Historic Agricultural Resources of Twin Falls County, Idaho

Multiple Property Documentation Form

Summary:

The attached Multiple Property Documentation Form (MPDF) provides the context for evaluating sites related to historic agricultural resources located in Twin Falls County for listing in the National Register of Historic Places. Associated contexts, property types, and registration requirements are provided to help develop future National Register nominations related to these resources.

SHPO Comments:

This MPDF was funded through a Certified Local Government Grant awarded by SHPO to Twin Falls County to complete the context and an associated National Register nomination for the historic Brose Ranch near Hansen, Idaho. It is anticipated the Historic Sites Review Board will be presented with this nomination in June 2021. Unfortunately, as the MPDF was submitted to SHPO the week of May 18th, our office was unable to review or edit the document prior to distribution to the Review Board. As the document is associated with a Certified Local Government grant, all edits and revisions must be completed by September 2020.

Recommendation:

SHPO recommends the Idaho State Historic Sites Review Board forward the MPDF to the National Park Service with a recommendation to approve the document as a basis for evaluating related properties for listing in the National Register.

IDAHO STATE HISTORICAL SOCIETY

Preserving the past, enriching the future.

United States Department of the Interior
National Park Service

National Register of Historic Places Multiple Property Documentation Form

This form is used for documenting property groups relating to one or several historic contexts. See instructions in National Register Bulletin *How to Complete the Multiple Property Documentation Form* (formerly 16B). Complete each item by entering the requested information.

X New Submission _____ Amended Submission

A. Name of Multiple Property Listing
Historic Agricultural Resources of Twin Falls County, Idaho 1860 to 1970

B. Associated Historic Contexts
(Name each associated historic context, identifying theme, geographical area, and chronological period for each.)

Please see Section E below for a more detailed breakdown of the historic contexts by topic and timeframe.

1. *A History of Agriculture in Twin Falls County 1860-1970*
2. *Agriculture-Related Construction Materials and Techniques*

C. Form Prepared by:
name/title *Barbara Perry Bauer and Elizabeth Jacox*
organization *TAG Historical Research & Consulting*
street & number *P.O. Box 7333*
city or town Boise state *ID* zip code *83707-1333*
e-mail *ejacox@taghistory.com*
telephone *208-338-1014* date

D. Certification
As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this documentation form meets the National Register documentation standards and sets forth requirements for the listing of related properties consistent with the National Register criteria. This submission meets the procedural and professional requirements set forth in 36 CFR 60 and the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation.

_____ _____ _____
Signature of certifying official Title Date

_____
State or Federal Agency or Tribal government

I hereby certify that this multiple property documentation form has been approved by the National Register as a basis for evaluating related properties for listing in the National Register.

United States Department of the Interior
National Park Service

Historic Agricultural Resources of Twin Falls County, Idaho — Idaho
Name of Multiple Property Listing — State

_____ _____
Signature of the Keeper Date of Action

Table of Contents for Written Narrative

Create a Table of Contents and list the page numbers for each of these sections in the space below. Provide narrative explanations for each of these sections on continuation sheets. In the header of each section, cite the letter, page number, and name of the multiple property listing. Refer to *How to Complete the Multiple Property Documentation Form* for additional guidance.

United States Department of the Interior
National Park Service

Historic Agricultural Resources of Twin Falls County, Idaho — Idaho
Name of Multiple Property Listing — State

(List major written works and primary location of additional documentation: State Historic Preservation Office, other State agency, Federal agency, local government, university, or other, specifying repository.)

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C.460 et seq.). We may not conduct or sponsor and you are not required to respond to a collection of information unless it displays a currently valid OMB control number.
Estimated Burden Statement: Public reporting burden for each response using this form is estimated to be between the Tier 1 and Tier 4 levels with the estimate of the time for each tier as follows:

Tier 1: 60-100 hours (generally existing multiple property submissions by paid consultants and by Maine State Historic Preservation staff
for in-house, individual nomination preparation)
Tier 2: 120 hours (generally individual nominations by paid consultants)
Tier 3: 230 hours (generally new district nominations by paid consultants)
Tier 4: 280 hours (generally newly proposed MPS cover documents by paid consultants).

The above estimates include time for reviewing instructions, gathering and maintaining data, and preparing and transmitting reports. Send comments regarding these estimates or any other aspect of the requirement(s) to the Service Information Collection Clearance Officer, National Park Service, 1201 Oakridge Drive Fort Collins, CO 80525.

State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended,

I hereby certify that this ___ additional documentation ___ move ___ removal
___ name change (additional documentation) ___ other

meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.

_____

Signature of Certifying Official/Title: Date of Action

National Park Service Certification

I hereby certify that this property is:

___ entered in the National Register

___ determined eligible for the National Register

___ determined not eligible for the National Register

___ removed from the National Register

__ additional documentation accepted

___ other (explain:) _____

_____
Signature of the Keeper Date of Action

E. Statement of Historic Contexts

Summary

The Twin Falls County Historic Preservation Commission has documented agricultural-related resources in a series of inventory projects conducted over the past decade. This documentation, combined with the results of other surveys within the county boundaries conducted to National Park Service Standards and filed with the Idaho State Historic Preservation Office, was used to complete this Multiple Property Documentation Form (MPD).

The purpose of the MPD is to assist property owners in listing agriculture-related resources to the National Register of Historic Places. The MPD includes two historic contexts. The first "A History of Agriculture in Twin Falls County To 1970" provides a brief chronological history of the development of agriculture in the county, including the importance of the development of irrigation, agricultural research, and cultural diversity. The context is divided chronologically into subchapters, beginning with "Pre-settlement (Pre-history-1860)" which covers indigenous occupation and use of the land, early exploration, and the years of overland migration when emigrants traversed the future county via the Overland Trails to Oregon and California. "Miners, Ranchers, and Settlements (1860 to 1890)" covers the years when mining booms in what became Idaho and Montana, combined with continued overland travel to Oregon and California brought the establishment of passenger and freight stage lines with their associated rest stations, the discovery of good grazing attracted stockmen from Texas and California, and the call of gold lured miners to search for it in the Snake River Canyon. In the 1880s when railroad lines were extended across southern Idaho, the shifting transportation network influenced the location of new settlements generally away from the arid lands of what was then the west half of Cassia County. "Irrigation Age (1890 to 1910)" tells the story of the development of irrigation, leading up to the Twin Falls South Side Irrigation Project, possibly the most successful irrigation project under the Carey Act, which brought an influx of settlers and resulted in the establishment of numerous new communities and the creation of Twin Falls County. "Boom and Bust (1910-1929)" covers the years of World War I and the agricultural depression which followed it. "The Great Depression (1929-1941)" includes information on the migrant farm labor pool created by Dust Bowl farm refugees and the growing need for seasonal farm labor. "World War II (1941-1945)" discusses the expansion of producing crops for the war effort as well as the challenges of finding sufficient farm labor, including the use of Japanese Americans interned at Minidoka Relocation Center. "Mid-20th Century Agriculture in Twin Falls County (1946-1970) brings the story from the years immediately after the war through the middle of the 20th century with the new challenges facing agriculture including farm consolidation, economic issues, technological change, and the effects of urbanization.

The second context "Agriculture-related Construction Materials and Techniques" discusses materials and methods used in the construction of agricultural resources, providing background for the Property Types presented in Section F.

1. A HISTORY OF AGRICULTURE IN TWIN FALLS COUNTY 1860-1970

Introduction

Twin Falls County, created in 1907 from Cassia County, covers an area of more than 1,900 square miles in southern Idaho.[1] The county extends from the Snake River on the north to the Nevada state line on the south and east from Cassia County to Elmore County on the west. On the north, across the Snake River, Jerome County border Twin Falls County on the northeast, while Gooding County border it on the northwest.

For thousands of years native peoples traversed the arid area camping and fishing along its rivers and streams, hunting deer and other game, and gathering a variety of roots, berries, and other foods. In the mid-19th century, the overland trails to Oregon and California crossed the Snake River Plain and brought thousands of people through modern Twin Falls County as they headed west toward Oregon and California. The difficult terrain and arid climate did not entice the emigrants to remain. The mining booms of the 1860s, stock raising, and the development of transportation networks were the first activities to bring in more permanent settlement. A few hardy farmers came and established small farms near water sources, developing their own ditches to move water to the fields, but it took large-scale irrigation systems involving private investors, state governments, and federal laws after the turn of the 20th century to finally support the growth and development of agriculture in the county.

A. Pre-Settlement (Pre-history to 1860)

Archaeological evidence places the presence of hunters in the area now encompassed by Twin Falls County to approximately 15,000 B.P. These Late Pleistocene people hunted camel, sloth, and musk ox.

Later, as the climate changed and former prey became extinct, technologies were adapted to create tools for hunting smaller game and fish. The Snake River Plain provided Shoshone, Bannock , and Northern Paiute people with game as well as grasses and plants to be collected and used for food. At Shoshone Falls on the Snake River, a barrier to the migration of salmon and other fish upriver, the people gathered to fish and camp.[2]

[1]Modern Twin Falls County was encompassed in Owyhee County, created in December 1863, before Cassia County was created from the eastern portion of Owyhee County in 1879. From December 1863 until February 1879, the county seat was Silver City; Albion was the county seat of Cassia County. "Idaho," *Atlas of Historical County Boundaries*, an online resource of the Newberry Library's Dr. William M. Scholl Center for American History and Culture, edited by John H. Long, et al. https://publications.newberry.org/ahcbp/pages/Idaho.html accessed April 2020.

[2] Laurie Mauser and Madeline Buckendorf, "Cultural Resources Survey and Evaluation for Twin Falls Aquatic Ecosystem Restoration Project, Perrine Coulee and Rock Creek at Twin Falls, Idaho, Project No. W68SB43106-8491, prepared for the U.S. Army Corps of Engineers, Walla Walla District, 2004. Digital copy on file at TAG offices, Boise, Idaho.

The first Euro-American incursion into the area occurred in 1810 when the Wilson Price Hunt party, explored the area for fur-trade possibilities on behalf of John Jacob Astor. In 1811, Hunt's crew met disaster at Caldron Linn falls. The early Snake River was deceptively calm at its upper headwaters and therefore navigable by Hunt's canoes traveling west. The party entered what is now Milner Gorge and negotiated the treacherous rapids. Seven miles downstream, they reached Caldron Linn and not knowing of the fall's presence, were unable to escape the drop. One man lost his life and the company's canoes, and equipment were strewn along the banks.[3]

One of the party, Donald Mackenzie, continued to return to the Snake River Plains to explore for Hudson's Bay Company. Other trappers, traders, surveyors, and explorers followed: Jedediah Smith, Alexander Ross, Peter Skene Ogden, Capt. BLE Bonneville, artist George Catlin, Nathaniel Wyeth, and missionary Jason Lee were among many who recorded the Snake River Plains landscape, established overland routes often based on Native American trails, and assessed possibilities for hunting, trapping, mining and settlement. As early as 1839, Oregon Trail emigrant Thomas Jefferson Farnham saw the Snake's Shoshone Falls as a future power source for machines when others saw it as a remarkable feature of beauty or an impediment to river travel.[4]

John C. Fremont's government-sponsored cartographic surveys during the mid-1840s mapped the Snake River's problematic landscape and suggested land-use probabilities that eventually drew settlement attention to the Twin Falls region. However, following the Hunt Party's 1811 disaster at Caldron Linn, it would take almost 40 years for settlers moving westward to be drawn to the arid northern Great Basin desert region that comprises the southern Snake River Plain.

The first large party of emigrants traveled what became known as the Oregon Trail in the spring of 1843. Lured by reports of the fertility of the Willamette Valley in Western Oregon, and looking for better opportunities in the wake of economic depressions in the late 1830s and early 1840s, farmers from Ohio, Illinois, Kentucky, and Tennessee organized into groups and began the Great Migration, which eventually brought thousands of people across the territories and as-yet unorganized areas of land to settle in Oregon. Those who followed the Snake River on the south side crossed through land that is now part of Twin Falls County, stopping to rest along the way at campsites near water, like Rock Creek.

