGAL LOCATION _____
(Section/Township/Range)

Producer Eligibility

Items underlined are defined in the glossary of terms beginning on page 30 of this workbook. Mark "na" if the question is not applicable.

1. Do you share in the risk of producing crops or livestock on this operation?

Note regarding landlords: Landlords who receive only cash payments for renting the land are not currently eligible for CSP. Landlords who share in the risk of producing the crop or livestock and would share in the crop or livestock produced are eligible.

☐ yes ☐ no ☐ na

2. Are you entitled to share in the crop or livestock available for marketing from the agriculture operation?

☐ yes ☐ no ☐ na

3. Do you have control of some or all of the land you manage for the life of the proposed 5 to 10 year contract period?

☐ yes ☐ no ☐ na

4. Is your average adjusted gross income less than or equal to $2.5 million, or if greater than $2.5 million, did 75 percent come from farming, ranching, or forestry?

Note: To participate in CSP, your average adjusted gross income for the 3 tax years immediately proceeding the year the contract is approved cannot exceed $2.5 million, unless at least 75 percent of the income was derived from agriculture. See glossary.

☐ yes ☐ no ☐ na

If you answered yes to all four questions, proceed to next section.

If you answered no to one or more questions, you may not be eligible for CSP.

5. Is at least part of your land private agricultural land or Tribal land?

Note: Public land is not eligible for CSP.

☐ yes ☐ no ☐ na

6. Is your land in compliance with the highly erodible land and wetland conservation provisions of the 1985 Farm Bill?

☐ yes ☐ no ☐ na

7. Was your cropland used for crop production or considered cropland as part of a long-term rotation for 4 out of the last 6 years prior to May 13, 2002?

☐ yes ☐ no ☐ na

8. Land under consideration for CSP is NOT currently enrolled in the Conservation Reserve Program (CRP), Wetlands Reserve (WRP) Program, or Grassland Reserve Program (GRP) ?

Note: Land enrolled in CRP, WRP, or GRP cannot be a part of the CSP contract. Other land in your operation may be eligible. For example: You have a 1.2 acre CRP buffer on a forty acre parcel you wish to enroll. All but the 1.2 acres enrolled in the Conservation Reserve Program may be eligible for CSP.

☐ yes ☐ no ☐ na

If you answered yes to all four questions, proceed to next section.

If you answered no to one or more questions, you may not be eligible for CSP.

These questions help to determine if the non-irrigated and irrigated pastureland you want to enroll in CSP meets the basic program requirements. Each question pertains to the land you wish to enroll in CSP.

Items underlined are defined in the glossary of terms beginning on page 30 of this workbook. Mark "na" if the question is not applicable.

Managing Water Quality on Pastureland

1. Are you following a grazing plan which includes the following?
   - Selecting kinds of domestic animals suited to the terrain, climate, and other existing grazing area conditions
   - Optimizing grazing distribution through placement of watering facilities, fences, or herding techniques
   - Identifying periods of grazing, rest, and other treatment for each management unit
   - Identifying and maintaining adequate cover on sensitive areas (riparian, wetland, and other habitats of concern)
   - Not negatively impacting any cultural resource or sensitive species
   - Identifying and monitoring key areas and key plants to evaluate grazing management decisions

   ☐ yes ☐ no ☐ na

2. Is forage availability balanced with livestock and wildlife demands (e.g., forage and animal balance, including a completed forage production estimate, livestock numbers identified, and wildlife numbers estimated)?

   ☐ yes ☐ no ☐ na

3. Do you keep written records or documentation of your pasture management activities for each field, such as grazing intensity, frequency, and duration of grazing periods, forage yields, livestock needs, soil analysis, and nutrients applied, including manure?

   ☐ yes ☐ no ☐ na

4. Are you managing livestock access to rivers, streams, and other surface water?

   ☐ yes ☐ no ☐ na

5. Do you conduct soil tests and/or plant tissue tests?

☐ yes ☐ no ☐ na

6. Are you managing nutrients (for example, adding supplemental nitrogen) by following a nutrient management plan or schedule that budgets nutrients based on soil and plant needs and environmental risk?

☐ yes ☐ no ☐ na

7. If you have abandoned or active water wells in your pasture, have you taken adequate steps to protect ground water?

☐ yes ☐ no ☐ na

8. Are livestock prevented from direct access to sinkholes, unprotected wells, or other direct conduits to ground water to protect water quality?

☐ yes ☐ no ☐ na

9. If you land apply animal manure or waste, are you following a waste utilization plan that includes adequate setbacks from surface waters and other hydrologically active areas (including sinkholes, karst topography, saline seeps, groundwater recharge areas, wetlands and wellheads, etc.)?

☐ yes ☐ no ☐ na

If you answered yes to all four questions, proceed to next section.

If you answered no to one or more questions, you may not be eligible for CSP.

Managing Pests on Pastureland

10. Have you assessed the environmental risks of pesticide use on your pasture and addressed any risks with appropriate measures?

☐ yes ☐ no ☐ na

11. Do you keep written records or documentation of your pesticide application and pest control methods for each grazed area - pertaining to pesticide use and insect populations?

☐ yes ☐ no ☐ na

12. Do you control noxious weeds and undesirable brush species?

☐ yes ☐ no ☐ na

13. When you control noxious weeds and undesirable brush species, are you following a pest management plan that includes measures to protect water quality?

☐ yes ☐ no ☐ na

Managing Forage and Soil on Pastureland

14. Do you manage grazing on pastureland to avoid soil compaction?

☐ yes ☐ no ☐ na

15. Are sheet and rill erosion controlled?

☐ yes ☐ no ☐ na

16. Is wind erosion controlled?

☐ yes ☐ no ☐ na

17. Have you stabilized or treated classic gullies on your operation?

☐ yes ☐ no ☐ na

18. If you are in an area of saline or sodic soils, do you monitor soil salinity levels?

☐ yes ☐ no ☐ na

19. Do you manage salinity through one or more of the following: subsurface drainage, use of soil amendments, or use of appropriate crops (salt-tolerant forage)?

