



 OFFICE of ARCHAEOLOGY and HISTORIC PRESERVATION

Winifred Perkins
Environmental Services Manager
Next Era Energy Resources
700 Universe Blvd.
Juno Beach, Florida 33408

SEP 20 2018

Re: Initiation of Consultation for the Grazing Yak Solar Project, El Paso County, Colorado (HC#74926)

Dear Ms. Perkins:

Thank you for your correspondence dated September 11, 2018 and received by our office on September 12, 2018 initiating consultation for the above referenced project.

Based on our review of the information provided, we note that the proposed project is located on approximately 240 acres in Sections 2 and 29 of Township 12 South, Range 61 West in El Paso County, southeast of the modern town of Calhan. The project involves construction of a solar array, associated collection lines, and tie in to the existing Jackson Fuller Substation located 1 mile from the solar array.

We view the proposed Area of Potential Effects as the one mile tie in and the footprint for the solar array. This is the APE for direct effects, termed the Area of Direct Impacts (ADI) in the consultation letter. Based on our review, it does not appear that any properties nominated for inclusion in or accepted by the state register are present within or adjacent to the project area that could be adversely affected. While we appreciate your continued due-diligence to identify and avoid important properties within our state as part of its planning process, please note that our comments should not be interpreted as concurrence under the National Historic Preservation Act (NHPA) or any other environmental law or regulation. If human remains are discovered during ground disturbing activities, the requirements under CRS 24-80 part 13 apply and must be followed.

It is our understanding that, as of this date, there is no known state or federal involvement in this project. If state or federal agencies become involved in the project, such as for permitting, licensing, or funding, these agencies will need to consult with our office in conformity with the NHPA or Colorado Historical, Prehistorical, and Archaeological Resources Act (CRS 24-80), as appropriate. In the event that there is federal agency involvement, please note that it is the responsibility of the federal agency to meet the requirements of Section 106 as set forth in 36 CFR Part 800 titled "Protection of Historic Properties". This includes not only reasonable and good faith identification efforts of any historic properties located within the area of potential effects, but determining whether the undertaking will have an effect upon such properties. The State Historic Preservation Office, Native American tribes, representatives of local governments, and applicants for federal permits are entitled to consultative roles in this process.

Thank you for the opportunity to comment. If we may be of further assistance, please contact Lindsay Johansson, Section 106 Compliance Manager, at (303) 866-4678 or lindsay.johansson@state.co.us.

Sincerely,

for
Steve Turner, AIA
State Historic Preservation Officer

NextEra Grazing Yak Project, El Paso County, Colorado: Intensive Cultural Resources Inventory



Overview of Project area looking north

Prepared by:

Hilary J. Powell-Rummel, MA, Senior Archaeologist
David Killam, Senior Archaeologist
Juston Fariello, Staff Archaeologist
Gordon C. Tucker, Jr., PhD, Principal Investigator

History Colorado-Office of Archaeology and Historic Preservation
COLORADO CULTURAL RESOURCE SURVEY
 Cultural Resource Survey Management Information Form

I. PROJECT SIZE

Total federal acres in project	0	Total federal acres surveyed	0
Total state acres in project	0	Total state acres surveyed	0
Total private acres in project	303	Total private acres surveyed	303
Total other acres in project	0	Total other acres surveyed	0

II. PROJECT LOCATION

County:	El Paso									
USGS Quad Map:	Holcolm Hills (1976); Rush NW (1976)									
Principal Meridian:	6 th									
Township	12S	Range	61W	Section	20	1/4	1/4	1/4	NE	1/4
Township	12S	Range	61W	Section	20	1/4	1/4	1/4	SW	1/4
Township	12S	Range	61W	Section	29	1/4	1/4	1/4	W	1/2
Township		Range		Section		1/4	1/4	1/4		1/4
Township		Range		Section		1/4	1/4	1/4		1/4

III. SITES

Smithsonian Number	Resource Type				Eligibility				Management Recommendations						
	Prehistoric	Historic	Paleontological	Unknown	Eligible	Not Eligible	Need Data	Contributes to a District	No Further Work	Preserve / Avoid	Monitor	Test	Excavate	Archival Research	Other
5EP.8361		X				X			X						
5EP.8362		X						X							X

IV. ISOLATED FINDS

Smithsonian Number	Resource Type			
	Prehistoric	Historic	Paleontological	Unknown
5EP.8363		X		

Abstract

NextEra Energy Resources, LLC (NextEra) contracted AECOM Technical Services, Inc. (AECOM) to identify and make recommendations for cultural resources identified within the proposed Grazing Yak Project (Project) area in El Paso County (County), Colorado. The Project area lies on private lands, approximately 3 miles southeast of Calhan, Colorado. NextEra proposes to construct a ground-mounted, solar photovoltaic (PV) facility within a parcel encompassing approximately 270 acres and install an underground collection line within a 1.25-mile-long and 150-foot (ft)-wide corridor (approximately 30 acres). NextEra is seeking a zoning permit from the County, under the powers granted to the County through the 1041 regulations (Colorado Revised Statutes [CRS] 24-65.1-101). As part of the 1041 permitting process, the County must evaluate the Project's potential effects on areas that contain "historical, natural, or archaeological resources of statewide importance." To satisfy these requirements, NextEra engaged AECOM to complete an intensive cultural resources inventory of the Project area and to evaluate the significance of any extant cultural resources.

In a letter dated 11 September 2018, Winifred Perkins, Environmental Services Manager with NextEra Energy Resources, Inc., contacted Lindsay Johansson, Section 106 Compliance Manager with the Colorado Office of Archaeology and Historic Preservation (OAHP) at History Colorado about this Project. A review of OAHP files indicated that no known properties nominated for inclusion in or accepted by the state register are located within or adjacent to the Project area that could be adversely affected. Because no state or federal permitting is associated with this Project, a review under the National Historic Preservation Act of 1966 or the Colorado Historical, Prehistorical and Archaeological Resources Act (CRS 24-80) is not required. A previous cultural resources assessment of this area had been conducted as part of the permitting for the nearby NextEra Golden West Wind Energy Center (Higgins et al. 2009). No historic properties were identified within the Project area during that investigation. However, because it is NextEra Energy policy to avoid whenever possible important prehistoric and historic resources associated with its projects, a cultural resources investigation specific to the Grazing Yak Solar Project was conducted by AECOM on behalf of NextEra.

The purpose of the cultural resources inventory was to document the presence of cultural resources within the area of direct impacts (ADI) at the solar facility location. The ADI encompasses the proposed solar facility and the underground collection line corridor. This report presented the findings of an intensive cultural resources inventory of approximately 303 acres of grazing land in eastern El Paso County, Colorado.

Dr. Gordon C. Tucker Jr. served as the Principal Investigator for this cultural resources inventory. On September 12 and 13, 2018, David Killam, Hilary Powell-Rummel, and Juston Fariello completed the survey of the collection line and solar array for the proposed NextEra Grazing Yak Solar Project. The survey team recorded an area of erosion control features (5EP.8362), constructed by the Civilian Conservation Corps (CCC) in the 1930s, and one isolated find (5EP.8363) within the ADI. A historic farmhouse (5EP.8361), which was historically connected to the CCC features, was recorded immediately north of the ADI. The CCC-fabricated features are associated with a historic event of national, state, and local significance, a New Deal-era erosion control program in eastern El Paso County, Colorado. However, because the Project has no federal nexus, the OAHP has indicated that they appreciate the information on these CCC features, but no further action is required.

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Appendix B	Cultural Resources Location Map
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List of Acronyms

°C	degrees Celsius
°F	degrees Fahrenheit
A.D.	Anno Domini
ADI	area of direct impacts
AECOM	AECOM Technical Services, Inc.
B.P.	before present
ca.	circa
CCC	Civilian Conservation Corps
cm	centimeter
County	El Paso County
CRS	Colorado Revised Statutes
ft	feet
IF	isolated find
km	kilometer(s)
m	meter
mm	millimeters
NextEra	NextEra Energy Resources, LLC
OAHP	Office of Archaeology and Historic Preservation
Project	Grazing Yak Project
PV	photovoltaic
SCS	Soil Conservation Service

1 Introduction

NextEra Energy Resources, LLC (NextEra) contracted AECOM Technical Services, Inc. (AECOM) to evaluate effects on cultural resources within the proposed Grazing Yak Project (Project) area in El Paso County (County), Colorado. The Project area lies on private lands, approximately 3 miles southeast of Calhan, Colorado. NextEra proposes to construct a ground-mounted, solar photovoltaic (PV) facility within a parcel encompassing approximately 270 acres and an underground collection line within a 1.25-mile-long and 150-foot (ft)-wide corridor (approximately 30 acres) (**Figure 1-1**). NextEra is seeking a zoning permit from the County, under the powers granted to the County through the 1041 regulations (Colorado Revised Statutes [CRS] 24-65.1-101). As part of the 1041 permitting process, the County must evaluate the Project's potential effects on areas that contain "historical, natural, or archaeological resources of statewide importance."

In a letter dated 11 September 2018, Winifred Perkins, Environmental Services Manager with NextEra Energy Resources, Inc., contacted Lindsay Johansson, Section 106 Compliance Manager with the Colorado Office of Archaeology and Historic Preservation (OAHP) about this Project. A review of OAHP files indicated that no known properties nominated for inclusion in or accepted by the state register are located within or adjacent to the Project area that could be adversely affected. Because no state or federal permitting is associated with this Project, a review under the National Historic Preservation Act of 1966 or the Colorado Historical, Prehistorical and Archaeological Resources Act (CRS 24-80) is not required. A previous cultural resources assessment of this area was conducted as part of the permitting for the nearby NextEra Golden West Wind Energy Center (Higgins et al. 2009). No historic properties were identified within the Project area during that investigation. However, because it is NextEra Energy policy to avoid important prehistoric and historic resources associated with its projects to the extent practical, a cultural resources investigation specific to the Grazing Yak Solar Project was conducted.

NextEra engaged AECOM to complete an intensive cultural resources inventory of the Project area, the purpose of which was to identify all cultural resources within the area of direct impacts (ADI) at the solar facility location. The ADI encompasses the proposed solar facility and the underground collection line corridor, approximately 303 acres of grazing land in eastern El Paso County, Colorado.

Dr. Gordon C. Tucker Jr. served as the Principal Investigator for this cultural resources inventory. On September 12 and 13, 2018, David Killam, Hilary Powell-Rummel, and Juston Fariello completed the survey of the ADI. The survey team recorded an area of erosion control features, 5EP.8362, constructed by the Civilian Conservation Corps (CCC) in the 1930s, and one isolated find (IF), 5EP.8363, within the ADI. A historic farmhouse, 5EP.8361, which is historically connected to 5EP.8362, was recorded immediately north of the erosion control features but outside the ADI.

