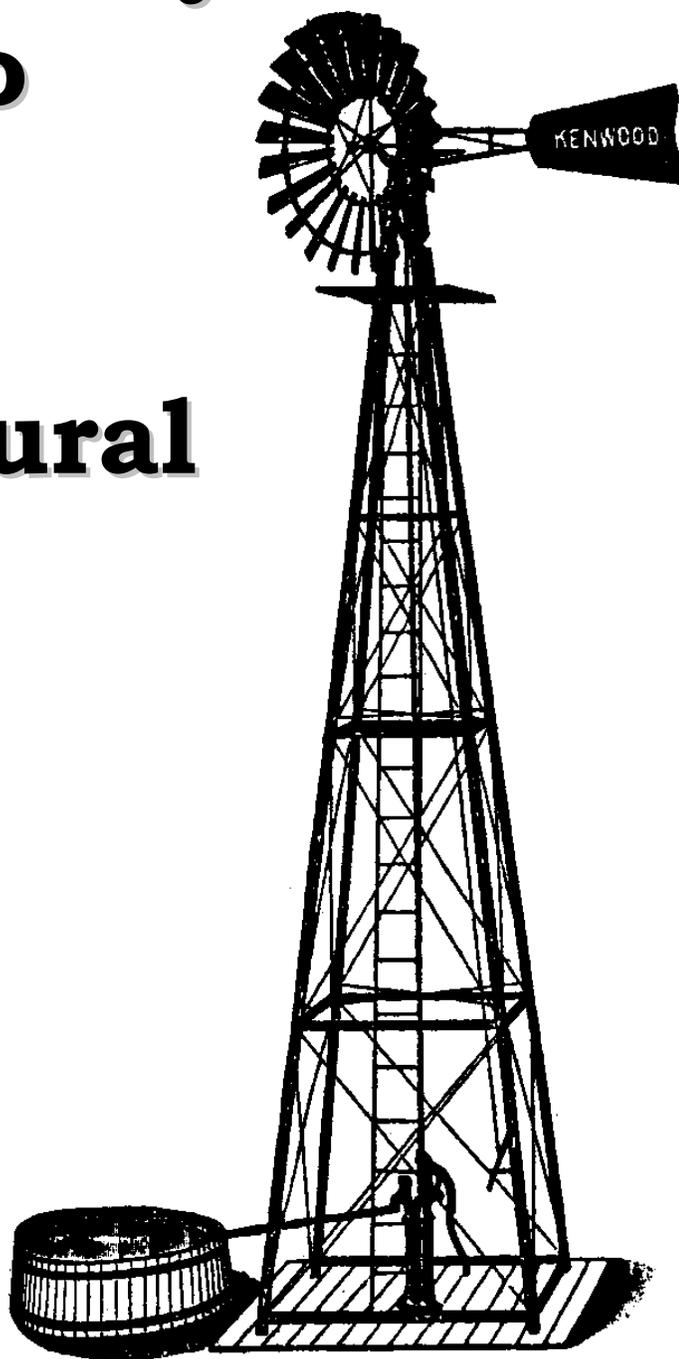


Weld County Colorado

Historic Agricultural Context



**OFFICE OF ARCHAEOLOGY AND HISTORIC PRESERVATION
COLORADO HISTORICAL SOCIETY**

WELD COUNTY, COLORADO HISTORIC AGRICULTURAL CONTEXT

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Preface to 2006 Reprinting

This is a reprint of the original 1988 document. Some minor editing occurred to improve readability. The photographs and several other graphics in the surviving copies of the original publication were of such poor quality that they are excluded here.

A follow-on project to this context study produced the 1990 National Register of Historic Places multiple property documentation form, *Historic Farms and Ranches of Weld County*. Those wishing to evaluate Weld County agricultural properties for National Register eligibility should consult this document.

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Weld County, Colorado, is one of the most agriculturally productive counties within the state of Colorado. Its importance as an agricultural region dates to the 1860s when astute cattlemen took advantage of the open rangelands for their stock. The farmers of the 1870s utilized the soil of Weld County and a boom resulted. As their numbers increased, farmers looked to the areas away from the irrigation systems as an available source of land. Despite the Panic of 1893, farming and stock raising continued in Weld County followed by a new boom in the early twentieth century. In part, this twentieth-century dryland boom was the result of the rapid acceptance of sugar beets as a cash crop. Factors fueling the new boom included improved dryland farming techniques and World War I, which created unprecedented markets for agricultural commodities. Unfortunately, the years between World War I and World War II were poor for agriculture nationwide and Weld County was not immune. World War II fueled new markets and since that time, despite periodic downturns, agriculture has remained a mainstay in the county. This historic context covers the period 1860-1940.

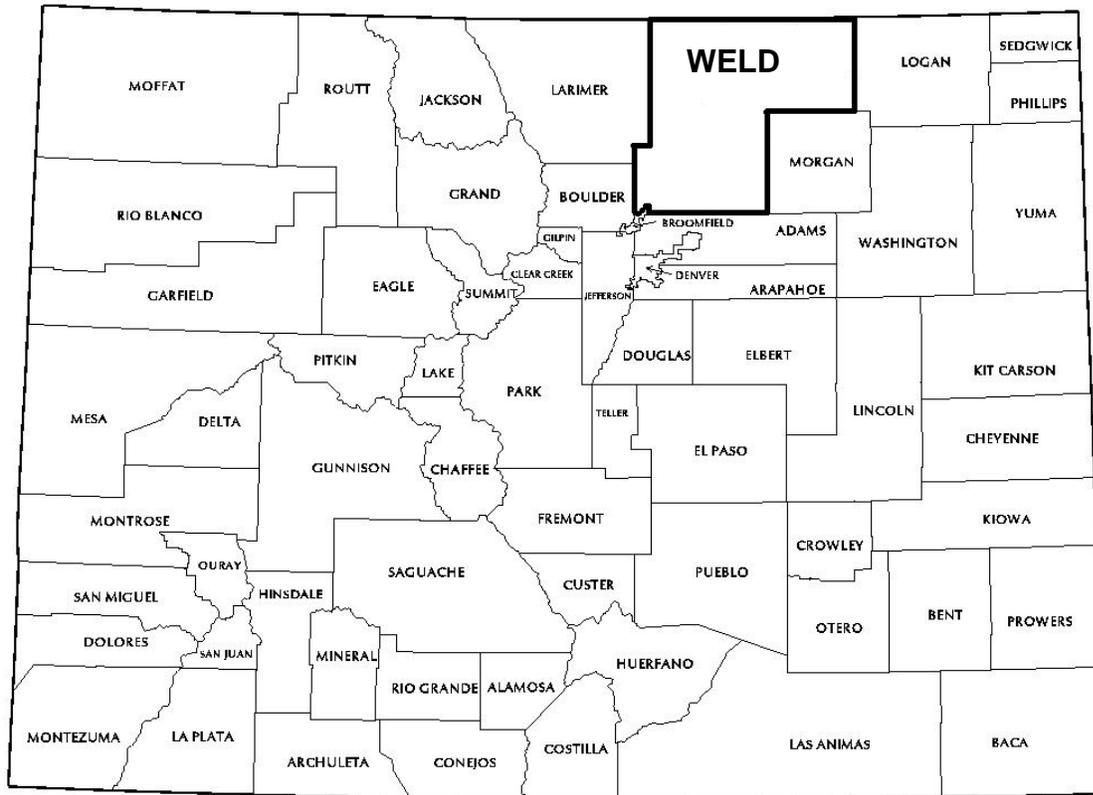
Because of its large land mass and good soil, Weld County has been primarily an agricultural county. Towns such as Greeley, Ft. Lupton, Windsor and dozens of others exist, but Weld County is not considered an urban area. The towns are closely tied to County agricultural fortunes for their success or failure. That situation is changing somewhat in the 1970s but many of the new industries in the county remain closely related to agriculture.

Weld County is the third largest county in the State. It was one of the original seventeen counties in the 1861 Colorado Territory, and was named in honor of Lucius L. Weld, the first territorial secretary of Colorado. The county is comprised of 4,033 square miles or 2,574,080 acres. The county is L-shaped. The northern edge is 72 miles across and thirty-five miles long at the southern border. The county is three times the size of Rhode Island. The present size and shape of the county reflects a reduction of almost two-thirds from its original size. In 1887 and again in 1889, portions of Weld County were used to form Logan, Washington and Morgan counties. The county seat for Weld County is in Greeley, the major urban center and cultural center with the University of Northern Colorado.¹

The lands of Weld County are primarily flat, level prairie. Slightly rolling hills exist around the Cache La Poudre River in the west and the South Platte in the center. The altitude reflects the levelness of the terrain, ranging from five thousand feet in the southwest to 4,400 feet in the east. The prairie soil is especially good for certain types of agricultural pursuits. Along the various waterways are belts of Laurel sand loam soil. This type of soil is rich and retains

¹ State Board of Immigration, Yearbook of the state of Colorado. 1918, (Denver: Brock Haffner Press, 1918), pp. 189-190.