B. Miners, Ranchers, and Settlements (1860 to 1890)

Miners and Settlers

The discovery of gold in north Idaho in 1860 near present day Pierce, followed by subsequent discoveries further south, brought trickles, then floods of people into what became Idaho Territory in 1863. By 1870, miners were working placers and prospecting for gold along the Snake River from Fort Hall to Shoshone Falls. Although some gold was produced from the Snake River placers and mining on a small scale

[3] Jim Gentry, *In the Middle and on the Edge: The Twin Falls Region of Idaho* (Twin Falls: College of Southern Idaho, Twin Falls Centennial Commission, 2003), 28-29.
[4] Ibid., 30-37.

continued for years, it did not appear that Snake River mines would establish any permanent populations. Mining activity attracted others to the area to provide services to them and traffic along the emigrant trails continued as people moved through to settle further west in Oregon and California. In 1864 entrepreneur Ben Holladay won the mail contract for delivery from Salt Lake City to Walla Walla, Washington Territory, and established a series of stations on his new route, including a "home" station at Rock Creek where travelers could stop for meals. The following year, James Bascom and his partner, John O. Corder, established a store at the home station, the only store between Fort Hall and Fort Boise. Their log store building remains standing today at the Rock Creek Station/Stricker Homesite historic site near Hansen, the oldest extant building in Twin Falls County. In 1877, Bascom and Corder sold the store to Herman Stricker, a German immigrant who arrived in Idaho after the Civil War, and his partner, John Botzet.

Development of Cattle and Sheep Ranching

Cattle were brought to southern Idaho in the late 1860s by James Q. Shirley, who drove a herd from Texas to his ranch near Fort Hall. When the Fort Hall Indian Reservation was created in 1868, Shirley relinquished his Fort Hall ranch and in exchange received six sections of land on Raft River at the mouth of Cassia Creek. The bottomlands along Raft River, Goose Creek, and Rock Creek provided an abundant supply of tall native grasses and white sage suitable for grazing. Cattle herds in southern Idaho increased after the transcontinental railroad was completed in 1869.[5]

In 1871, partners Arthur D. Norton and Milo G. Robinson brought 400 head of Texas cattle into the Rock Creek Valley, driving them to Idaho from Cheyenne, Wyoming. They were the first cattle ranged in what is now Twin Falls County. The cattle were turned out on Rock Creek, but the ranch headquarters was established by Norton and Robinson about twelve miles south of present-day Twin Falls. [6]

Andrew Jasper "Barley" Harrell, a successful cattle rancher from Visalia, California, trailed cattle over the Sierra Nevada for grazing near the Nevada-Idaho border. James Bower, Harrell's foreman traveled into the Rock Creek area and discovered good grazing, which he reported back to Harrell.[7]

Cattle ranchers faced competition from sheep ranchers who were developing herds east of Rock Creek. A German sheep rancher named Helgaer brought a band of about 3,000 sheep from Nevada. They perished during heavy snowfall of winter 1874-75. This episode, coupled with large numbers of cattle in the area, kept sheep out of country for about ten years.[8]

The cattle ranchers convinced the Idaho legislature to pass the so-called "Two Mile Act" making it illegal in specific counties for sheep to be grazed or herded onto the "possessory claims" of others or to be grazed within two miles of any dwelling. This law was strengthened by passage of a Priority Rights law

[5] Daniel J. Hutchison and Larry R. Jones, *Emigrant Trails of Southern Idaho* [Boise, Idaho]: Bureau of Land Management, Idaho State Historical Society, 1992, p 147-148.
[6] Gus Kelker, *A folk history of Twin Falls County* (Twin Falls, Idaho: Standard Printing, 1974), p 19.
[7] Edna B. Patterson, Louise A. Ulph, and Victor Goodwin. *Nevada's Northeast Frontier*. Reno: University of Nevada Press, 1991).
[8] History of the Sawtooth National Forest, 1942.

making it illegal to range sheep where cattle had grazed. Friction between cattle and sheep men would eventually lead to range wars.[9]

By 1887 Cassia County sheep numbered 50,000. Sheep utilized winter range efficiently, leaving little feed for cattle, and causing more friction between the cattle and sheep ranchers.

> "Here in Idaho, sections that a few years ago afforded seemingly unlimited winter range for stock are now becoming narrowed down and eaten out. All this suggests that a change must be made in stock raising, and that herding in summer and feeding in winter is the remedy...."[10]

According to an unwritten rule, sheep were to graze in the eastern part of Cassia County and cattle to the west. The dividing line, known as "Deadline Ridge," separated Goose Creek, which flowed northeast into the Snake near the present town of Burley, from Deep Creek and the Salmon Falls River, which flowed northwest into the Snake in the Hagerman Valley.[11]

Although cattlemen had come to the area because of the abundance of feed for their herds, droughts combined with overgrazing, depleted the supply of forage. Stockmen gradually realized that it would be important to start putting up hay to feed their animals in the winters.

Agriculture in the Early Years

Small scale irrigation on the Snake River Plain was in place by the 1850s as individual settlers, and members of religious and ethnic communities arrived and immediately took advantage of riverine systems. Latter-Day Saints (Mormons) from Utah had been building irrigation systems for their communities since their arrival. As part of an effort to secure the LDS Church's area of influence, church President Brigham Young directed the settlement of colonies throughout northern Utah, and further north as well. In 1855 when Fort Lemhi, a settlement established by members of the church on the Salmon River in future Lemhi County, the infrastructure included an irrigation ditch. That settlement was abandoned in 1858, and the church itself ceased to require colonization by its members, but for the next thirty years, Mormon settlers continued to establish communities in southeastern and southcentral Idaho, constructing small irrigation systems in each place. In the 1870s similar communities were set up at Marsh Basin (later Albion) and Goose Creek (later Oakley) in western Cassia County, both incorporating irrigation systems into community development.[12]

By the late 1870s, small communities were developing. Young men such as Charles Walgamott and Frank Riblett came to visit relatives, tried their hand at mining, and then found other reasons to stay. Walgamott became interested in the idea of promoting Shoshone Falls as a tourist destination, a whim which became a goal for him. Riblett, at the young age of 19, began to consider the possibilities for

[9] U.S. Forest Service, Intermountain Region, *History of Minidoka National Forest*, ([Ogden, Utah]:U.S. Dept. of Agriculture,1944).
[10] "Stock Ranges Eaten Out" *(Boise) Idaho Tri-Weekly Statesman*, Feb. 10, 1887.
[11] David H. Grover, *Diamondfield Jack: A Study in Frontier Justice*, (Caldwell, Idaho: Caxton Press, 2008).
[12] Merrill D. Beal and Merle W. Wells, *History of Idaho*, (New York: Lewis Historical Publishing Company, 1959), Vol. II, pp. 119-126; Gentry, pp. 84-85.

developing irrigation on a larger scale, a dream he nurtured as he supported himself first as a teacher, then later as a surveyor. Gold mining attracted James and Anna Iverson to the area from Denmark in 1870. Like many others who followed that call, they discovered that they could support themselves by providing for the miners and ran a restaurant near Springtown, a mining camp in the Snake River Canyon. Later they moved to a ranch, along with John Iverson, James's brother. A few years later, in 1876, John F. Hansen, another Danish immigrant, headed to Rock Creek. In poor health, Hansen made the decision to leave Indianapolis where he had settled after reading a letter in a Danish-language newspaper from James Iverson describing Rock Creek. The next year his brother Laurence arrived in Rock Creek to, along with his wife and children and his wife's sister. According to local lore, Swedish immigrant Lars Larson and his wife and children were headed to Oregon from Utah and stopped to rest at Rock Creek and decided to stay. These new residents established small farms and ranches where they raised a few cattle and grew hay for feed as well as a few vegetables for their own consumption, selling any extra to the miners and travelers that passed by. Settling close to the water, the early farmer/ranchers developed ditches to bring the water to their fields.[13]

Toward the end of the 1870s, the population in western Cassia County had grown large enough that residents began to agitate for a new county, with a county seat located a little nearer than Silver City. Petitions were circulated and submitted, and in February 1879, the Territorial legislature created Cassia County. The residents of the new county selected Marsh Basin, re-named Albion, as the county seat.

Initially settlers in the new county had established claims to their land by living there—squatting—without legal title. They constructed buildings, built fences, dug ditches, planted crops, and grazed their livestock on the land. This casual claim worked well if there were few settlers and the county seat distant, but it created a bit of uncertainty about their ability to defend their legal rights. Once it was clear more people would be staying and establishing homes, formalizing ownership gained importance. Congress had been encouraging westward expansion for decades with laws passed to facilitate land ownership. The Homestead Act, passed in 1862, made land available to any person who was a citizen of the United States or had filed a declaration to become a citizen. The law provided 160 acres of land free to each individual, with the requirement that the property was occupied and improved for five years. If the claimant preferred to pay for the land, it could be purchased for $1.25 per acre after six months. Charles Trotter, who was the home station manager and hotelier at Rock Creek Station, filed his claim under the Homestead Act and received his patent in 1878. Patrick Garety, an Irish immigrant, received his patent under the Homestead Act in 1882. Both men claimed land near Rock Creek.[14]

In 1873, the Timber Culture Act was passed, an attempt to encourage tree planting, particularly "on the western prairies." The original act provided that a settler who planted 40 acres of trees, spaced not more

[13] Gentry, pp. 81-88.

[14] Information about the public land acts is from Roy M. Robbins, *Our Landed Heritage: The Public Domain 1776-1936*, (Princeton: Princeton University Press, 1942), pp. 218-219; certificates for the settlers named in each example were found on the U. S. Bureau of Land Management website, "General Land Office Records," https://glorecords.blm.gov/, accessed April, 2020.

than twelve feet apart and kept the trees growing for ten years could claim title to the quarter section which included the forty acres. The act also if homesteaders who had remained on their land for three years with one acre of trees under cultivation for two years of the time would be given patents. The act was amended in 1878 and the acreage requirement was reduced from forty to ten acres. Although meeting the provisions might have been challenging in southern Idaho, Patrick Garety and Laurence Hansen both filed certificates for acreage under the Timber Culture Act.

The Desert Land Act was passed in 1877 with a focus to promote settlement on the arid land of the western states and territories. The act provided that a settler could purchase a section, or 640 acres, of land, with a deposit of 25 cents per acre at the time of filing, with an additional $1.00 per acre paid when final proof was field. Rancher A.D. Norton and Herman Stricker, the Rock Creek store keeper who eventually went into farming, both filed Desert Land Entry claims for portions of their land.

The Desert Land Act encouraged interest in irrigation and created some excitement but did not result in drawing large numbers of people to dry lands. No one at that moment had the capabilities—economic and technological—required to build and operate extensive irrigation systems, or an understanding of how desert soils would respond to the delivery of water.

West of the settlement at Rock Creek, Deep Creek Meadows (later renamed Rogerson) was homesteaded in 1880. Deep Creek settlers immediately began constructing irrigation delivery systems which included reconfiguring Deep Creek itself. It served as a ubiquitous example of the settlers attempts to manage land with minimal water at hand. Throughout the area, settler water filings increased along creeks, their expressed intent being to develop dams, ditches, and diversions for agricultural and domestic use. With the livestock industry in slow decline because of overgrazing, irrigated cultivation became a viable option if water could be delivered. Farmers and stockmen called for irrigation across the arid West.[15]

In 1884, a young man stopped at the tent hotel Charles Walgamott had set up on his land at Shoshone Falls. He introduced himself as Burt Perrine and said that he had about twenty-five dairy cows like to turn out in the Snake River Canyon for the winter. Years later, Walgamott recalled the event and was impressed when the young man (Perrine was 23 at the time) told him that without permission to bring the herd in, he had left them behind. Walgamott told Perrine to water his herd then come back for dinner and to stay the night. Then, remembered Walgamott, "… my wife and I…sat down with him and at that midnight meal formed our first acquaintance with Burt Perrine, whom providence had brought to us, and who for several years was our nearest neighbor." The next day the two men drove the cattle down to an area in the canyon known as Blue Lakes.[16]

[15] Hugh Lovin, "Water, Arid Land, and Visions of Advancement on the Snake River Plain," *Idaho Yesterdays* 35/1 (Spring 1991); "1899 Survey to Idaho Counties," Papers of Governor Frank Steunenberg, Idaho State Archives, Boise, Idaho; Gentry, p. 132-149.

[16]Charles Walgamott, *Six Decades Back…(a Series of Historical Sketches of Early Days in Idaho),* Caldwell, Idaho: Caxton Printers, 1936) pp 410-412.
https://play.google.com/books/reader?id=7gNkDQAAQBAJ&hl=en&pg=GBS.PT413, accessed April 2020.

