

Conservation Security Program

Cropland and Hayland

Self Assessment and Records Workbook



Name: _____

Farm/Ranch: _____



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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

About This Workbook

Washington Natural Resources Conservation Service



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-assessment for each applicable land use

Complete the records document

Apply for CSP

More 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.

Determine Initial Eligibility

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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 29 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.

Land Eligibility



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.



Cropland (including Hayland), Vineyards, or Orchards

These questions help determine if the non-irrigated and irrigated cropland, hayland, vineyards, or orchards you wish to enroll in CSP meets basic program requirements. Each question pertains to the land you wish to enroll in CSP. Mark “na” if the question is not applicable.

Managing Fertilizers and Nutrients on Cropland, Vineyards, or Orchards

1. Do you keep written records or documentation of your nutrient management activities for each field, such as yields, soil analysis, plant tissue analysis, and nutrients applied – including animal waste?
 yes no na

2. Are you managing nutrients (for example, adding supplemental nitrogen) by following a nutrient management plan or schedule that budgets nutrients based on soil and crop needs, and environmental risk?
 yes no na

3. Do you conduct soil tests and/or plant tissue tests?
 yes no na

4. If you have abandoned or active water wells in your cropland, orchard, or vineyard, have you taken adequate steps to protect ground water?
 yes no na

5. 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, ground water recharge areas, wetlands and wellheads)?
 yes no na

6. If cropland, vineyards, or orchards are grazed, are you managing livestock access to rivers, streams, and other surface water?
 yes no na

Land Use Self-Assessment

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7. If cropland, vineyards, or orchards are grazed, 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

8. If cropland, vineyards, or orchards are grazed, are livestock prevented from direct access to sinkholes, unprotected wells, or other direct conduits to ground water?

yes no na

Managing Pests on Cropland, Vineyards, or Orchards

9. Do you keep written records or documentation of your pesticide application and pest control methods for each field?

yes no na

10. Are you following a pest management plan or schedule that includes, as needed, insects, invasive species, and weeds?

yes no na

11. Are you scouting for pests and using the information as a basis for applying pesticides?

yes no na

12. Have you assessed the environmental risks of pesticide use on your cropland, vineyards, or orchards and addressed any risks with appropriate measures?

yes no na



Managing Crops and Soil on Cropland, Vineyards, or Orchards

13. Do you grow high residue crops at least 1 in 3 years in rotation, apply a mulch, use a cover crop annually, and/or have hay/pasture in rotation?

yes no na

14. Do you maintain cover between the rows of your vineyards or orchards?

yes no na

15. Do you include any of the following in your crop rotation:

- No-till, strip-till, direct seeding, or mulch-till
- Perennial sod or hay in rotation
- Add organic soil amendments such as manure or compost
- Grow cover and green manure crops to add biomass to the soil
- If none of the above, do your soil tests indicate an increase in organic matter?

yes no na

16. Do you avoid operating equipment in your cropland, vineyards, or orchards when soils are wet to reduce soil compaction?

yes no na

17. Are sheet and rill erosion controlled?

yes no na

18. Is wind erosion controlled?

yes no na

19. Have you stabilized or treated ephemeral erosion or classic gullies on your operation?

yes no na



Managing Irrigation on Cropland, Vineyards, or Orchards

20. Do you inspect and make repairs to your irrigation system at least annually?
- yes no na
21. Do you keep records of irrigation dates and irrigation amounts applied relative to the crop growth stage?
- yes no na
22. Do you adjust your irrigation management for nutrient and pesticide applications?
- yes no na
23. Do you control irrigation induced erosion, by using a cover crop, perennial cover, poly acrylamide (PAM), residue management, or irrigation water management?
- yes no na
24. Are you following an irrigation water management plan?
- yes no na
-

This concludes the self-assessment portion of the land eligibility requirements. If you answered any of the above 24 questions “NO” you may not be eligible for CSP at this time.

If you are eligible at this time

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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 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 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

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

Crop Rotation and Management	Records 14
Crop and Residue Management	Records 16
Cultivation and Field Operations	Records 18
Typical Field Operations	Records 20
Crop Fertilizer Input	Records 22
Pest Management Input	Records 24
Irrigation Management	Records 26

Crop and Hay Land Inventory

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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	Winter Wheat				
695	5, 6, & 7	Alfalfa				Winter Wheat		Corn			
1311	1, 2, & 8	Winter Wheat	Spring Barley								

Additional Comments or Observations:

Crop and Hay Land Inventory

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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.

Estimated pounds of residue per unit of yield	
Crop	Pounds of residue per unit of yield
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

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

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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 20 and 21 you will find a list of typical tillage sequences to assist in the completion of the *Typical Operations for Crop* column. 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

Tract(s):	1778	Field(s):	1, 2, 3, 16, 20	
Crop Planted and Yield:	Potato 530 cwt., Winter Wheat 130 bu/acre	Previous Crop and Yield:	Alfalfa Hay 7 tons/acre	
Include information on operations such as: tillage, spray, irrigation, grazing, harvest, pest control ect.				
Date of Operation(s)	Typical Operation(s) for Crop	Comments on Operation(s)	Monthly Irrigation Dates	Irrigation Application
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

