

Conservation Security Program Significant Resource Concerns
 Minimum Treatment Requirements
 Lower Wind Watershed

Resource Concerns and Quality Criteria			
Natural Resource Concern	State Quality Criteria	Assessment Tools for Quality Criteria Evaluation	Evidence Quality Criteria is met for Conservation Security Program
Soil			
Soil Erosion - Sheet and Rill	Sheet and rill erosion does not exceed the Soil Loss Tolerance "T".	<ul style="list-style-type: none"> • Current erosion prediction tool 	For Cropland and Hayland, calculated Sheet and Rill erosion is less than or equal to the Soil Loss Tolerance – T. <i>Not a significant resource concern on Rangeland and Pasture land.</i>
Soil Erosion - Wind	Wind erosion does not exceed the Soil Loss Tolerance "T" or, for plant damage, does not exceed Crop Damage Tolerances.	<ul style="list-style-type: none"> • Current Erosion prediction tool 	Calculated wind erosion of less than or equal to the Soil Loss Tolerance – T. <i>Not a significant resource concern on Rangeland and Pasture land.</i>
Soil Erosion – Irrigation-induced	Sprinkler application rates and furrow irrigation flow rates are within values recommended in the National Irrigation Guide.	<ul style="list-style-type: none"> • National Irrigation Guides • IWM Index • Producer Yield Records • Producer Tillage Records • Producer Irrigation Records • RUSLE2 • WEQ • Soil Conditioning Index 	For Irrigated Cropland and Hayland, an Irrigation Water Management Rating Index equal to or greater than 50 <u>and</u> a positive (greater or equal to zero) Soil Conditioning Index (SCI). <i>Not a significant resource concern on Rangeland or Pasture land.</i>
Soil Condition (Soil Quality) – All types	See the specific Soil Condition resource concerns for Organic Matter Depletion, Compaction, Subsidence, etc.	<ul style="list-style-type: none"> • Producer Records • RUSLE2 • WEQ • Soil Conditioning Index 	For Cropland and Hayland, a positive (greater or equal to zero) Soil Conditioning Index (SCI). On Rangeland and Pasture land, a grazing management plan is implemented.

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WATER			
Water Quantity – All Types	See the specific Water Quantity resource concerns for Inefficient Water Use on Irrigated Land and Aquifer Overdraft.	<ul style="list-style-type: none"> • IWM Index • Client Records 	<p>On irrigated Cropland, Pasture land or Hay land, an Irrigation Water Management Rating Index equal to or greater than 50.</p> <p><i>Not a significant resource concern on “Limited Control Flood Irrigation” Pasture or Hayland. <u>1</u></i></p> <p><i>Not a significant resource concern on Rangeland.</i></p>
Water Quality on Rangeland and Pasture land– All Types	See the specific Water Quality resource concerns for Nutrients and Organics and Excessive Suspended Sediment and Turbidity	<ul style="list-style-type: none"> • Visual assessment • Client Records 	<p>Livestock access to perennial streams is managed through one or more of the following:</p> <ul style="list-style-type: none"> - Utilize a rotational grazing plan that minimizes continuous or season-long grazing of pastures that contain streams or other surface water. - Utilize water gaps that limit livestock access - Exclude or minimize livestock use of streams through fencing or herding. - Minimize livestock use of streams by having dependable off-stream water facilities at distances of between 100 to 1000 yards from the stream. <p>AND</p> <p><u>If</u> commercial fertilizer, manure, or pesticides are applied, the <i>Water Quality Eligibility Criteria for Grazing Lands</i> must be met.</p>
Water Quality - Harmful Levels of Pesticides in Groundwater	Pesticides are applied, stored, handled, disposed of, and managed so that groundwater uses are not adversely affected	<ul style="list-style-type: none"> • Water Quality Index Tool • Pesticide Application Records 	On Cropland and Hayland, a passing Water Quality Index tool score for <i>Pesticides – Groundwater</i> , <u>and</u> abandoned or inactive wells are capped or decommissioned.
Water Quality - Excessive Nutrients and Organics in Groundwater	Nutrients and organics are stored, handled, disposed of, and applied such that groundwater uses are not adversely affected.	<ul style="list-style-type: none"> • Water Quality Index Tool • Nutrient and Manure Application Records 	On Cropland and Hayland, a passing Water Quality Index tool scores for <i>Phosphorus – Groundwater & Nitrogen – Groundwater</i> , and abandoned or inactive wells are capped or decommissioned.

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WATER			
Water Quality - Harmful Levels of Pesticides in Surface Water	Pesticides are applied, stored, handled, disposed of, and managed such that surface water uses are not adversely affected	<ul style="list-style-type: none"> • Water Quality Index Tool • Pesticide Application Records 	On Cropland and Hayland, a passing Water Quality Index tool score for <i>Pesticides – Surface water</i> .
Water Quality - Excessive Nutrients and Organics in Surface Water	Nutrients and organics are stored, handled, disposed of, and managed such that surface water uses are not adversely affected.	<ul style="list-style-type: none"> • Water Quality Index Tool • Nutrient and Manure Application Records 	On Cropland and Hayland, passing Water Quality Index tool scores for <i>Phosphorus – Surface water & Nitrogen – Surface water</i> .
Water Quality - Excessive Suspended Sediment and Turbidity in Surface Water	Movement of mineral and organic particles is managed such that surface water uses are not adversely affected.	<ul style="list-style-type: none"> • Water Quality Index Tool • Client Records 	On Cropland and Hayland, passing Water Quality Index tool scores for <i>Sediment</i> .