COLORADO COUNTIES



Map Compilation: Colorado Division of Local Government, 2001

water within an otherwise semi-arid environment. Laurel sandy loam is an excellent soil for growing onions, cabbage and sugar beets. Farther from the waterways the soil is suitable for beans, alfalfa, wheat, oats, corn and potatoes, provided that irrigation exists, because these crops require a steady water supply. On the non-irrigated plains of the County, crops such as milo maize and kafir, another type of maize, can be raised successfully. In addition the open plains are adequate rangeland for cattle and horses.²

While known today primarily as an agricultural area, the value of Weld County lands for farming and grazing has not been always recognized. French trappers traveled up the South Platte in the 1780s and 1790s. They did not settle but came only to take advantage of any beaver and other animals that could be trapped. In 1803, President Thomas Jefferson purchased the lands of future Weld County as part of the Louisiana Purchase. After acquisition it became important for the United States government and citizens to explore and catalog the riches of the new lands. One expedition, led by Lieutenant Zebulon Pike, was charged with exploration of the Red and Arkansas Rivers. Pike

² Ibid., pp. 189-191; and Colorado state Planning Commission, Colorado Yearbook, 1962-1964, (Denver: state of Colorado, 1964), pp. 954-956; and Frederick L. Paxson, "The County Boundaries of Colorado," in The University of Colorado Studies, v3, 1906.

crossed the plains from St. Louis in 1806 and began his search for the headwaters of the South Platte. Pike was captured by the Spanish, but after his release, his reports proclaimed the lands of eastern Colorado to be desert and unsuitable for farming.³

The view was echoed by Major Stephen Long who explored the area in 1820. Long stressed the lack of available water and the inability of the land to produce crops. Fifteen years later, Colonel Henry Dodge again repeated the view of Long and Pike. Dodge's reports were more romantic in terms of the terrain but did little to encourage active settlement of the region. In 1836, Lt. Lancaster Lupton established a trading post north of present day Ft. Lupton. This fort prospered for a short time, however, little settlement occurred. The next year, 1837, Colonel Ceran St. Vrain established Fort St. Vrain. Both efforts increased knowledge about the area of Weld County but major settlement did not occur until approximately 25 years later.⁴

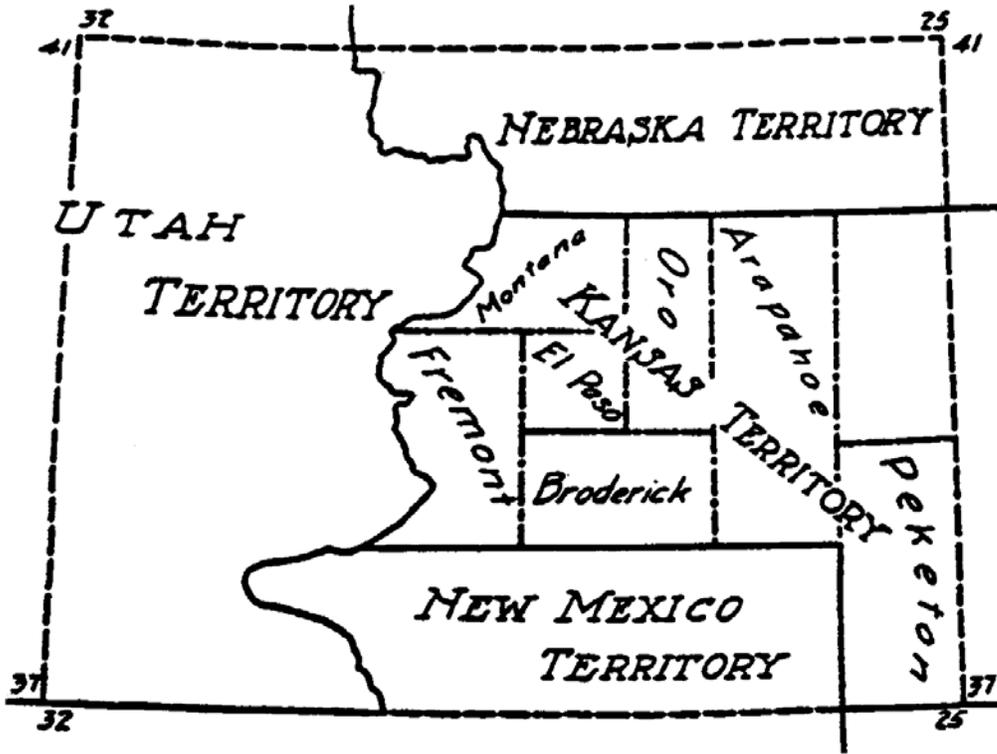
The Colorado gold rush of 1859 spurred interest in the Rocky Mountains. The plains region was originally just another barrier to be crossed in order for the traveler to reach the bonanza fields of the mountains. The rapid influx of people spurred efforts to establish a territorial government. Colorado Territory was not established by Congress until 1861. In addition to the political needs, others recognized the necessity for produce, goods and services. They started a series of businesses to support the miners. Farming and trading were actively promoted and efforts to encourage immigration to Colorado Territory began. William Byers, editor of the *Rocky Mountain News*, was a major booster of the region and did much to encourage farmers and ranchers to immigrate to Colorado.

These booster movements were aided by federal legislation making land available at low prices. The 1842 Preemption Act allowed for the purchase of 160 acres of land at \$1.25 per acre. The Homestead Act of 1862 provided title to 160 acres after payment of patent fees and five years residence. In addition, the huge tracts of unfenced public lands were utilized by ranchers and farmers as grazing lands.

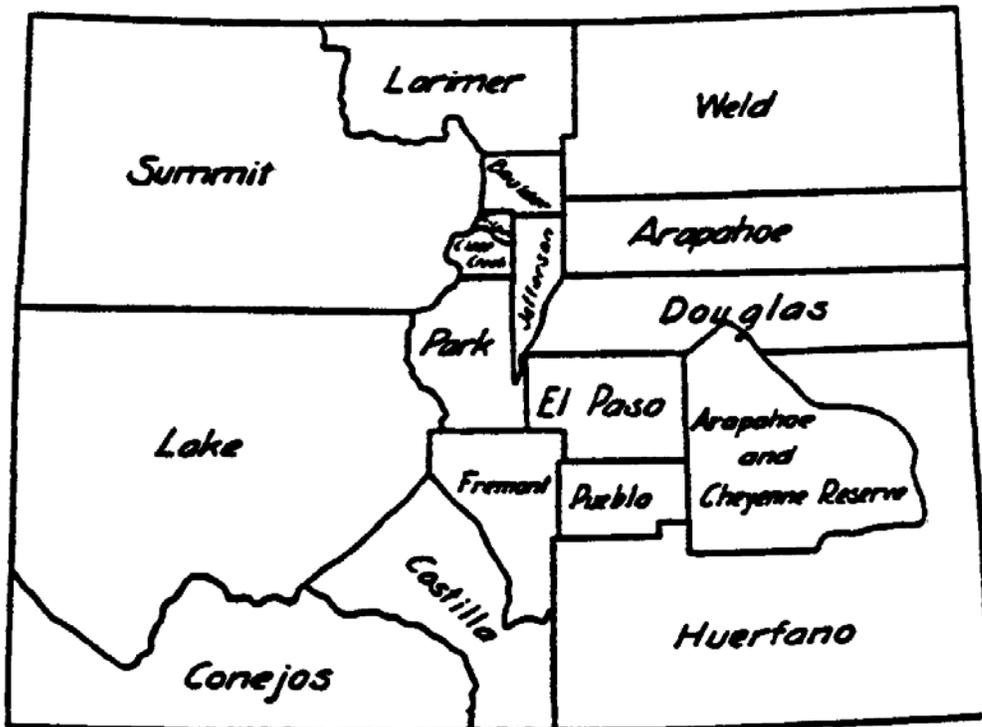
³ William H. Goetzmann, Exploration and Empire: The Explorer and Scientist in the Winning of the American West, (New York: Knopf, 1966), pp. 55-57; and William H. Goetzmann, Army Exploration in the American West, (New Haven: Yale University Press, 1959), pp. 36-38; and Mary L. Geffs, Under Ten Flags A History of Weld County, Colorado, (Greeley: McVey Printery, 1938), pp. 13-15.

⁴ Yearbook, 1918, pp. 190-191; and Geff, Ten Flags, pp. 14- 16; and Goetzmann, Exploration, pp. 58-64,107-110; and Goetzmann, Army, pp. 40-50; and Nell Brown Propst, Forgotten People. A History~ of the South Platte Trail, (Boulder: Pruett Publishing Co., 1979), pp. 2-20; and T. L. Monson, "Early Days in Ft. Lupton," The Trail 6 (February 1914): 6. .