☐ yes ☐ no ☐ na

20. Do you manage pasture access roads and trails to limit soil erosion?

☐ yes ☐ no ☐ na

Managing Irrigation on Pastureland

21. Do you control irrigation induced erosion?

☐ yes ☐ no ☐ na

22. Do you inspect and make repairs to your irrigation system at least annually?

☐ yes ☐ no ☐ na

23. Do you adjust your irrigation management for nutrient and pesticide applications?

☐ yes ☐ no ☐ na

24. Are you following an irrigation water management plan?

☐ yes ☐ no ☐ na

If you answered yes to all four questions, proceed to next section.

If you answered no to one or more questions, you may not be eligible for CSP.

If you are eligible for CSP at this time

Congratulations!

You have completed the self-assessment portion of the workbook. If you have concluded that you will likely qualify for CSP, you should now proceed with the pastureland screening tool and the record keeping portion of the workbook.

After completing the record keeping section, you will need to…

- ☐ Get a USDA Identification Number. If you have worked with USDA farm programs in the past, you most likely have a USDA Identification Number (also referred to as a SCIMS number). If you do not have a USDA Identification number, the process is very simple. Just contact your local NRCS office to set up a time to receive a number.

- ☐ Arrange an interview with NRCS to determine the CSP categories, sub-categories and tiers for your operation.

- ☐ Apply for CSP and submit your Conservation Stewardship Plan. Your plan will be submitted to the NRCS National Headquarters, where funding selections will be made. All applications in Category A will be funded first, followed by categories B, C, etc. until this year's funds for the program are depleted. You will be notified by mail once selections are made.

- ☐ Complete Your Conservation Stewardship Contract. If you are selected, you will also be contacted by your local NRCS office to finalize and sign your Conservation Stewardship Contract.

If you are not eligible for CSP at this time

If you evaluated your entire operation in the self-assessment and believe your operation is not eligible for CSP at this time, you may want to:

- Try the self-assessment again to identify a smaller portion of your land that may be eligible.

- Identify the remaining conservation work outlined in your conservation plan. If you don't have a conservation plan, contact your local NRCS office for help in developing one for your farm or ranch. To find out more about conservation planning see page 41.

- Look to other conservation programs (listed on pages 42 and 43) for assistance in implementing conservation practices that may help you become eligible in the future.

- Obtain technical assistance from your local NRCS office.

Conservation Records

Pasture and Rangeland Inventory

This section is designed to assist in preparing the documentation necessary to participate in the CSP program.

Livestock Inventory 14

Forage Inventory 16

Grazing System Plan 18

Grazing Records - Range 20

Grazing Records - Pasture 22

Pasture Nutrient Input 24

Pasture and Range Pest Management 26

Pasture Irrigation Management 28

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 *) 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.

Determining Animal Unit Equivalent	
Type of Livestock	***Animal Unit (au)***
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***
Livestock Type	***Number of Animals***	***Animal Unit Equivalent (aue)***	***Total AUs (multiply columns 2 & 3)***	***Months on Unit***	***Total AUMs Needed per year (Multiply column 4 by column 5)***
Pairs (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**
Total	**400**		**457 AUs**		*** 5,484 AUMs/year**

1. Livestock Inventory, Total AUMs Needed Worksheet

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

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**
Totals	**7,176.4**		**2,619.8 AUMs**	

2. Forage Inventory, Number of AUMs Available Worksheet

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

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						
Tract 523	1250 AUMs	Pairs	403 au							X	X	X			
Home Place	75 AUMs	Heifers	27	Fed Hay			X	X	X						
Fields 11, 15, 16	69	Heifers	27							X	X	X	Fed Hay		

3. Grazing Systems Plan Worksheet YEAR:

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

Grazing Records for Range

This worksheet will combine the information you have determined and developed in the last three worksheets. The following charts 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 "Full" use below).

Degree of Use	*Description*
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

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

AUMs Available (From Forage Inventory Worksheet 2): **660**

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

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
Totals							

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
Totals							

AUMs Available (From Forage Inventory Worksheet 2): _____

AUM Balance (AUMs Available - Total AUMs Column): _____

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

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

Additional Comments/Observations:

5. Grazing Record - Pasture

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

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

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

Forage Grown	*Field Number*	*Nutrient Source*	*Application Rate lbs/ac*	*Application Method and Date*	*Application Depth*	*Soil Test*
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:

_____

_____

_____

_____

6. Pasture Nutrient Input Worksheet

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

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: _____

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 Metho*d 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

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

7. Pasture and Range Pest Management Inputs Worksheet

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

Additional Comments/Observations: _____

_____

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

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

8. Pasture Irrigation Management Worksheet

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

Additional Comments/Observations: _____

Descriptions and Definitions as used in this Workbook

ABANDONED OR ACTIVE WATER WELLS A well that is abandoned cannot or will not be used for human or livestock water consumption, or is in such a state of disrepair that ground water can no longer be obtained from it.

Abandoned or active water wells may provide a direct link for contamination from surface water to ground water. Agricultural chemicals, livestock waste, and other contaminants can filter through an abandoned well and contaminate ground water supplies.

Abandoned or active water wells should be capped for future use or decommissioned. Well decommissioning is sealing and permanently closing a water well that is no longer in use. This practice applies to any drilled, dug, driven, bored, or otherwise constructed vertical water well determined to have no further beneficial use.

An active well is a hole drilled, dug, driven, bored, jetted or otherwise constructed to an aquifer to provide water for livestock, wildlife, irrigation, human, and other uses. Generally, wells provide for general water needs of farming/ranching operations and to facilitate proper use of vegetation on rangeland, pastures, and wildlife areas.

ACCESS ROAD An access road is a travel way to provide a safe, fixed route of travel for moving livestock, equipment, products and supplies. This practice applies to roads that provide access to farm or ranch headquarters.

ADDRESSED ANY RISKS WITH APPROPRIATE MEASURES Using management procedures and installing conservation practices that mitigate or minimize the potential negative impacts of using pesticides. Examples include scouting to identify localized weed infestation and treating spot areas, selecting reduced-risk chemicals, and using available biological controls.