Ira Burton "Burt" Perrine was born in Delaware township, Ripley County, Indiana, in 1861, the oldest of ten children born to George Wilson Perrine and his wife Sarah Burton Perrine. In about 1883 Burt left home and headed west, stopping to visit his mother's sister and brother-in-law, Mary and Archelaus Lingo, who were in Bullion, a mining camp near Hailey in the Wood River Mining District. He tried his hand at mining but soon realized that he would have to supplement his income with other work. Eventually he purchased a small herd of dairy cattle and sold milk to the miners. He learned that cattle could be overwintered in the Snake River Canyon and headed there in the fall of 1884 where the meeting with Charles and Lettie Walgamott changed all their lives. Burt recognized that Blue Lakes wasn't just a good place to graze cattle, it was a promising location for raising fruit and vegetables which could be sold to miners and others in the area, and he had soon established himself there. He was successful in setting out an orchard and raising vegetables as well as hay for livestock. Like others in arid southern Idaho, he dug ditches and brought the water to his orchard and fields. He added to his land holdings, and planted more trees, berries, and vegetables, delivering produce to miners and other settlers from the Wood River Valley to Albion and Oakley. By the time Idaho became a state in 1890, I. B. Perrine had already started discussing ideas about irrigation on a larger scale with close friends, although not all of them could see or understand his vision.

C. Irrigation Age (1890-1910)

In the 1890s the flow of people moving West had slowed and most arable non-irrigated land in the West was settled. Lands easily watered by streams and rivers had long been taken and from the start, water right filings along waterways far exceeded the availability of water. Much of the vast arid lands of the West remained relatively empty, including hundreds of thousands of acres comprising the Snake River Plain. Despite difficult economic conditions following the push to advance irrigated agriculture continued through the decade.

The Carey Act

The 1894 Carey Act, named for its sponsor, Wyoming Senator Joseph Carey, set forth the concept. The act allowed the General Land Office (GLO) to turn over to Western states up to a million acres of public land with the condition that the lands be developed for irrigation. In turn, the states reviewed and approved private investor-driven proposals for planning and construction of irrigation projects. Nine western states took advantage of the opportunity, but only Wyoming and Idaho requested the initial allocation of acres, and both states later asked for additional land. Idaho had the most endeavors--officially 64.[17]

In response to the Carey Act, the 1895 Idaho Legislature passed a series of laws defining its state-federal role in irrigation development. The laws were written by Boise attorney and former state Attorney

[17] Historian Hugh Lovin published extensively on the Carey Act in Idaho and problems with fraudulent irrigation schemes, see "Free Enterprise & Large-Scale Reclamation on the Twin Falls North Side Tract, 1907-1930," *Idaho Yesterdays* 29 (Spring 1985); "How Not to Run a Carey Act Project: The Twin Falls-Salmon Falls Creek Tract, 1904-1922," *Idaho Yesterdays* 30 (Fall 1986); and "The Carey Act in Idaho 1895-1925: An Experiment in Free Enterprise Irrigation," *Pacific Northwest Quarterly* 78 (1987).

General, Samuel H. Hays, and D.W. Ross, soon to be Idaho's State Engineer. Both had prior history in irrigation development and their expertise proved useful. Hays served as a board member and attorney on numerous tracts, including the Twin Falls tracts. Ross assisted in the initial surveys of several proposed projects, including the one which later became the Twin Falls South Side Project.[18]

In 1899, preparing for Carey Act implementation, Governor Steunenberg asked each of Idaho's counties to assess and report their agricultural needs. All listed water as a major issue. Cassia County identified water availability as a major deficit.[19]

In its conception, the aims of the Carey Act seemed straightforward and do-able. It became clear with the first tract openings that it was wrought with unforeseen difficulties. With the exception of warnings from John Wesley Powell about the potential limits of irrigation in the arid regions of the American West, members of U. S. Congress, the GLO, investors, and potential farmers (known as "entry men") did not foresee, nor did the tract surveyors fully understand, the environmental hardships imposed in transforming the Snake River Plain into an 'irrigated Eden'. Early lessons learned by investors and farmers included, among others, that the force of stored water could cause a new dam to leak, upriver water users could acquire all the water before it had a chance to flow downstream, and that even when all things were equal and the dam didn't leak and the water flowed downstream, evaporation, low precipitation, or too many claims on too little water meant some farmers were left out when the water was delivered. The following decades challenged investors, the federal government, and hard-pressed entry men to negotiate the environmental, social, and political snarl from which extrication for all was clearly a last, but common, resort.[20]

The onslaught of irrigation project proposals began in 1900. Governor Steunenberg appointed D.W. Ross State Engineer. Ross received, reviewed, evaluated, and proposed project submissions to the State Land Board for its approval. The State Land Board served as the review board for the state, but usually accepted the State Engineer's evaluation.[21]

Investors were notified of approval and the projects proceeded, with progress monitored by the State Engineer. Twin Falls area projects were among the first and the largest project accepted by the state. The Twin Falls South Side Project, the largest Carey Act irrigation project in the United States, was considered successful and became a model for other states to follow.

Without detailing Carey Act regulations, it can be said that they failed to anticipate the reality of massive undertakings and their multitude of unforeseen economic, chronologic, fiscal, and environmental issues. Indeed, "environment" was not recognized in terms of weather, true water availability, soils science, geology, or impact of human presence and use of the arid landscape.

Instead, states such as Idaho were quickly overwhelmed to find solutions and grant exceptions to over-

[18] Frank W Hunt AR05 Box #129679/20070011, Idaho State Archives, Boise; J. Gentry, Gentry, p. 132-139.
[19] Steunenberg, 1899 County Survey.
[20] Mark Fiege, *Irrigated Eden: The Making of an Agricultural Landscape in the American West*, (Seattle & London: University of Washington Press, 1999), Fiege's final chapter (p. 203-209) is a detailed discussion of the positive and negative consequences of large scale irrigation projects like the Twin Falls South Side project.
[21] Idaho Department of Lands, Carey Act Files.

extended tracts, under-developed or never developed infrastructure, failure to meet timelines, and failure of developers to meet water delivery guarantees to entry men. It took several decades, many failures, and ongoing litigation to eventually resolve water delivery short-comings and close the door on the Carey Act in 1996.[22]

During construction and delivery refinement, financial investors and bondholders were repaid and made a profit—or suffered losses--for their investments from the sale of water rights to settlers. Investors submitted their completed projects for State approval. Once the state deemed project work complete and approved, investors relinquished ownership to the tract patentees ho took controlling ownership and managed it as a canal company. Investor profit hinged on water sales therefore it was vital to attract settlers to their projects even as the works began, and occasionally before.

The Twin Falls Carey Act Projects

Along with community visionaries, Burt Perrine set out to transform the southern Idaho desert into irrigated farmland. Perrine, a man of reputation and force of personality, eventually pulled together entrepreneurs from across the nation to invest in irrigation projects authorized by the Carey Act. Early visions for the Twin Falls area included a national park, waterpower, and irrigation. Perrine and his partners advocated waterpower and irrigation. By 1900, he and his investors began developing regional irrigation projects that would establish irrigated agriculture which would in turn bring commerce, industry, improved transportation, hydropower, settlement and growth. To that end, towns were platted in each segregation (the land set aside for irrigated agriculture) in anticipation of newcomers who would file as entry men and others who would provide goods and services. Most of the towns remain, their names reflect those who invested in the projects: Buhl, Milner, Hollister, Wendell and Kimberly, among others. Ultimately, agricultural growth and rural small-town settlement became realities in successful projects as well in those that failed.

Perrine's various investors and his political connections would create the area's most Carey Act segregations and the most successful of all Carey Act projects across the country: the Twin Falls-South Side project, owned and managed by the Twin Falls Canal Company. Two structures associated with the projects are now on the National Register of Historic Places: Milner Dam, built in 1905 to serve both the Twin Falls-North Side and Twin Falls South Side tracts was placed on the Register in 1986. The Twin Falls-Salmon River Tract, managed by the Salmon Falls Canal Company since 1924, is home to the 1911 Salmon Falls Dam built by engineer, A. J. Wylie. It was placed on the Register in 2009.[23]

Twin Falls area irrigation tract history was a mix of realized ambition and failure as well as political and economic drama. The story of the Twin Falls irrigation projects began in 1900 with the initial surveys of the vast desert lands of Owyhee and Cassia counties south of the Snake, and arid lands in Lincoln county across the Snake River and lying directly north of what is now Twin Falls. Burt Perrine was successful in

[22] John Rosholt, "The Carey Act," *The Advocate* 53 (Nov/Dec 2010), p 25-26; Fiege, p.213-214, note 7.
[23] Dale Gray, National Register of Historic Places, Salmon Falls Dam, Twin Falls County, Idaho, National Register of Historic Places Nomination, 1990.

sparking interest in his ideas and gaining support for them. Between 1903 and 1910, Perrine and various investors submitted at least nine projects covering the Twin Falls/Jerome/Cassia/Owyhee counties area. The investors included Easterners deeply invested in construction, banking, and real estate. Major members included Stanley Milner, Frank Buhl and P.L. Kimberly of Sharon, Pennsylvania—known for their involvement in the Twin Falls South Side Project. Other important investors were the Pittsburgh-based Kuhn brothers, William and James. Their money and business reputation were important factors in the rise and fall of several projects, their most successful being Perrine's second dream—the Twin Falls North Side Project. The Kuhns maintained close management of their Idaho projects and exerted considerable influence in the politics associated with them. In July 1913, the Kuhn financial empire collapsed leaving their business investments, including the Twin Falls tracts, without financing.[24]

As the years progressed, the state, investors, and the federal government learned that adjustments were critical in project development. Tract entry men and patentees' complaints were first quiet and polite but eventually took the form of vocal protests and years of litigation against bondholders. Suits brought by failure to abide by schedule, delivery, construction & maintenance, and water payment agreements were constant for decades. Bondholders wanted a return on their struggling investments; farmers wanted agreements met despite intervening variables such as weather, the national economy, war, or the underestimated conservation impacts of land-use strategies at the time. By the mid-1930s, major legal issues were settled, and local canal companies proceeded to manage their districts and look to the future.

Historic episodes of drought, harsh winters, economic depression and shifts in agricultural and ranching focus were prevalent from the beginning of tract development. Unmet development time schedules, water delivery failures, and unforeseen environmental consequences tested those who stayed on the tracts. As agricultural communities took root, they diversified crops and farming methods to meet dictates of weather and water availability. In return, the original water delivery systems were transformed to meet both demand and conservation.

Agriculture in the Irrigation Age

Idaho entered the union as the 43rd state on July 3, 1890. A consequence of statehood that had an impact on agriculture in Idaho was the creation of the University of Idaho as a land-grant college. Land-grant colleges were the result of the passage by the U. S. Congress of the Morrill Act in 1862, which provided 30,000 acres of public land per member of congress to be sold or used for profit as a way to fund the establishment of public universities where agriculture and the mechanical arts (engineering) would be the focus of study. Related legislation, the Hatch Act, was passed in 1887. The Hatch Act provided funds to establish agricultural experiment stations at land-grant schools and to disseminate information about the studies. The University of Idaho created the experiment station in January of 1892, before the first semester of classes, which opened in October of that year. Although there were many stops and starts in running the program, by the time the first Carey Act projects were initiated in southern Idaho, the University of Idaho had been studying issues in agriculture and working to find improved methods for growing crops and raising

[24] Williams, need page; Gentry, p. 171-174; Idaho Department of Lands, Carey Act Files.

livestock for more than a decade. In 1914, the Smith-Lever Act provided funds for the Cooperative Extension Service, which supported a collaboration between the land-grant schools and the U.S. Department of Agriculture. The two would provide field demonstrations and disseminate information from their research in agriculture and home economics to rural people who did not attend the college. The programs initiated by these various acts for the land-grant college continue to provide information to the agricultural community today.[25]

The Twin Falls Irrigation Projects

Two of Bert Perrine's projects impacted agricultural development in Twin Falls County: The Twin Falls South Side Project and the Twin Falls Salmon River Tract. The South Side Project, which eventually irrigated 360,000 acres, was the largest and most successful Carey Act project. The Salmon Tract, which was originally was intended to cover 128,000 acres, is irrigated by water from the Salmon Falls Reservoir.

