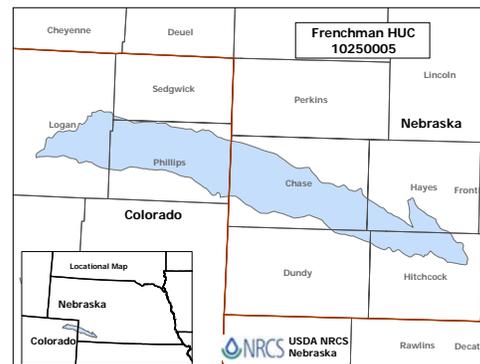




Frenchman HUC HUC#: 10250005

Introduction

The Frenchman HUC is located in south west Nebraska and north east Colorado. This HUC covers the counties of Dundy, Hitchcock, Hayes, and Chase in Nebraska and Sedgwick, Logan and Phillips in Colorado. The total estimated area of the watershed is 880,159 acres. Approximately 475,286 acres of the watershed lie within Nebraska and 404,873 acres are in Colorado.



Physical Description

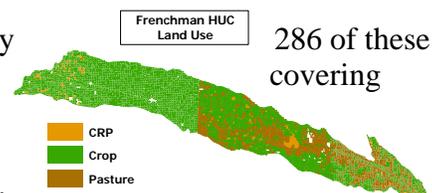
The Frenchman Watershed area consists of silty or loamy soils with the rest being sandy. Most of the soils in the valleys are finer textured than those on the surrounding sandhills. A majority of the area is well drained and runoff is rapid. Surface water drains thru tributaries of the Republican River. The topography of the area is dominantly of plains that wind, stream erosion, and some deposition have modified into divides or into tablelands and valleys. Slopes are nearly level to gently sloping, except for a few well defined, intermittent drainage ways that have strong slopes.

The watershed contains approximately 584 farms. Nebraska has approximately 459,600 acres with Colorado having 298 approximately 401,605 acres. Totally the farms within this watershed cover approximately 861,205 acres. Farm size averages 1,587 acres. Land uses in this watershed consist of irrigated cropland, dryland cropland, and pastureland.

In 2002 an estimated 160,678 acres were harvested in Nebraska and approximately 163,628 acres in Colorado. Nebraska had approximately 212,743 acres of this watershed that were used primarily for pasture/range land and Colorado had 96,826 acres.

There are approximately 9,003 acres in CRP thru sign up 29 in Nebraska and 25,296 acres in Colorado.

Nebraska irrigated an estimated 108,198 acres in 2002 and Colorado irrigated 63,528 acres. This included both pivot and surface irrigated fields.



Common Resource Area:

The Frenchman watershed lies within CRA Area 72. General characteristics are described as follows:

CRA 72

Nearly all this area is in farms and ranches, and three-fifths or more is cropland. This is a major dry farming area. Winter wheat is the main cash crop, but large acreages are planted to other small grains, grain sorghum, alfalfa, and other hay crops. Many crops are grown on the narrow bands of irrigated land along the Platte, Republican, and Arkansas Rivers. Corn, grain sorghum, and sugar beets are grown extensively on the nearly



level uplands where ground water is used for irrigation. One-third or more of the area, consisting of hilly and steep slopes bordering drainage ways, is in native grasses and shrubs used for grazing.

Average annual precipitation 400 to 525 mm, but it fluctuates widely from year to year. Maximum precipitation is from late in spring through early autumn. Precipitation in winter is snow that ranges from about 40 cm annually in the south to 90 cm in the north. Average annual temperature 10 to 14 C. Average freeze-free period-140 to 185 days, increasing from northwest to southeast.

Most of the soils are Ustolls. They are well drained and medium textured and moderately fine textured.

This area supports a short grass prairie vegetation. Blue grama and buffalograss are the dominant species. Sideoats grama, blue grama, hairy grama, and little bluestem grow on the steeper dissected areas.

Common Land Unit

FSA's CLU layer is available for the entire Frenchman watershed area.

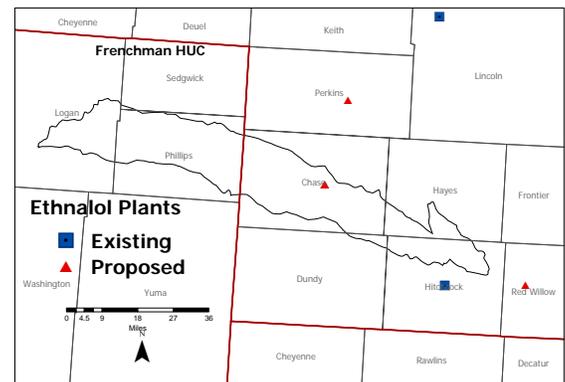
Resource Concerns

Major resource concerns for this watershed are: Soil Quality, Water Quality, Surface & Ground Water Quantity. Other concerns are Rangeland/Grasslands, Wetlands, Wildlife, and Forests. Conserving soils moisture, controlling soil blowing and water erosion, and maintaining fertility are the major management concerns. Irrigation water management also is a concern. An insufficient amount of rainfall for crops is a concern during most growing seasons.