AGRICULTURE OPERATION "Agricultural operation means agricultural land, and other lands determined by the NRCS Chief, under the control of the participant and operated with equipment, labor, accounting systems, and management that is substantially separate for any other unit." In delineating an agricultural operation, Farm Service Agency farm boundaries may be used. An applicant can aggregate farms into one contract, but only one application per sign-up period will be accepted.

APPLY ANIMAL MANURE OR WASTE The process of spreading animal feces, urine, and other material, such as bedding material and water, onto crop fields, pastures or rangeland. It also includes injecting liquid components (wastewater) of animal waste into the soil.

AVERAGE ADJUSTED GROSS INCOME To participate in CSP, your average adjusted gross income (AGI) for the 3 tax years immediately preceding the year the contract is approved cannot exceed $2.5 million. You may participate if your AGI exceeds $2.5 million and at least 75 percent of your AGI was derived from farming, ranching, or forestry operations. As defined in the 2002 Farm Bill, "average adjusted gross income" means the 3-year average of the adjusted gross income or comparable measure of the individual or entity over the 3 preceding tax years, as determined by the Secretary. The 3 preceding tax years would be the 3 years before the year for which the benefits are being requested.

CLASSIC GULLY Erosion caused by the action of runoff water in concentrated flow channels. These flow channels are well-defined, permanent drainage ways that cannot be crossed by ordinary farming operations.

CONSERVATION RESERVE PROGRAM A voluntary program for agricultural landowners. Participants receive annual rental payments and cost-share assistance to establish long-term, resource conserving covers on eligible land. More information about CRP is available at: http://www.nrcs.usda.gov/programs/crp/

CONSIDERED CROPLAND Also see cropland definition. Land that is in cropland, or set aside for cropland. It may be in hayland as part of a long-term rotation.

CONTOUR BUFFER STRIPS Strips of perennial vegetation alternated down the slope with cultivated strips that are farmed on the contour. Contour buffer strips usually are narrower than the cultivated strips. Vegetation in strips consists of grasses or a mixture of grasses and legumes.

CONTROL OF SOME OR ALL OF THE LAND YOU MANAGE The CSP participant does not need to own eligible land, but must demonstrate control of the land for the life of the CSP contract through ownership, a lease, or proof of a long-standing relationship as determined by NRCS. If the applicant is a tenant, the applicant must provide NRCS with the written evidence or assurance of control from the landowner.

COVER Establishing and maintaining vegetation or mulch to protect soil and water resources. Cover may be permanent or temporary.

COVER CROP Grasses, legumes, forbs, or other herbaceous plants established for seasonal cover and conservation purposes. Examples include erosion control, nutrient cycling, carbon addition, wildlife habitat, and moisture regulation.

CROPLAND (INCLUDING HAYLAND), VINEYARDS, OR ORCHARDS A land cover/use category that includes areas used for the production of adapted crops for harvest. Two subcategories of cropland are recognized: cultivated and noncultivated. Cultivated land is row crops or close-grown crops and hayland or pastureland that is in a rotation with row or close-

grown crops. Noncultivated cropland includes permanent hayland and horticultural cropland. Some categories and sub-categories are:

- Row crops: Cultivated cropland comprising land in row crops, such as corn, soybeans, peanuts, potatoes, sorghum, sugar beets, sunflowers, tobacco, vegetables, and cotton.
- Hayland: Cropland managed for the production of forage crops that are machine harvested. These crops may be grasses, legumes, or a combination. Hayland also includes land in set-aside or other short-term agricultural programs.
- Horticultural cropland: Cropland used for growing fruit, nut, berry, vineyard, and other bush fruit and similar crops. Commercial flower operations, including bulb and seed production, ornamental cutting, and sales, are included.
- Close grown crops: Crops generally drill-seeded or broadcast, such as wheat, oats, rice, barley, and flax.
- Fallow: Cropland which has been left idle, either tilled or untilled, during the whole or greater portion of the growing season.

CROP SELECTION Selection of salt tolerant crops can help produce satisfactory yields under saline conditions. The use of special management practices to minimize salinity can also favor crop growth.

DEEP TILLAGE Performing tillage operations below the normal tillage depth to modify the physical or chemical properties of a soil; may be used to address a salinity problem. More information about salinity in agriculture is available from the NRCS National Water and Climate Center at: http://www.wcc.nrcs.usda.gov/salinity/.

DIRECT CONDUITS Channels for unimpeded flow of unfiltered contaminants to ground water. Unprotected wells, drainage wells, and sinkholes can act as direct conduits to ground water.

ENROLLED The acres or area in question shall be considered enrolled in a conservation program at the time funds have been committed, a “tentative acceptance” letter has been sent to the participant, and the participant has indicated an interest to continue in the program.

ENVIRONMENTAL RISKS OF PESTICIDE USE The process that analyzes soil characteristics, pesticide properties (toxicity, solubility, affinity for soil organic matter), management factors (pesticide timing, application rate, tillage type, method, form) and climate to evaluate the risks associated with pesticide use.

EPHEMERAL EROSION Erosion that occurs from the action of runoff water which concentrates in shallow flow channels when rills converge. These flow channels are obliterated or masked when filled with soil by tillage operations and re-formed in the same general location by subsequent runoff events.

FARMSTEADS, HEADQUARTERS, OR LIVESTOCK FEEDING AND HANDLING AREAS
Dwellings, outbuildings, barns, pens, corrals, confined livestock areas, and feeding and handling areas.

FORAGE AND ANIMAL BALANCE The total amount of available grazing forage and the addition of any roughage supply (hay, silage, green chop, etc.) balanced with the amount to be consumed by the total number of livestock and wildlife to meet their daily consumption needs.