In June and July of 1900, Perrine posted and filed for water rights on the Snake River in both Cassia County (south side) and Lincoln County (north side), a preliminary step in applying for a Carey Act project. He then began to secure funds from his investors, beginning with Stanley Milner, a successful mining investor based in Salt Lake City. Milner provided the funds for the preliminary survey of the proposed project area. Once the preliminary survey was complete, Perrine and a group of investors organized the Twin Falls Land and Water Company to raise the money needed to build the irrigation system. In addition to Perrine, the company included Stanley Milner and his business associate Frank Knox and two Idaho-based investors, J. W. Lowell of Boise and A.K. Steunenberg of Caldwell. Lowell had been involved in developing the Riverside Canal in Ada County. A. K. Steunenberg was a newspaper publisher and banker. He was also the brother of Frank Steunenberg whose term as governor of Idaho was coming to an end. The new development company officially incorporated in September. The application to the State Land Board was moving ahead when it was almost upended by a proposal to create a national park in Snake River Canyon. With the help of newly elected Governor Frank Hunt, Idaho Congressman Edgar K. Wilson and Senator George L. Shoup, the interests of irrigation development prevailed, the national park proposal was withdrawn, and the Twin Falls project moved ahead.[26]

Perrine inadvertently set up another obstacle to smooth progress when he began to promote a hydroelectric power project, an idea which was vehemently opposed by D. W. Ross. This disagreement became serious and resulted in Perrine, Milner, and Knox buying all the interests of Ross, Lowell, and Steunenberg. Although this solved the internal dispute, Perrine now needed to find other investors. With help from Witcher Jones, another Salt Lake mining connection, and Walter Filer, a mining engineer who had joined the project at Milner's request, Perrine was able to arrange for Frank Buhl of Sharon, Pennsylvania, to come and tour the project. Buhl had money to invest and, impressed by Perrine and the project, he agreed to come on. The Twin Falls Land and

[25] National Research Council. *Colleges of Agriculture at the Land Grant Universities: A Profile*. (Washington, DC: The National Academies Press, 1995), pp, 8-9. https://doi.org/10.17226/4980, accessed April 2020.
[26] Gentry, pp. 137-142.

Water Company was reorganized with Buhl and Filer as the controlling partners, and once again things moved forward.

Construction of Milner Dam, which provided water to both the Twin Falls South Side and the separate Twin Falls North Side projects, began in January of 1903 and was completed by March of 1905. While the dam and the canal system were under construction, Perrine and his business associates began a campaign to promote the project. An initial opening was held on July 1, 1903 in Shoshone. 60,000 acres were available.at $25.50/acre for up to 160 acres--$25.00 for the land and .50 for the water right. Only .25/acre was required to hold the land, gaining title after three years if at least twenty acres was under cultivation and the settler had built a home and lived on the land during that time. Work on the irrigation project could be used to pay off the water right in that time. Despite enthusiastic support and Perrine's strong belief in success, the first offering attracted only fifty-seven people, a disappointing start. Yet the excitement was real, and interest grew as progress was made on Milner Dam and the canal system. Perrine and his investors realized that promotion was key and that establishing a new town might be the key to bringing the large numbers of settlers they needed. One of Buhl's acquaintances from Sharon, Peter Kimberly became interested in the project and, with Buhl, formed the Buhl-Kimberly Corporation which brought more funds to invest in the Twin Falls Land and Water Company. Then Buhl, Kimberly, Filer and another investor, Martin B. DeLong, purchased a section of land and formed the Twin Falls Townsite Company in June of 1904, turning over their land rights to the company. The same day, Perrine and others incorporated the Twin Falls Investment Company to promote and sell land held by the Twin Falls Land and Water Company. Now everything was in place. The town lots were being sold, buildings were under construction, advertising across the United States had generated a great deal of interest and land sales on the project were increasing. When a second opening for 100,000 acres of agricultural land was held, the crowd was large and the sales were brisk. By the time Milner Dam was officially completed in 1905, there was a community in Twin Falls and settlement was spreading out across the irrigated acres. Following the establishment of Twin Falls, other towns were organized and platted—all named for the people who had invested in the project: Buhl (1905), Hansen (1907), Filer (1909), and Hollister (1909). Some other older communities were revitalized and renamed, including Castleford, west of Twin Falls, which had long been known as a crossing on the Kelton Road; Drytown, a mining community on the Snake River in 1869 became Murtaugh; and Deep Creek Meadows, settled in 1880, renamed Terminal City when the railroad reached it in 1909, then renamed again the following year for Robert Rogerson, a successful sheep rancher who built the Rogerson Hotel.[27]

An article published in the *Twin Falls Weekly News* on April 14, 1905 introduced Alexander McPherson as the project's Agricultural Inspector, who had previously served as the Idaho State Horticulturist and who would serve as a guide for the new farmers. He was assigned to administer the newly laid out Experimental Farm and provide information about his experiences with various crops. McPherson's connections to the University of Idaho Experiment Station were touted as an

[27] Ibid, pp. 151165

advantage to the settlers. He began providing information on possible crops and advice on how to grow them, providing frequent updates through newspaper articles and presentations. His first detailed report was published in the newspaper on November 24, 1905. encouraged the planting of wheat, alfalfa, melons, and fruit trees.[28]

In 1908, John S. Gourley filed on land located on the south side of the Snake River, across from Niagara Springs State Park. He set out hundreds of fruit trees and until they matured, planted melons on the ground between them. Gourley operated the orchard from 1908 until his death in 1965 at which time it was inherited by his children John T. Gourley and Mary Anne Gourley Kelley. By 1969 Mary Anne's son Richard had graduated from the University of Idaho with a degree in horticulture and he purchased the orchard from his mother and uncle. Ten years later, having expanded the acreage to 200 acres by acquiring the Orr orchard, another long-established orchard, Richard changed the business name from Gourley's Orchard to Kelley's Canyon Orchard which it remains today.

D. Boom and Bust (1910-1929)

Irrigation expanded farming in Idaho and southwestern Idaho. Farmers who moved to the region from the Midwest and other regions had to learn what crops would work best in the region. Newly transplanted farmers had to learn how to grow crops under irrigation and what crops would sell in the available market. At first wheat, oats, barley, and alfalfa were the principle corps. Within a short time of the county's founding in 1907, crops including wheat, oats, barley, alfalfa, clover, potatoes, beans, onions, and a variety of other vegetables were under production. Orchards produced apples, pears, Italian plums, apricots, grapes and cherries.

The Darrow farmstead is an example of a farm established in conjunction with irrigation. Howard Charles Darrow with his brother Dick Darrow moved to the Twin Falls tract from Reedsburg, Wisconsin, in 1905. From 1905 until 1908, the two brothers provided area farmers with custom threshing services through their company Darrow Brothers Threshing Machines. The Twin Falls Carey Act projects opened at a moment of change in agriculture—the mechanization of farm equipment. As the 19th century ended, farmers relied on draft horses and hand tools to plow fields and plant crop, but within a few years, farm equipment was mechanized. Farmers used mechanical seeders, grain binders were used for cutting ripe wheat or oats, and steam powered threshing machines, like those that Howard and Dick Darrow provided, increased production of crops.

When irrigation water became available in Castleford in 1908, Howard homesteaded 160 acres northwest of the townsite. There he grew alfalfa and red clover seed. He also raised chickens, kept dairy cattle and raised chickens. Twin Falls County produced an abundance of clover seed. The Courteen Seed Company, headquartered in Milwaukee, Wisconsin, built a seed house in Twin Falls in 1916. Agents from the county had been purchasing alfalfa clover seed from local farmers for several years. As the production of seeds expanded, the company needed a branch warehouse to store the seed.[29]

[28]*Twin Falls Weekly News,* "Agricultural Inspector for Twin Falls Tract," April 14, 1905, p. 3; "Turning Sod on the Company's Farm," April 21, 1905, p. 1; "Half-Year's Work on the Experimental Farm," November 5, 1905, p. 1.
[29]Idaho State Historic Sites Inventory Form, Henry Darrow 83- 019420; Gentry p. 186.

Other new residents to the county included a group of Czech-American families that moved to the Buhl-Castleford area between 1908 -1938 and descendants from Czechoslovakians who immigrated to Texas, Nebraska, and Oklahoma in the 1800s. By the 1900s droughts in these region and advertisements of irrigated farmland in Idaho attracted many Czechs to Twin Falls County many who settled around Buhl. Rudolph Zach, for example, arrived in Chicago from Germany in 1906. Zach arrived in the Twin Falls area in about 1918, settling on a farmstead near Buhl where he remained for the rest of his life. In 1922, Rudolph married Agnes Hejtmanek, whose family had also left Czechoslovakia, settling first in Oklahoma, then moving on to Twin Falls County. Rudolph and Agnes raised five children on the farm, four of whom survived them. Rudolph died in 1973, Agnes in 1984. Today the farm belongs to their daughter, Camille Zach.[30]

Row crops--potatoes, sugar beets, beans, and corn--were also important to the county's economy the soil and climate of the county were conducive to the potatoes and sugar beets. The first documented planting of potatoes was by Presbyterian minister Henry Harmon Spaulding at Lapwai in north central Idaho in 1837. Mormon settlers at Franklin in southeast Idaho planted potatoes in 1860 and by 1882, 2,000 acres were planted in potatoes in Idaho. Potato production continued to expand and in 1904 Idaho harvested 17,000 acres of potatoes. In the 1890s University of Idaho and the USDA experimented on potatoes at branch stations at Moscow, Nampa, and Idaho Falls. By 1910, Twin Falls county was one of the three top potatoes producers. As the production of potatoes expanded, there was also a need for better storage for potatoes. According to historian Madeline Buckendorf, before 1910 farmers first stored potatoes in barns or root cellars, but later, cellars were developed specifically by the USDA and agricultural experiment stations for the storage of potatoes. Technical bulletins provided plans for potato cellars. The most common during the period between 1910 and 1920 was the "Western Dugout" cellar. This simple cellar was dug three or four feet below ground, framed with sawn lumber or round timbers, roofed with the excavated dirt. [31]

Sugar beets were another prime crop in Twin Falls county. Beets were introduced to the United States in the 1880s and 1890s in Wisconsin, California, Nebraska, and Utah. Mormons who migrated from Utah to southeastern Idaho established sugar beet factories in Bonneville and Fremont counties. Test acreages were planted in Twin Falls county around 1909. The Twin Falls Commercial club reported the results of test acreages planted by farmers at Kimberly, Twin Falls, and Murtaugh in a government study published in 1910. It was reported that the area was conducive to raising beets, but the market value was only $4.50 a ton in comparison to the going rate for alfalfa hay was $6.00 to $14.00 per ton. The report concluded that until the price of sugar beets increased farmers would continue to raise hay. In 1916 the Amalgamated Sugar Company, founded by David Eccles, a Mormon entrepreneur from Utah, built a factory at Twin Falls and sugar beets became part of the county's farm crops. [32]

Sugar beets required more farm labor in the fields than was available locally. Amalgamated Sugar and their rival, the Utah-Idaho Sugar Company, which had plants in Bonneville and Bingham counties, needed

[30]James R. Gentry. "Czechoslovakian Culture in the Buhl-Castleford Area." Idaho Yesterdays, Winter 1984.pp.2 -13. Idaho State Historic Sites Inventory Form, Rudolf Zach, #83-009333.
[31]Madeline Kelley Buckendorf, "Selected Potato Cellars of Twin Falls County, Idaho: A Reconnaissance Survey Report and Brief History of Their Evolution" Idaho Historical Society Inventory No. 241, 1997.
[32]Charles F. Saylor in U.S. Department of Agriculture, *Progress of the Beet-Sugar Industry in the U.S 1909* (Washington: Government Printing Office) 1910 p.58.

workers. The companies began to recruit workers from Mexico to plant and harvest the crop. In 1917, the United States signed a contract labor agreement with Mexico to bring in more workers as American men were leaving to fight in World War I. The short-lived agreement ended shortly after the war, but Mexican workers continued to travel to Idaho.[33]

Agriculture in Twin Falls and Idaho thrived between 1910 and 1919. Idaho prospered during World War I as many farmers and ranchers were encouraged to expand production to meet the increased demands for European markets. Banks extended credit to farmers and encouraged them to purchase machinery or more land for agricultural crops. The state's economy boomed, but there was a drastic change after the war ended. The combination of a rapid agricultural expansion, rising costs, farmers with extensive debt, and the loss of overseas market plunged the nation's agricultural sector into an economic downturn. Idaho's farming regions, including Twin Falls County, were hit severely between 1922 and 1929.[34]

The physical character of Twin Falls county farms reflected the style of architecture in vogue in other locations. Plans were used to construct barns and outbuildings. New building materials like concrete and tile were used, as well as local materials like basalt. During this time farms may have included a house, barn, chicken coop, a hay derrick, and a potato cellar.