The following report is organized into general sections of topics related to the intensive cultural resources investigations of the Grazing Yak Project. To provide a regional context for the Project, Section 2 discusses the natural setting of the El Paso County area. The overview of the natural setting focuses on physiography, hydrology, geology, climate, vegetation, and animal life, as well as past environmental conditions, which have played a role in settlement patterns of past peoples and can assist in understanding the cultural resources that are encountered in the Project area. Section 3 discusses the cultural setting of the Project area, including the regional prehistory and history and previous work conducted in the area. Section 4 details the field methodology, including survey methods and site recordation procedures. Section 5 presents the results of the cultural resources survey. Section 6 summarizes the survey results within the context of the regional natural and cultural settings and presents recommendations. Finally, Section 7 lists the references cited in the report. **Appendix A** includes a copy of a consultation letter from the Colorado OAHP. **Appendix B** contains a map with the locations of the ADI, previously recorded sites, newly recorded IFs, and newly recorded and expanded archaeological sites. All of the cultural resources recording forms are contained in **Appendix C**. This report complies in form and content with guidelines issued by the OAHP (2007).

2 Environmental Setting

Human use of an area, today and in the past, is conditioned to some extent by environmental parameters. The environment does not determine how and to what extent human groups will respond; rather, it provides opportunities for, and imposes constraints upon human behavior. To understand how human groups in an area adapted to the local conditions, the past regional environmental setting should be understood. A description of the modern environment is followed by a discussion on past environmental conditions, in consideration of changes that have occurred in regional and local environmental conditions during the more than 12,000 years that humans have inhabited eastern Colorado.

2.1 Ecoregion and Present Environment

The Project area is located in the Colorado Piedmont section of the Great Plains physiographic province, which extends from the Wyoming border south to the Raton Mesas and the Park Plateau in southern Colorado, from the Front Range foothills east to the Kansas border (Fenneman 1931:30-31; Painter et al. 1999:5). The Colorado Piedmont is generally described as a broadly rolling but locally scarped erosion surface (Painter et al. 1999:5). The Arkansas and South Platte rivers stripped away Tertiary-aged rocks that once mantled the Colorado Piedmont, unlike the other adjoining Great Plains sections (Painter et al. 1999:5).

The ecoregion discussions presented below follow the Level III and Level IV ecoregion classification based on Chapman et al. (2006) and refined through collaborations among the U.S. Environmental Protection Agency, state resources management agencies, and other federal agencies. The Project area is encompassed within one Level III ecoregion, the Southwestern Tablelands, which is divided further into one Level IV ecoregion, the Foothill Grasslands Ecoregion (**Figure 2-1**). Both ecoregions are described below.

2.1.1 Southwestern Tablelands Level III Ecoregion

The Southwestern Tablelands Level III Ecoregion is composed of sub-humid grassland and semiarid rangeland that is rugged and less arable. The ecoregion runs from east-central to southeast Colorado, and also includes a small portion of eastern New Mexico, the Oklahoma Panhandle, far south-central Kansas, and northwest Texas. The Southwestern Tablelands has a low percentage of croplands. This Level IV ecoregion is described below.

2.1.2 Foothill Grasslands Ecoregion

The Foothill Grasslands Level IV Ecoregion is characterized by a mix of grassland types with some areas of isolated tallgrass prairie species, which are more common farther east. The proximity to runoff and moisture from the Front Range and the more loamy, gravelly, and deeper soils are able to support more tallgrass and mid-grass species than neighboring ecoregions. Big and little bluestem, yellow Indiangrass, and switchgrass occur along with foothill grassland communities, similar to those of the Foothill Shrublands ecoregion. While grasslands dominate, scattered pine woodlands also occur within the ecoregion. The annual precipitation of 14 to 20 inches tends to be greater than in regions farther east. Soils are loamy and gravelly alluvial that originate from underlying sandstone and shales. Rangeland and pastureland are common with some small areas of cropland. Urban and suburban development has increased in recent years, expanding eastward from Colorado Springs and the Denver metropolitan area (Chapman et al. 2006).

2.1.3 Present Environment

Colorado has a continental climate that is generally dry year-round, with hot summers and cold winters (Painter et al. 1999:8). Local climatic conditions closely match these general parameters. The average annual daily temperature, as recorded for the period 1931–1960 at downtown Colorado Springs, approximately 35 miles (56 kilometers [km]) west/southwest of the survey area, is 48.5 degrees Fahrenheit (°F) (9.2 degrees Celsius [°C]), with a high of 70.5° F (21.4° C) in July and a low of 28.6° F (-1.9° C) in January (Berry 1968:604). The average annual precipitation is 13.2 inches (335 millimeters [mm]), ranging from 0.24 inch (6 mm) in January to 2.37 inches (60 mm) in July. The average annual snowfall is 41.7 inches (106 centimeters [cm]), and March is the snowiest month with an average snowfall of 9.0 inches (22.8 cm) (Larsen 1981: Table 1). Slightly more than 80 percent of the total annual precipitation falls during the period from April through September, and summer thunderstorms are common (Larsen 1981:2). The average relative humidity ranges between approximately 30 and 40 percent, and the prevailing wind is from the north-northeast at an average annual speed of 30 miles

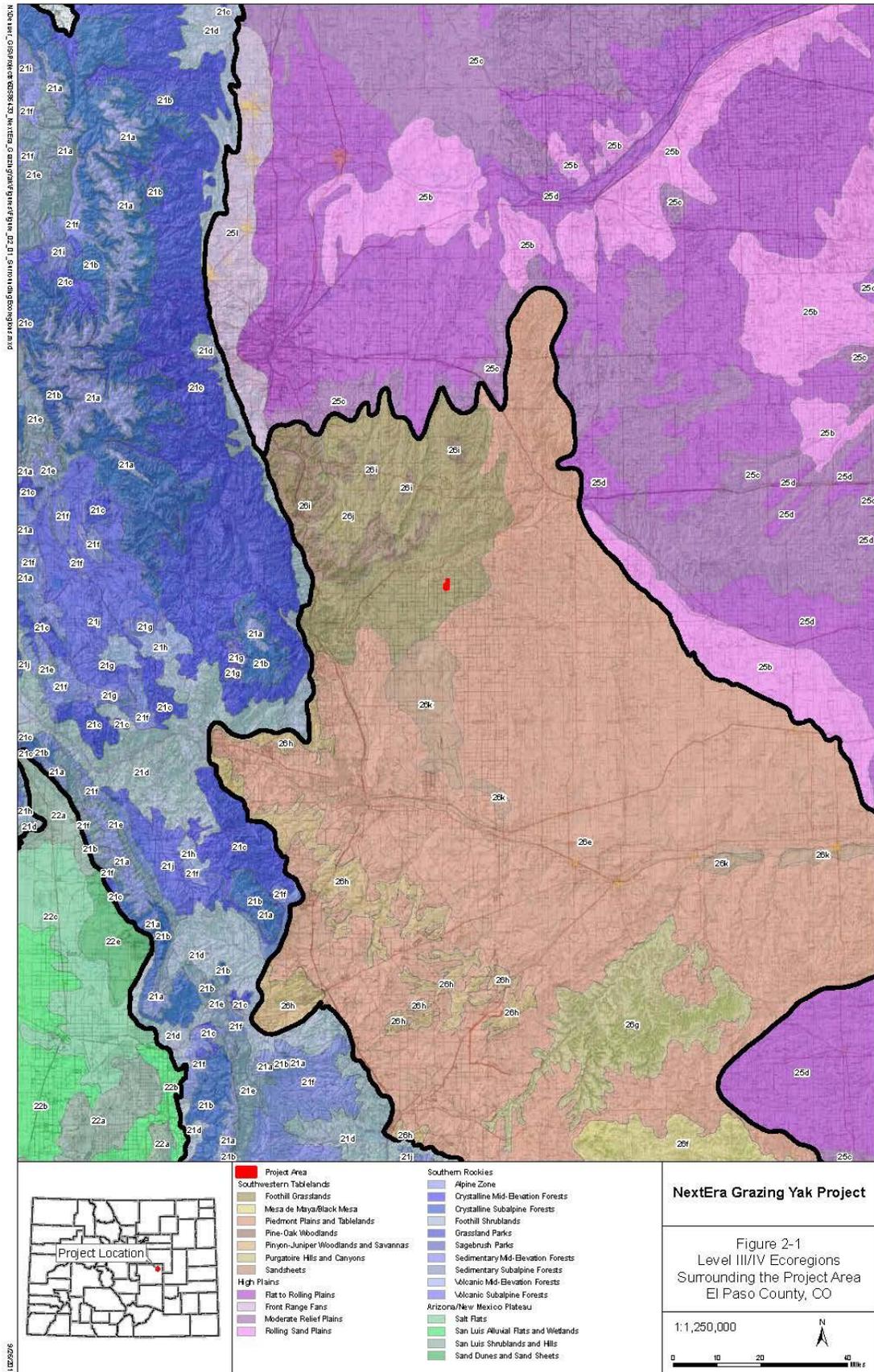


Figure 2-1. Level III/IV Ecoregions Surrounding the Project Area

(48 km) per hour (Larsen 1981:2). The growing season, the period between the last freezing temperature in the spring and first freezing temperature in the fall at a threshold temperature of 32° F (0° C), is 126 days (Larsen 1981: Table 3).

The Project area is drained by Horse Creek, which flows roughly northwest-to-southeast approximately one mile northwest of the Project area. Big Sandy Creek is located north of the Project area and likely provided a prehistoric travel corridor along the northern portion of the Project area to favorable locales such as the Calhan Paint Mines Archaeology District, located approximately two miles north of the Project area. Southeast-flowing streams have been slowly eroding the sandstones and shales, while depositing arkosic sedimentary rock and gravelly alluvium along eastern terraces and flood plains (Larsen 1981:14). The Project area topography has moderate relief (3-10 percent slopes) with rolling terrain periodically interrupted by shallow drainages. Elevations in the Project area range from approximately 6,700 to 6,800 ft above mean sea level.

Soils in the Project area are predominantly Bresser sandy loam and Truckton sandy loam (Larsen 1981: General Soil Map). Bresser sandy loam is a well-drained soil formed on terraces and uplands by alluvial and residual processes (Larsen 1981:14-15). The soil is described as approximately 5 inches of grayish-brown sandy loam overlying approximately 31 inches of brown sandy clay loam (Larsen 1981:83). The substratum, a light yellowish-brown loamy coarse sand, extends to an approximate depth of 60 inches (Larsen 1981:84). Truckton sandy loam is a well-drained soil formed on hills and interfluvies in re-worked alluvium derived from arkose (Larsen 1981:101). The soil is described as approximately 4 inches of grayish-brown sandy loam overlying approximately 15 inches of brown sandy loam. The substratum of sandy loam extends to an approximate depth of 80 inches (Larsen 1981:101). Other soil types include Ascalon sandy loam, Ellicott loamy coarse sand, and Ustic Torrifuvents loam.

