

## Conservation Implementation Strategy Project

# Rangeland and Riparian Health in the Eastern Grasslands of Custer County



### This Project At-A-Glance

#### Partners

Custer County Conservation District (CD)

USDA-Forest Service, Buffalo Gap National Grassland, Fall River District

Custer County Weed and Pest Department

**Funding** for this project is provided by the EQIP Program and partners with financial and in-kind contributions.

#### Contact:

Mike Baldwin  
Office Manager  
Custer Conservation District  
[custercd@sdconservation.net](mailto:custercd@sdconservation.net)  
(605) 673-5680

The Conservation Implementation Strategy (CIS) is a new phased-in approach to deliver conservation programs to farmers and ranchers across South Dakota. Funding for CIS comes through the Environmental Quality Incentives Program (EQIP) and the Agricultural Conservation Easement Program (ACEP). Funding and support from other agencies and groups can be leveraged and coordinated to focus on mutual issues of the highest priority.

#### Background

Plant communities and soil health have declined within the Middle Cheyenne-Spring Subbasin due to drought, flooding, and management. Through recent research and management, we have discovered we can enhance diversity of plant communities and soil health and thus crop and rangeland productivity by adjusting management practices. Changes in grazing patterns and managing livestock access to riparian areas can produce marked improvements in soil and plant health, soil erosion loss, and water quality.

Practices will be targeted for rangeland within priority drainages in the project area.

#### Goals

The overarching goal is to improve plant and soil health, water quality, and wildlife habitat, while reducing soil erosion on rangeland and riparian areas.

#### Desired Outcomes

Producers will be able to implement prescribed grazing plans that will improve grazing rotations and pasture resting times. This will be possible due to increased water delivery to underutilized pastures by installation of pipelines and storage tanks, use of cross-fences, and installation of livestock shelters. Water quality and soil erosion will also improve by restricting livestock access to riparian areas and installing stream crossings where livestock movements are necessary. Finally, an additional benefit of these actions will be improvements to wildlife habitat.

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**Resource Concerns:**

- Feed and forage balance – Feed and Forage quality or quantity is inadequate for nutritional needs and production goals of the kinds and classes of livestock.
- Inadequate livestock shelter – Livestock lack adequate shelter from climatic conditions to meet basic needs.
- Inadequate livestock water quantity, quality, and distribution – Quantity and quality of drinking water are insufficient to meet basic needs for the kind and class of livestock and improper distribution negatively impacts other resources.
- Plant productivity and health – Improper management negatively impacts plant productivity, vigor and/or quality.
- Plant structure and composition – Plant communities have insufficient composition and structure to achieve ecological functions and management objectives. This resource concern includes degradation of wetland habitat, targeted ecosystems, or unique plant communities.
- Plant pest pressure – Excessive pest damage to plants including that from undesired plants, diseases, animals, soil borne pathogens, and nematodes. This concern addresses invasive plant, animal, and insect species.

Secondary concerns are:

- Terrestrial habitat for wildlife and invertebrates – Quantity, quality or connectivity of food, cover, space, shelter and/or water is inadequate to meet requirements of identified terrestrial wildlife or invertebrate species.
- Sediment transported to surface water – Offsite transport of sediment to surface water degrades water quality and limits use for intended purposes.

Core Practices	Supporting Practices
Fence (382)	Upland Wildlife Habitat Management (645)
Prescribed Grazing (528)	Structure for Wildlife (649)
Livestock Pipeline (516)	Windbreak/Shelterbelt Establishment (380)
Watering Facility (614)	
Water Well (642)	
Herbaceous Weed Treatment (315)	
Livestock Shelter Structure (576)	
Stream Crossing (578)	
Pumping Plant (533)	