E. The Great Depression (1929-1940)

On October 24, 1929, the stock market crashed, and the Great Depression began. The agricultural depression of the 1920s merged with the economic depression of the 1930s. The personal incomes of all Americans declined from $83 billion in 1929 to $46 billion in 1933. As many as 13 million people were depression. The others were North and South Dakota, Oklahoma, Mississippi, and Montana. These were states that were primarily unemployed after 1933. Idaho was among the states most adversely affected by the nationwide agricultural and had not recovered from the agricultural depression.

Although it originated in the United States, the Depression had an impact on almost every country of the world. The United States emerged from World War I as the major creditor and financier of postwar Europe. Economies of European countries were weakened by war and war debts. When the American economy fell and investments to Europe stopped, European prosperity slumped. Deeply in debt to the United States, countries such as Germany and Great Britain, experienced much higher unemployment.[35]

The economic depression of the 1930s was compounded with one of the longest and most severe droughts on records. In the United States, four distinct drought events—1930-31, 1934, 1936, and 1939-40—hit hard, especially in Kansas, the Oklahoma Panhandle and adjacent counties in Texas, New Mexico, and Colorado. Communities had no chance to recover from one major event before another happened. This decade, sometimes called "the Dirty Thirties," forced millions of people to leave their farms in search of work.[36]

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[33]Errol D. Jones, "Latinos in Idaho, Making Their Way in the Gem State," in *Idaho's Place: A New History of the Gem State,* edited by Adam Sowers, Seattle, University of Washington Press, 2014)
[34] Leonard Arrington, History of Idaho, Volume 2. University of Idaho Press, Moscow, 1994 pp. 19-37.
[35] https://www.english.illinois.edu/maps/depression/about.htm

In 1934 reports from an **emergency drought relief committee organized by Governor C. Ben Ross estimate**d **that the general average water supply was only 60 percent of normal. Crop losses were estimated at $22.4 million. Farmers lost crops of potatoes, beets, beans, peas, and hay. The state's economic problems increased when destitute families from the drought-stricken Great Plains region began migrating to Idaho and surrounding states.**[37]

Dust Bowl Refugees

During the 1930s, the population of Twin Falls County grew as agricultural workers arrived from the Dust Bowl states. The farm economy continued to dominate the area, and among the many challenges face by farmers was the need for a seasonal farm work force. At the same time, during the years following the devastating dust storms experienced in the central Midwest, it became apparent that the displaced farmers needed help.

The Twin Falls Farm Labor Camp

The Farm Security Administration (FSA) was created within the U.S. Department of Agriculture following the passage of the Bankhead-Jones Farm Tenant Act in 1937. The FSA replaced the Resettlement Administration (RA), which President Franklin Roosevelt had created two years previously through an Executive Order. The FSA continued programs established by the RA, which included, but were not limited to, low interest loans for farm and equipment purchases, resettlement of displaced farmers in newly created communities, education in farming methods with an emphasis on soil conservation and providing sanitary labor camps for migratory farm workers.[38]

The FSA constructed two permanent migratory farm labor camps in Idaho—one in Twin Falls and one in Caldwell, in Canyon County in Southwest Idaho. The labor camps were intended to assist displaced farmers—people who lost their homes and livelihood because of the destructive dust storms which ravaged the Midwest during a period of drought in the 1930s. The camps provided family living quarters in barracks-style buildings and small houses. Even more importantly, residents of the camps received services such as health care, education for children and adults, sanitary living conditions, and opportunities for community activities such as church services, dances, and other events. The camp at Twin Falls had its own water supply system, constructed when the camp was built, and an irrigation system to provide water for garden plots behind the single-family homes. In addition to providing safe and clean camps for families, the FSA camps were "self-governed". The agency provided a camp manager, but each camp had a board made up of residents which passed bylaws and camp regulations, as well as planning social and recreational events. Everyone at the camp was required to volunteer a certain amount of time each week to camp service and maintenance.[39]

[37]Ibid, p. 5
[38]Sidney Baldwin, Poverty and Politics: The Rise and Decline of the Farm Security Administration. (Chapel Hill: University of North Carolina, 1968), p.
[39](Twin Falls) *Idaho Evening Times*, 5/9/1939, p1.

The complex was developed in 1939-40 on land purchased from local farmers J. H. and Grace Seaver, who operated an orchard there. The buildings and the landscape were designed by architects in the FSA San Francisco office, including Burton D. Cairns, Vernon DeMars, and Garrett Eckbo. Cairns, who served as the director of the San Francisco architecture team until his death in December 1939, designed the buildings, including the farm worker houses, the row shelters, and other associated buildings. Later design work was completed by Vernon DeMars, who took Cairns' place in early 1940. The landscape plans and designs were developed by Garrett Eckbo. The camp was constructed in two phases. The first phase (July-December 1939) included construction of 24 single family dwellings, a manager's house, 36 barracks for seasonal workers, a community center building, a central utility building with laundry and shower facilities for men and women, 3 comfort stations, an isolation ward with a clinic building and several isolation units, 2 basketball courts, a baseball diamond, and a sewage disposal plant. The second phase (completed in 1940) resulted in an additional 23 single family dwellings, several multiple car garages, and 23 tool sheds. A water storage and supply system were constructed later.[40]

Farm Labor in Idaho

By the early 20th century, Idaho agriculture had become a larger part of the state's economy. Expanded railroad access in the late 19th century, along with the successful implementation of irrigation projects allowed farmers to market their products more effectively and to grow more crops. Peas and sugar beets were two crops that led to a need for more farm workers. By the 1920s the Utah-Idaho Sugar Company had plants in Lincoln (near Idaho Falls), Sugar City, Blackfoot and Shelley and their rival, Amalgamated Sugar, had opened plants in Burley, Buhl, Nampa, and Twin Falls. These companies began to recruit workers from Mexico to plant and harvest sugar beets. In 1917, the United States signed a contract labor agreement with Mexico to bring in more workers as American men were leaving to fight in World War I. The short-lived agreement ended shortly after the war, but Mexican workers continued to travel to Idaho.[41]

During the years of the Depression, the sugar companies continued to bring in Mexican workers, even though residents protested the practice. The original purpose of the FSA Farm Labor Camps was to provide housing and services for displaced American farmers, to give them assistance in finding work and perhaps a path toward farm ownership. Before the camp opened, Walter Duffy, the regional FSA director reassured residents that preference would be given to local workers first, then to displaced American farmers and that Twin Falls would not be a haven for transients, but a home for families.[42]

[40](Twin Falls) *Idaho Evening Times*, 12/8/1939, p 12 and 3/28/1940, p 8).

[41]Errol D. Jones, "Latinos in Idaho, Making Their Way in the Gem State," in *Idaho's Place: A New History of the Gem State,* edited by Adam Sowers, Seattle, University of Washington Press, 2014)

[42] (Twin Falls) *Idaho Evening Times,* January 29, 1940.

F. World War II (1941-1945)

The attack by Japan on Pearl Harbor on December 7, 1941, brought the United States into World War II, effectively bringing an end to the Depression and setting the nation on the path to an economic recovery. Almost 60,000 men and women from Idaho served in the military during the conflict. The USDA announced "production goals" in 1941, encouraging farmers to increase production to meet them. The goals were updated in January 1942 and thereafter increased annually throughout the war. Idaho's farmers came through and provided massive quantities of beef, pork, turkey, mutton, chicken, eggs, potatoes, beans, onions, corn, apples, peaches, prunes and milk, cheese, and butter which were added to the food supply for the military. [43]

In Twin Falls County, the seed industry, which had already been an important part of the local economy, exploded as the demand for seeds increased dramatically with the increased farm production and the widespread planting of victory gardens by citizens. Idaho, which produced a substantial portion of dry beans sold in the United States, increased production during the war by 40 per cent. [44]

Sugar beet production was increased dramatically, not only for food purposes, but because beet sugar was used in the production of industrial alcohol and the production of munitions and rubber. Although work was being done on developing equipment to facilitate tasks associated with growing and harvesting sugar beets, during the war thinning, weeding, and harvesting of sugar beets were done by hand. Contemporary newspapers are filled with accounts of the need for more farm labor to handle these tasks.[45]

On February 19, 1942, President Franklin D. Roosevelt issued Executive Order 9066, which ordered resident aliens removed from coastal areas and locations near military reservations. In theory, the order included German, Italian, and Japanese people, but in practice it focused heavily on those of Japanese descent. In April Governor Chase A. Clark announced that a war relocation camp would be established in the Minidoka area. Construction proceeded quickly and by August internees were arriving. Early in 1943 the population of the Minidoka War Relocation Center (or Camp Hunt) was over 9,000. [46]

Farm Labor

As the United States began to mobilize for the war effort, the FSA was put under the authority of the Wartime Civil Control Administration (WCCA), a sub-agency of the War Relocation Administration (WRA). The role of the FSA was expanded to include coordination of farm labor supply in case of a wartime shortage. The Emergency Farm Labor Supply Program developed procedures for recruiting farm

[43]Clifton E. Anderson, *History of the College of Agriculture University of Idaho.* [Moscow, Idaho]: [University of Idaho] p. 93;Leonard Arrington, p. 80 -81.
[44]Gentry, p. 305, sources: *Twin Falls Times News,* 8 July 1945, p. 7, 5 March 1944, p. 9
[45] For example: ; "Mexican Labor Urged in Sugar," 30 January 1942, p. 2; "Clark Guarantees Labor to Harvest Idaho Beet Crops", 17 February 1942, p. 1; "Clark Approves Japs as Laborers," 4 May 1942, p1, *Twin Falls Times News*
[46]Gentry, pp.302-304

labor from a variety of sources. The sugar beet processing companies put pressure on the government to allow the use of Japanese American internees for agricultural work, and through the U.S. Farm Labor Agreement, the Emergency Farm Labor Supply Program provided the necessary procedures and plans for doing so. The agreements with Mexico, which resulted in the *braceros* program which brought in many Mexican workers during and after the war, were coordinated by the service. In addition, agreements were signed with the government of Jamaica, providing farm laborers from that country to assist in agricultural activities. Each of these groups provided workers in the Twin Falls area who were quartered at the re-named Twin Falls Agricultural Labor Supply Center, as well as temporary camps in the area.[47]

To assist in the distribution and responsibility for the workers who were brought in through the Emergency Farm Labor Supply Program, the USDA's county extension agents had worked with local farmers and other interested parties, such as the sugar manufacturers, to organize non-profit groups who would pay for the services required by the farm workers, including food and lodging. Known as "Farm Labor Sponsoring Associations," these groups were organized on a county or local basis. Farmers paid membership fees based on the number of acres farmed, and the money collected was used to pay for the food and lodging provided to the workers. The workers were charged rent for their quarters, which was supposed to help with camp maintenance. The Twin Falls County Farm Labor Sponsoring Association was incorporated in 1943.[48]

Internees and Prisoners of War

Initially reluctant to use the Japanese American internees and suspicious of them, farmers came to rely on them for help in the fields through the course of the war. In a 2016 interview, James Tanaka, who at the age of eight was interned at Minidoka with his father and mother, remembered the work:

> "The workday might be eight to ten hours. My mother wore a bonnet to provide shade from the sun. You brought your own water and lunch to the field. Restrooms did not exist in the field then. For men it was easier than for women. Face away from the people; find a tree, shrub, or a ditch to use as the toilet."[49]

There were also 13 prisoner of war camps located throughout Idaho. Nearest to Twin Falls, Camp Rupert (located near Paul), held German prisoners of war, and in 1944, the county extension agent, Al Mylroie, arranged for some of them to pick potatoes and sugar beets and do other farm labor.[50]

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[47]Veronica Martinez-Matsuda, *Making the Modern Migrant: Work, Community, and Struggle in the Federal Migratory Labor Camp Program, 1935-1947*. [Austin, Tex.]: [University of Texas], 2009. <https://repositories.lib.utexas.edu/bitstream/handle/2152/ETD-UT-2009-12-546/MARTINEZ-MATSUDA-DISSERTATION.pdf>.