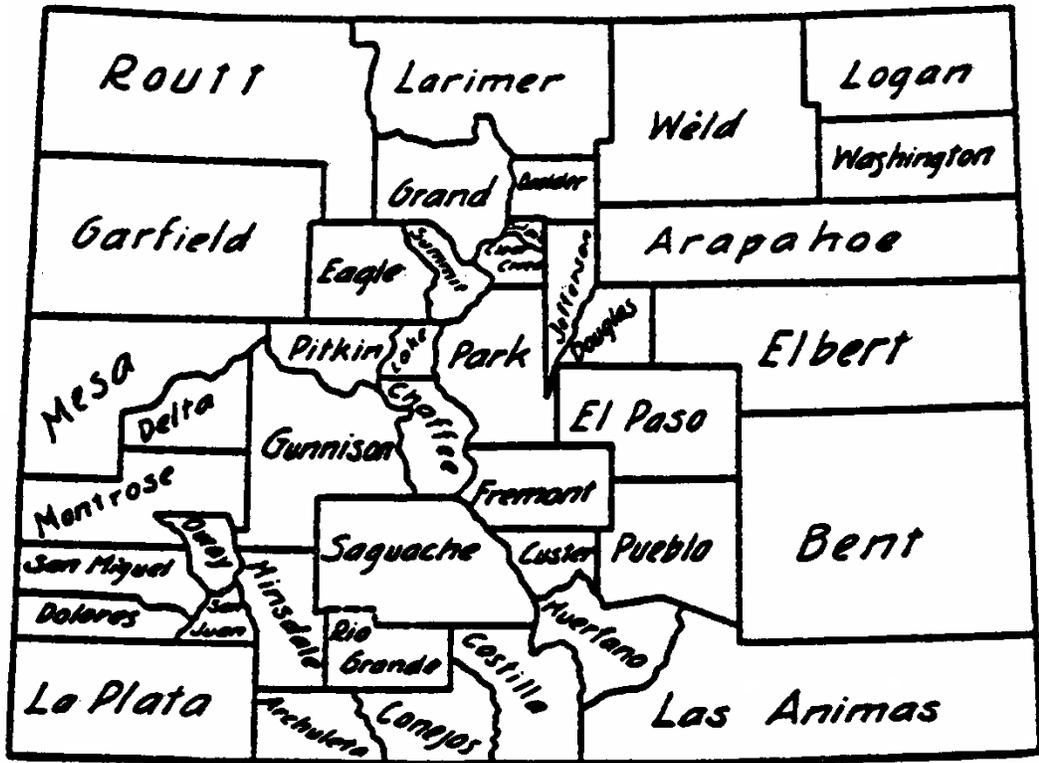
Evolution of Weld County



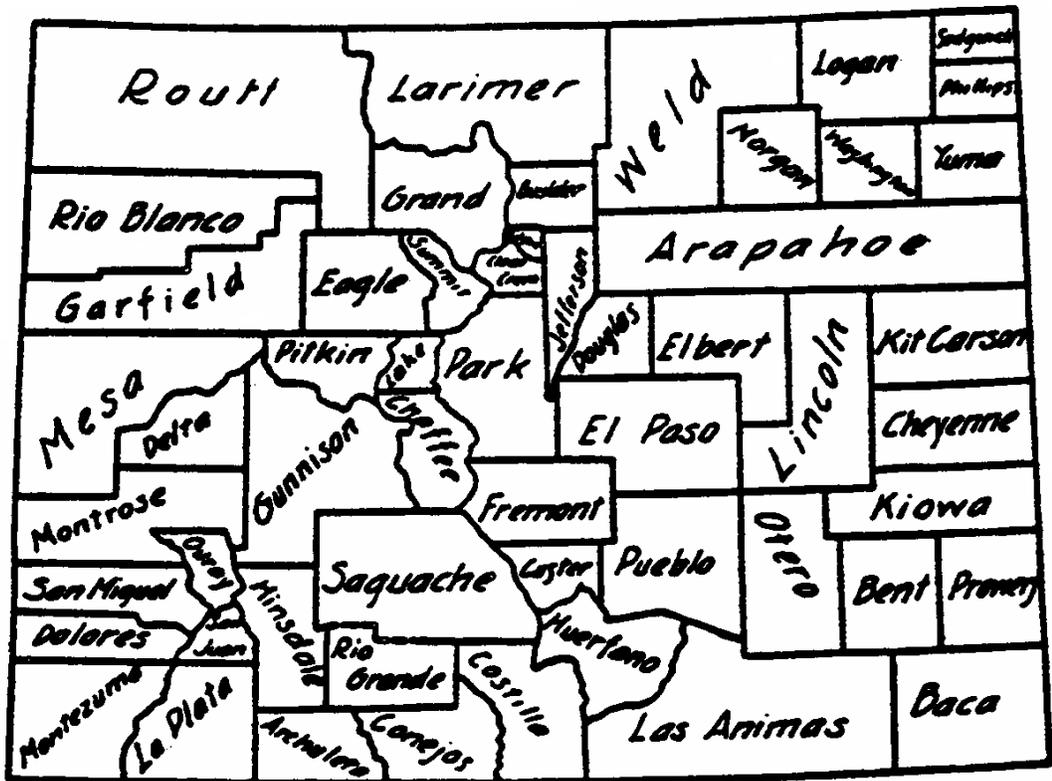
Pre-Colorado Territory



Colorado Territory, 1861



Colorado in 1887



Colorado in 1889

Despite the vast quantities of land available, settlers faced several problems. The United States was involved in the Civil War during 1861-65 and that slowed settlement to the western regions. The limited number of settlers resulted in the numerous problems and risks associated with isolation. The continued threat of Indian attack was a problem for pioneers in Weld County and throughout Colorado. This threat would be reduced significantly by the end of the decade.⁵

Numerous ranchers and farmers took advantage of the land opportunities. One of the most well known was John Wesley Iliff. Iliff came to Colorado in 1859 and quickly realized that being a storekeeper would be as profitable as mining. As a side line, he began purchasing cattle in Texas or Missouri and brought the herds to Colorado to fatten before selling. After several profitable years in the cattle business near Denver, Iliff relocated to the South Platte River Valley near Iliff, Colorado. By the mid-1870s, Iliff's range land extended north to the Wyoming-Colorado border and from the eastern edge of Colorado to Greeley. Iliff was remembered by William Delbridge of Weld County as "the largest cattleman in northern Colorado. He owned every desirable pasture between Greeley and Sterling, and counted his cattle by the tens of thousands." Other ranchers followed Iliff's example. In competition with the ranchers for the land were the incoming farmers who also wanted to take advantage of cheap land prices and ready markets.⁶

One manner of attracting farmers willing to face the rigors of pioneer life was the so-called colony movement. This was an attempt to challenge the typical American pattern of individualism by having an entire group or colony settle an area in a cooperative manner. Four major colony efforts were made in Weld County. In 1870, the Union Colony was established at Greeley. The next year the St. Louis Western Colony was established at Evans and the Southwestern Colony was established at Green City. Platteville was also founded as a colony in 1871.

⁵ James F. Willard, "The Gold Rush," in A Colorado Reader, ed. by Carl Ubbelohde, (Boulder: Pruett Publishing Co., 1962), pp. 83- 85; and James H. Pierce, "The First Prospecting in Colorado," TM Trail 7 (October 1914) :5-9; and Robert G. Athearn, The Coloradans, (Albuquerque: University of New Mexico. Press, 1976), pp. 7-20; and Lyle W. Dorsett, The Queen City. A History of Denver, (Boulder: Pruett Publishing Co., 1977), pp. 2-10; and Roy Robbins, Our Landed Heritage, (Lincoln: University of Nebraska Press, 1976), pp. 211- 235.

⁶ Richard Goff and Robert H. McCaffree, Century in the Saddle, (Denver: Colorado Cattlemen's Centennial Commission, 1967), pp. 9- 37, 69-120; and Ora B. Peake, The Colorado Range Cattle Industry, (Glendale, CA: The Arthur N. Clark Co., 1937), see entire volume; and W. H. Delbert, civil Works Administration Interviews, Colorado Historical Society, volume 343; and Board of Trade, Farming in Colorado,(Greeley: Sun Publishing, 1887), u.p.

The Union Colony at Greeley was the most famous and successful of the four. In 1869, Horace Greeley, editor of the New York *Tribune*, and Nathan C. Meeker organized the colony designed to be an alcohol-free agrarian utopia. Each member of the colony purchased shares and entered into a series of agreements. The first colonists arrived in the spring of 1870 and began to take up lands located near the South Platte and Cache La Poudre Rivers. The workers quickly began plowing fields, building irrigation systems and shelter. The work was difficult and the necessity for irrigation was quickly apparent. The irrigation system had been designed by Nathan Meeker and General Robert A. Cameron. It became the first major irrigation undertaking in Weld County. Within a year, 60,000 acres of land were irrigated with water diverted from the Cache la Poudre.

The irrigation system established as a result of Union Colony efforts became the mainstay for farmers in the area until the 1890s. Three major ditches, Greeley #1, Greeley #2 and Greeley #3, were built. Numerous other small diversion canals existed. This system combined with individual deep wells was successful in providing the basic water needs for the inhabitants of this section of Weld County.⁷

Individual farmers rapidly followed the example of the colonizers and moved into Weld County during the 1870s and 1880s. The use of irrigation spread. While this was a solution to the problem of aridity and providing water for crops, it was not without problems. Other problems plagued farmers in the 1870s as well. Grasshoppers were a continuing trauma for the dryland farmers. Mrs. Etta Ketley recalled the grasshoppers that came in 1872-73. She stated, "They ate everything green. We had planted some strawberries in the garden and put tin cans over them to shield them from the hot sun. The hoppers dug under these tins and ate the plants."⁸

During the dry year of 1873-1874, a dispute arose between the Union Colony and the Agricultural Colony at Ft. Collins. Both enterprises were taking water from the Cache La Poudre River for irrigation. As the supply of water dwindled, the downstream users, the members of the Union Colony, were without a reliable water supply. The matter quickly escalated with threats being made by both sides. Eventually a peaceable solution was reached but the need for a systematic legal approach to water rights was clear.

The issue of water rights became increasingly important as more settlers came to arid Colorado and sought water for mining, farming, ranching and domestic use. The dry years of 1873-74 were only part of the growing confusion over water rights and usage. The Panic of 1873 resulted in a depression in agricultural

⁷ James F. Willard, "Union Colony's First Year," in *A Colorado Reader*, ed. by Carl Ubbelohde; and Athearn, *Coloradans*, pp. 105- 108; and Geffs, *Ten Flags*, pp. 27-60.

⁸ Mrs. Etta L. Ketley, C.W.A., volume 343.

markets. Settlement and further irrigation project activity declined markedly. The Panic was short lived and within three years settlers once again were moving into Weld County. These immigrants were primarily farmers and ranchers who wanted land and water. Partially in response to this, new crops such as alfalfa became popular as did dairy herds.

The issue of water rights had been officially raised at the Colorado Constitutional Convention in 1876. After much debate and discussion a new system of water rights emerged. The policy of prior appropriation or "first in time, first in right" was adopted for the State of Colorado. This did not resolve all water related issues but did go a long way toward providing general guidelines. Furthermore, it became the policy adopted by many arid western states in dealing with water issues.⁹

After water rights were partially resolved and the new influx of immigrants came to Weld County, the problem of completing a transportation network remained. Weld County residents were lucky in that producers were close to larger markets through the railroad system. Talk of railroads to and through Colorado began almost as soon as the Gold Rush. Passage of the Pacific Railroad Acts of 1862 and 1864 encouraged Coloradans in believing that they soon would have rail connections to the East and West Coast.

As the plans of the Union Pacific finalized, the line bypassed all but the extreme northeast corner of the state. Reeling from that setback Denver boosters replied with their own scheme to build from the Queen City to Cheyenne, Wyoming. The line, the Denver Pacific, crossed Weld County south to north. The project took form during the late 1860s and by June of 1870 the first locomotives reached Denver. The first Greeley settlers took the train to their new homes. From that one line small branch lines developed as the local population grew.