GRASSLAND RESERVE PROGRAM A voluntary program that helps landowners and operators restore and protect grassland, including rangeland, and pastureland, and certain other lands, while maintaining the areas as grazing lands. The program emphasizes support for grazing operations, plant and animal biodiversity, and grassland and land containing shrubs and forbs under the greatest threat of conversion.
More information on GRP is available at: http://www.nrcs.usda.gov/programs/GRP/

GRAZING PLAN Involves managing the controlled harvest of vegetation with grazing animals, including:

- Selecting kinds of domestic animals suited to the terrain, climate and other existing grazing area conditions
- Optimizing grazing distribution through placement of watering facilities, fences, or herding techniques
- Identifying periods of grazing, rest, and other treatment for each management unit
- Identifying and maintaining adequate cover on sensitive areas (riparian, wetland, and other habitats of concern)
- Not negatively impacting any cultural resource or sensitive species
- Identifying and monitoring key areas and key plants to evaluate grazing management decisions

See Conservation Practice Sheet for Prescribed Grazing.

GREEN MANURE CROP Close-growing crops that provide soil protection, seeding protection, and soil improvement between periods of normal crop production, and are incorporated into the soil.

GROUND WATER RECHARGE AREAS Places on the land where precipitation or surface water percolates through the soil to an underground bed or layer of earth, gravel, or porous stone that stores and yields water. Ground water flows in permeable geologic formations called aquifers, which are natural zones beneath the Earth's surface that often yield economically important amounts of water.

HAY/PASTURE IN ROTATION Rotating long-term stands of hay or pasture with annual row crops for more than 2 years. This practice may be applied as part of a conservation management system to support one or more of the following: reduce soil erosion from wind; reduce sheet and rill erosion; maintain or improve soil organic matter; manage the balance of plant nutrients; improve water use efficiency; manage saline seeps; manage plant pests (weeds, insects, and diseases); provide food for domestic livestock; provide food and cover for wildlife.

HAYLAND See cropland. Includes permanent hayland and hayland as part of a long-term rotation. For the CSP self-assessment, hayland is included as a cropland land use. Pasture that is not cultivated, but is mowed for hay is addressed as a pastureland land use.

HIGH RESIDUE CROPS Crops that produce and leave high levels (more than 3,000 pounds per acre) of biomass in the field after crop harvest. High residue crops can include corn, small grains, hay, and other crops expected to produce adequate crop residue for soil improvement and protection from erosion. The crop aftermath is left to protect the soil.

HIGHLY ERODIBLE LAND AND WETLAND CONSERVATION PROVISIONS OF THE 1985 FARM BILL The Food Security Act of 1985, as amended, requires that all persons that produce agriculture commodities must protect all cropland classified as being highly erodible from excessive erosion. The provisions have been amended in the 1990, 1996, and 2002 Farm Bills. The purpose of these provisions is to remove the incentive to produce annually tilled agricultural commodity crops on highly erodible land (HEL) unless the HEL cropland is protected from excessive soil erosion. http://www.nrcs.usda.gov/programs/helc/

HYDROLOGICALLY-ACTIVE AREAS Areas such as sinkholes, wellheads, and rapidly permeable soil areas with direct access to ground water recharge areas or ground water.

IRRIGATION INDUCED EROSION The flow of irrigation water which causes soil erosion, which removes topsoil and organic material needed to maintain or improve soil condition.

IRRIGATION WATER MANAGEMENT The process of determining and controlling the volume, frequency, and application rate of irrigation water in a planned, efficient manner. An irrigation water management plan can include:

- records of irrigation dates and irrigation amounts applied relative to the crop growth stage
- monitoring soil moisture, using techniques such as gypsum block, tensiometer, or other technology
- using irrigation scheduling techniques, such as checkbook, evaporation pan, local climatic network, or similar technique
- matching your crop production goals, crop variety, and planting dates to available water supply or projections

- adjusting the timing, rate, and duration of water application to meet the crop needs
- adjusting your irrigation management for nutrient and pesticide applications
- using a tailwater recovery system
- inspecting and making repairs to your irrigation system at least annually

See Conservation Practice Sheet for Irrigation Water Management.

KARST TOPOGRAPHY Limestone areas with a topography peculiar to and dependent upon underground waters or solutions and that direct surface waters to underground routes.

LIVESTOCK CONCENTRATION AREAS Livestock in a confined area, such as a feedlot or drylot, and given supplemental feed for all of their nutritional needs.

MANAGING LIVESTOCK ACCESS Managing or limiting access of livestock to streams, ponds, surface waters, and waterways to prevent degradation of the streambank through activities such as the use of livestock access ramps or points, limiting use of riparian pastures, or use exclusion.

See Conservation Practice Sheet for Use Exclusion.

MANURE HANDLING AND FEED HANDLING AREAS Manure handling areas are areas where manure is loaded or moved for transport or storage. Feed handling areas are areas where foodstuffs for cattle are stored and transported for distribution. These areas are generally at a farm headquarters location.

MANURE STORAGE OR TRANSFER FACILITIES Areas designed to store or transfer livestock manure. Livestock waste includes manure that may also contain bedding, spilled feed, water, or soil. It also can include wastes not particularly associated with manure, such as milking center or washing wastes, and milk, hair, feathers, or other debris. The manure storage area includes, but is not limited to, lagoons, runoff ponds, storage sheds, stockpiles, under house or pit storages, liquid impoundments, and composting piles.

MIXING AND LOADING AREAS Areas for pesticide or fertilizer mixing and loading.

NO-TILL, STRIP-TILL, DIRECT SEEDING, OR MULCH-TILL Managing the amount, orientation, and distribution of crop and other plant residues on the soil surface year-round, while growing crops in narrow slots, or tilled or residue-free strips in soil previously untilled by full-width inversion implements. The soil is left undisturbed from harvest to planting, except for nutrient injection. Seeds are placed in a narrow seedbed or slot made by coulter(s), row cleaners, disk openers, in-row chisels, or rototillers, where no more than one third of the row width is disturbed. Weeds are controlled primarily with herbicides. Row cultivation for emergency weed control utilizes undercutting implements that minimize residue burial.

NOXIOUS WEEDS Plant species that have been designated "noxious" by law. The word "noxious" means harmful.