[48]Harry A. Elcock, "Farmer Sponsored Labor in Idaho, 1943," in *Proceedings of the Eastern Slope and Intermountain Regional Meeting,* American Society of Sugar Beet Technologists, 1944, accessed online https://www.bsdf-assbt.org/wp-content/uploads/2018/01/FarmerSponsoredLaborinSouthernIdaho1943.pdf

[49]Darryl Mori, "From Beets to the Battlefield: How WWII Farm Workers Helped the War Effort," *Discover Nikkei*, http://www.discovernikkei.org/en/journal/2016/11/18/from-beets-to-battlefield/

[50]C. Anderson p 98.

The four years of conflict brought both hardship and prosperity to Twin Falls County, along with the rest of the nation. The resulting economic boom propelled the county into an extended period of growth and modernization.

G. Mid-20th Century Agriculture in Twin Falls County (1946 to 1970)

Modernization and expansion marked the post-war years. Machinery evolved as farmers demanded labor-saving devices to increase farm production to meet the needs of a prosperous country. New devices helped modernize and increase production of dairy farms and increased chicken and livestock production. Advances in irrigation technology had come in the 1940s when groundwater irrigation brought the water up to the fields from deep wells. Various sprinkler systems were devised to place the water at the proper heights and density to raise healthy crops. In 1952, Nebraska farmer Fred Zybach patented a new system he named the center pivot system. He came up with the idea after observing a neighbor move a long pipe, outfitted with sprinkler heads, across his field with a tractor. Zybach worked on his design for several years, before coming up with one which he patented. In this system the sprinklers move themselves in a circular pattern around the field:

> "Placing the pump at the center of the field next to a well, irrigation pipes supported by trusses were mounted on wheeled towers that could make a circuit of the field under their own power, leaving that distinctive circle pattern. Gun-style sprinklers sprayed water out from the pipes at set intervals, with smaller nozzles closest to the pivot and the largest nozzles at the end of the line."[51]

The pivot irrigation system eventually made its way to Idaho, but at least through the 1960s, most irrigated farms in southern Idaho were still using the original canals and laterals to flood irrigate their fields—the "gravity" system. Sprinkling systems were gaining in popularity, combined with the use of wells and pumps to access groundwater rather than using the canal system.[52]

Changing technology was reflected in the construction of potato cellars which were converted to modern storage facilities covered with corrugated metal and wider double doors to accommodate larger trucks.[53]

Farm Labor

In 1947, the Farm Security Administration was abolished, and the USDA directed that the farm labor camps be sold. Although both the City and the County of Twin Falls expressed interest in buying the Twin Falls Camp, they were unable to negotiate a price. The camp was purchased by the Twin Falls County

[51]Joe Anderson, "How Center Pivot Irrigation Brought the Dust Bowl Back to Life," *Smithsonian Magazine.com*, September 10, 2018, https://www.smithsonianmag.com/innovation/how-center-pivot-irrigation-brought-dust-bowl-back-to-life-180970243/

[52]S.A. Goodell, *Water Use on the Snake River Plain, Idaho and Eastern Oregon*. US Geological Survey Professional Paper 1408-E (Washington, D.C.: US Govt Printing Office, 1980), p. E 11; https://pubs.usgs.gov/pp/1408e/report.pdf

[53] Madeline Buckendorf, "Selected Potato Cellars of Twin Falls County, Idaho: Reconnaissance Survey Report and Brief History of Their Evolution." IHSI Survey Report #240, p. 15, 1997

Farm Labor Association in 1950. The Association operated the camp until 1988, when it was sold to the Idaho Migrant Council.[54]

Soil Conservation in Twin Falls County

Concern over erosion, and the desire to use their land and water supply more efficiently led purchased by the Twin Falls County Farm Labor Association in 1950. The Association operated the camp until 1988, when it was sold to the Idaho Migrant Council.[55]

The Soil Conservation Service (now the Natural Resources Conservation Service) was created through the 1935 Soil Conservation Act, passed by Congress and signed into law by President Roosevelt on April 27, 1935. Created in response to the severe droughts and terrible dust storms of the 1930s, the Service was charged with conducting research on soil conservation and education and demonstration of methods for achieving it. Following the passage of the federal law, states passed legislation to create local conservation districts. Idaho's first districts were established in 1940.[56]

At the request of southern Twin Falls County farmers, the Twin Falls Soil Conservation District (TFSCD) was established in 1951 with a general goal to 'promote conservation farming on every acre in the district and thereby build a more stable and prosperous agricultural community.' In 1953, the district was active in not only land-leveling and range improvement but also reorganizing irrigation systems, irrigation storage, and designing irrigation structures and pipelines. From 1963-1967, the district's Cedar Creek Watershed Project replaced the miles-long original wood flume, replaced 5 miles of the main canal, and rehabilitated the Cedar Creek Reservoir south of a late Carey Act segregation, Roseworth. The district work crews kept meticulous written and photographic records of the undertaking. Project dedication took place at the Reservoir on a hot summer day in 1967 with a crowd that included Idaho Senator Frank Church. It was an example of the district's attention then and now to replacing and modernizing old irrigation systems and structures to meet contemporary needs. Twin Falls County farmers and ranchers saw the need for implementing conservation practices by 1950 and sought the direction of the USDA Soil Conservation Service. The districts continue to provide direct, community-involved, hands-on programs to address the multitude of environmental and practice issues that evolve with human use of the desert landscape.[57]

2. Agriculture-Related Construction Materials and Techniques

Early Buildings

[54] *Twin Falls Times News*, various dates 1948-1950
[55] *Twin Falls Times News*, various dates 1948-1950
[56] "Soil Conservation Act, 1935", *The Living New Deal,* https://livingnewdeal.org/glossary/soil-conservation-act-1935/; "Honoring 85 Years of the NRCS, a Brief History," USDA Natural Resources Conservation Service, https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/about/history/?cid=nrcs143_021392
[57] Renee Guilliere and Sharon Norris, *Serving people and the land: a history of Idaho's soil conservation movement*. Meridian, Idaho (1118 W. Franklin, Meridian, 83642): Idaho Association of Soil Conservation Districts, 1985.

The oldest extant building in Twin Falls County is the Rock Creek/Stricker Store, a log building constructed in 1865 by James Bascom at the site of the Rock Creek Stage Station on Ben Holladay's stage line from Salt Lake City to Walla Walla. Wood was available in the forests of the South Hills, about twenty miles to the south. For most of the few settlers who arrived in the area before 1880, logs were the answer for constructing shelter. A few relied on primitive dugouts until they were able to acquire logs. Charles Walgamott, who arrived in the area in 1875, decided to establish squatter's rights to land on the south side of the river near Shoshone Falls, which, at the age of 19, he decided would be a fine tourist destination. He fenced the land, then set up housekeeping in a dugout, furnished with a bed and a cookstove. Robert Brose and his brother Frank, immigrants from Germany, arrived in the Rock Creek area in about 1886. Abandoning their plan to continue to Washington Territory, the two young men settled on a location on Rock Creek, where they built a dugout to live in until they could build a cabin.[58]

Figure 1. Undated photo of Stricker Store. Courtesy of Friends of Stricker, Inc.

Settlers on the irrigation projects in the early years of the 20th century often set up temporary quarters in tents or rough wooden shacks, known as "prove up shacks" or "homestead shacks" which they could use to fulfill the residence requirements of the public land acts. Later, when more permanent houses were built, the shacks might be incorporated as rooms in the new buildings or left on the property and used for other purposes.

Figure 2. Settlers on the Twin Falls South Side Irrigation Project. Clarence Bisbee Collection, Courtesy Twin Falls Public Library.

Wood

Wood was available to the early settlers in the Twin Falls County region from the South Hills on the east and the Shoshone Basin to the south. Before milled lumber became available regionally, logs were used to build residences, barns, and outbuildings. By the time of the inrush of settlers to the area with the South and North side irrigation projects, milled lumber was easily available, shipped to Pocatello and Shoshone, before the construction of the Minidoka and Southwestern Railroad line to Twin Falls from Burley was completed in 1907. Even with the convenience of a railroad for shipping, in the early days of the irrigation settlement, demand exceeded supply and impatient settlers found themselves waiting for the materials until local lumber yards and planing mills were established.

By the time the Twin Falls project lands were opened for settlement, balloon framing was commonplace. If there was a reliable source of materials, builders could put up houses, barns, and outbuildings quickly.

[58] "Ranch Homesteaded by Robert Brose in 1886 Preserves His Old Log Cabin," *Twin Falls Times News*, May 31, 1959.

Stone

Basalt, commonly called "lava rock" in southern Idaho, was the most readily available native stone to use for building construction. Southern Idaho's recent volcanic past left the stone near the surface. A farmer with lava rock under the farm fields had a source of construction material close at hand. The challenge was to find ways to cut the stone and use it. In her research for the thematic group nomination "Lava Rock Structures in South Central Idaho," Marian Posey Ploss specifically concentrated on resources in Lincoln and Jerome Counties, but the same volcanic activity left abundant basalt fields in Twin Falls County. Although farmers built their own buildings stacking rock or using rudimentary techniques for stone construction, Posey Ploss identified several masons who specialized in working basalt and it is possible that their work is represented among the farmhouses, barns, and outbuildings constructed of basalt in Twin Falls County.[59]

Figure 3. Lava rock milk house. Photo by Dale Gray.

Brick

No brick agricultural buildings have been recorded in Twin Falls County. Brick was used for chimneys on farmhouses, but the few brick or brick-veneer farmhouses recorded date from the 1940s-1970s. Communities in Twin Falls County general had local brick yards soon after they were settled, but brick was more likely to be used in the construction of urban commercial buildings and residences than on the outlying farms.

Metal

Figure 4. Metal bins and sheds at an abandoned farm in southern Twin Falls County. Photo by Dale Gray.

Corrugated metal was invented in the mid-19th century. By the time Twin Falls County was established in 1907, it was in common use on the farm. Iron and steel sheets were also used beginning in the early 20th century, with iron falling out of favor and steel becoming more popular around the time of World War I. Sheet metal could be used to patch existing buildings, as well as construct new ones. It required less maintenance than other buildings materials and had the added benefit of being fireproof. It provided an inexpensive way to patch roofs and walls if they deteriorated and it was also used for sheds and outbuildings. Prefabricated buildings such as grain bins became available in the 1910s, and technology and time have increased the availability of all kinds of metal farm buildings. Although metal shortages during World War II would have limited the supply available for farm buildings, after the war many surplus metal buildings such as Quonset style buildings were adapted for farm use.[60]

Concrete

[59]Marian Posey Ploss, "Lava Rock Structures in South Central Idaho," National Register of Historic Places Nomination, 1983.
[60]Susan Granger, Scott Kelly, and Michelle M. Terrell. "Building Materials," *Historic Context Study of Minnesota Farms, 1820-1960*. [Minnesota]: [Minnesota Dept. of Transportation], 2005, pp 35-49

Improvement in concrete technology in the early 20th century led it its widespread use in construction. Concrete block machines, which made it possible to create pressed concrete bricks with ornamental faces became available in about 1906. Twin Falls County resident Robert Brose acquired one almost immediately and used it to build his new home near Rock Creek. Concrete was quickly adopted for barn construction. In a study completed in the 1980s, Madeline Buckendorf documented the work of master builder Henry Schick, who was not only a carpenter but by 1912 had become expert in using concrete, which is the foundation and base for several of the barns he built. Reinforced concrete was critical to the development of the tower silos which became popular among Twin Falls County farmers in the 1910s.[61]

Figure 5. Henry Schick's barn and silo. Since this photo was taken in 2009, the buildings have suffered serious wind damage. Photo by Elizabeth Jacox.

F. Registration Requirements

The registration requirements are based on the seven aspects of integrity, as defined by the National Park Service: location, setting, design, materials, workmanship, feeling and association. It is not unusual for farm buildings to retain a majority of the seven aspects of integrity, but to have been modified for changing technologies as the farmer/rancher sought to improve and modernize their production facilities. Modifications may provide additional historical information and illustrate the changing patterns of agricultural practice over time.