Flora and fauna within the survey area are associated with the Plains zone, primarily uplands, but with some riparian areas at the base of slopes and in valleys (Phillips 1998). The native vegetation consists of rangeland grasses, including needle-and-thread, sand bluestem, switch grass, wheatgrass, buffalo grass, and side-oats grama (Larsen 1981: Table 6). Some shrubs and succulents seen in the vicinity include yucca, prickly pear cactus, low sagebrush, chokecherry, and Gambel's oak. Native fauna in the area tend to be small prairie animals such as jackrabbits, prairie dogs, cottontail rabbits, and burrowing rodents. Larger animals include pronghorn antelope, mule deer, white-tailed deer, and coyote (Phillips 1998). Several species of birds are also present, including raptors, corvids, and neotropical migrants. Yaks, a domesticated non-native species, presently graze in the Project area.

2.2 Current Land Use

The land in and around the ADI is presently used for dryland farming and some irrigated farming (Larsen 1981:7) and renewable energy (**Figures 2-2 and 2-3**). Yaks were observed grazing where the solar facility will be located. Wind turbines are visible around the Project area.



Figure 2-2. Overview of the Project area facing east.



Figure 2-3. Overview of the Project area facing north.

2.3 Paleoenvironment

Climatic conditions in eastern Colorado from the late Pleistocene through Holocene epochs, a span of at least 12,000 years, have varied from hot and dry to wet and cool with correspondingly dramatic effects on the local inhabitants (see **Table 2-1**). Human groups may have abandoned portions of the eastern plains during the driest episodes, most notably during the Altithermal period, circa (ca.) 7000-4500 before present (B.P.) (Painter et al. 1999:23-24). The Neo-Boreal or Little Ice Age episode (300-100 B.P.) was substantially cooler and moister. Most recently, after 100 B.P., the climate has been relatively dry (Painter et al. 1999:24), approaching modern conditions.

Table 2-1. Past Environmental Conditions and Cultural Episodes in Eastern Colorado

Cultural Episode		Dates (B.P.)	Paleoenvironmental Conditions
Stage	Period		
Paleoindian	Pre-Clovis	>12,000	Full glacial conditions at the outset, with gradually ameliorating climatic conditions
	Clovis	12,000-11,000	Warming trend, with possible drought during the late Clovis period (11,300-10,800 B.P.)
	Folsom	11,000-10,000	Continued warming and drying, shrinking of pine-spruce woodlands in foothills, and expansion of mixed tall grass/ short grass prairie
	Plano	10,000-7500	Continued drying and warming with increasing aridity towards the latter part of the Plano period
Archaic	Early Archaic	7500-5000	Once thought to be a period of universal aridity throughout the West and Southwest (Altithermal), now considered to have included two drought periods separated by a period of increased effective moisture
	Middle Archaic	5000-3000	Increased effective moisture, punctuated by discontinuous periods of aridity
	Late Archaic	3000-1800	Warmer and drier conditions, possibly changing to periods of increased precipitation and cooler temperatures
Late Prehistoric	Early Ceramic	1800-800	Initial period of warmer and drier conditions followed by conditions slightly wetter and cooler than present
	Middle Ceramic	800-400	Xeric conditions initially, followed by slightly cooler and wetter conditions
Protohistoric		400-100	Cooler and wetter conditions with expansion of mountain glaciers
Modern		A.D. 1893-1905	Dry—most pronounced over eastern Colorado.
		1905-1931	Wet—longest recorded wet period
		1931-1941	Dry—most widespread and longest lasting drought
		1941-1951	Wet—widespread
		1951-1957	Dry—extremely dry
		1957-1959	Wet—widespread
		1963-1975	Dry/Wet—alternating very wet and fairly dry periods
		1975-1978	Dry—sustained multi-year drought
	1979-1996	Wet—second longest sustained wet period	

Data sources: Tate and Gilmore (1999); McKee et al. (2000).

3 Cultural Setting and Previous Investigations

Humans have inhabited eastern Colorado for at least 12,000 years, and perhaps longer. This lengthy period of occupation includes prehistoric and historic eras, the highlights of which are summarized below.

3.1 Prehistoric Era

The prehistoric era embraces more than 12 millennia and is divided into the chronologically ordered cultural stages of Paleoindian, Archaic, Late Prehistoric, and Protohistoric. Each stage encompasses one or more periods, which are distinguished by technological attributes and subsistence strategies (Chenault 1999a:1).

3.1.1 Paleoindian Stage (ca. 12,000-7500 B.P.)

Paleoindian people had specialized adaptation to late Pleistocene/early Holocene environments, characterized by the hunting of now-extinct species of large game, such as mammoth, camels, and bison (Chenault 1999b:51). Paleoindian components are recognized by the presence of large, well-made, flaked stone tools that distinguish three cultural periods: large, fluted lanceolate points for the Clovis period; smaller, finely pressure-flaked and fluted lanceolate dart points for the Folsom period; and lanceolate and stemmed dart points for the Plano period. Most Paleoindian sites are camps, animal kill sites, and animal processing sites, or a combination of those types.

3.1.2 Archaic Stage (7500-1800 B.P.)

The succeeding Archaic Stage was a time of changing environmental conditions that required modifications of the Paleoindian lifestyle. Archaic people broadened their resource base by hunting both large and small game animals and increasing their emphasis on plant resources (Tate 1999:91). Archaic components are recognized by a diversified tool kit, with ground stone artifacts, smaller stemmed and notched projectile points, as well as firepits, storage cists, and architectural features. The Archaic stage includes three periods, distinguished primarily by distinctive artifacts: large, side- and corner-notched dart points during the Early Archaic period; stemmed, indented-base projectile points, as well as several large side-notched, corner-notched, and stemmed points during the Middle Archaic period; and large, corner-notched and side-notched dart points during the Late Archaic period.

3.1.3 Late Prehistoric Stage (1800-400 B.P.)

The Late Prehistoric Stage represents a continuation of an archaic lifestyle, with several important technological innovations: the bow and arrow, ceramics, and limited horticulture (Gilmore 1999:175). The stage is divided into two periods based on the presence of distinctive artifacts: the Early Ceramic period, characterized by small, corner-notched arrow points and cord-marked pottery; and the Middle Ceramic period, represented by small, side-notched arrow points and shouldered, globular pottery vessels with partially to completely obliterated cord marks (Gilmore 1999:177-180). The Early Ceramic period campsites appear to have been occupied for longer periods of time and/or with greater regularity than the preceding Late Archaic period, and this pattern continues into the Middle Ceramic period.

3.1.4 Protohistoric Stage (400-100 B.P.)

The concluding Protohistoric Stage (ca. 400–100 B.P.) begins with European contact and ends with the period of permanent settlement by non-aboriginal groups (Clark 1999:309). The introduction of the horse and guns resulted in dramatic cultural and territorial changes throughout the High Plains, resulting in a period of cultural dynamism. Protohistoric components are often identified through diagnostic artifacts, especially those of European and American manufacture, unique features (e.g., peeled trees, wikiups, and tipi rings), or ethnographic analogy (Clark 1999:310).

It is generally accepted that Apaches dominated the eastern plains of Colorado from the Anno Domini (A.D.) 1500s to the 1700s, except for occasional hunting forays onto the plains by the Utes (Clark 1999:310). Starting in the early 1700s, the Apache began to have conflicts with the Comanche, who had recently acquired the horse. The Comanche, with assistance from the Utes, were able to force the Apache into New Mexico by 1730. In the early 1700s, a splinter group of Apaches began living among the Kiowas. These Kiowa-Apaches maintained their linguistic identity, but lived as Kiowas. Ethnohistoric records and oral history indicate that the Arapahos, who

were quickly followed by the Cheyenne, occupied the Platte River Basin after the Comanche. Although they formerly lived near the Black Hills, the Cheyenne began to winter along the South Platte and Arkansas rivers in eastern Colorado by the early 1800s. Seasonal hunting parties of various groups of Lakota Sioux may also have entered eastern Colorado during the 1800s.

3.2 Historic Era

3.2.1 Early Historic Contact

Non-native (mostly Spanish) explorers visited the area of the western United States that was to become the state of Colorado as early as the sixteenth century (Kalasz et al. 1999:250). These visits were infrequent and brief until the middle of the nineteenth century. The discovery of gold in the 1850s along the Front Range of the Rocky Mountains resulted in a huge influx of settlers and prospectors to the Pikes Peak Region (Ahlefeldt 1979:17). On February 18, 1859, Congress created the Colorado Territory. In that same year, Colorado City was established as a mining supply center along the banks of Fountain Creek (Sprague 1961:15), just west of where Colorado Springs is now located. El Paso County was one of the original 18 counties formed by the territorial legislature in 1871 (Larsen 1981:1).

Immediately thereafter, government survey parties began to divide the Territory into townships and, by 1866, nearly all of the area had been divided into sections (Ahlefeldt 1979:18). Colorado Springs was established in 1871 near the confluence of Fountain and Monument creeks (Gardner 1999:40). On August 1, 1876, Colorado became the 38th state to join the union.

Construction of the Atchison Topeka & Santa Fe Railroad started at the Kansas state line, continued west, and reached Granada in early July 1873 (Wilkins 1974). This first section was built under the subsidiary of Colorado and New Mexico Railroad Company and was the end of the track for almost two years as construction was stalled. It was not until May 1875 that construction under a new subsidiary known as the Pueblo and Arkansas Valley Railroad Company continued west to Rocky Ford. Work on the railroad then continued west and was finally finished on February 29, 1876. The line was expanded north to Colorado Springs and Denver in 1888.

3.2.2 Early Farming and Ranching

The early history of the area in northeastern El Paso County is defined by open range cattle ranching, dryland farming, and limited irrigated farming. The discovery of gold in the Denver area and west into the mountains provided an opportunity for the Colorado Springs area to supply these mining establishments with various food and other products. By the mid-1860s, a few roads had been built in the area. These included the Cherokee Trail from Colorado City to Denver; several branch roads off the Smoky Hill Trail to the north; the Squirrel Creek Road, which skirted the southeastern edge of the Black Forest and later in the century became the Bijou Basin and Colorado Springs Wagon Road; and the Jimmy Camp Trail ("Government Road" or "Trappers Trail"), located approximately 8 miles east of Colorado Springs, which was the principle north-south route between the trading posts and forts along the Platte and Arkansas rivers (Ahlefeldt 1979:18-19). These trails and roads are close to the Project area and provided strong transportation services for the local ranchers and agriculturists.

The 1870s saw the rise of stock growing in El Paso County and homesteaders began to stake claims on land for ranches. By 1873, livestock ranching had matured, resulting in the formation of the El Paso County Stockgrowers Association (Peake 1937:295). Open ranging of cattle was the main practice during this time. Beef cattle and even dairy cattle were driven out to pasture in the morning and rounded up near evening. For dairy ranchers, this system posed a problem if they could not round up their cows in time to milk them to sell the next day (McClurg 1925a:B1). Open range ranching declined significantly by the 1890s, when fenced-off rangeland became the norm (Mehls 1984:17-1).