Little over a decade after the first locomotives passed through the county, a new round of rail building began that would extend service to more of Weld County. The Burlington and Missouri River Railway, a subsidiary of the Chicago, Burlington and Quincy, identified Denver as a potentially rich Western market and began to extend their line west from McCook, Nebraska. The Burlington's construction crews reached Denver during the early 1880s. Presence of that competition spurred the Union Pacific, by then the owner of the Denver

⁹ Robert A. Dunbar, "The Origins of the Colorado System of Water Right Control," The Colorado Magazine v. 27 (October 1944) :241-262; and Robert A. Dunbar, "Water Conflicts and Controls in Colorado," Agricultural History v. 22(July 1948) :180-86; and Geffs, Ten Flags, pp. 138-144; and no author, Facts About Farm Lands of the Homeseekers Land and Water Company in the Greeley (" 52 District. Colorado, (Denver: Colonial Securities and Trust Co., - n/d/1910), entire pamphlet.

Pacific, to build a line from LaSalle, just south of Greeley, up the South Platte Valley to the transcontinental main line at Julesburg. These new routes, combined with the old Denver Pacific north-south line, acted to tie Weld County together as a geographical, political and economic unit well before other Colorado counties. More than that, the railroads offered transportation to most of the county from the East and through their emigration and/or land departments, the companies encouraged thousands of farmers to relocate to the area.¹⁰

Railroad availability led to a number of changes in the Weld County built environment as well. First and foremost, the railroads opened up sources of building materials for the residents. From its earliest colonies forward, local contractors used milled lumber, premanufactured parts and millwork, and non-native stone. Because of that, the pioneer lean-tos, sod houses and occasional log cabins along timbered drainages soon disappeared from the landscape as those who prospered quickly replaced their first houses and buildings. The railroads also made possible use of coal for fuel and its attendant changes on the interior layout and furnishings of the houses.

The 1870s and 1880s in Weld County were marked by changes other than transportation. In 1877 Greeley finally was established as the permanent county seat. Prior to that time it had moved erratically between Greeley and Evans. The final selection of Greeley created a certain sense of stability and the town grew accordingly in the years after 1877. This urban growth was spurred by continued demand for agricultural products during the 1880s. A series of circumstances came together to make the eighties profitable years. Precipitation fell at heavier than usual rates guaranteeing adequate water. This included the blizzards of 1887 and 1888 that adversely impacted open range ranching. New advances in farm machinery, including the use of steam powered tractors, allowed individuals to plant and harvest larger acreages. The increases in plowed acreages coincided with a decline in livestock prices and numbers. Farmers quickly took up former ranch lands for cultivation.¹¹

By 1890 the population of Weld County was 11,736. The Colorado Board of Trade estimated that the value of irrigated lands was \$28 million. Interest in the necessity of irrigation continued. The Cache La Poudre Reservoir Company came into existence in 1892, to provide water to farmlands then under Greeley Ditch #2. Other irrigation efforts continued using dozens of small reservoirs located throughout the County. These included the Milton Reservoir, approximately 9 miles east of Platteville, the Prospect, 6 miles south of

¹⁰ Thomas J. Noel, "All Hail the Denver Pacific: Denver's First Railroad," The Colorado Magazine 50 (Spring 1973) :91-116; and Robert G. Athearn, Union Pacific County, (Chicago: Rand McNally, 1971), pp. 133-34, 224; and Richard C. Overton, Burlington Route: A History of the Burlington Lines, (New York: Alfred A. Knopf, 1965), pp. 163-173.

¹¹ Geffs, Ten Flags, pp. 85-92.

Keenesburg, and the Union Reservoir, southwest of Mead. Farmers and ranchers utilized other sources to provide a water supply. Deep wells were dug and pumps used to raise the water to ground level. One of the first wells with a steam pump was owned by Andrew Wilson on Lone Tree Creek, east of Eton. His well and pump became operational in 1888. These irrigation systems and water supplies became especially important beginning in 1890 as a drought cycle began. The next three years continued dry. To compound the problem, by 1893, the United States was once again involved in a panic.¹²

The combination of drought and economic downturn ended the first boom period of agricultural expansion in Weld County. The previous thirty years had brought a large, stable population to the area and thousands of acres of land were placed in production. However, the years of the nineties were characterized by demands for social and economic change. The springboard for these reforms was the Populist movement. This agrarian based movement gained support in the economic turmoil of the 1890s. The rapid expansion of tilled lands during the 1880s resulted in an over-production of crops. This oversupply in the market led to declining prices. The drought years of 1891-93 hurt farmers and ranchers who could not find enough grazing land for their herds. In 1893, President Grover Cleveland responded to world silver prices and suspended silver purchases. The resulting confusion ended in bank failures and severe economic dislocation as bankers called in loans, attempting to achieve solvency. Farmers and ranchers had to pay up, sellout or just leave. In many instances, farmers and ranchers did not own their lands as they had not occupied the acreages for the required five years in order to patent. Many farmers and ranchers left the region.¹³ Despite those that moved out, the population of Weld County did not decline. In the face of all these problems it continued to grow. The 1900 census recorded the population at 16,808.¹⁴

Farmers and ranchers in Weld County were not the only ones impacted by the Panic of 1893. Townspeople were also affected by severe monetary problems that were exacerbated when banks failed and bankruptcies mounted. All in all, by the middle 1890s, reform alternatives in politics such as the Populist movement gained support in Weld County and throughout Colorado. State residents attempted to understand the impacts of the economic dislocation and search for solutions.

In the 1892 elections Populist candidates were successful within the state of Colorado. The national candidate, General James B. Weaver, was defeated by Grover Cleveland. However, Davis Waite of Aspen was elected Governor of

¹² Ibid., pp. 138-144; and 1918 Yearbook, pp. 190.

¹³ Dorsett, Queen City, pp. 50-65; "Propst, Forgotten, pp. 150-55; and Anna Homm Interview, C.W.A., volume 350.

¹⁴ Manuscript Census of the United States, State of Colorado, Weld County, 1900, microfilm at Denver Branch National Archives.

Colorado. In 1894, the Populists in Weld county and elsewhere took up the cause of "Free Silver." Free silver was the idea that the U.S. Treasury should not set a limit on the amount of silver in circulation in an attempt to stabilize its value. While this became a popular cry, Populism in Colorado suffered a defeat when Waite was unsuccessful in his bid for reelection. Despite this local set back, support for the movement remained strong.¹⁵

Another change of the 1890s was the advent of widespread sheep raising. Sheep were historically the enemy of cattlemen because of the belief that they chewed the plants in the pasture down below the root level and made them unable to regrow. In addition, some ranchers believed that cattle would not graze on lands occupied by sheep. The introduction of sheep was not without acrimonious exchange, but by 1898 over 90,000 sheep were being fed in Weld County. By 1905 the number had almost doubled to 150,000. This rapid increase is explained because while cattle prices dropped sheep prices rose or remained steady. The sheep market did not undergo the fluctuations of the cattle market. In addition sheep provide more than one marketable crop—they provide wool and meat.¹⁶

The early years of the twentieth century witnessed other changes. New ideas, crops and visions accompanied the new century. One agricultural industry changing was cattle raising. Aside from the growing number of sheep, the uses of rangeland also underwent a metamorphosis. During the previous ten years as depression occurred large acreages had been abandoned. Slowly the lands returned to their original state and became prime grazing areas. This greatly aided the cattle and sheep industries by making high quality pastures available. Another change in ranching was as a result of the General Revision Act of 1891. This act repealed the Timber Culture and Desert Land Acts in order to eliminate abuses. The new act allowed the president to withdraw lands from private entry. Some lands were withdrawn in Weld County, but the acreage was relatively small and protests were minimal compared with the Western Slope of Colorado where farmers and ranchers actively protested the new legislation.¹⁷

Despite the impact of the above changes, the major transformation in Weld County related to sugar beet cultivation and processing. Sugar beets gained popularity in central Europe during the Napoleonic Wars as a source of domestic sugar. The crop slowly spread to the United States and by the Civil War beet sugar was viewed as an alternative to cane sugar. The *Rocky Mountain News* ran an editorial on November 3, 1866, exhorting farmers to embrace

¹⁵ James Edward Wright, The Politics of Populism. Dissent in Colorado, (New Haven: Yale University Press, 1974), pp. 95-105.

¹⁶ The Greeley Tribune, 10 March 1888 and 12 October 1905.

¹⁷ Robbins, Landed; and Steven F. Mehls, The New Empire of the Rockies, A History of North-east Colorado, (Denver: Bureau of Land Management, 1984), pp. 138-142.

sugar beets as a viable cash crop and investment opportunity. In the ten years after the end of the Civil War, some experimentation with the crop continued in Colorado where sugar beets grew well on irrigated lands. As early as 1871 a committee, including newspaper editor William Byers, sought to raise money to purchase sugar beet processing equipment and begin the processing industry in Colorado. This early attempt failed. The next year, the Territorial Legislature introduced a bill designed to pay a bounty of \$10,000 to the first corporation or individual to build a refinery for sugar beet processing. The measure failed to pass the legislature because of a lack of money to pay the bounty. That same year the Colorado Beet Sugar Manufacturing Company was formed. This company was not successful, but its publications and promotional efforts encouraged many Weld County farmers to plant the new crop. The State Agricultural College at Fort Collins (now Colorado State University) experimented with the crop and also helped publicize its suitability for the irrigated plains.

Despite success in cultivation of the crop, the lack of processing plants and markets hindered its growth as a cash crop. The efforts of Weld County and other farmers finally encouraged financiers to build factories. The first sugar plant, financed by Charles Boettcher and John Campion, opened in Grand Junction in 1899.