NUTRIENT MANAGEMENT Accounts for the amount, source, timing, and method of applying nutrients to a growing crop. Regular soil testing, which estimates the availability of nutrients to plants, is necessary to monitor the balance of phosphorus, potassium, and other nutrients over the crop rotation. Plant tissue analysis compliments soil testing by measuring the nutrients actually taken up by the plant.

See Conservation Practice Sheet for Nutrient Management.

PAM Water-soluble anionic polyacrylamide (PAM) applied to soils in irrigation water to control soil losses from furrows. The polymers in PAM help give the surface soils more stability. PAM is an environmentally safe industrial flocculent.

PASTURELAND Land managed primarily for the production of introduced forage plants. Pastureland cover may consist of a single species, a grass mixture, or a grass-legume mixture. Management usually consists of cultural treatments, such as fertilization, weed control, reseeding, or renovation, and prescribed grazing.

PERENNIAL COVER Grasses, forbs, and legumes maintained as ground cover to protect soil year round. Perennial species live through more than two growing seasons. Biannual crops (some clovers) have a two-year growth cycle.

PEST CONTROL METHODS Include consideration of both the environmental and human health impacts. There are a number of effective methods that, when used properly, reduce pest populations to economically acceptable levels, including pesticides and biological and cultural techniques.

PEST MANAGEMENT Using environmentally sensitive prevention, avoidance, monitoring, and suppression strategies to manage weeds, insects, diseases, animals, and other organisms (including invasive and non-invasive species) that directly or indirectly cause damage or annoyance. A pest management plan can include: rate, method, timing, risk assessment, integrated pest management, appropriate mitigation, and record keeping.

See Conservation Practice Sheet for Pest Management.

PITLESS ADAPTER A special pipe fitting that fits on a well casing to provide a sanitary and frost-proof seal between the casing and the water line.

PLANT TISSUE TESTS Plant tissue analysis compliments soil testing by measuring the nutrients actually contained in the plant. Secondary nutrients and micronutrients not routinely measured in soil tests can be measured in plant tissue.

PRESCRIBED BURNING A carefully planned activity to safely apply fire to predetermined areas on rangeland, native pasture, pastureland, or hayland to obtain management objectives such as brush removal or to favor native or indigenous plants.

See Conservation Practice Sheet for Prescribed Burning.

PRIVATE AGRICULTURAL LAND To be eligible for enrollment in CSP, land must be private agricultural land (including cropland, grassland, prairie land, improved pasture land, and rangeland), land under the jurisdiction of an Indian tribe (43 U.S.C. 1601 et seq.), and forested land that is an incidental part of an agricultural operation.

PROPERLY DISPOSE OF LIVESTOCK MORTALITIES Treatment or disposal of livestock and poultry carcasses by off-the-farm animal mortality facilities or processes or by on-farm facilities.

PROTECT GROUND WATER Storing chemicals, gasoline, oil, etc. away from the wellhead and periodic inspection to protect ground water and maintain the condition where concentration criteria for a particular pollutant or limits on a condition (e.g., bad taste) are within tolerance, thereby allowing safe use of water by humans or animals.

RANGELAND Land on which the climax or potential plant cover is composed principally of native grasses, grass-like plants, forbs or shrubs suitable for grazing and browsing, and introduced forage species that are managed like rangeland. This would include areas where introduced hardy and persistent grasses, such as crested wheatgrass, are planted and practices, such as deferred grazing, burning, chaining, and rotational grazing, are used with little or no chemicals or fertilizer being applied. Grassland, savannas, many wetlands, some deserts, and tundra are considered rangeland. Certain low forb and shrub communities, such as mesquite, chaparral, mountain shrub, and pinyon-juniper, are also included as rangeland.

REDUCTION IN FALLOW More frequent cropping to reduce fallow periods and improve water uptake to address salt affected soils.

RESIDUE MANAGEMENT Managing the amount, orientation, and distribution of crop and other plant residues on the soil surface year-round, while growing crops.

RIPARIAN VEGETATION Ecosystems that occur along water courses or at the fringe of water bodies. Riparian cover consists of grasses, grasslike plants, forbs, trees, and shrubs.

See Conservation Practice Sheets for Riparian Forest Buffer or Riparian Herbaceous Buffer.

ROTATION Alternating crops in a planned sequence to provide diversity and crop residue needed for erosion control, soil conditioning, and pest management purposes.

SALINE AND SODIC SOILS Includes soils that have a sodium adsorption ratio (SAR) of values of 13 and greater. Salt is sufficiently high in concentration that crop yields are adversely effected. These soils may require amendment applications, as determined by soil testing, to replace adsorbed sodium with soluble calcium. Monitoring saline soils may be part of a soil salinity plan that includes management of land, water, and plants to control subsurface soil water movement and to minimize accumulations of salts on the soil surface and in the root zone of nonirrigated saline seep areas. For more information about salinity in agriculture, visit the NRCS National Water and Climate Center at: http://www.wcc.nrcs.usda.gov/salinity/.

SALINE SEEPS An area on the landscape where saline water leaches to the surface.

SALT TOLERANT CROPS Salt tolerance can change during the life cycle of a plant. Generally, sugar beets, cotton, barley, grapes, wheat, alfalfa, red clover, beans, and citrus are known for a level of salt tolerance.

SCOUTING Scouting, or monitoring pest populations, is part of an integrated pest management (IPM) system. IPM prescribes treating the portions of a farm or field that have identified higher than threshold levels of pests, rather than treating the whole field, resulting in using less applied farm chemicals.

SETBACKS FROM SURFACE WATERS A distance from gullies, ditches, streams, and rivers (surface water or direct conduits), within which manure, wastes, and pesticides should not be applied. The setback or buffer distance is based on slope, soils, vegetation, and sensitivity of the watershed.

SHARE IN THE RISK OF PRODUCING CROPS OR LIVESTOCK ON THIS OPERATION An owner, operator, landlord, tenant, or sharecropper who materially participates and shares in the risk of producing any crop or livestock; and is entitled to share in the crop or livestock available for marketing from a farm (or would have shared had the crop or livestock been produced).