Associated Property Types
(Provide description, significance, and registration requirements.)

Agriculture and technology together were vital elements in the settlement and growth of Twin Falls County. Before the initiation of large-scale irrigation projects, farming was limited by the lack of easy access to water. During this time cattle and sheep ranching developed, farms were small and produced crops for a local market. Hard winters and overgrazing eventually had a negative impact on cattle ranching. The passage of the Carey Act, and the successful organization of investors to build the irrigation systems and distribute the land and the associated water rights brought a flood of would-be farmers to the area. By the time Twin Falls County was formed in 1907, farmsteads complete with barns, houses, and associated outbuildings dotted the countryside.

The registration requirements for all property types are based on the seven aspects of integrity, as defined by the National Park Service: location, setting, design, materials, workmanship, feeling and association. It is not unusual for farm buildings to retain some aspects of integrity, but to have been modified for changing technologies as the farmer/rancher sought to improve and modernize their production facilities. Modifications may provide additional historical information and illustrate the changing patterns of agricultural practice over time. Individually barns, houses, and, in Twin Falls County, regional resources such as potato cellars may be individually eligible if they retain most of the aspects of

[61] Madeline Buckendorf, "Buhl Dairy Barns," National Register of Historic Places Nomination, July, 1983.

integrity and the documentation provides enough information to support their individual significance. With those exceptions noted, the individual elements of a farmstead will not usually have the significance to support individual nomination.

Farmstead/Ranch Districts

Although the terms "farm" and "ranch" are often used interchangeably, traditionally there is a difference in their meaning as it pertains to some regions of the American West. A farm is generally identified as 320 acres or fewer with an emphasis on growing row crops. A farm might also accommodate poultry and a few cows, but the focus is on crop production. A dairy farm is similar in size, but the products were milk, butter, cheese, etc., with a herd of dairy cattle enough for that production. A ranch is a larger acreage, supplemented with additional grazing land, possibly using public lands with a permit. Although orchards were sometimes referred to as "fruit ranches" and the term "ranch" was sometimes used loosely in describing a county resident who ran a farm with a small herd of cattle or horses, in general, a ranch is devoted to growing cattle or sheep, with some field production of hay. Other specialized farms found in Twin Falls County include orchards and fish farms.

A farmstead or ranch is eligible for listing in the National Register if it retains at least three historic resources, not including secondary resources such as fences, chutes, and feeding troughs. A contributing farmhouse is not needed to determine eligibility. The boundaries of a farm or ranch nomination do not need to encompass farmland, although including historic acreage is encouraged, particularly for a specialized farm such as an orchard or a vineyard. Most buildings and structures must retain their historic integrity, with few major alterations. Additional justification for eligibility is required if contemporary features outnumber historic features on a property. Resources should date from the original establishment of the farmstead/ranch with limited representation from the post-1970 period.

Primary Farm Resources

Barns

Barns still dot the countryside in Twin Falls County, although many have seriously deteriorated and are ready to collapse. High winds have destroyed even substantial barns since the earliest days of settlement, and the difficulty of maintaining the large buildings when they are no longer vital to farm operations has led to the loss of many iconic barns. But barns are an important element of agricultural history, even when they are in less-than-perfect condition. Barns may be classified by their roof type and/or construction, their function/use, or their ethnic associations. For the purposes of this document, classification will be based on their roof type/construction or function/use. A previous multiple property study, "Buhl Dairy Barns," completed by Madeline Buckendorf, provides information about barns in the vicinity of Buhl constructed for a particular use and provides the registration requirements and significance for barns constructed specifically for dairying. Although several ethnic groups (Danish, Swedish, Czech, and Basque, for example) have periodically settled in the Twin Falls area, ethnic influence does not appear to be significant to the construction of barns and other farm resources.

Barns classified by their roof types generally include

Gable The building has a single ridgeline, both sides are evenly pitched.

Broken Gable An enclosed or open lean-to added to one or both sides of the roof to the eaves creates a "broken" roof slope.

Figure 5. This gable roof barn has an extended hay hood. Photo by Kerry Davis.

Gambrel
The symmetrical roof has two slopes on each side. English gambrel indicates that the eaves extend straight beyond the walls. On a Dutch gambrel roof, the eaves flare slightly at the end (see Figure 4). The gambrel roof allowed more space for hay storage.

Figure 6. The eaves on this barn extend straight down, characteristic of the English gambrel roof. Photo by Elizabeth Jacox

Monitor Monitor roofs feature a raised center section with gable ends, with the side sections extending out from the center.

Figure 7. Monitor roof barns may also be identified as Western barns. Photo by Elizabeth Jacox.

Half-monitor Also known as semi-monitor, one roof slope ends about one foot below the other, which features windows across. These barns are usually smaller and intended for poultry or hogs.

Figure 8. This half-monitor barn was likely used as a poultry house. Photo by Kerry Davis.

Round The roof line extends in a single curving arch. Gothic arch barns are slightly peaked at the top. Other barn types, not identified by roofline, but by other aspects of their form or construction, include banked barns, round barns, Quonset style barns, and pole barns.

Banked barns were two-story barns built into a hillside or an embankment with entrances on both levels. No banked barns have been documented to date in Twin Falls County.

Round barns were promoted during the 19th and early 20th centuries as an efficient for sheltering dairy cattle and storing silage. No round barns have been documented in Twin Falls County.

Figure 9. Photo by Elizabeth Jacox.

Quonset style barns were observed at a few locations, but none have been recorded at this time. These arched steel buildings were produced for the military during World War II and were offered for sale in post-war America for a variety of purposes.

The term "pole barn" is a common term for post-frame construction. "Pole barn" came into general use during the Great Depression when telephone poles were re-purposed for construction, often for farm buildings. Post-frame construction uses posts spaced evenly through a grid to support the building frame. The posts, now commonly made of engineered wood, are anchored into the ground below the frost line and the framing is attached to them. This construction does not require a concrete foundation and is viewed as a cost-effective method. Pole barns are sided with metal, wood, or engineered wood.

Barns might display similar exterior characteristics, but because of their different uses have different interior configurations. General farm barns were common on small farms, where a few livestock could be held, along with equipment and feed storage. Gable roofed barns known as English barns were often used for this purpose. The interior of an English barn is divided into three bays or sections and rather than doors on the gable ends, is entered through a door centered on the eave side. The wide entrance led into the central bay which served as a driveway. The bays on either side were used for the stock pens and hay storage.

Stock barns were intended to house numbers of animals and their feed. They generally feature a central driveway, with stock pens or stanchions on either side and a hayloft above. Stock barns generally have few windows, but there are doors in the gable ends to allow loading of hay using a system of ropes and pulleys that was attached under an extension of the roof called a hay hood.

The dairy industry in Twin Falls County began to develop in the 1910s when a group of dairy farmers from Tillamook, Oregon, moved into the area. The history of the industry and the construction of several dairy barns influenced by advancing building technologies is documented in "Buhl Dairy Barns," a multiple property study by Madeline Buckendorf completed in 1983. Dairy barns were constructed for the milking and feeding of dairy cattle, and the opening of Twin Falls County to settlement under the Carey Act coincided with the emerging technologies of scientific dairy farming and barn construction. The new barns featured more windows and ventilation, as well concrete floors to provide more sanitary

conditions for the cattle and milk production. The barns featured gambrel roofs, which added space to the upper hay storage area and added room for air circulation. Concrete manufacturing and construction techniques were evolving too, and one area builder, Henry Schick, became expert in building barns from concrete and wood.

By the mid-20th century, farmers no longer needed to build large farms to store hay and shelter animals. Technology improved and the introduction of the baler allowed that rather than cutting hay and lifting it into a hay loft in a barn, hay was cut and stored in bales—compact rectangular bales or large rolls. Research had shown that cattle were fine if they lived most of their lives outside of four walls. Some farmers constructed three-sided barns called loafing sheds, which allowed stock to enter and leave shelter as they pleased. The loafing sheds were often built near a small milking barn or dairy parlor, arranged so that the cows could walk through for milking then move on outside.

Significance

Barns are an important element of agricultural history both because of their practical function—to store farm animals and their feed—and their cultural significance as substantial symbols of the importance of agriculture to the growth and development of the United States. For prosperous farmers, a large, well-constructed barn represented success, perhaps even more so than a large home. Many of the barns that remain standing today, after almost a hundred years, survived because of the power of their symbolism. Modern owners invest significant resources of time and money to maintain them, even though they are no longer important to the functioning of a farm or ranch.

Registration Requirements

Barns may be individually eligible under this MPD under Criterion A under Agriculture or Criterion C for Architecture. To be listed as a contributing feature to an eligible farmstead it should meet the following conditions. Like other farm buildings, barns may have been modified or repairs through the years to support their continued use. Replacement and repairs to siding should be done with the same or similar materials. Glass in windows may have been replaced and frames repaired with wood, which is acceptable if the replacement and repairs do not stand out as different from surviving original windows and frames. Vinyl windows or doors, or modern metal garage doors compromise the barn's integrity and are not acceptable. Metal roofs are often added to protect barns and are acceptable provided they complement or blend in with original features.

Farmhouses

Settlers in the Twin Falls County region in the late 19th century built small log dwellings when wood was easily available or devised temporary shelter in tents or simple dugout structures. Even in the early days of the irrigation projects, tents, dugouts, and cabins were not uncommon as settlers moved on to their land. "Prove-up shacks", tiny shelters, typically constructed of wood, were also common as these structures were used to establish a land claim under the various public lands acts passed to encourage settlement in the west. Most of these early structures were replaced or re-used when landowners established themselves enough to build more substantial dwellings.

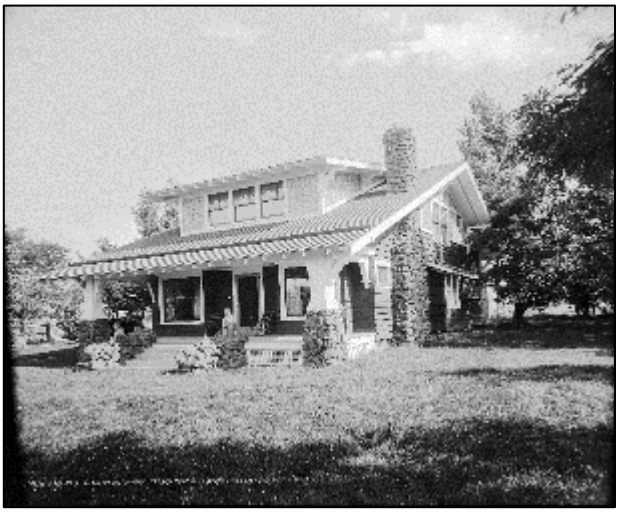

Figure 11. W.H. Harvey home near Buhl. Clarence Bisbee Collection. Courtesy Twin Falls Public Library

Figure 12. Craftsman Bungalow with side addition. Photo by Elizabeth Jacox.

Later, as more permanent residences were constructed, farmers and ranchers had access to milled lumber and other buildings supplies and were able to construct houses in the styles that were popular at the time. Although there are a few simple farmhouses based on the gable-front-and-wing or the four-square plan , the popular style most often found is the Craftsman Bungalow, (1905 – 1930), with low-pitched gable roofs, open roof eaves with exposed rafter tails, triangular knee braces, and porches featuring substantial columnar supports. Other house styles found in rural Twin Falls County include the Tudor Revival style of the 1930s, Colonial Revival, and later the Ranch style. Building materials include logs, wood-frame, local materials like basalt, colloquially called "lava rock", concrete block, and brick.

Significance

Farmhouses contribute to the interpretation of a farm's history through their form and style, the presence of historic additions, and the materials and methods of construction. Prove-up shacks and small original houses may be found preserved and in continued use on farmsteads and ranches, sometimes because of the farmer's pragmatic tendency to use what is available and re-use it as needed, but sometimes because the original family, or even a later owner, appreciates the importance of the presence of an original or early home.

Registration Requirements

Farmhouses that are individually eligible for listing in the National Register because of their architectural significance or association with a significant person may not be listed under this MPD. A farmhouse may be listed under the MPD if it is at least fifty years old and retains its historic integrity. Historic additions

may contribute to eligibility as it was not uncommon for a farmhouse to grow with the family, but, as with all eligible properties, the farmhouse must retain its historic integrity. The use of incompatible materials such as modern siding or vinyl windows, as well as incompatible additions, may render a house ineligible.