In the 1880s, several railroads were built in the area and opened up the region to an increase in settlement. By the late 1880s, two major railroads traveled through nearby Falcon: the Denver Texas and Fort Worth (previously the Denver and New Orleans and later the Union Pacific Denver and Gulf and then the Colorado and Southern), and the Chicago Rock Island and Pacific Railroad (Ormes 1975:26). The establishment of these railroads allowed for easy and cheaper transportation of livestock and agricultural goods in eastern El Paso County.

As early as the late 1860s, Colorado Springs and the surrounding region became a major producer of dairy goods. Nearly half of the rangeland in the area is composed of wild grasses, such as buffalo and gramma. These grasses are low-growing species that can survive trampling, close grazing, and dry weather. The fine leaves and stems provide easy and highly nutritious forage for wild and domestic animals (Peake 1937:22; Cottrell 1908:1) and provided ample forage for dairy cattle for both summer and winter with high returns in milk yield (Cottrell 1916:2). In 1868, sweet-cream butter was being produced and sold in Colorado Springs. By 1878, delivery carts carrying dairy products were started in Colorado Springs and home delivery services were started in 1881 (McClurg 1925a:B1). The dairy industry was still growing in the 1880s and, in 1883, El Paso County provided one-sixth of the dairy products consumed locally (McClurg 1925b:D9).

The climate was also a contributing factor to the rise of the dairy industry in the region. Mild summers and winters helped local ranchers keep costs low. Barns and shelters were needed for extremely cold or hot days, but shelter expenses were generally low (Cottrell 1908:2). The dry air and sunny days were thought to retard germs in the dairy products and diseases among the livestock. Tuberculosis was present, around 1908, in only 0.5 percent of ranged cattle and less than 2 percent in close-quartered cattle in Colorado (Cottrell 1908:3). Forage costs were also very low east of Colorado Springs, due to the abundance of drought-resistant native vegetation. A smart dairy farmer would let his cattle feed on native grasses during the summer, but leave enough pasture land untouched so that the grasses would cure naturally, without cutting, and provide fall and winter feed for his cattle. It was said that no matter how wet or dry the year sufficient vegetation remained that dairy producers would have income for that year (Cottrell 1916:6).

Startup costs for dairy farms, east of Colorado Springs, are minimal. The low expenses for buildings and forage provide startup dairy farmers with a low initial investment with a quick turn around and steady income. One farmer in eastern El Paso County started with an initial investment of \$500, borrowed money, and by 1924 was producing \$325,000 worth of butter and ice cream (McClurg 1925b:D9). The money made from 10 dairy cows could support a large family, and the addition of 10 more cows could produce a surplus of money ranging from \$500 to \$700 (Cottrell 1916:6). Twenty cows in 1908 could provide cash income of \$700 to \$1,000, during summer or winter (Cottrell 1908:4).

Unless a farmer ran a large creamery, it was more profitable to sell cream than to make and sell butter, and it was less work (Cottrell 1916:4). Creameries pay for milk in cash. The creameries bought cream on monthly, weekly, or even daily schedules (Cottrell 1908:4). In 1908, a milk cow fed on good forage could produce \$35 to \$50 in cream a year (Cottrell 1908:3). In 1916, the same cow produced \$50 to \$75 in cream a year (Cottrell 1916:2), a 40 to 50 percent increase. This provided the dairy farmer with instant money to support his family or invest back into his farm by buying more land or livestock. Dairy farmers could also sell calves for veal and sell the skim milk for feed for poultry or swine (Cottrell 1916:4).

The dairy industry grew during the early twentieth century and, by 1925, the annual income from Colorado dairy products was more than the income from wheat, more than the combined income of coal and sugar beets, and more than the combined income from ore mining of gold, silver, lead, zinc, and radium (McClurg 1925b:D9). By approximately 1925, El Paso County was able to supply all of the local dairy requirements and during good years was exporting dairy products to Atlantic and Gulf ports (McClurg 1925b:D9). Eastern Colorado dairies also shipped products to Denver, where they were transported to the mountain districts of Colorado, Wyoming, and New Mexico. Dairy products were also shipped east to Omaha, south to Pueblo, and west into the Cripple Creek mining district (McClurg 1925b:D9).

Five large dairies were working in the Colorado Springs area in 1925. The second largest dairy, IXL Creamery, bought almost all of its cream from dairy farms east of Colorado Springs (McClurg 1925b:D9). At this time, the majority of cattle in eastern Colorado were dairy-producing cows (McClurg 1925c:D6). With the advent of dry land farming, eastern Colorado also provided many crops for human and animal consumption. Some of the main crops grown for dairy forage were corn fodder, cane, sugar beets, and most importantly alfalfa. Alfalfa was first introduced to the area from California in the 1860s-1870s. It provided the farmers with a cheap crop that produces quality dairy products from the cows. This crop brought about the change in the area from beef cattle production to a specialized dairy production ranches (McClurg 1925a:B1). Other ranchers in the region were able to ranch beef cattle instead of dairy, but dairy was still the dominant livestock product after the introduction of alfalfa.

3.2.3 Civilian Conservation Corps

Between 1935 and 1942, a locally based CCC camp (SCS-9-C) participated in project work on ranch lands in the area by building erosional control features. The history of the CCC in the immediate area and Camp SCS-9-C follows.

General CCC History

In 1933, President Franklin Roosevelt created the Emergency Conservation Work Act, which established the Civilian Conservation Corps (Leake and Carter 1987). By the time the CCC was disbanded in 1942, it had engaged over three million young men and is considered the most popular experiment of the New Deal (Leake and Carter 1987). Several federal and state agencies employed CCC men for various projects (Colorado State Archives 2018:1-2). The Forest Service participated in work projects that protected timbered areas from fire, insects, and disease. The U.S. Division of Grazing agency constructed water tanks, stock reservoirs, wells, dams, bridges, fences, truck trails, driveways, and range corrals. The U.S. Division of Grazing also revegetated areas, eradicated poisonous weeds, controlled rodents, and developed animal watering holes. The Bureau of Reclamation sponsored projects to rehabilitate existing storage and irrigation systems, but they also sponsored projects to develop and construct new supplemental storage facilities for drought-affected areas. The Bureau of Reclamation also constructed recreational facilities at some irrigation reservoirs. The National Park Service built or enlarged campgrounds and picnic areas, extended nature trails, constructed parking areas, and opened new park sections. The Soil Conservation Service (SCS) participated in soil conservation and rehabilitation works, such as diversion dams and ditches (Colorado State Archives 2018:1).

By 1935, over 2,650 CCC camps were in operation in all states, as well as Hawaii, Alaska, Puerto Rico, and the Virgin Islands (Leake and Carter 1987). The CCC reached maturity in 1937, but its popularity soon began to decline, partly the result of political disagreements but also due to the gathering storm clouds in Europe. The advent of World War II ultimately spelled the demise of the CCC and Congress liquidated the agency in June 1942 (Leake and Carter 1987).

As was generally the case throughout the southern and western United States, soil conservation techniques taught and practiced by the CCC included “checking and healing” of small drainages, terracing, and other practices (Salmond 1967:125). The work performed on small drainages or gullies was also known as “up-stream engineering” and was practiced on both national forest lands and on private property (Lacy 1976:152). As the CCC evolved, it incorporated every kind of soil conservation practice, such as contour furrowing, and tailored the erosion control to the land on which they were working (Lacy 1976:154). In conjunction with these soil erosion practices, the CCC also built rock and earth dams, developed springs, and constructed wells to facilitate water conservation practices. Preference was given to earthen rock dams and springs due to the minimal cost of materials and the more efficient use of manual labor (Lacy 1976:159).

In Colorado, more than 100 CCC camps were established between 1933 and 1941 (Leake and Carter 1987). Most regions of the state benefited from the activities of the CCC, from the eastern plains, across the mountains, and into the plateau country of western Colorado. The peak activity occurred in 1934, slowly declining thereafter (Leake and Carter 1987). On the eastern plains, the focus for the CCC projects was soil erosion control. Soil conservation projects included the construction of levees, dikes, jetties, earth and rock dams, diversion ditches, terraces, terrace outlets, bank sloping, tree planting, grass seeding, contouring, rip-rapping, quarrying, grass and tree seed collection, experimental plots, surveying, and rodent control (Gleyre and Alleger 1936:69).

Soil Conservation Service Camp #9 Colorado (SCS-9-C) History

SCS Camp #9 (SCS-9-C) was first occupied in late October 1935 and had a total of four work companies assigned to it through early June 1942 (Audretsch 2017). The main work camp and barracks were located along Elbert Road, approximately 3.5 miles north of Elbert, 6 miles south of Kiowa, and approximately 20 miles northwest of the Project area. The camp buildings were located just west of the highway, where the historic Carnahan Ranch is located. This area around the Carnahan Ranch is located near Kiowa Creek and flooding is common during heavy rain events, causing major erosion to the soil. The area is also affected by heavy wind erosion (CCC 1938).

The camp and its four companies of workers participated in soil conservation projects chosen to mitigate soil erosion and prevent flooding on private lands in the northeastern and eastern portions of El Paso County (CCC 1938). The locations of the projects performed were specifically in the areas between the towns of Kiowa

and Elbert, the area between Calhan and Rush/Yoder, and west of Limon (Audretsch 2017). Most of the projects involved the creation of contour furrows and check dams (CCC 1938).

The first work group to occupy the SCS-9-C camp, Company #2547, arrived on October 23, 1935. The enrolled men were mostly from West Virginia, with some Colorado enrollees and a smaller number of men from a disbanded tent camp (F-52-C) located near Walden, Colorado (CCC 1938). The majority of their work was soil-related projects located on private ranches that were adjacent to, or close to, the main work camp's barracks (Audretsch 2017). Company #2547 was dissolved one year later in October 1936 and the men were transferred to California (CCC 1938).

The second occupant of camp SCS-9-C was Company #3885, which included men from Oklahoma and Texas (CCC 1938). Most of their work was soil-related projects in the area approximately 30 miles east of the main camp (Audretsch 2017). Company #3885 occupied the camp for approximately 18 months, from October 23, 1936, until the company was disbanded on June 30, 1938 (CCC 1938).

The third occupant of the camp was Company #2117, which arrived at the camp on July 20, 1938. These men were mostly from the Boston, Massachusetts area, with the supervisors and a few leaders from Colorado (CCC 1938). Most of their work was soil related-projects in the area approximately 30 miles southeast of the main work camp, between Calhan and Yoder/Rush. This company occupied the camp for approximately 17 to 18 months, leaving sometime in January 1940 (Audretsch 2017).

The last occupant of SCS-9-C was Company #3896. They arrived January 6, 1940 and participated in soil-related projects approximately 30 miles east of the main work camp. This company occupied the camp for approximately 29 months, leaving June 6, 1942 (Audretsch 2017).