SHEET AND RILL EROSION The wearing away of topsoil by raindrop impact that detaches and removes soil from one point on the earth's surface and deposit it elsewhere. Sheet erosion refers to the removal of a relatively uniform thin layer of soil from the land surface by rainfall and surface runoff. Rill erosion refers to the erosion process on sloping fields in which numerous and random small channels are formed by water; occurs mainly on recently cultivated soils.

SINKHOLES A surface opening that has direct connection to ground water.

SOIL AMENDMENTS The compounds added to correct saline-sodic soils, based on the amount of sodium in the soil related to the soil pH. Gypsum is the most commonly used soil amendment.

SOIL COMPACTION An increase in soil bulk density, and decrease in soil porosity, due to mechanical forces or livestock, which can limit root growth. In grazing terms, soil compaction is influenced by animal concentration and length of grazing period, as well as soil moisture and soil texture. If the soils are too moist during grazing periods, layers immediately below the surface can become compact and impede water and air infiltration, as well as root growth. Rotating or moving winter feeding areas helps prevent compaction.

SOIL MOISTURE MONITORING The process of applying irrigation water based on measuring soil moisture and the plant available water holding capacity of the soil.

SOIL TESTS A chemical, physical, or biological procedure that estimates the availability of nutrients to support plant growth. Generally, an analysis of nitrogen, phosphorous, and potassium is provided.

SOILS ARE WET Working or grazing wet soil tends to compress the soil particles so that they become more tightly packed, leaving less room for penetration of water and air. This also makes it more difficult for plant roots to move through the soil. Wet soils are more often a problem in fine textured soils. 'Fine textured soils' is a broad group of soils large quantities of silt, clay, and other fine particles.

STABILIZED OR TREATED Ephemeral erosion control practices can include the use of waterways, modified tillage, terraces, contour buffer strips, or a combination of appropriate practices. Classic gullies require additional grade stabilization. Grade stabilization may include a structure used to control the grade and head cutting in natural or artificial channels.

SUBSURFACE DRAINAGE Below-ground movement of water that may be diverted by conduits or impervious soil strata.

SURFACE WATERS All water occurring above ground. This includes wetlands, lakes, rivers, and streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or ponds.

TAILWATER RECOVERY SYSTEM A practice or group of practices installed to collect, store, and reuse irrigation water.

UNPROTECTED WELLS Old wells, improperly installed wells, and abandoned or active water wells that impact ground water. Runoff can carry contaminated water into low rising,

unprotected well openings. Well decommissioning is sealing and permanently closing a water well that is no longer in use. This practice applies to any drilled, dug, driven, bored, or otherwise constructed vertical water well determined to have no further beneficial use.

USED FOR CROP PRODUCTION Land that is planted or considered planted to an agricultural commodity 4 out of the last 6 years prior to May 13, 2002.

WASTE UTILIZATION Using agricultural waste, such as manure and wastewater or other organic residues, on land in an environmentally acceptable manner while maintaining or improving soil, water, air, plant, and animal resources.

WELL CASING Maintains the well opening and is generally steel or PVC in drilled wells. Well casing should extend to at least 1 foot above ground or above the 100-year flood level.

WELLHEADS That portion of the well that extends above ground level and offers a direct opening to ground water.

WETLANDS Areas inundated or saturated by surface or ground water at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated hydric soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

WETLANDS RESERVE PROGRAM A voluntary program that provides technical and financial assistance to eligible landowners to address wetland, wildlife habitat, soil, water, and related natural resource concerns on private lands in an environmentally beneficial and cost-effective manner. The program provides an opportunity for landowners to receive financial incentives to enhance wetlands in exchange for retiring marginal land from agriculture. More information on WRP is available at: http://www.nrcs.usda.gov/programs/wrp/

WIND EROSION The wearing away of topsoil by winds that abrade, detach, and remove soil from one point on the Earth's surface and deposit it elsewhere.

WRITTEN RECORDS OR DOCUMENTATION Field diaries and logs which may include names, rates, and dates of application of all fertilizers, manures, composts, and pesticides.

On range and pastures, this means keeping records on grazing rates, timing, and animal distribution to keep both livestock and forage plants healthy and to protect soil and water quality. Documentation needed to support such criteria may include (but would not be limited to):

- Grazing duration, frequency, timing and rest by management unit
- Hay harvest and yields
- Kind, type, size and number of grazing animals
- Site and production by management unit
- Weather and other climate information
- Monitoring sites information

Conservation planning can help you identify resource issues for treatment.

CONSERVATION PLAN
A conservation plan is record of the client's decisions for addressing natural resource concerns on a farm, ranch or other unit of land or water. The plan results from a decision making process that documents practices needed to meet producer objectives and the Field Office Technical Guide quality criteria for identified resource problems.

A conservation plan may operate on a number of levels, depending on the goals and commitment level of the land owner. The plan can outline ways to meet the required conservation treatments for a specific program or it may describe a situation where all natural resources of the land and water are being fully protected or even enhanced.

The Natural Resources Conservation Service (NRCS) provides conservation planning and technical assistance to clients (individuals, groups, and units of government). These clients develop and implement conservation plans to protect, conserve, and enhance natural resources (soil, water, air, plants, and animals) within their related social and economic interests.

The success of conservation planning and implementation depends upon the voluntary participation of clients. The planning process used by NRCS is based on the premise that clients will make and implement sound decisions if they understand their resources, natural resource problems and opportunities, and the effects of their decisions.

Conservation planning helps clients, conservationists, and others view the environment as a living system of which humans are an integral part. It enables clients and planners to analyze and work with complex natural processes in definable and measurable terms.

Developing a conservation plan for your farm or ranch is a key step in achieving your conservation objectives. A conservation plan will not only provide the foundation for your participation in the Conservation Security Program and other conservation programs but it can help you…

- Provide sustainability in natural resource management
- Receive funding through Farm Bill programs
- Save money through increased productivity
- Increase your property value
- Enhance open space and wildlife habitat
- Improve animal health
- Prevent off-farm impacts
- Improve plant health and vigor
- Promote good neighbor relations
- Compete for State and Federal cost-share programs
- Promote health and safety for your family

Conservation Programs and Assistance

Washington Natural Resources Conservation Service

The conservation programs described below may help in solving your resource concerns. For more information on these and other programs, check the web sites listed below for each program, visit NRCS at: http://www.nrcs.usda.gov/, or contact your local NRCS office.