Two years later Boettcher and Campion financed a beet sugar plant in Loveland. Local farmers in Weld County and throughout northeastern Colorado responded and the factory soon had more beets than could be processed. In Weld County sugar factories were eventually built at Windsor, Ft. Lupton, Eaton and Greeley. Beet refining facilities and "beet mania" did much to spur the economic growth in Weld County during the early years of the twentieth century. The industry rapidly spread and Great Western Sugar Company was formed in 1905 by Boettcher and Arthur Havemeyer, an individual already well established in the sugar industry. The sugar boom continued into the 1910s with only one major shortcoming—labor.

Sugar beet cultivation required hard work in the hand thinning and cultivation of the plants. Therefore, a large labor supply was required because of the intensive nature of the work. It was difficult to find workers within Colorado because of the history of farmers owning their own land and not working as an unskilled labor pool for other farmers. Great Western Sugar Company responded to the need by recruiting laborers throughout the United States and in Europe. German Russians responded to these recruitment efforts and many came to Colorado. They were a successful labor source and a high percentage of them eventually saved their money and became farm owners in their own right. Japanese Americans from the Pacific Coast also were willing to leave their homes to escape discrimination and work in the sugar fields. Many of them also saved their earnings and purchased land, again leaving farmers without a labor supply. Another source of laborers, Mexicans, was more transient as many returned to Mexico during the off season of the winter months

and did not move their families with them to Colorado. As such, they made the ideal labor pool. The Mexicans, while critical to the beet industry, suffered from overt and covert discrimination in Colorado which did little to aid their acculturation.¹⁸

The sugar beet boom brought thousands of acres of irrigated land in Weld County into production. Sugar beets were a profitable crop and when rotated with alfalfa, a well known animal food, the land retained its growing ability. In addition to sugar beets, new types of wheat were grown and cattle and sheep raising were combined with farming. The ranchers were aided by the passage in 1909 of the Enlarged Homestead Act. This was recognition of the difficulty of grazing a large herd of cattle on 160 acres. Therefore the new act provided for 320-acre homesteads in arid regions. The Borah Act passed three years later reduced the residency requirements to seven months of each prove up year. In 1916, Congress passed the Stock Raising Homestead Act allowing up to 640 acres in arid climates for stock raisers. Another aid to farmers and ranchers was the cooperative weather which was unusually wet during the 1910s.

The wet weather and Congressional generosity with the public domain helped spur dramatic increases in the number of farmers in the County as they sought to tame the lands which traditionally had been home to cattle and sheep. These twentieth-century boomers, honycokers or sod busters, whatever label is applied, temporarily succeeded where earlier drylanders had failed. The new generation felt more confident because in the aftermath of the late nineteenth-century dryland failures a number of agronomists addressed the problem of farming the high plains. Leadership in this effort came from Professor Hardy W. Campbell of the University of Nebraska in Lincoln. Campbell's theories held that cyclic field use and fallow periods as well as deep tilling could increase the water retaining ability of the soils given a year or two between crop plantings. Adequate moisture would accumulate for successful crop planting during the fallow years. Beyond Campbell's work others, including the State Agricultural College, experimented with new drought resistant crops. Such scientific work was well publicized making bushels of information available to farmers and would be farmers. All these aforementioned factors combined to lead to dramatic growth in Weld County agricultural output during the first two decades of the twentieth century.¹⁹

¹⁸ William J. May, "The Great Western Sugarlands: History of the Great Western Sugar company," University of Colorado, Ph.D. dissertation, 1982, entire volume; and no author, "The Growth of the Sugar Beet Industry in Colorado, The Trail, 7 (December 1914) :11-16; and Kenneth W. Rock, "Colorado's Germans from Russia," in Germans from Russia in Colorado, ed. by Sidney Heitman, (Ft.' Collins: Western Social Sciences Association, 1978); and Georgina A. Cook, "Fact and Fiction: German Russian Sugar Beet Farmers in Colorado," in Heitman, pp. 106-117; and Geffs, Ten Flags, pp. 136- 137, 245-247; and Alvin T. Steinel, History of Agriculture in Colorado, (Denver: State Board of Agriculture, 1926). pp. 281-310.

¹⁹ Steinel, Agriculture, pp. 283-310; for a discussion of Campbell and well irrigation on the

The impact of those changes in Weld County is evident in the population figures. In 1900, the population of the county was 16,808, up approximately 5,000 from the 1890 figures. However, by 1910 that number of people in Weld County had more than doubled to 39,177. That growth trend continued during the next decade. Clearly the agricultural boom of the early 1900s had a direct impact on the number of residents of Weld County.²⁰

The sugar beet and dryland boom of the first twenty years of the twentieth century coincided with other innovations which lessened the isolation of Weld County residents. Greeley, with the state Normal School (now the University of Northern Colorado) and various commercial enterprises had long been a bustling county seat. Smaller towns such as Ft. Lupton also served as local trade centers. During this period a number of other small towns and crossroads communities came into existence, many with very short lives as change swept the County. The growth of these towns was aided by the general prosperity of the region.

One new innovation both aided and eventually detracted from the commercial viability of small towns—the automobile. From 1900 to 1910, Weld County and the rest of Colorado reacted to the Good Roads Movement. Originally begun by bicyclists to pressure state legislatures for better and improved roads the Good Roads Movement soon picked up the support of automobile users. In Weld County residents lobbied the Colorado General Assembly and the County government for improved roads. In 1916, the federal government authorized construction of a coast to coast highway. Work began three years later. This road, now U.S. 40, crossed the eastern plains and passed through Denver. Within a few years other highways would cross Weld County. The automobile afforded area residents the opportunity to change trade, recreation and employment patterns. As the speed of automobiles increased, it was possible to travel longer distances in less time to purchase goods, have fun or work. These changes all began in the years before 1920 and then evolved fully in the years after World War II.²¹

World War I aided the early twentieth-century dryland boom. The wartime needs encouraged continued increases in crop output. Existing farms could not meet the demands and new immigrants came into the region to take advantage of land opportunities. In addition, marginal lands were placed into production in order to take advantage of high crop prices. By 1918, the population of Weld County had grown to 50,000. In that same year it was estimated

high plains after 1900 see: Donald E. Green, Land of Underground Rain, (Austin: University of Texas Press, 1973).

²⁰ Manuscript Census of the United States, state of Colorado, Weld County, 1910, microfilm at Denver Branch, National Archives.

²¹ Dorsett, Queen City, pp. 126-130; Athearn, Coloradans, pp. C~. 259-65; Propst, Forgotten, pp. 190-195. 53

by the Colorado Board of Trade that 284,687 acres were irrigated, 745,550 acres were without irrigation; 810,906 acres were utilized for grazing and 13,419 acres were in natural hay. It was further estimated that the value of irrigated land was \$75-250 per acre and non-irrigated land was worth \$15-60 per acre in the County. This boom in population and land values proved short lived.²²

The end of World War I represented a beginning of hard times in Weld County and throughout the agricultural United States. As wartime demand diminished so did the optimistic hopes of the region's farmers and ranchers. The Panic of 1921 hit farmers especially hard and to compound the problem European agriculture, disrupted by the war, recovered quickly. But many local farmers never recovered from the dropping commodity prices. In order to survive many Weld County farmers continued to put marginal lands into production in order to increase their crop yields. Also, farmers from elsewhere migrated to the County, putting more pressure on the land base. Unfortunately, these higher volumes only tended to depress prices even farther. Some switched from farming to cattle as cattle prices remained high. Gradually during the middle 1920s farm prices began to stabilize and then rise. In Weld County this delayed what proved to be the inevitable.

In addition to attempting to solve the problem locally, farmers nationwide lobbied Congress for relief. Using techniques begun with Populists, farmers requested a variety of aid. Most notable, at least noisy, was the McNary-Haugen movement that sought federal purchases of agricultural surpluses to stabilize prices at the 1910 level. In other words, a parity program for farmers. Debate over the McNary-Haugen proposals continued throughout the decade. In 1929, the Smoot-Hawley Tariff was enacted which raised the import tax on certain products to record levels. Sugar was a heavily taxed commodity and Weld County growers were pleased to receive the market protection the tariff provided. Prices rose but hopes for a new prosperity were dashed on October 23, 1929, when the New York Stock Market crashed and the Great Depression began. Despite these years of adverse conditions the population in Weld County continued to grow albeit at a much slower rate. The population increased by 10,000 people during the decade.

The problems of the stock market crash combined with weak agricultural markets were further affected by adverse weather conditions. After several wet years, the early 1930s saw below average rainfall. The natural aridity of the region combined with increased tillage of marginal lands resulted in once rich fields blowing away in wind storms. The winds of 1932-33 caused so called dust blizzards or "Dusters." These storms were regular and were reported on daily radio and newspapers with the regular weather. Northeastern Colorado, including Weld County, was not officially part of the designated "Dust Bowl"

²² Yearbook, 1918, pp. 190-193.

used to describe the blowing conditions. The federal government geographically defined the "Dust Bowl," and southern Colorado was officially included in the terminology and northeastern Colorado was not. Conditions in Weld County resulted in area farmers and ranchers suffering like their counterparts in the southern portion of the state. Many who could afford to left Weld County and the state looking for better opportunities elsewhere, frequently in California.

As farm markets declined, the debt structure for individuals frequently was too heavy. Many farms were foreclosed or auctioned for taxes. Protests by farmers proved ineffective in the face of the Sheriff's gavel at sale time. Federal legislation, beginning with the election of Franklin D. Roosevelt as President in 1932, did much to aid farmers, ranchers and others in Weld County and throughout the West. The 1934 Taylor Grazing Act established grazing allotments and a fee system for usage of public lands which had minimal impact in Weld County because of the small number of federally owned acres. In 1937, over 85% of the land in Weld County was patented. However, Taylor Grazing represented one of the first of many legislative initiatives designed to reach a permanent solution for farm and ranch problems.