The ranch on which the Grazing Yak Solar Project will be built exhibits CCC-type erosion control features and was once owned by Jacob Sturm. John (Johan) Sturm, also known as Jacob Sturm, John Jacob, or Jacob John Sturm, was born in Germany on April 11, 1877 (U.S. Government 1918). He immigrated to the United States in 1903 at the age of 23, gradually moved westward across the country, and arrived in eastern Colorado by 1910 (U.S. Census Bureau 1910). Jacob Sturm purchased land a few miles southeast of Calhan, Colorado, and set up a small farm/ranch on 320 acres of land (Cannon 1939). According to the El Paso County Assessor records, the farm/ranch features a one-story residence built in 1919. The farm's 320 acres of land, located south of the buildings, contain 43 individual contour furrows and earthen berms, one earthen dam, one excavated stock tank, and two settling ponds that were built between July 20, 1938 and January 1940 by Company #2117 from CCC camp SCS-9-C (CCC 1938; Audretsch 2017). Sturm continued to live at the farm/ranch as a single man until his death in 1949 (Find a Grave 2018; U.S. Census Bureau 1920; 1930; 1940).

3.3 Previous Work

On September 11, 2018, AECOM personnel conducted a search of Compass, the Colorado Cultural Resource On-line Database, for the Project area. The results show that one cultural resources inventory had previously been conducted and one cultural resource documented within one mile of the Project area. No previously recorded sites are found within the Project area.

In 2009, SWCA Environmental Consultants (Higgins et al. 2009) completed an intensive cultural resources survey of approximately 243 acres for the Golden West Wind Energy Project (Survey ID #EP.PA.R16). Several of the surveyed areas are located immediately north and south of the Grazing Yak Project area. The survey documented 30 sites and 14 IFs. Most of the sites are prehistoric lithic scatters or open camps. One IF, consisting of four petrified wood flakes (5EP.6292), is located approximately one mile north of the collection line. The find is not historically significant. This previous inventory and known site are depicted on the map in

Appendix B.

4 Methodologies

The purpose of this survey was to identify and document any extant cultural resources in the survey area. To accomplish this objective, AECOM personnel conducted an intensive pedestrian survey of the survey area, which encompasses a total of approximately 303 acres. Three archaeologists walked parallel transects spaced no more than 15 meters (m) (50 ft) apart within the survey area. As the archaeologists walked, they closely inspected the ground surface for any evidence of past, patterned human activity, 50 years or older. When such evidence was found, the area around the initial discovery was classified as an IF or a site. An IF is defined here as a spatially scattered or disassociated manifestation comprising a single feature or relatively few artifacts (usually less than 5), which lack contextual information or association with other more significant remains or features. A site is defined as several (5 or more) artifacts or two or more features in proximity (10 m or 30 ft apart). Each archaeological site and IF, if observed, was described fully, its location was mapped with a Global Positioning System unit, sketched in plan view, and photographed from several directions to illustrate its setting. No artifacts were collected. Because the ground surface was sufficiently visible to allow for accurate documentation and evaluation, no shovel testing or other ground-disturbing investigations were undertaken.

In the laboratory/office, all field data were compiled, forms completed, maps finalized, and photographs were downloaded. Each cultural resource was plotted on the Project map (**Appendix B**), described on the appropriate Colorado Cultural Resource Survey forms, and accompanied by a sketch map, location map, and digital photographs. Copies of the recording forms are included in **Appendix C**.

5 Survey Results

The Intensive cultural resources inventory of 303 acres of private lands in the Project area was conducted between September 12 and 13, 2018. The survey focused on one large block area as the site for the proposed solar array and the linear collection line running from the solar array to the substation, approximately 1.25 miles north along Funk Road. The intensive cultural resources survey of the Grazing Yak Project documented two new sites and one IF, which are described below.

5.1 Newly Recorded Sites

The locations of all newly recorded sites are shown in **Appendix B**, and the recording forms are included as **Appendix C**. The sites are summarized in **Table 5-1** and described individually following the table.

Table 5-1. Newly Recorded Sites in the Project Area

Site No.	Site Type	Cultural Affiliation	Site Description	Historic Significance
5EP.8361	Historic farmhouse	Historic	Historic farmhouse, barn, and outbuildings	Not Significant
5EP.8362	Historic CCC Erosion Control and Dam	Historic (New Deal-Era)	Earth moving activities completed by the SCS to help with erosion, irrigation and flood control	Contributing Elements to Rural Historic Landscape

Site 5EP.8361-Historic Farmhouse

Site 5EP.8361 is a simple, one-story rectangular residence with a side-gabled roof (**Figures 5-1 and 5-2**). The east elevation has two shed-roof additions, which appear to be from differing constructions, and a porch was built at the entrance on the east elevation. The walls have vertical wood siding but the upper portion of the building has horizontal weatherboard. The shed-roof additions have vertical particleboard siding. The residence has two brick chimneys. The original chimney is aligned along the roof crest and is at the north end of the building. The second chimney is in the shed-roof addition at the northeastern corner of the building. The roof is sheathed with modern corrugated sheet metal. All of the original windows have been replaced with modern two-light, single-hung or casement-type closures. The north and west elevations have two sets of windows, the south elevation has three windows, and the east elevation has at least two but potentially more windows. A recently constructed rectangular wood barn and a small woodworking shed lie immediately south and east, respectively, of the residence. A short gravel road leads from Washington Road past the shed to the residence.

According to El Paso County Assessor records, the original building was constructed in 1919. The shed roof addition(s) and the porch were added more recently. The residence and outbuildings are a part of a large (one-half section) historic ranch, and the land features CCC-constructed water control and soil erosion features, which are described below as a separate site.



Figure 5-1. Site 5EP.8361, historic farmhouse and barn, overview looking east.



Figure 5-2. Site 5EP.8361, historic farmhouse and barn, detail view looking southeast.

Site 5EP.8362-Historic CCC Erosion Control Features and Dam

Prior to the start of the field survey, AECOM archaeologists identified on aerial photographs what appeared to be historic-era erosion control furrows and a dam in the Project area. The field investigations confirmed the presence and condition of these features.

Site 5EP.8362 is comprised of 43 individual contour furrows with berms (water spreaders), one earthen dam, one excavated stock tank, and two settling ponds that were built between July 20, 1938 and January 1940 on the ranch land of Jacob Sturm, which encompasses one-half section (320 acres) (**Figures 5-3 through 5-7**). These features were constructed by Company #2117, which was stationed at CCC camp SCS-9-C (CCC 1938; Audretsch 2017).

The earthen dam and stock tank are located along the bottom of an unnamed tributary of Horse Creek. The dam has a truncated triangular shape, the base measures 70 ft wide, and the crest measures 15 ft wide. The dam is 6 ft tall and 400 ft long, connecting one side of the tributary's bank to the other side. The south end of the dam has a small channel to direct water around the top of the earthen berm. Four rock blocks are aligned along the top of the dam for 10 ft. The rocks are imbedded into the dam, flush with the surface, and partially obscured by grass and dirt. The land on each side of the tributary contains the contour furrowing and settling ponds. South of Horse Creek, the land rises towards a flat top and contains 15 of the 43 contour furrows. The north side of the tributary also rises to a flat area before descending to the north and contains the remaining 28 contour furrows and the two small settling ponds. The settling ponds are in the northeastern quarter of the parcel and collect water that is introduced into the maze of water spreaders and allow some of the finer particulates (silt and sodium) to settle before the water is distributed through the rest of the maze of furrows, ultimately penetrating into the soil. At their high water mark, the ponds are approximately 80-100 ft in diameter. The furrows and berms (water spreaders) are consistently the same width and depth, with minor variations, across the entire site, and erosion has altered certain sections. The furrows typically measure 10-13 ft wide and the bottom of the U-shaped furrow is approximately 20 ft wide. In places, the upslope bank has eroded away slightly, creating a shallower and wider furrow channel. The berm is on the downslope side of the furrow and is made from the excavated dirt removed from the contour furrow. The berms generally measure approximately 2 to 3 ft high and approximately 10-12 ft wide at the base. Their shape is a truncated triangle and the crest is rounded or flat and measures approximately 1 ft wide.

The flat-bottomed to shallow U-shaped bottomed contour furrows and round-topped berms are used as water spreaders to disperse runoff/storm water across the soil surface and increase infiltration of water into the ground. This was done mainly to diminish soil erosion of the rangeland and farmland located adjacent to rivers, creeks, drainages, or sloughs that have the potential to flood or have flooded in the past. The erosion control work was also done to rehabilitate the rangeland that had been severely affected by wind erosion during the Dust Bowl years in the 1920s and early 1930s, followed by major flooding along Kiowa Creek and adjacent drainages in 1935. The Jacob Sturm ranch on which these features were built is bisected by Horse Creek, a large and deeply cut intermittent drainage. The CCC built an earthen dam across the drainage channel, along with an excavated depression or stock tank on the upstream side, in order to collect and then redirect excess storm water from the drainage and onto the adjacent rangeland. The pooled water collects and then is diverted by the complicated system of zig-zagging furrows and terraces onto the adjacent lands to increase the infiltration of the water back into the water table and thus lessen the erosional impact of surface water along the drainage and ultimately the adjacent rangeland. Because floodwaters can carry heavy amounts of silt, settling ponds are added into the terracing system in order to allow these fine particulates to settle in specific locations and alleviate downstream silt deposition.



Figure 5-3. Site 5EP.8362, CCC constructed erosion furrows, overview looking east.



Figure 5-4. Site 5EP.8362, CCC constructed erosion furrows, overview looking northeast.



Figure 5-5. Site 5EP.8362, CCC constructed dam and retaining pond, overview looking southeast.



Figure 5-6. Site 5EP.8362, CCC constructed dam and retaining pond, detail view looking southwest.



Figure 5-7. Site 5EP.8362, Project personnel at CCC constructed furrows and dam (at right edge), overview looking southeast.

5.2 Newly Recorded Isolated Find

Details about the newly recorded IF are described in **Table 5-2** and in the following paragraph. The location of this find can be viewed on the Project map in **Appendix B**.

Table 5-2. Newly Recorded Isolated Find in the ADI

IF No.*	Description	UTM** Easting	UTM** Northing
5EP.8363	Historic Embossed Cast Iron Stove Door	564318mE	4314858mN

Notes:

*IF = Isolated Find

**UTM= Universal Transverse Mercator

Isolated Find 5EP.8363 is an embossed cast iron stove door/panel fragment with no visible maker marks (**Figure 5-8**). The stove door is likely associated with the nearby farmstead (5EP.8361), located on the south side of Washington Road. The stove door was partially covered by soil and vegetation and was lying on the east side of a farm road that runs north-south, following the fence line (**Figure 5-9**).



Figure 5-8. IF 5EP.8363, embossed cast iron stove door/panel fragment.



Figure 5-9. IF 5EP.8363, overview showing location, looking west. Fence line denotes western edge of the Project area.

6 Project Recommendations

AECOM completed an intensive cultural resources survey for the Grazing Yak Solar Project in El Paso County, Colorado. A total of 303 acres were investigated resulting in the identification of two newly recorded sites and one newly identified IF. This final section summarizes the historic significance these resources, assesses Project effects, and makes recommendations for any further cultural resources work (**Table 6-1**). Additional details about these resources are provided in Section 5.1 and within the site forms available in **Appendix C**.