Note:

- Producers can get cost-share assistance to plan and install conservation practices such as terraces, buffers, nutrient and pest management, irrigation water management, grazing management and wildlife habitat management through programs such as EQIP and AMA.

- Assistance is available to help producers with buffers, filter strips, windbreaks to control runoff into streams and to provide wildlife habitat through WHIP, and the Continuous CRP, EQIP and AMA.

- Assistance is available to help producers develop and enhance habitat for fish and wildlife on private lands. WHIP provides technical and financial assistance to landowners and others to develop upland, wetland, riparian, and aquatic habitat areas on their property.

- The Wetlands Reserve Program (WRP) is designed to provide technical and financial assistance to landowners interested in restoring converted cropland back into wetlands. The goal of the program is to restore wildlife habitat and improve water quality.

- The Grassland Reserve Program (GRP) is a voluntary program offering landowners the opportunity to protect, restore, and enhance grasslands on their property.

Agricultural Management Assistance (AMA): **AMA** provides cost-share assistance to agricultural producers for constructing or improving water management structures or irrigation structures; planting trees for windbreaks or to improve water quality; and mitigating risk through production diversification or resource conservation practices, including soil erosion control, integrated pest management, or transition to organic farming. http://www.nrcs.usda.gov/programs/ama/

Conservation Technical Assistance (CTA): **CTA** provides free technical assistance to help farmers and ranchers identify and solve natural resource problems on their farms and ranches. This might come as advice and counsel, through the design and implementation of a practice or treatment or as part of an active conservation plan. This is provided through your local Conservation District and NRCS. http://www.nrcs.usda.gov/programs/cta/

Conservation Reserve Program (CRP): **CRP** is a land retirement program for blocks of land or strips of land that protect the soil and water resource, such as buffers and grassed waterways. http://www.nrcs.usda.gov/programs/crp/

Environmental Quality Incentives Program (EQIP): **EQIP** offers cost-share and incentive payments and technical help to assist eligible participants install or implement structural and management practices on eligible agricultural land. http://www.nrcs.usda.gov/programs/eqip/

Wildlife Habitat Incentive Program (WHIP): **WHIP** is a voluntary program for people who want to develop and improve wildlife habitat primarily on private land. Cost-share payments for construction or re-establishment of wetlands may be included. http://www.nrcs.usda.gov/programs/whip/

Wetlands Reserve Program (WRP): **WRP** is a voluntary program offering landowners the opportunity to protect, restore, and enhance wetlands on their property. Easements and restoration payments are offered as part of the program. http://www.nrcs.usda.gov/programs/wrp/

IRRIGATION WATER MANAGEMENT Practice Code 449

DEFINITION Irrigation water management includes determining and controlling the rate, amount, and timing of irrigation water in a planned and efficient manner.

PRACTICE INFORMATION The purpose of this practice is to effectively use available irrigation water in managing and controlling the moisture environment of crops and other vegetation. The objectives are to promote a desired response, minimize soil erosion, minimize loss of plant nutrients, and protect both the quantity and quality of water resources.

This practice is applicable to all areas that are suitable for irrigation and have a water supply of suitable quality and quantity. In addition, a suitable irrigation system must be available and the irrigator needs to have the knowledge and capability to manage irrigation water. The following knowledge is required to properly manage irrigation water:

1. How to determine when to apply water based on the rate of use by the crops at various stages of growth
2. How to measure or estimate the amount of water required for each irrigation
3. The time needed for the soil to absorb the required amount of water
4. How to detect changes in intake rate
5. How and when to adjust stream size, application rate, and irrigation time to compensate for changes in the soil or topography that effect intake rate
6. How to recognize erosion caused by irrigation
7. How to evaluate the uniformity of water application

Evaluating the efficiency of applying irrigation water is expensive and time consuming. Therefore, the physical irrigation system and the technician's evaluation of the irrigators knowledge is acceptable in determining whether or not good irrigation water management is being practiced

Additional information, including standards and specifications, is available in the local NRCS Field Office Technical Guide; see practice 449.

NUTRIENT MANAGEMENT Practice Code 590

DEFINITION Nutrient Management involves managing the amount, form, placement, and timing of plant nutrients to obtain optimum yields and minimize the risk of surface and groundwater pollution.

PRACTICE INFORMATION Nutrient management may be used on any area of land where plant nutrients are applied to enhance yields and maintain or improve the chemical and biological condition of the soil. The source of plant nutrients may be from organic wastes, commercial fertilizer, legumes, or crop residue. The objective is to apply the proper amount of nutrients at the proper time to achieve the desired yield and minimize entry of nutrients into surface or groundwater supplies.

Planning nutrient management includes the following considerations:

1. National, State, and local water quality standards
2. Sources and forms of plant nutrients available to the farmer
3. Amounts and timing of nutrients based on soil testing, planned yield, and growing season of target plants
4. Evaluating use of crop rotations that enhance efficiency of nutrient utilization and improve soil tilth
5. Consideration of waste storage requirements and land area requirements for proper management of plant nutrients

Additional information, including standards and specifications, is available in the local NRCS Field Office Technical Guide; see practice 590.

PEST MANAGEMENT Practice Code 595

DEFINITION Pest management involves managing weeds, insects, and diseases to reduce adverse effects on plant growth, crop production and natural resources.

PRACTICE INFORMATION This practice establishes the minimum acceptable elements of a pest management program. It includes appropriate cultural, biological, and chemical controls and combinations thereof.

The purpose of the practice is to establish a pest management program that is consistent with crop production goals and environmental concerns.