Storage

After barns and farmhouses, silos and potato cellars are the most substantial structures on farms in Twin Falls County. When functioning as a farmstead resource, silos are not likely to be individually eligible to the NRHP. Given the special circumstance of their regional development and importance to agriculture across southern Idaho, it is possible that a potato cellar could demonstrate the significance required to be individually eligible as well functioning as a contributing feature to an eligible farmstead.

Silos

Silos are air-tight structures built to store and preserve green feeds. The ability to store feed through the winter was instrumental in the growth of the dairy industry. Between 1870 and 1890 silos evolved from horizontal structures called pit silos to vertical round structures. Pit silos were originally built of wood or stone, dug partially or fully into the ground, and lined with materials such as wood or straw. The first vertical or tower silos, built in the 1880s, were square and of wood or stone construction. The square shape was structurally unsound and would bow outwards which allowed air pockets to develop in the corners, causing the silage to rot.

During the 1890s, F.H. King of the Wisconsin State Agricultural Experiment Station developed the first successful round vertical silo constructed of two layers of horizontally placed wood boards. These early silos were constructed of vertical tongue and groove, stacked round hoops, or horizontal wooden staves, secured by steel binding rods tightened by turnbuckles. Wooden silos were prone to deterioration, so research continued into ways to improve their construction. Over time, silos were constructed of reinforced concrete, structural clay tiles, or cement staves. Reinforced concrete was developed in the 1860s and 1870s, but it was not widely adopted until 1900. By 1902 experts were urging farmers to install concrete floors in farm buildings to help keep them clean, reduce loss of feed, and make work more efficient.

In 1911 the Portland Cement Company published *Concrete Silos: A Booklet of Practical Information for the Farmer and the Rural Contractor*, providing detailed information on how to construct a concrete silo. Beginning about 1915, the University of Idaho Agricultural Extension Office hosted workshops to teach farmers construction methods. In April 1916, the Twin Falls Extension Office organized a tour of local farms where silos had been built. "A Dozen Autos with Fifty Men Drive to Buhl—Inspect Many Silos," was the headline in the *Twin Falls Times* on April 25th, published the day after the grand event. In later years, the crowds were smaller, but possibly because the farmers were convinced. Although technology and the demands of modern farming have made tower silos less popular, there are many still standing near barns or spaces where barns once stood throughout Twin Falls County. (See Figure 4)

Concrete blocks were available in the U.S. circa 1900 and were widely used for silo construction from 1900 through 1920. After their invention in 1905 by the S. T. Playford Company, cement staves were popular as an alternative to concrete blocks. Cement staves are masonry units about 30" long, 10" wide, and 2.5" thick. The staves are hooked together with interlocking edges, with mortar applied between the joints. The staves, reinforced by flat or round metal bands or rods, help protect the silo against outward pressure. The inside of the silo was sealed by a thin layer of concrete.

In 1949 a new silo design appeared and gained acceptance. The design, created by A.O. Smith Company of Milwaukee, Wisconsin, was for a structure of fiberglass bonded to sheets of metal, which allowed it to be completely airtight. These silos, usually known by the trade name of Harvestore, could be unloaded from the bottom, unlike earlier silos which required unloading from the top. Harvestore silos were costly, but gradually began to replace earlier models and came to symbolize efficient and modern farms.

In the late 20th and early 21st centuries, the demand for faster loading and unloading of silage led to an increase in the use of other types of storage: pit silos, with earthen walls; bunker silos, with concrete walls and sometimes a protective roof; and silage piles, stored in long white plastic bags held in place with tires.

Figure 13. Steel silo. Photo by Elizabeth Jacox.

Figure 14. Fiberglass and steel silos. Photo by Elizabeth Jacox.

Significance

Silos are representative of the increasing importance of scientific research in support of agriculture in the late 19th and early 20th centuries. Their use was promoted by the U.S. Department of Agriculture through its Agricultural Extension Service. Through the cooperative programs run by the USDA and state universities, the benefits of silos were provided to farmers in pamphlets, classes, and workshops which featured tours of local farms.

Registration Requirements

A silo is unlikely to be individually eligible to the NRHP unless it has some connection to the research and development of the technology of storage. Tower silos appear to survive generally unchanged from their original form, although they frequently have lost their roof covers. In general, if a silo is still standing on a farmstead, it will contribute to the eligibility of the property, but to be listed individually under this MPD, it must retain its major features, including a roof cover.

Potato Cellars

Potatoes have been grown in Idaho since the early days of settlement, but with irrigated agriculture Idaho moved to the forefront of potato production in the early 20th century. In 1910, Twin Falls County became one of the three counties leading potato production in the state. The agricultural depression that

followed World War I led to lower production in potatoes, along with other crops, and Twin Falls never regained the lead it held before then. Although potatoes continued to be an important crop, Twin Falls County farmers diversified, growing potatoes, but also beans, sugar beets, and other produce.

Potato storage studies began in the 1910s when the USDA and the University of Idaho began to cooperate on research. Before then potatoes, if they were stored at all, were usually placed in barns or root cellars. When production began to increase, bigger storage capacity was required. Early cellars were simple dugouts built by farmers. The dugouts featured framed roofs. The interior ceiling was created by attaching chicken wire to the roof and filling it with straw. On the outside the excavated dirt was shoveled over the top of the dugout.

A study of selected potato cellars in Twin Falls County conducted for the Twin Falls County Historic Preservation Commission in 1997 by Madeline Buckendorf and Elizabeth Jacox documented and described a number of potato cellars in the county constructed through the 1940s when Twin Falls potato production slacked off from its earlier high.[62] During the time that potatoes were an important crop in Twin Falls County, the dugout potato cellar was improved by research conducted by the University of Idaho's Agricultural Experiment Stations and the Agricultural Extension Office. Construction methods were refined, and a few builders developed specialized skills for building them. As potato production grew and southeastern Idaho counties began to lead the field, potato storage moved into large metal buildings with climate controls and few farmers in Twin Falls County continued to grow potatoes. As Buckendorf noted, some cellars documented in 1997 showed signs of the more modern improvements with metal siding and interior fans, but by the late 1940s most farmers had diversified their farms in other directions.

Figure 15. Potato cellar with entrance vestibule. Figures

Figure 16. Gable roof potato cellar.

Figure 17. Potato cellar modified for use as equipment storage.
15-17 photos by Elizabeth Jacox.

Registration Requirements

As potato cellars are beginning to disappear from the rural landscape with farm consolidation and residential development, it is possible that surviving cellars would be individually eligible under Criterion A under Agriculture or Criterion C under Architecture as examples of a type. Individual eligibility would require that a cellar be unmodified and retain its original entrance and interior support system. To be considered to contribute to a historic farmstead, the cellar must retain some original materials on the exterior. A modification such as a new entrance cut into the side of the cellar would likely render it non-contributing.

[62] Madeline Kelley Buckendorf, "Selected Potato Cellars of Twin Falls County, Idaho: Reconnaissance Survey Report and a Brief History of Their Evolution," Survey Report 240, on file at the Idaho State Historic Preservation Office.

Secondary Farm Resources

Individual farmsteads may include all or some of these additional resources.

Agricultural Production-Related

Poultry Houses	Tank/Pump/Well House
Hog Shelters	Corrals
Milk Houses	Troughs (Feeding and Watering)
Loafing Sheds	Bull Pens
Machine Sheds	Loading/Squeeze Chutes
Other Sheds	Hay Derrick
Water Tanks	

Farm Implements and Machinery Related

Machine and Implement Sheds	Fencing
Blacksmith Sheds	Irrigation Ditches
Sheds, miscellaneous (e.g. coal shed, tool shed, and so forth)	Orchards

Residential-Related

Tenant Houses/Bunkhouses	Outhouses
Wells/Pumphouses	Auto Garage
Tank Houses	Windbreaks
Root Cellars	

Significance

These resources all added functionality to the farm's productive capacity or provided convenience and comfort for the farm family. Their presence on a farmstead will provide information about the focus of the farm's production as well as clues to the timeline of the farm's evolution.

Registration Requirements

These secondary farms structures will not usually carry the significance necessary to support individual eligibility to the NRHP. Their supportive function contributes to the significance of the farmstead. Such structures may not retain their original purpose but should retain their basic forms and specific structural characteristics.

H. Summary of Identification and Evaluation Methods

This Multiple Property Documentation Form (MPDF) is based upon surveys conducted for the purpose of documenting historic agricultural properties in Twin Falls County conducted for the Twin Falls County Historic Preservation Commission (HPC) in 2009, 2010, and 2019 as well as on data collected through a comprehensive record search conducted by the State Historic Preservation Office of the Idaho Historic Sites Inventory (IHSI) database for previously recorded properties. The MPDF, "Historic Agricultural Resources in Twin Falls County, Idaho," is meant to assist the County and property owners in nominating properties to the National Register of Historic Places that have direct associations with the contexts and property types established in this submission.

Previous Survey
In 2009, a windshield survey of Twin Falls County determined that at the time, more than 1,000 agricultural properties with buildings more than fifty years old retained enough of their historic integrity to support a reconnaissance level survey. The 2010 and 2012 surveys focused on properties identified by the HPC and resulted in the recordation of 8 properties, one of which was determined eligible for listing in the NRHP.

Current Survey
In 2018, the HPC developed a project to complete a Multiple Project Document form based on a comprehensive record search of previously recorded agricultural properties in Twin Falls County. The results of the record search identified 34 eligible properties. As a larger representation was desired, after consultation with the HPC and SHPO, the 2018 project was refocused as a survey to be conducted in the spring of 2019.

Fieldwork
A reconnaissance level survey of the county was conducted March-June, 2019. The county was broken into three sections for the survey:

Section 1 encompassed 3300 E from the Canyon south to 3000 N, east to the Cassia County line and River Road.

Section 2 was south from 3100 N, west to east, county line to county line, and south to the state line.

Section 3 was 4000 N to 3100 N, west to east, county line to county line.

Properties were selected for recordation based on the presence of significant farm structures and buildings. The selection was made during field work and might be based at the time on the presence of an historic barn or potato cellar in addition to a farmhouse of historic age or additional outbuildings. The fewest number of buildings recorded at any site was one, the largest sites recorded encompassed ten buildings. The total number of properties recorded in 2019 was 24; combined with the results of the previous Twin Falls County surveys and the SHPO record search, more than fifty properties provide the basis for the MPDF.

Archival research
In addition to the documentation of property types and the evolution of land use, research focused on the preparation of historical contexts for the period in which the survey area developed agriculturally, and the identification of dates of construction. Preliminary research included a review of the results of the SHPO record search, including site forms and survey reports; discussion with the HPC about properties; and review of the Twin Falls County Assessor's Property information online. The County Assessor's office prepared a preliminary map showing the location of previously recorded properties to help identify areas lacking information. Additional online research was conducted using the local history resource of the Twin Falls Public Library, as well the resources of the Idaho State Archives, including both online and physical collections related to the history of Twin Falls County.

Establishing Dates of Construction
Construction dates were established or estimated by using a variety of resources, including plat maps, local history resources, previous survey information, historic aerial images, newspaper reports, and the architectural styles or construction details of individual buildings.

Compilation and Analysis of Data
The properties were recorded with field notes and digital photographs in the field, site maps were created using Google Earth, and site locations were located on USGS topographic maps. The information was entered into the Microsoft Access database used by the State Historic Preservation Office (SHPO). The database provides fields for entering each building's historic and current functional use, physical features (e.g. plan, principal materials, architectural style and/or vernacular property type, roof type, and condition); architect and/or builder, if known; estimated or documented date of construction, legal description; presence of historic outbuildings; source(s) of historic information; and notes about the history of the property. As required by SHPO, pdfs of the site forms including the forms, maps, and photographs, were created for each recorded site and included with the final survey report. The final documents were deposited with the SHPO and the HPC.

Context
The historic context covers the agricultural history of Twin Falls County through its agricultural property resources, including farmsteads or ranches and the buildings and structures of farmsteads or ranches. The period of significance is 1860 to 1970, covering the earliest years of settlement and first attempts at raising crops and livestock through the development of irrigation and the construction of large-scale irrigation projects to the modern era of industrialized agriculture and the changes brought to the county by those changes and the growth of urban development.

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