Studies or Assessments

Nebraska assessment and studies include the following. Currently there is one existing ethanol plant within approximately 3 – 5 miles of this HUC. The presence of this plant provides another economic resource for corn producers within this region. There is a planned Biomass Plant for the Imperial Area which is in Chase county in this HUC. This plant will process wheat straw, grass, and possibly corn stover.

This HUC may also be impacted by a 3-state Republican River Riparian Project that is addressing water shortage and invasive plants.



The Nebraska Department of Natural Resources has imposed Well Moratoriums within this watershed. This restricts the drilling of new wells within the identified areas of this watershed.

This watershed also lies within a Ground Water Management Area where the management concerns are ground water quantity and ground water quality.

Census & Social Data

Agriculture is one of the main income sources for the communities within this watershed. It was estimated that in 2003 there approximately 375 workers engaged directly in the production of agricultural commodities, either livestock or crops; whether as a soil proprietor, partner, or hired laborer. Of the estimated 584 farms within this watershed, approximately 305 are owned and operated by Sole Proprietors who are either employed in farming

full or part time. Average net farm income from agriculture in 2002 was \$38,480 per farm and average production expenses were estimated to be \$70,248 per farm. The average market value per farm of land and buildings in 2002 was \$221,192 within this watershed.

Operator characteristics are as follows for this watershed: Most farms are owned by males with the average age of principle operators being 56.3 years of age. There are approximately 38 Nebraska Limited Resource Farmers within this HU.

NRI or Progress Data

Conservation activities include the following for 2004: Conservation practices were applied to approximately 17,949 acres in Nebraska and 9,908 acres in Colorado across all resource concerns within this watershed. Specifically conservation practices were applied on 6,924 acres of cropland in Nebraska and 7,336 acres in Colorado. Nebraska applied conservation to 756 acres of pasture, and 9,973 acres of Grazed Rangeland. Colorado applied conservation to 2,521 acres of Grazed Rangeland.

PRMS Profile for Frenchman 8 Digit HUC - 10250005							
PRMS Data	1999	2000	2001	2002	2003	2004	2005
Planned	6,126	16,275	10,847	13,522	20,682	NA	21,784
Applied	15,060	13,986	6,572	14,291	33,360	NA	20,291
All Customer Types	2,164	1,779	568	991	763	NA	110
Conservation Treatments Applied							
Contour Buffer Strips (332) (ac)	33	19	11	174	131		13
Reduction in the Acreage of Cropland Soils Damaged by Erosion (Ac.)	2,244	2,027	1,451	1,959	1,398		6,130
Field Border (386) (ft)	0	53,060	24,800	2,400	8,300		
Filter Strip (393) (ac)	32	14	0	6	16	6	
Grassed Waterway (412) (ac)	2	6	11	3	0		
Nutrient Management (590) (ac)	2,458	1,129	423	790	2,028	4,818	1,443
Pest Management (595) (ac)	3,205	1,234	612	1,168	2,182	6,071	2,374
Prescribed Grazing (528) (ac)	8,237	6,048	3,664	9,421	13,244	5,619	3,604
Prescribed Grazing (528A) (ac)							1,295
Residue Management, (329A-C) (ac)	5,731	4,543	1,530	2,304	581		4,878
Tree/Shrub Establishment (612) (ac)	4	24	0	36			1
Wetlands Created, Restored, or Enhanced (657, 658, 659) (ac)	0	0	0	37			5
Total Wildlife Habitat (644, 645) (ac)	1,020	681	400	849	2,334	1,969	962
Irrigation Water Management (449) (ac)	1,932	3,519	753	3,377	4,834	5,407	3,459
Windbreak/Shelterbelt (380, 650) (ft)	16,906	17,010	16,906	118,204	79,943	47,487	18,997
Terrace (600) (ft)	NA	NA	NA	NA	NA	80,460	54,257
Fence (382) (ft)	NA	NA	NA	NA	NA	12,933	20,923
Conservation Crop Rotation (328) (ac)	NA	NA	NA	NA	NA	3,713	6,243
Pipeline (516) (ft)	NA	NA	NA	NA	NA	75,498	90,093