The following are major considerations regarding the pest management practice:

1. Use integrated pest management principles to assure the techniques are environmentally sound
2. Use crop rotations to break up pest cycles
3. Use hand weeding or spot treatment when appropriate
4. Use biological control and beneficial insects
5. Scout fields and apply chemicals at the correct time and dose rate
6. Consider the effects of repetitive use of the same chemicals on pesticide resistance
7. Control erosion to reduce runoff and associated pollution
8. Use field borders and buffer strips to reduce potential for pollution from runoff
9. Become familiar with common pests, including life cycles, and learn alternative control techniques
10. Use chemicals safely
11. Always follow label instructions
12. Use extreme care in preparing tank mixes and rinsing chemicals from tanks
13. Assure farm workers are properly trained in safety precautions

Additional information, including standards and specifications, is available in the local NRCS Field Office Technical Guide; see practice 595.

PRESCRIBED BURNING Practice Code 338

DEFINITION Prescribed burning is applying controlled fire to a predetermined area of land.

PRACTICE INFORMATION This practice applies to all land uses for the following purposes:

- Controlling undesirable vegetation
- Preparing sites for planting or seeding
- Controlling plant diseases
- Reducing wildfire hazards
- Improving wildlife habitat
- Improving forage quantity and quality
- Removing slash and debris following forest management activities
- Enhancing seed and seedling production
- Facilitating distribution of grazing and browsing animals

Safety precautions are carefully planned before the burn and monitored during the burn. Existing barriers, such as streams, lakes, roads, wetlands, and constructed firebreaks, are important considerations in planning the practice.

This is a highly specialized practice that requires intensive training and sufficient support personnel and equipment. A safe, successful burn must be timed for proper humidity, wind conditions, air temperature, and fuel conditions (ignitable vegetation).

Additional information, including standards and specifications, is available in the local NRCS Field Office Technical Guide; see practice 338.

PRESCRIBED GRAZING Practice Code 528

DEFINITION Prescribed grazing is the controlled harvest of vegetation with grazing animals, managed with the intent to achieve a specific objective.

PRACTICE INFORMATION This practice may be applied on all lands where grazing or browsing animals are managed. Removal of herbage by the grazing animals is in accordance with production limitations, plant sensitivities, and management goals. Frequency of defoliations and season of grazing are based on the rate of growth and physiological condition of the plants. Duration and intensity of grazing are based on desired plant health and expected productivity of the forage species to meet management objectives. In all cases, enough vegetation is left to prevent accelerated soil erosion.

Application of this practice will manipulate the intensity, frequency, duration, and season of grazing to:

1. Improve water infiltration
2. Maintain or improve riparian and upland area vegetation
3. Protect streambanks from erosion
4. Manage for deposition of fecal material away from water bodies
5. Promote ecological and economically stable plant communities which meet landowner objectives

A prescribed grazing schedule will be prepared for all fields and pastures and recorded in a manner that is readily understood and usable by the decision maker. The grazing schedule should include the following information:

1. Expected forage quality and quantity for all lands providing forage
2. Numbers and kinds of animals using available forage on the unit
3. Inventory of all sources of forage and supplemental feed, including documentation of surpluses and deficiencies
4. A planned grazing schedule for livestock showing periods of grazing, rest, and other activities for all fields and pastures included in the grazing plan
5. A contingency plan that details potential climatic problems and a guide for adjusting to ensure proper management of forage resources

Additional information, including standards and specifications, is available in the local NRCS Field Office Technical Guide; see practice 528.

RIPARIAN FOREST BUFFER — Practice Code 391

DEFINITION A riparian forest buffer is an area of trees and/or shrubs adjacent to a body of water. The vegetation extends outward from the water body for a specified distance necessary to provide a minimum level of protection and/or enhancement.

PRACTICE INFORMATION This practice applies to areas adjacent to permanent or intermittent streams, lakes, ponds, wetlands, and areas associated with ground water recharge.

The riparian forest buffer is a multipurpose practice designed to accomplish one or more of the following:

1. Create shade to lower water temperatures and improve habitat for aquatic animals
2. Provide a source of debris necessary for healthy, robust populations of aquatic organisms and wildlife
3. Act as a buffer to filter out sediment, organic material, fertilizer, pesticides, and other pollutants that may adversely impact the water body, including shallow ground water

Dominant vegetation consists of existing or planted trees and shrubs suited to the site and purposes of the practice. Grasses and forbs that come in naturally further enhance the wildlife habitat and filtering effect of the practice.

Headcuts and streambank erosion should be assessed and treated appropriately before establishing the riparian forest buffer.

Specifications for each installation are based on a thorough field investigation of each site.

Additional information, including standards and specifications, is available in the local NRCS Field Office Technical Guide; see practice 391; for herbaceous buffers, see practice code 390.

USE EXCLUSION — Practice Code 472

DEFINITION Use exclusion means excluding animals, people, or vehicles from an area.

PRACTICE INFORMATION The purpose of use exclusion is to protect, maintain, or improve the quantity and quality of the natural resources in an area. The purpose includes aesthetic resources, as well as human health and safety.

The practice is used in a conservation plan in areas where vegetation establishment or maintenance is a concern. Protecting the vegetation is often essential to conserving the other natural resources.

The barriers constructed for use exclusion must be adequate to prevent intrusion of the target animals, vehicles, or people. The barriers usually are fences, but also may be natural and artificial structures, such as logs, boulders, earth fill, gates, signs, etc.

Additional information, including standards and specifications, is available in the local NRCS Field Office Technical Guide; see practice 472.

WASTE UTILIZATION Practice Code 633

DEFINITION Waste utilization includes applying agricultural waste or other waste on the land in an environmentally acceptable manner while maintaining or improving the natural resources.

PRACTICE INFORMATION This practice may be used on any land suitable for application of waste as a fertilizer. This includes waste from barnyards, feedlots, dairy operations, and other agricultural sources. The waste material also may come from municipal treatment plants and food processing plants.

The purposes of applying this practice include the following:

1. Provide safe disposal of waste material
2. Provide fertility for food and fiber production
3. Improve soil tilth and fertility
4. Reduce erosion
5. Protect water and other natural resources

Additional information, including standards and specifications, is available in the local NRCS Field Office Technical Guide; see practice 633.

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."