Roosevelt's policies focused on relief, recovery and reform. Agriculture received great aid from the two AAAs (Agricultural Adjustment Administrations) that offered relief payments, production controls and ultimately increased commodity prices. Sugar beets, wheat, corn and other grains had controlled production and prices. In 1937, the Bankhead-Jones Land Utilization Act provided for farmers to sell their lands back to the federal government in order to remove marginal lands from production. Two large parcels of repurchased lands became Pawnee National Grasslands in Weld County. Working with the Soil Conservation Service and the Resettlement Administration, programs were undertaken on the lands to restore the native plant communities or to plant new grasses and other forage. The goal was to eliminate erosional activity and improve the quality and character of the land. The Civilian Conservation Corps also engaged in a variety of programs to help restore the grasslands, including planting, road development and creation of wind breaks.²³ Today, Pawnee National Grasslands is a major natural habitat for native plants and animals.

The largest and technically most demanding project funded by the Roosevelt Administration to benefit Weld County was the Colorado-Big Thompson water

²³ James E. Wickens, "Colorado in the Great Depression: A study of New Deal Policies at the state Level," (Ph.D. dissertation, University of Denver, 1964), pp. 1-30; 35-100; and Paul Bonifield, The Dust Bowl, Men, Dirt, Depression, (Albuquerque: University of New Mexico Press, 1979), pp. 50-65; and Propst, Forgotten, pp. 200-205; and Athearn, Coloradans, pp. 250-255; and John Hearal, C.W.A. interview, volume 352; and Glen Bolander, C.W.A. interview, volume 352; and Nore V. Winter, et al, "Level I Historic Cultural Resource study of Arapaho and Roosevelt National Forest and Pawnee National Grasslands," (Lakewood: United States Forest Service, n.d.), n.p.

project. The Bureau of Reclamation headed the effort to move water from the Colorado River, under the Continental Divide and into the fields of northeastern Colorado. Feasibility studies and blueprints were drawn during 1934-38. In June of 1938 residents voted in favor of the proposal and construction began later that year. In 1942 shortages of concrete and steel as the result of World War II led to a general work stoppage on the project. Construction began again after the war and was finally completed in 1954. By the middle 1960s, the irrigation canals spread the water from the Colorado-Big Thompson to 720,000 acres. Also a part of this project was the development of hydroelectric plants. All of these innovations helped provide the resources necessary for the needs of World War II and post-World War II agriculture.²⁴

Other New Deal agencies and programs helped the residents of Weld County survive the conditions of the Great Depression. The Federal Emergency Relief Administration (FERA) provided grants as local relief efforts ran out of money. The Reconstruction Finance Corporation provided money for businesses to use for new projects or to upgrade their physical plants. Other agencies were involved in a multitude of projects, all designed to provide some relief.

Full scale economic recovery began with the advent of World War II. Wartime demand resulted in new markets for agricultural *by* products. When the war ended in 1945 many area residents feared a return to the depression. The need for a stable cash crop was of foremost importance. Sugar beets continued as an important crop but demand was threatened by corn sweeteners. As a reflection of this trend, Great Western Sugar cut back operations. Wheat, corn, potatoes, barley, dry beans and oats all became important cash crops in the 1950s, 1960s and 1970s. Cattle production grew in the thirty years after the War. Changes in cattle raising to insure fatter, highly marbled qualities in the meat resulted in feedlots and less range feeding of cattle. This reflected the ability of the producers to manipulate the animals to meet market demands. As an offshoot, feedlots and cattle processing industries developed. Several are located in Weld County, with Monfort of Greeley being one of the largest. Turkeys as a cash crop also began to be intensively grown in parts of the county after World War II.²⁵

By the middle 1970s, Weld County was ranked number one in the state of Colorado for total crop value. That trend had begun in the late 1950s and continued for most of the 1960s. The years after World War II have been subjected

²⁴ Oliver Knight, "Correcting Nature's Error: The Colorado-Big Thompson Project," in A Colorado Reader, pp. 323-325; and Wickens, "New Deal," pp. 254-256; and Geff, Ten Flags, pp. 202-214.

²⁵ Dorsett, Queen Cit~, pp. 220-225; and Athearn, Coloradans, pp. 296-300; and Mehls, N-orth-east, pp. 173-182; and Wickens, "New Deal," pp. 280-377; and David A. Henderson, "The Beef Cattle Industry of Colorado," (M.A. thesis, University of Colorado, 1951), pp. 160-175; and 1962-1964 Yearbook, pp. 954-956.

to fluctuations in market demand and weather conditions but generally agriculture has been healthy for the past forty-five to fifty years.

Architectural Development

The architecture of Weld County farms has reflected the various stages of economic development. The descriptions that follow have been gleaned from photograph collections, Civil Work Administration interviews, promotional pamphlets, a sample of patent applications, and other descriptions.

Frontier stage

The frontier/earliest stage of development, as mentioned above, proved short lived but repetitive. Some building techniques, such as sod construction, were well adapted to the pioneering periods, whether it was during the late nineteenth century or the later dryland boom of the 1910 period. Only a handful of the earliest structures remain in the County (one observed near Hudson) and those are quickly becoming archaeological resources. Stylistically, these would be categorized as folk or vernacular in the truest sense. Outbuildings on these pioneer homesteads were few and tended to be multi-functional of sod, pole and mud, or dugout construction. After the turn of the century, mill waste lumber and tarpaper augmented the natural building materials, but simplicity remained in style, with function and utility taking precedence over architectural pretensions.

Post-Frontier Stage

The architecture of the post-frontier phase took on the look and general style of late nineteenth-century and early twentieth-century rural America. Assigning temporal associations for each of the various types of architectural styles is difficult because some areas, such as the farm lands around Greeley, matured and developed a more sophisticated built environment at the same time that residents in other parts of the County were just beginning the settlement process described above. Nonetheless, as portions of the County matured, the architecture reflected this changing status. Building depended largely on wood with only limited use of stone or other materials. The development of Colorado cement supplies made concrete one of the most popular materials for foundations and basements by the end of the nineteenth century. The use of brick tended to be for decorative purposes or in specific applications such as chimneys or foundations/basements. This no doubt reflected the high cost of transporting bricks to the building sites in areas of the County away from railroads or brick yards.

The popular styles of the day came to be reflected around Weld County, most notably in the farms houses, and in cases of the more prosperous, the carriage houses and workers' quarters. Of the stylistic influences of the late nineteenth

century, two appear to have been in the majority in Weld County—Italianate and Gothic Revival, both vernacular and not the work of architects. Probably most were adapted by local builders from pattern books or the popular press. Other styles that may have been present include Queen Anne and Greek Revival, but none were observed during the reconnaissance survey. In addition to those houses that could be clearly identified as having some stylistic influences, the utilitarian vernacular houses transplanted from the Midwest also dotted Weld County during the late nineteenth century. The most popular of these and possibly of all houses in rural Weld County was the "Gabled Ell" and its dozens of mutations. The large number of Midwestern immigrants to the study area, both farmers and people with basic carpentry skills, and its flexibility in adding on, may account for this vernacular style's popularity. Whatever the roots, it and its mutations formed an important part of the late nineteenth-century Weld County built environment. Other vernacular types, such as the double pile and shotgun house, also could be found in Weld County by 1900.

After 1900, the architectural preferences of Weld County farmers diversified and broadened, reflective of the general prosperity in the county during the first two decades of the new century. Some stylistic movements of the period caught the eye of prospective house builders, while others did not. The more urban oriented, generally smaller houses did not appear on Weld County farms. For example the Tudor Revival/English cottage, the Craftsman and the Rustic were not observed outside of larger communities during the reconnaissance survey. Rustic refers to a style of architecture designed to duplicate native materials and give the impression of pre-industrial craftsmanship. Styles that did prove popular with rural Weld County residents were the bungalowoid and its variations, and the Foursquare, or prairie cube, and its variations, including one-story, hipped roof cottages for workers' quarters. The variations on the Foursquare primarily are found in porch treatments, rear additions, window arrangements and dormer/no dormer roof lines, not in the basic volume, massing and feel of the house. Finally, a limited amount of Colonial Revival influence could be seen at one time. Again, it appears as if pattern books and other popular media had great impacts on Weld County. Beyond that the availability of mail order and rural free delivery (RFD) made parts, millwork, decorative items and even whole houses available to Weld County farmers. These tools of mass marketing acted to increase the diversity of Weld County's built environment, but at the same time made much of the area look like farms from Ohio to the Rockies.

Another characteristic that set the mature farm and ranch areas apart from the pioneer phase was the number and diversity of outbuildings at the farmsteads. Specialization of buildings by function became prevalent, often reflecting the type of farming taking place. The one common denominator, the barn,

served three basic functions—storage of hay, an area for intensive livestock husbandry such as milking or draft animal care, and storage for machinery. The other outbuildings that appear to have been fairly common were pump houses for domestic and/or agricultural water supply, animal sheds either attached to the barn or separate, chicken coups, and granaries. Orchardists and truck farmers frequently had produce sheds or packing sheds. Dairy operators built special milking houses, with attached or separate storage rooms for the milk and more feed storage areas, either loafing sheds or hay derricks. Large wheat and grain farms included large granaries or even their own elevators. Beet farmers, on the other hand, tended to have fewer specialized outbuildings but more worker housing. The increase in the size and complexity of machinery after the turn of the century led to most farmers putting up machine sheds separate from their other buildings. At approximately the same time, the automobile caused farmers to construct garages or convert carriage houses. Historically, these garages all appear to be separate from the house, sometimes connected by a breezeway. The farmstead of Weld County by 1920 resembled a small industrial plant much more than it did a subsistence farm of a few decades earlier.