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Typical Field Operations

Aerator, field surface, ground driven
Aerial seeding
Bale straw or residue
Bed shaper
Bed shaper, 12 in
Bedder, hipper, disk hiller
Bedder, hipper, hiller 12 in high
Bedder, hipper, hiller 15 in high
Bedder, hipper, hiller 18 in high
Burn residue
Chisel, st. pt.
Chisel, st. pt. 12 in deep
Chisel, st. pt. 15 in deep
Chisel, sweep shovel
Chisel, twisted shovel
Cultipacker, roller
Cultivator, field 6-12 in sweeps
Cultivator, field w/ spike points
Cultivator, hipper, disk hiller on beds
Cultivator, off bar w/disk hillers on beds
Cultivator, row - 1st pass ridge till
Cultivator, row - 2nd pass ridge till
Cultivator, row 1 in ridge
Cultivator, row 3 in ridge
Cultivator, row, high residue
Disk, offset, heavy
Disk, offset, heavy 12 in depth
Disk, offset, heavy 15 in depth
Disk, tandem heavy primary op.
Disk, tandem light finishing
Disk, tandem secondary op.
Drill or air seeder single disk openers 7-10 in space.
Drill or air seeder, hoe opener in hvy residue
Drill or air seeder, hoe/chisel openers 6-12 in space.
Drill or air seeder, double disk
Drill or air seeder, double disk opener, w/ fertilizer openers
Drill or air seeder, double disk, w/ fluted coulters
Drill or air seeder, offset double disk openers
Drill, air seeder, sweep or band opener
Drill, deep furrow 12 to 18 in spacing
Drill, heavy, direct seed, double disk opener

Drill, heavy, direct seed, double disk opener w/row cleaners
Drill, semi-deep furrow 12 to 18 in spacing
Fertilizer application. anhyd knife 12 in
Fertilizer application. deep plmt hvy shank
Fertilizer application. surface broadcast
Fertilizer application, anhyd knife 30 in
Fertilizer application, strip-till 30 in
Furrow diker
Furrow shaper, torpedo
Graze, continuous
Graze, intensive rotational
Graze, rotational
Graze, stubble or residue
Harrow, coiled tine
Harrow, heavy
Harrow, rotary
Harrow, spike tooth
Harrow, tine, on beds
Harvest, grass or legume seed, leave forage
Harvest, grass seed, remove forage
Harvest, hay, grass
Harvest, hay, legume
Harvest, hay, no regrowth
Harvest, small grains, corn, peas, canola, mustard
Harvest, legume seed, remove forage
Harvest, root crops, digger
Harvest, silage
Harvest, snapper header
Harvest, stripper header
Knife, windrow dry beans
Land plane
Lister, 40 in
Manure injector
Manure spreader
Mower, swather, windrower
Mulch treader
Para-plow or para-till
Permeable weed barrier applicator
Planter, double disk opener
Planter, double disk opener w/fluted coulter
Planter, double disk opener, 18 in rows

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Typical Field Operations

Planter, in-row subsoiler
Planter, small veg seed
Planter, strip till
Planter, transplanter, vegetable
Planter, transplanter, vegetable, no-till
Planting, broadcast seeder
Plastic mulch applicator 100 percent cover
Plastic mulch applicator 40 percent cover
Plastic mulch applicator 75 percent cover
Plastic mulch, 05 percent removal
Plastic mulch, 10 percent removal
Plastic mulch, 25 percent removal
Plastic mulch, 50 percent removal
Plastic mulch, remove
Plow, disk
Plow, moldboard
Plow, moldboard, conservation
Plow, moldboard, up hill
Plow, reversible
Pruning
Rodweeder
Roller, corrugated packer
Roller, on beds
Roller, residue

Roller, smooth
Rotary hoe
Rototiller, field
Rototiller, field, add residue
Rototiller, row cult add residue
Rototiller, row cultivator
Seedbed finisher
Shredder, flail or rotary
Shredder, rotary, regrow veg
Shredder, rotary, remove residue
Sprayer, kill weeds, volunteer for reduced/no till
Sprayer, post emergence
Strip-tiller w/middlebuster on beds
Subsoiler
Subsoiler bedder (ripper/hipper)
Subsoiler ripper, 24 to 40 in. deep
Sweep plow 20-40 in wide
Sweep plow wider than 40 in w/mulch treader
Sweep plow, wider than 40 in
Water mulch; off
Water mulch; on

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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

Crop Grown	Field Number	Fertilizer Formula-tion	Application Rate lbs/ac	Application Method and Date	Application Depth	Soil Test
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

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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 Method* 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 pesticide 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

Crop Grown	Field Number	Target Pest	Suppression Method	Pesticide Application Rate	Date Applied	Broad-cast or Banded	Application Method
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

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Irrigation Management and System Description

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

The following information gives examples of irrigation descriptions needed and 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.

6. EXAMPLE: Irrigation Management and System Description Worksheet

Crop Grown	Tract Number	Field Numbers	Do you measure or monitor your water? If yes, explain	Irrigation System Description	Irrigation Dates
Alfalfa & Potatoes	696	5 & 6	Tensiometer	100 acre Center Pivot	5/15 - 8/20
Winter Wheat/ Corn	695	7	Hand feel method for moisture testing	15,000 ft of dirt ditch, 300 1.25 inch siphon	5/1 - 7/1



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,

Glossary of Terms



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 Wetland 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 Programs and Assistance cont.

Washington Natural Resources Conservation Service



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.