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AIR			
NO SIGNIFICANT AIR RESOURCE CONCERNS IDENTIFIED IN THIS WATERSHED			

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PLANTS			
<p>Plant – Condition – Productivity, Health and Vigor</p>	<p>Cropland – A healthy, vigorous stand that meets the producer’s yield goals given the yield potential for the soil map unit. Organic matter percent is 50% of native condition or if less than 50%, organic matter is improving; determined by Electrical conductivity (EC) is below 4 MMHOS.</p> <p>Grazing land – Maintaining a rangeland plant community with a similarity index of 65% or more or having an upward trend for plant communities with a similarity index of less than 65% of the potential plant community. Pasture Inventory Worksheet rating of “Good” or Pasture Condition Score Sheet rating of “4” for all categories.</p> <p>Hayland – A healthy, vigorous stand of desired species that meets the producer’s yield goals given the yield potential for the species for the given forage suitability group.</p> <p>Forestland – Forest over story stocking levels are within 25% of the “D+X” spacing guide or equivalent for the particular site and stand composition; trees within the stand are uniformly distributed. Understory plant community is comprised of 50% or more, by weight, of expected species for the site and is proportionate with over story canopy. Bare mineral soil comprises 25% or less of ground surface area.</p>	<ul style="list-style-type: none"> • Client Records • Soil Conditioning Index • Visual assessment 	<p>For Cropland and Hayland, a positive (greater or equal to zero) Soil Conditioning Index (SCI).</p> <p>On Rangeland and Pasture land, a grazing management plan is implemented.</p>
<p>Plant Condition - Noxious and Invasive Plants</p>	<p>The site is managed to control noxious and invasive plants and to minimize their spread.</p>	<ul style="list-style-type: none"> • State or local noxious weed list • Client Records • Visual assessment 	<p>Noxious weeds are being actively controlled.</p>

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ANIMALS			
Fish and Wildlife – All Terrestrial Habitat Components	Wildlife Habitat Evaluation Guide index is 0.5 or higher	<ul style="list-style-type: none"> • Client Records • Soil, Water, Plant, & Air Quality Criteria • Land use maps • Visual assessment 	<p>All priority Soil, Water, & Plant Resource Concerns are treated to meet Quality Criteria <u>and, for cropland and hayland</u>, areas of permanent cover within ¼ mile and under the producer's control equals at least 2% of the cropland and hayland acreage.</p> <p>Permanent cover includes grazing lands, riparian areas, wetlands, ponds, lakes, streams, rivers, shelterbelts, irrigation ditches, roadsides, and vegetated odd areas.</p>
Fish and Wildlife- All Aquatic Habitat Components	Stream Visual Assessment Protocol score of 6.1 or higher	<ul style="list-style-type: none"> • Client Records • NRCS Stream Visual Assessment Protocol (SVAP), National Water and Climate Center Technical Note 99-1, utilizing the elements for: <ol style="list-style-type: none"> 1. Channel Condition 2. Hydrologic Alteration 3. Riparian Zone 4. Bank Stability 5. Barriers to Fish Movement 	<p>All Soil, Water, Plant, & Air Resource Concerns are treated to meet Quality Criteria; and naturally occurring seasonal* and perennial streams within the agricultural operation include natural vegetation, or a riparian forest or perennial herbaceous buffer that extends 2.5 times the channel width on either side of the stream or 33 feet, whichever is less; and for natural perennial streams a score of 6.1 or greater using the abbreviated version (the five elements identified under assessment tools) of SVAP.</p> <p>*A seasonal stream is a stream that contains water for only part of the year, but more than just during and/or after rainfall or snowmelt. Seasonal streams must have a defined stream channel and have a bed and a bank. Seasonal streams also have surface water in the channel, either flowing or contained in isolated pools, for extended time periods under normal climatic conditions. Surface water is expected to be present for at least 30 cumulative days per year.</p>

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**1/ Limited Control Flood Irrigation description for CSP
Lower Wind River Watershed
(October, 2005)**

The following description will be used for the 2006 Conservation Security Program on the Lower Wind River Watershed and lands outside the watershed incorporated into the program as portions of eligible operations within the watershed.

Some irrigated pasture and hayland, in the Lower Wind River Watershed and the South Fork of Owl Creek are irrigated by a form of flood irrigation that is here termed "Limited Control Flood Irrigation". Such systems fit the description of uncontrolled flood irrigation systems as described in the Wyoming Quality Criteria for the water quantity. These types of systems have also been referred to as "high mountain meadow" and "wild flood" irrigation systems.

Lands irrigated by these systems may be used as irrigated hayland or as irrigated pasture. Direct-flow diversions from streams provide irrigation water for the purpose of increasing forage production to fields adjacent to the streams. **However, not all flood irrigated hayland or pasture land are limited control systems.**

Land irrigated with a limited control flood irrigation system typically has the following conditions:

- Soils are alluvial, are typically porous and often are underlain by water bearing sands and gravels that facilitate rapid return of irrigation water to the stream when irrigation exceeds the water holding capacity of the upper soil profile
- consumptive use by the vegetation is only a relatively small portion of the water diverted from the stream with the excess water returning to the stream system
- in most cases, irrigated areas have not been cultivated; however the native grasses and forbs present have often been supplemented with improved forage species through interseeding or other methods
- a short growing season and cool temperatures limit the types of forages that can be grown.

It is widely thought that conversion of these areas to highly efficient irrigation systems may have detrimental effects to stream base flow, to the numerous wetland areas that are created and supported, and to the associated fish and wildlife. **Irrigation water quantity is not a significant resource concern on these lands.**