Table 6-1. Recommendations for Newly Recorded Sites

Smithsonian Trinomial No.	Site Type	Cultural Affiliation	Historic Significance	Project Recommendation
5EP.8361	Historic Farmstead	Historic	Not Significant	No further work
5EP.8362	Historic SCS Erosion Control Furrows & Dam	Historic (New Deal-Era)	Contributing elements of rural historic landscape	Locate the solar arrays to minimize impacts to the dam
5EP.8363	Isolated Find	Historic	Not Significant	No further work

The historic farmhouse (5EP.8361) is the original residence of Jacob Sturm, who once owned the land on which the erosion control furrows are located. The residence and associated outbuilding are not associated with any events or persons of local, state, or national significance; are not architecturally distinctive; and are unlikely to provide additional important information about the local history.

The newly recorded New Deal-Era CCC erosion control furrows and dam (5EP.8362) is associated with an event, the New Deal-era CCC erosion control program, of national, state, and local significance. The SCS Elbert Camp (SCS-9-C), established in 1935, constructed the New Deal-Era furrows and dam. These furrows and earthen berms cut into or built up on the natural landscape represent a concerted effort by a U.S. government-sponsored work program to plan, survey, and construct a complex erosional control system. However, similar features abound in the area and are collectively representative of an extensive regional program of erosion control. The features in the Project area are perhaps best regarded as contributing elements of a rural historic landscape (McClelland et al. 1999). This Project thoroughly documented their physical characteristics and condition with background narrative, maps, and photos and further cultural resources work is considered unnecessary.

Isolated Find 5EP.8363, a fragment of a cast iron stove door/panel is not historically significant.

Further cultural resources work at all recorded locations is considered unnecessary. Efforts will be made to avoid impacts to the existing dam, but the rest of the site will be graded.

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Appendix A Colorado OAH P Response Letter



 OFFICE of ARCHAEOLOGY and HISTORIC PRESERVATION

Winifred Perkins
Environmental Services Manager
Next Era Energy Resources
700 Universe Blvd.
Juno Beach, Florida 33408

SEP 20 2018

Re: Initiation of Consultation for the Grazing Yak Solar Project, El Paso County, Colorado (HC#74926)

Dear Ms. Perkins:

Thank you for your correspondence dated September 11, 2018 and received by our office on September 12, 2018 initiating consultation for the above referenced project.

Based on our review of the information provided, we note that the proposed project is located on approximately 240 acres in Sections 2 and 29 of Township 12 South, Range 61 West in El Paso County, southeast of the modern town of Calhan. The project involves construction of a solar array, associated collection lines, and tie in to the existing Jackson Fuller Substation located 1 mile from the solar array.

We view the proposed Area of Potential Effects as the one mile tie in and the footprint for the solar array. This is the APE for direct effects, termed the Area of Direct Impacts (ADI) in the consultation letter. Based on our review, it does not appear that any properties nominated for inclusion in or accepted by the state register are present within or adjacent to the project area that could be adversely affected. While we appreciate your continued due-diligence to identify and avoid important properties within our state as part of its planning process, please note that our comments should not be interpreted as concurrence under the National Historic Preservation Act (NHPA) or any other environmental law or regulation. If human remains are discovered during ground disturbing activities, the requirements under CRS 24-80 part 13 apply and must be followed.

It is our understanding that, as of this date, there is no known state or federal involvement in this project. If state or federal agencies become involved in the project, such as for permitting, licensing, or funding, these agencies will need to consult with our office in conformity with the NHPA or Colorado Historical, Prehistorical, and Archaeological Resources Act (CRS 24-80), as appropriate. In the event that there is federal agency involvement, please note that it is the responsibility of the federal agency to meet the requirements of Section 106 as set forth in 36 CFR Part 800 titled "Protection of Historic Properties". This includes not only reasonable and good faith identification efforts of any historic properties located within the area of potential effects, but determining whether the undertaking will have an effect upon such properties. The State Historic Preservation Office, Native American tribes, representatives of local governments, and applicants for federal permits are entitled to consultative roles in this process.

Thank you for the opportunity to comment. If we may be of further assistance, please contact Lindsay Johansson, Section 106 Compliance Manager, at (303) 866-4678 or lindsay.johansson@state.co.us.

Sincerely,



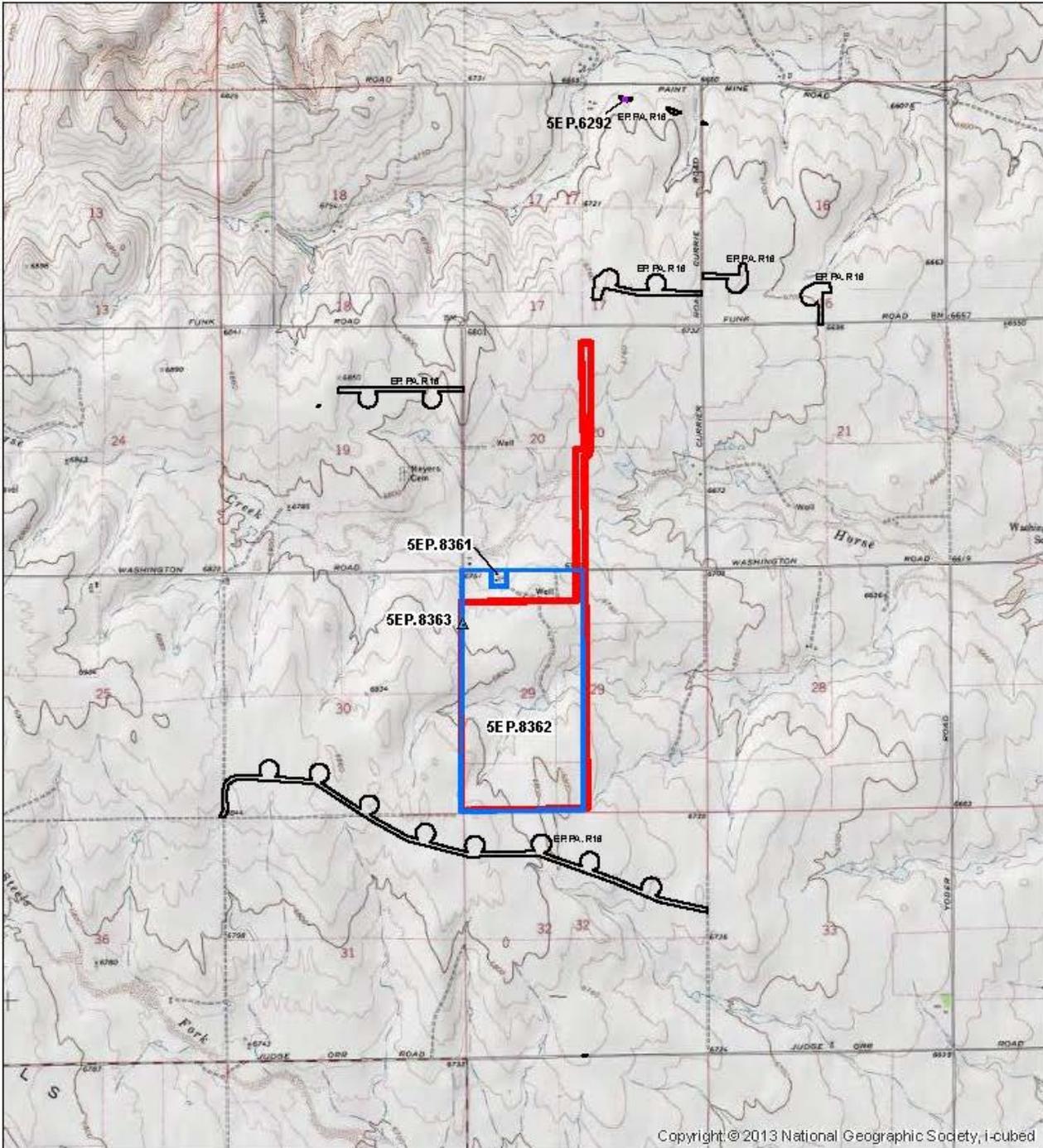
^{for} Steve Turner, AIA
State Historic Preservation Officer

OFFICE OF ARCHAEOLOGY AND HISTORIC PRESERVATION
303.866.3392 - Fax: 303.866.2711 - E-mail: oahp@state.co.us - Website: www.historycolorado.org

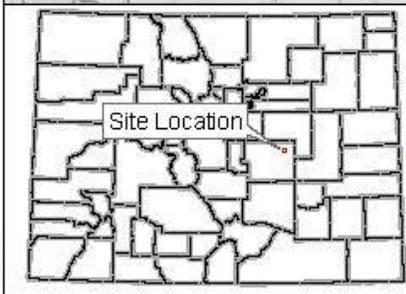
COLORADO HISTORICAL SOCIETY

Appendix B Cultural Resources Location Map (Confidential)

N:\06_0101_GIS\Project\0538-133_NextEra_Grazing\gryak\gryak\res\wppa_p_ru_b\5\PRs\conded.mxd



Copyright © 2013 National Geographic Society, i-cubed



- Project Area
 - ▲ Isolate
 - Site Boundary
 - Previously Recorded Resource
 - Previously Surveyed Area
- USGS Map Quadrangle: Holcolm Hills
Township 12S, Range 61W, Section 29

NextEra Grazing Yak Project

Previously and Newly Recorded
Cultural Resources
El Paso County, Colorado

1:36,000

0 375 750 1,500 Miles

N

10/2/2018

Appendix C Colorado Cultural Resources Forms

Resource Number: 5EP.8361
Temporary Resource Number: GY-2

OAHP1403
Rev. 9/98

COLORADO CULTURAL RESOURCE SURVEY

Architectural Inventory Form

Official eligibility determination
(OAHP use only)

Date _____ Initials _____
____ Determined Eligible- NR
____ Determined Not Eligible- NR
____ Determined Eligible- SR
____ Determined Not Eligible- SR
____ Need Data
____ Contributes to eligible NR District
____ Noncontributing to eligible NR District

I. IDENTIFICATION

1. Resource number: 5EP.8361
2. Temporary resource number: GY-2
3. County: El Paso
4. City: Calhan
5. Historic building name: Jacob Sturm Residence
6. Current building name: N/A
7. Building address: 30945 Washington Road
8. Owner name and address: Henriatte Long, 27960 Hatfield Pt, Calhan, Colorado 80808

II. GEOGRAPHIC INFORMATION

9. P.M. 6th Township 12S Range 61W
 ¼ of ¼ of NW ¼ of NW ¼ of section 29
10. UTM reference
Zone 1 3 ; 5 6 4 5 1 6 mE 4 3 1 5 1 5 5 mN
11. USGS quad name: Holcolm Hills
Year: 1976 Map scale: 7.5' X 15' Attach photo copy of appropriate map section.
12. Lot(s): N/A Block: N/A
Addition: N/A Year of Addition: N/A
13. Boundary Description and Justification: The boundary is the land around the building. It is bounded to the north by Washington Road, to the south, east, and west by the half-section of farm/ranch land associated now and in the past with this residence.