The other notable change in rural architecture for Weld County after 1900 came from the large number of German-Russians that came into the Country as part of the sugar boom. These people brought with them a European heritage that included some distinctive building characteristics. They duplicated, as best they could, their traditional styles in Weld County. Some compromise and accommodation had to be reached because of the materials available for use. What appears to have developed is a hybrid architecture with European style and American components. The houses and barns tended to display the

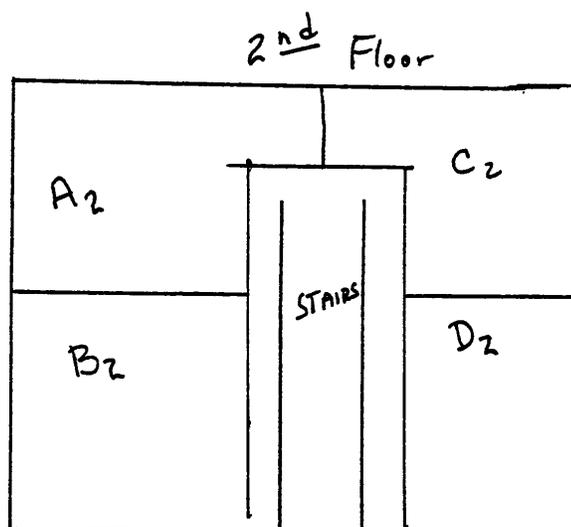
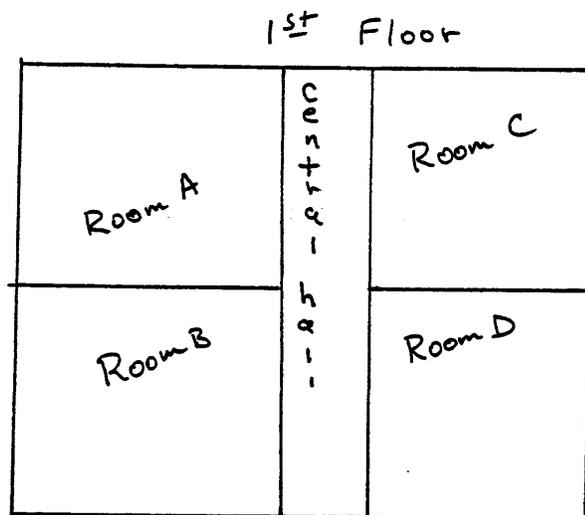


Diagram of Double Pile Floorplan

most obvious European characteristics, especially the barns with their high stone foundations, large gabled roofs and general squarish massing, rather than the tradition gambrelled American barns (observed northwest of Ft. Lupton). In addition to the German-Russians, other Europeans left their marks on Weld County farms, but generally their small numbers led to isolated examples. Again, the barn and house, more than any of the utilitarian buildings, set these farms apart from their Midwestern neighbors.

While the farms developed and spread during the maturation period and their out buildings became more specialized by function, the ranches of Weld County tended to have a more constant architectural growth. The ranches generally consisted of a main house, outhouse, bunkhouses and associated outhouse, stables, hay (loafing) sheds and occasional machinery sheds or blacksmith buildings on the larger ranches, during the late nineteenth century. Corrals, both near the main complex and scattered on the ranch lands, also were present. The other feature that sets many of the ranches apart was the presence of line cabins or shacks, small cabins used for temporary shelter by cowboys tending herds away from the main complex. During the 1890s and early part of this century specialized corral complexes and sheds began to dot the ranches. These were used for sheep shearing and dipping and reflect the growth of sheep husbandry. During the twentieth century, as more and more mechanized equipment appeared, buildings to house it were built. Also, during the present century, as more and more winter feeding was done, silos and feedlots were built to tend the livestock. As this happened, the differences between the ranches and many of the farms, at least in their built environment, tended to decrease.

During the 1920s and 1930s, one agricultural structure experience more change than any other—the grain bin. Late nineteenth-century farmers had depended on slat side corn cribs and enclosed buildings similar to cottages to store their grain. This system was practical for the smaller farms and lower yields of the period, but as agronomists found new and more productive techniques and land holding grew, these structures proved inadequate. In their place rural designers began working on plans for grain bins—small, easily constructed buildings that could be used to store any type of grain. The first ones appeared in the early twentieth century and by World War I the octagonal wood frame wood sided bin appears to have been fairly common on the grain farms of Weld County.

During the Great Depression, when Secretary of Agriculture Henry Wallace announced his concept of the ever normal granary, a plan to allow on the farm storage of grain and other commodities for times of shortfall, bin construction got a boost in the form of federal aid for construction. Because of the need for massive numbers of storage bins nation-wide, the prefabricated metal bin became very popular. These were easy to assemble on any site by a farmer with a set of wrenches and an extra helper. The utility of these bins quickly became

obvious so that since that time they have been one of the most commonly used and popular of all farm structures. The first experiments with metal bins came during the 1920s, however, at that time wood remained the preferred building material. It was during the 1930s that refinements in metal bin design and reduced costs made them a viable and attractive alternative for farmers.

The Depression led to other changes in the Weld County built environment some of which set trends that have continued to the present. First were the abandonment of some farms and a consolidation of property into larger units. This has caused the destruction of many of the buildings that were once present, often leaving only leveled areas, a few trees, and day lilies to mark the site. Those that survived the Depression enjoyed a World War II and postwar boom that led to more change and on many farms peculiar mixtures of old outbuildings and new farm houses or new, prefabricated steel buildings and an old house. The other factor that has changed the Weld County built environment is the Colorado property tax system that discourages preservation of abandoned or little used buildings by keeping them on the tax roles until they are destroyed.

Buildings associated with agricultural development which were once found throughout much of rural Weld County include school houses, grange halls, churches, and local cross-roads stores. Structures once present include beet dumps, livestock loading pens and corrals, windmills, hay derricks, and shepherders' wagons. Linear features include railroad tracks, railroad grades, and active or abandoned irrigation systems. Objects include a wide variety of farm machinery and implements.

The schoolhouses appear to have been the traditional wood frame wood sheath end gable style popular throughout much of rural America. Colorado's early adoption of the consolidated school concept and rural busing led to many of these small schoolhouses disappearing from the landscape. During the 1930s, brick cube style schools appeared in Weld County, including some fairly rural areas, as a result of programs of the Roosevelt Administration. The grange halls and churches of rural Weld County appear to have been architecturally similar to the schools, in that they were simple wood frame structures common to much of rural America. In the case of some churches that have remained open, the core building has become rather lost in the myriad of additions.

One feature that set parts of Weld and other beet growing counties apart from the rest of agricultural America was the beet dump or beet loading facility. Very few farmers lived close enough to the sugar plants to actually take their produce to the factory. Instead, they took it to locations on the railroads for transfer to hopper cars and then to the plant. Hand loading from farm wagon to rail car was impractical, so earthen or wood trestle ramps with scale houses were built near the tracks and conveyors or gravity then was used to move the

beets. Abandoned dumps can be found in many parts of the county today as trucks now handle much of the beet traffic. Along with the growth of beet cultivation, railroads built a number of feeder lines from the dumps to the plants forming a fairly tight knit rail network in the western portion of Weld County. These feeder lines have by and large been abandoned and the rails removed, but the railbed remains marking their presence.

Another linear feature, critical to much of the County, is the irrigation ditch, canal or system. When first built, especially before 1900, these ditches tended to be unlined. If they remained active concrete lining, especially of the main canal and major laterals frequently happened to minimize water loss into the ditch bottoms. While this discussion will not go into detail on the technology of irrigation (see King, *Engineering*, for detailed descriptions of the various components of an irrigation system), it will note one architectural feature associated with ditches in the pre-automobile period—the ditch rider's cabin or shack. Similar in function to a ranch line shack, these small houses, usually wood framed, were found along the ditches of Weld and other counties. Few of these remain today as pick-up trucks now drive along the ditches and the tenders make it home in the evening. As with the farm buildings, the post-World War II period has led to the loss of many of the County's auxiliary structures.

The farm buildings associated with irrigation systems reflected the needs of the crops grown or animals raised. As a result of the availability of a steady water supply the complexity of the architecture and specialization of structural use is reflected by the built environment. On the other hand, the buildings of historic dryland farms tended to be less specialized, except on the large wheat farms. Those farms frequently had their own grain elevator or elaborate grain storage system. This differentiation between irrigation and non-irrigated farmsteads can still be seen and felt in a number of remaining farms, ranches and associated buildings.

The landscaping typically associated with Weld County farms and ranches, besides plowed fields and pastures, is defined by a concentration of outbuildings around the main structures. A windbreak/shade belt surrounding this complex is quite common. A kitchen garden was frequently located near the main structure. Decorative landscaping was minimal; however, there were many instances of flowerbeds and shrubbery around or on the front side of the main residential structure.

The study team observed an interesting dichotomy during the survey. It seemed that on many of the farms there would be an extensive array of pre-War outbuildings, surrounding a modern suburban house or an old house surrounded by new steel buildings. These represented the most common alterations other than extensions to main structures and routine maintenance. In a number of cases, historic outbuildings remained only as piles of scrap

lumber around the farm lot, in other words, building removal was another commonly observed alteration.

Property Types – Weld County Historic Agricultural Context

The property types discussed in the following pages represent those actually observed during the inventory of southwestern Weld County. As such, there may have been other types at one time which have been removed or so modified and rebuilt that their functional connection to this context has been lost. The rural property types are based on the reconnaissance survey of the area undertaken as part of the project. As such they should be treated as a preliminary analysis subject to later revision as more data becomes available from other portions, especially the eastern sections, of Weld County.