III. Architectural Description

14. Building plan (footprint, shape): Square
15. Dimensions in feet: Length 30 x Width 30
16. Number of stories: One
17. Primary external wall material(s): Wood vertical siding, horizontal weatherboard
18. Roof configuration: Side Gabled
19. Primary external roof material: Metal
20. Special features: Porch, Chimney

Resource Number: 5EP.8361

Temporary Resource Number: GY-2

21. General architectural description: The building is a simple, one story, rectangular residence with a side-gabled roof. It has a total living area of 824 sq. ft. with four rooms. The east elevation has two shed-roof additions, which appear to be from different periods of construction. A porch is at the entrance on the east elevation. The walls have vertical wood siding but the upper portion has horizontal weatherboard. The shed-roof additions have vertical particleboard siding. The residence has two brick chimneys. The original chimney is aligned along the roof crest at the north end of the building. The other chimney is in the shed-roof addition at the northeast corner of the building. The roof is sheathed with modern corrugated sheet metal. All of the windows have been replaced with modern two-light, single-hung or casement-type closures. The north and west elevations have two sets of windows, the south elevation has three windows, and the east elevation has at least two windows.
22. Architectural style/building type: No Style or Type
23. Landscaping or special setting features: The residence and outbuildings are part of a half-section-sized farm/ranch and the land features CCC-constructed water control and soil erosion features.
24. Associated buildings, features, or objects: A recently constructed rectangular wood barn, built in 2016-2017, and a small wooden work shed, built in 1942.

IV. ARCHITECTURAL HISTORY

25. Date of Construction: Estimate: _____ Actual: 1919
Source of information: El Paso County Assessor
26. Architect: Unknown
Source of information: N/A
27. Builder/Contractor: Unknown
Source of information: N/A
28. Original owner: Jacob Sturm (also known as John Sturm)
Source of information: Cannon, R. M., 1939, El Paso County Map (cartographic material).
29. Construction history (include description and dates of major additions, alterations, or demolitions): The original building was constructed in 1919. The shed-roof addition(s) and the porch were added at a later, but unknown, time.
30. Original location X Moved ____ Date of move(s):

V. HISTORICAL ASSOCIATIONS

31. Original use(s): Domestic Single Dwelling
32. Intermediate use(s): Domestic Single Dwelling
33. Current use(s): Domestic Single Dwelling
34. Site type(s): Domestic Single Dwelling and dryland farm and ranch

Resource Number: 5EP.8361
Temporary Resource Number: GY-2

35. Historical background: John (Johan) Sturm, aka Jacob Sturm, John Jacob, or Jacob John Sturm, was born in Germany on April 11, 1877 (U.S. Government 1918). He immigrated to the United States in 1903 at the age of 23, moved westward across the country, and ended up in eastern Colorado (U.S. Census Bureau 1910). Jacob Sturm purchased land a few miles southeast of Calhan, Colorado, in northeastern El Paso County, and set up a small farm/ranch on 320 acres of land (Cannon 1939). According to the El Paso County Assessor records, the farm/ranch features a one-story residence built in 1919. The farm's 320 acres of land, located south of the buildings, contain CCC erosion control features that were built between July 20, 1938 and the first week of January 1940 by CCC Work Company #2117, which was stationed at CCC camp SCS-9-C, located 20 miles northwest of the ranch (1938). Sturm continued to live at the farm/ranch as a single man until his death in 1949 (Find a Grave 2018).

36. Sources of information:

Cannon, R. M.
1939 El Paso County Map (cartographic material). R. M. Cannon, Colorado.

Find a Grave

2018 Jacob Sturm, Evergreen Cemetery, Colorado Springs, El Paso County Colorado entry. Electronic document accessed 09/24/2018.

U.S. Census Bureau

1910 U.S. Census, Population Schedule, Calhan, Precinct 17, El Paso County, Colorado, John Sturm entry, <http://www.ancestry.com> (accessed 09/24/2018).

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1930 U.S. Census, Population Schedule, Calhan, Precinct 52, El Paso County, Colorado, Jacob Sturm entry, <http://www.ancestry.com> (accessed 09/24/2018).

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U.S. Government

1918 World War I Selective Service System Draft Registration Card for Jacob Sturm in Calhan, El Paso County, Colorado. Electronic document accessed 09/24/2018.

VI. SIGNIFICANCE

37. Local landmark designation: Yes No Date of designation: _____
Designating authority:

38. Applicable National Register Criteria:

A. Associated with events that have made a significant contribution to the broad pattern of our history;

B. Associated with the lives of persons significant in our past;

C. Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or that possess high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction; or

D. Has yielded, or may be likely to yield, information important in history or prehistory.

Qualifies under Criteria Considerations A through G (see Manual)

Does not meet any of the above National Register criteria

39. Area(s) of significance: N/A

Resource Number: 5EP.8361
Temporary Resource Number: GY-2

40. Period of significance: N/A
41. Level of significance: National ___ State ___ Local _____
42. Statement of significance: The building is not associated with any significant events or persons and does not represent a specific style or type of building that would make it significant. It is unlikely to provide additional information important to a greater understanding of the local history.
43. Assessment of historic physical integrity related to significance: N/A

VII. NATIONAL REGISTER ELIGIBILITY ASSESSMENT

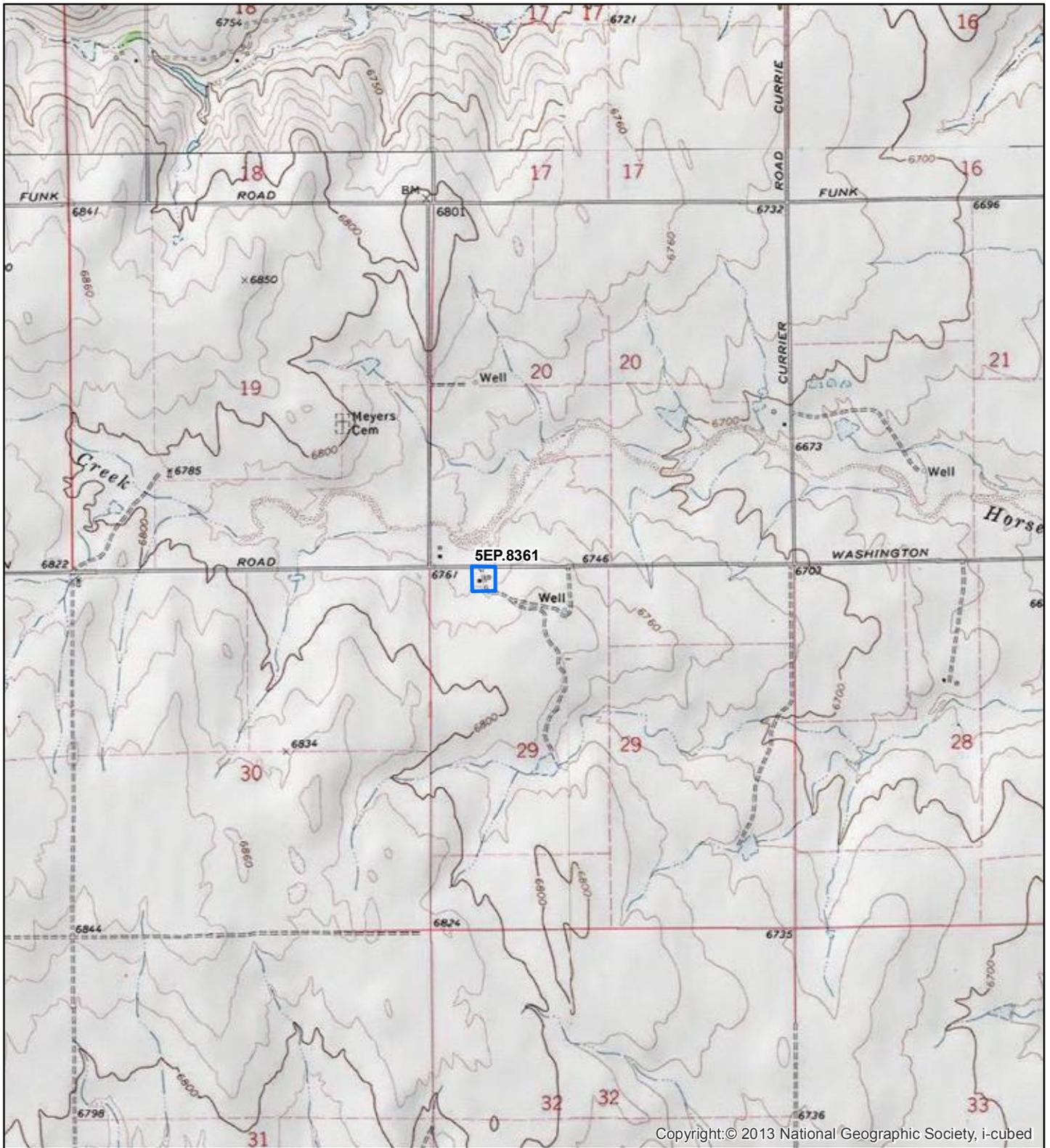
44. National Register eligibility field assessment:
Eligible ___ Not Eligible X Need Data ___
45. Is there National Register district potential? Yes ___ No X
Discuss:
If there is National Register district potential, is this building: Contributing ___ Noncontributing _____
46. If the building is in existing National Register district, is it: Contributing ___ Noncontributing _____

VIII. RECORDING INFORMATION

47. Photograph numbers:
Negatives filed at: AECOM, 6200 S. Quebec Street, Greenwood Village, CO 80111
48. Report title: NextEra Grazing Yak Project, El Paso County, Colorado: Intensive Cultural Resources Inventory
49. Date(s): September 12-13, 2018
50. Recorder(s): Juston Fariello
51. Organization: AECOM Technical Services, Inc.
52. Address: 6200 S. Quebec Street, Greenwood Village, CO 80111
53. Phone number(s): 303-740-2600

NOTE: Please include a sketch map, a photocopy of the USGS quad map indicating resource location, and photographs.