Farmsteads or Ranches – 1870-1939

Farmsteads or ranches can occur either as individual clusters of buildings (farmstead/farm/ranch/ranch complex) or as part of a functionally based agricultural historic district. The buildings typically associated with a Weld County farmstead/ranch include houses, housing for hired hands, barns, animal sheds, silos, equipment sheds, poultry houses, bins, root cellars, corrals, and outhouses. Individual farmsteads/ranches may have all or any combination of the aforementioned buildings and structures. The construction materials usually are wood, possibly with limited use of stone or concrete for walls and metal for roofing. The exception is the silo which tends to be ceramic block or cinder block. The individual buildings may exhibit evidence of modification and expansion over time as the needs of the owner changed. Generally the buildings are vernacular in style and exhibit no particular evidence of use of architectural expertise, rather they were built to meet specific needs and appear to be adaptations of commonly accepted rural turn of the century buildings. These farmsteads/ranches include fields, pastures/hay meadows, and wells, often with windmill or gasoline powered pumps, or ditches or laterals associated with water diversion systems. In areas which can be identified as historic districts or group settlement areas there should be some sense of cohesiveness and a focus such as a crossroads store or schoolhouse. Also, some evidence of planning and adaptations to the local topography will be present in those areas. Topography and land availability impacted the spatial arrangement and location of individual farmsteads, but not in as clearly a discernable manner as in the group areas. The condition of these resources varies from active farms to badly deteriorated, abandoned, partially or totally destroyed farmsteads, occasionally marked by tree lines or root cellar depressions.

There are certain individual building/ structure types associated with the context that act to set the farms apart. Houses, either the main house, or the hands houses, tended to be of styles representative of their period of construc-

tion, as discussed earlier. Generally, a clear distinction between the main house and the hands house could be seen in scale rather than materials or decorative treatments. Wood predominated as the construction material. Other buildings include barns, poultry houses, sheds, and produce storage buildings (bins, silos, elevators and the like).

Barns tended to be vernacular buildings of wood. The scale varied greatly reflecting function. Farms that had their heritage in the early twentieth-century sugar beet boom generally had smaller barns without large hay lofts reflecting functions more akin to a workshop than animal care. Others had large hay lofts and reflected either dairy or draft animal care. Round barns, something of the rage in the Midwest at the turn of the century were not observed in southwestern Weld County. (Note: there was one in 1984 in Aurora, CO). Poultry houses are also vernacular and can be readily identified by their saltbox or shed roofs and one wall, usually the tallest, having an inordinately high number of windows. Sheds tend to be wood buildings of widely varying sizes, but usually rectangular in shape. Animal sheds and some equipment sheds have only three sides, most have four. Produce storage buildings vary from small wood or circular metal grain bins to much larger buildings. The larger buildings are generally of wood construction. Elevators, popular on individual wheat farms before World War I, are very similar in overall shape and construction to larger "co-op" or grain dealer ones except in scale. Silos are upright cylinders of cinderblock or ceramic tile approximately 75' tall. They generally were in close proximity to either a barn or animal shed. This list of property types may expand as more of the county, particularly more ranches and dryland farms are examined. The reconnaissance observed a distinct shift to a more Great Plains type farm in the eastern areas with fewer large outbuildings. These individual buildings may be significant under either Criterion A, for their historic association with Weld County agriculture, or Criterion C, as good examples of rural vernacular architecture.

Significance and National Register Registration Requirements

The agricultural properties, either individually or as part of a district in Weld County are significant under Criterion A, in that these farmsteads reflect the establishment of permanent agricultural settlement in the region, the first economically intensive use of the land by Euro-Americans and the longest lived economic activity there. They are significant under either of two areas—*agriculture* or *exploration/settlement*. Some may be significant under *ethnic heritage*. They are generally significant at the local and state level. The period of significance spans the period from 1870 to 1939. Within the period of significance there are three distinct sub-periods; 1) 1870-1900 or frontier, 2) 1900-1920 or land boom period and 3) 1920-1939 or Great Depression.

Resources associated with this part of the context and this property type must meet the requirements outlined below to be considered as eligible for inclusion

in the National Register of Historic Places. The first requirement is that the property be historically associated with the context, that is, it must have been either farm or rural community focal point (store, church, school) during the period of significance. As well, an individual property or a district must have either been documented as part of an important trend, such as group settlement, or be associated with a farm that made a significant contribution to local agricultural development. The second requirement is that the physical characteristics of a farm or associated building must be present. Specifically for farms/ranches the house and outbuildings be of vernacular style and of appropriate materials (wood, stucco, brick, tile or similar materials) and that individual farms must have enough of the outbuildings, fields and pastures present to convey the historic feeling of a farm during the period of significance, including design and setting, to make the function of the farmstead and its components readily apparent. The individual buildings must be in their original location or their location during the period of significance to convey the historic feeling of the farm. Additions or modifications must not impair the quality of the historic fabric (design, materials, and workmanship) of the individual buildings within the farmstead. Buildings that help convey the impact of the maturation process in local settlement must have dates of construction during the period of significance. If the individual buildings or structures have-lost-any of their ability to convey either their design, materials, workmanship or character and function within the farmstead through natural deterioration or the activities of man during or after the period of significance, then those specific resources shall be considered to be not eligible. For features and structures such as fields or pastures, attempts to recontour, fill in or otherwise obliterate any part of the feature shall be considered to have destroyed the design, setting, workmanship, and association of that feature making it specifically not eligible.

For districts made up of farmsteads, farming lands or ranches, different registration requirements apply. The first requirement is that the district be historically associated with an important trend identified in the context, that is it must have been contained a number of farms during the period of significance and been part of an identifiable social or economic pattern. The second requirement is that the physical characteristics of a farm/ranch or rural community must be present; specifically that setting and feeling as they were during the period of significance should still be conveyed by the district. The setting should show evidence of a settlement and land use scheme giving continuity to the district. The district also must convey the spatial association of the various farms and features within the district to each other. Another element that distinguishes the overall design, setting, and feeling for the district is definable lines of communication/transportation that would have cemented the community/district together during the period of significance. In potential historic districts served by water diversion/irrigation systems elements of that system must remain and the system must still either carry or be able to carry water. Another area of significance for irrigation systems may be for their en-

gineering values and as such should be evaluated under criteria outlined in Joseph King's *Colorado Engineering Context*. The final elements that help define the setting and feeling are the discernable presence of fields, fence lines, and pastures that meet the requirements for those structures/sites. As a district is defined in terms of land use, it is assumed that location, workmanship, and materials were limited by the nature of the property and are not issues pertinent to the registration of farming districts. Within the districts there must be individually eligible farmsteads or ranches.

As there are already abundant written and oral records regarding Weld County farming/ranching activities during the period of significance, the resources associated with the context may have no significant informational (historic archaeological) value and should not be considered eligible under Criterion D until a coherent regional research design has been developed to define the specific information to be gained and direct any excavation activity. No National Register criteria exceptions apply to these property types.

Town Commercial Buildings, Structures and Districts – 1870-1939

The physical characteristics of these properties include one or more of the following elements. The properties generally will be vernacular in style, reflecting building traditions of the late nineteenth or early twentieth centuries. The vernacular thinking appears to have been influenced by the then available technology for functions such as elevators or milling. Beyond the technical considerations, introduction of metal (cast iron and tin) building fronts and components allowed builders greater flexibility without unreasonable costs. These properties will include: grain elevators; seed, feed and supply stores; implement stores/dealers; livestock dealer buildings and sale barns; mills; creameries; meat/poultry processing plants; canneries; and local or county fair complexes. These properties varied over time as the needs of a specific business or activity changed. There were no observed ethnic differentiations or peculiar stylistic characteristics in the study area.

Materials used included milled lumber, brick, cast iron, sheet metal and tin. The buildings could be from one to five stories, but varied from as narrow as twenty feet to as wide as 75 feet. Frequently multiple buildings were incorporated into one unified complex. The buildings will be found on the edges of the central commercial district and/or near the railroad or former railroad. These buildings will usually have dates of construction between 1870 and 1920. Most of these buildings will have suffered from modification and expansion. The interiors especially will have lost most if not all their historic fabric through modernization. The exteriors may or may not have been heavily impacted by later adaptations or remodeling. These properties may be parts of larger commercial districts associated with other contexts. As such district components, they should also be considered as individual properties or districts within this context.

Significance and National Register Registration Requirements

The significance of this context's properties is rooted in the combination of necessity to conduct commerce and carry on agricultural pursuits in Weld County. Properties in this context must be associated with National Register Criterion A under the areas of significance of *agriculture* and *commerce* related at the local or in some cases the state level. The resources also may be significant under Criterion C, as representative of types and periods of vernacular construction, especially since only a few resources of certain types remain extant from once much larger resource populations.

Registration Requirements: Resources associated with this context and these property types must meet the requirements outlined below to be considered as eligible for inclusion in the National Register of Historic Places. The first requirement is that the property be historically associated with the context. Beyond that, there must be either a significant contribution made by the resource or district to the evolution of local agriculture. It may also be representative of a once vastly larger population of the property type which has now declined. In either case that significance or representatives must be clearly documented. The second requirement is that the physical characteristics of a resource in this context must be present, specifically that the buildings be of vernacular style and maintain enough of their historic fabric to make their function readily apparent. The properties may be found either singularly or as part of a contextually related district. All resources must be at least fifty years old. Finally, in a district the contributing resources must be at least fifty years old as part of the district. The individual buildings and/or the district must be in their original location or their location during the period of significance and the setting must be present to convey their historic feeling and function. Additions or modifications must not impair the quality of the historic fabric (design, materials and workmanship) of the individual contributing buildings within a district. The only National Register criteria exceptions that apply to these property types are cases in which a property from the recent past is representative of a once large property category that has now declined and the property can be tied to a factor significant in the growth of local agriculture. Presently, not enough is known about the informational potential of these property types to adequately address their potential significance or establish registration for them under Criterion D.

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Appendix I

Recent Agricultural Information

- Weld County is the third or fourth largest agriculturally producing region in the country. The fluctuation between third and fourth depends upon crop yields and prices in any given year.
- Total production for 1988 (at prices sold) is \$830 million.
- Each year approximately one million cattle from Weld County are marketed. One half million lambs are in lots each year. This makes Weld County one of the largest lamb-feeding counties in the United States. Additionally, 2.2 million pounds of wool are produced annually.
- 100,000 head of swine are feeding in Weld County. Poultry and turkeys average \$51 million a year.
- Annual production of sugar beets involves 18,000 acres.
- 420,000 acres of land is irrigated.

Source: July 1988 Colorado Business Magazine