History Colorado - Office of Archaeology & Historic Preservation
1200 Broadway, Denver, CO 80203 (303) 866-3395



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Site Location

 Site Boundary

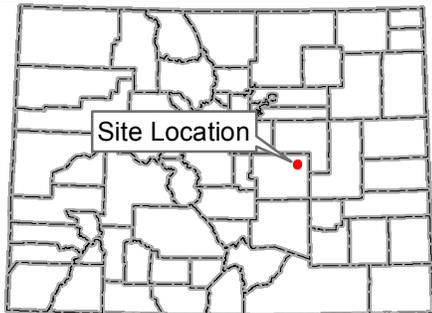
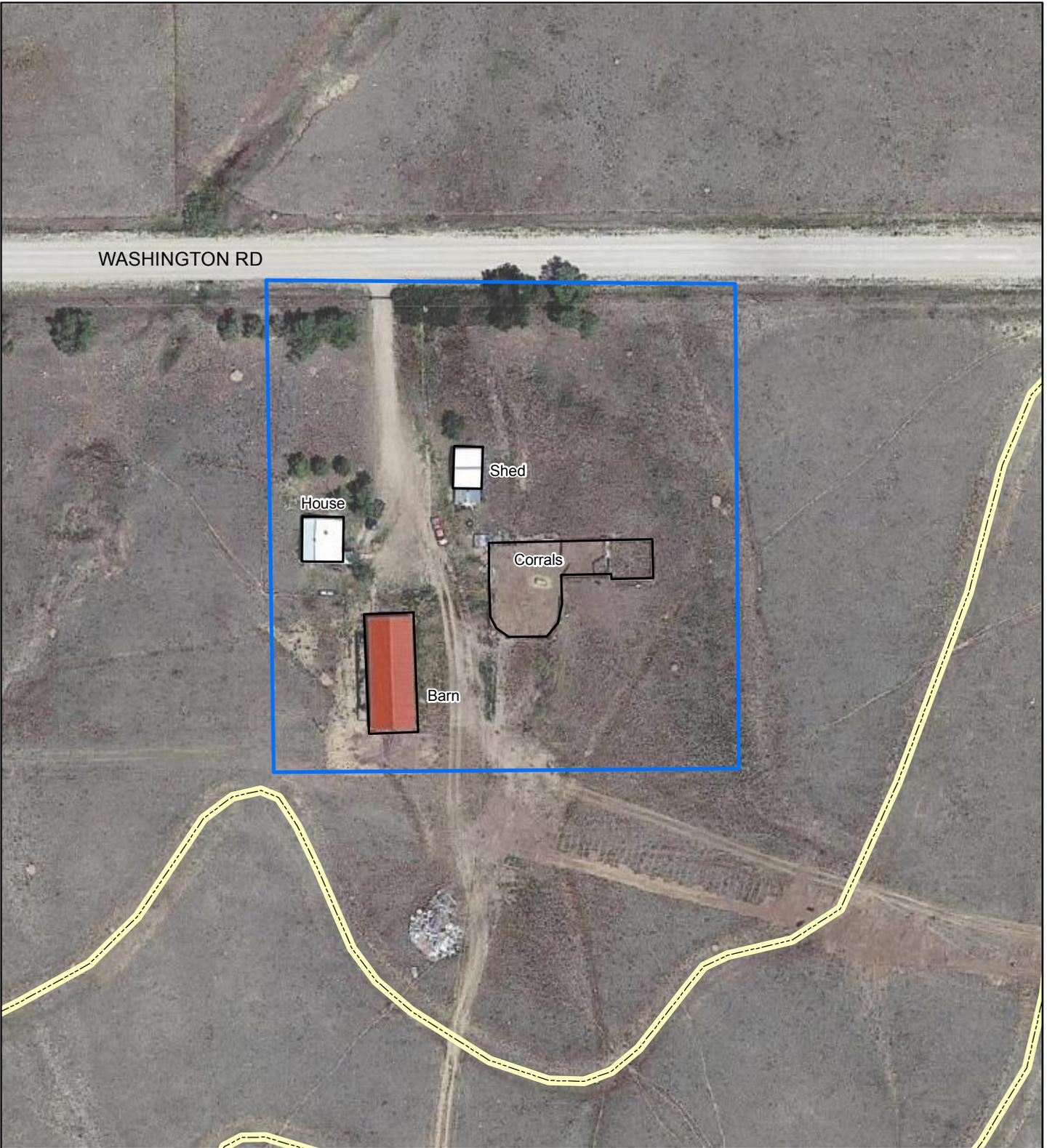
NextEra Grazing Yak Project

Site Location Map
5EP.8361
Jonh Sturm's Farmstead
El Paso County, Colorado

USGS Map Quadrangle: Holcolm Hills
Township 12S, Range 61W, Section 29

1:24,000





- Site Boundary
- Civilian Conservation Corp Contour Furrow and Berm

USGS Map Quadrangle: Holcolm Hills
Township 12S, Range 61W, Section 29

NextEra Grazing Yak Project

Site Sketch Map
5EP.8361
Jonn Sturm's Farmstead
El Paso County, Colorado



Client Name: NextEra Energy	Project: Grazing Yak Solar Facility and Collection Line	Project No.: 60586433
---------------------------------------	---	---------------------------------

Photo No.: DSCF0167	Date: 09/10/18
-------------------------------	--------------------------

Site Number: 5EP.8361

Description:
Jacob Sturm residence.
Looking southeast.



Client Name: NextEra Energy	Project: Grazing Yak Solar Facility and Collection Line	Project No.: 60586433
---------------------------------------	---	---------------------------------

Photo No.: DSCF0175	Date: 09/10/18
-------------------------------	--------------------------

Site Number: 5EP.8361

Description:
Jacob Sturm residence.
Looking south.





PHOTOGRAPHIC LOG

Client Name:
NextEra Energy

Project:
Grazing Yak Solar Facility and Collection Line

Project No.:
60586433

Photo No.:
P9130033

Date:
09/10/18

Site Number:
5EP.8361

Description:
Jacob Sturm residence.
Looking northeast.



PHOTOGRAPHIC LOG

Client Name:
NextEra Energy

Project:
Grazing Yak Solar Facility and Collection Line

Project No.:
60586433

Photo No.:
P9120036

Date:
09/10/18

Site Number:
5EP.8361

Description:
Jacob Sturm residence.
Looking north.





PHOTOGRAPHIC LOG

Client Name: NextEra Energy		Project: Grazing Yak Solar Facility and Collection Line	Project No.: 60586433
Photo No.: P9120035	Date: 09/10/18		
Site Number: 5EP.8361			
Description: Jacob Sturm residence. Looking north.			



PHOTOGRAPHIC LOG

Client Name: NextEra Energy		Project: Grazing Yak Solar Facility and Collection Line	Project No.: 60586433
Photo No.: P9120039	Date: 09/10/18		
Site Number: 5EP.8361			
Description: Jacob Sturm residence. Looking northwest.			

Management Data Form

A *Management Data Form* should be completed for each cultural resource recorded during an archaeological survey. Isolated finds and revisits are the exception and they do not require a *Management Data Form*. Please attach the appropriate component forms and use continuation pages if necessary. Fields can be expanded or compressed as necessary.

- 1. **Resource Number:** 5EP.8362
- 2. **Temporary Resource Number:** GY1
- 3. **Attachments (check as many as apply)**
 - Prehistoric Archaeological Component
 - Historic Archaeological Component
 - Linear Component
 - Sketch/Instrument Map (required)
 - U.S.G.S. Map Photocopy (required)
 - Photograph(s) (required)
 - Other, specify: _____
- 4. **Official determination (OAHP use only)**
 - Determined Eligible NR\SR _____
 - Determined Not Eligible NR\SR _____
 - Nominated _____
 - Need Data NR\SR _____
 - Contributing to NR Dist.\SR Dist. _____
 - Not Contributing to NR Dist.\SR Dist. _____
 - Supports overall linear eligibility NR\SR _____
 - Does not support overall linear eligibility NR\SR _____

I. IDENTIFICATION

- 5. **Resource Name:** Jacob Sturm Farmland with Civilian Conservation Corps Erosional Features
- 6. **Project Name/Number:** NextEra Energy Yak Grazing Solar Facility and Collection Line
- 7. **Government Involvement:** Local State Federal
Agency: El Paso County
- 8. **Site Categories (check as many as apply):**
Prehistoric: archaeological site paleontological site In existing National Register District
National Register District name: _____
Historic: archaeology site building(s) structure(s) object(s) In existing National Register District
National Register District name: _____
- 9. **Owner(s) Name and Address:** Henriette Long, 27960 Hatfield Pt, Calhan, Colorado 80808

10. **Boundary Description and Justification:** The site's boundary is based on the physical manifestations of the historically constructed erosion control features within the historically known boundary of Jacob Sturm's small farm. The current parcel (1/2 section) is the same as the historic parcel for Jacob Sturm. The residence and outbuildings are at the north end of the parcel but are isolated and documented as a separated site (5EP.8361). The parcel (the site) is demarcated on three sides (west, south, and east) by a fence line, with the north end bounded by Washington Road.

- 11. **Site/Property Dimensions** Length: 1,600m Width: 800m Area: 1,280,000m² Acres
(m²/4047):318
Area was calculated as: Length x Width (rectangle/square) Length x Width x 0.785 (Ellipse) GIS

II. LOCATION

12. Legal Location

PM	<u>6</u>	Township	<u>12S</u>	Range	<u>61W</u>	Section	<u>29</u>	___	<u>1/4</u>	<u>NW</u>	<u>1/4</u>
PM	<u>6</u>	Township	<u>12S</u>	Range	<u>61W</u>	Section	<u>29</u>	___	<u>1/4</u>	<u>SW</u>	<u>1/4</u>
PM	___	Township	___	Range	___	Section	___	___	<u>1/4</u>	___	<u>1/4</u>
PM	___	Township	___	Range	___	Section	___	___	<u>1/4</u>	___	<u>1/4</u>

If section is irregular, explain alignment method:

- 13. **USGS Quad:** Rush NW and Holcolm Hills
- 14. **County:** El Paso

Management Data Form

Resource Number: 5EP.8362

Temporary Resource Number: GY1

15. UTM Coordinates: Datum used NAD27 NAD 83 WGS 84 Other:

- A. Zone 13; 564310 mE 4315203 mN
- B. Zone 13; 565098 mE 4315203 mN
- C. Zone 13; 565100 mE 4313633 mN
- D. Zone 13; 564311 mE 4313630 mN

16. UTM Source: Corrected GPS/rectified survey (<5m error) Uncorrected GPS Map template

Other (explain): Google Earth Professional

17. Site elevation (feet): 6,800

18. Address: Lot: Block: Addition:

19. Location/Access: Travel on US Highway 24 to the town of Calhan. Take the North Calhan Highway, located on the east side of Calhan, and travel south for approximately 3.5 miles and turn east onto Washington Road. Travel east for approximately 2 miles to the property, located south of the road.

III. NATURAL ENVIRONMENT/SITE CONDITION

20. General Description (should include both on site as well as geographical setting with aspect, landforms, vegetation, soils, depositional environment, water, ground visibility): The site is located on 320 acres (half-section) of prairie rangeland, approximately 3 miles southeast of the town of Calhan. The site encompasses the western half of an entire section. An unnamed intermittent tributary of Horse Creek bisects the site, trending east-west, at the approximate middle of the parcel. The soils at the site are sandy with areas of heavier silt depositions. Ground visibility is good (50-75%). Deposition is mostly alluvial but some aeolian erosion has historically affected the area. Vegetation includes rabbitbrush, thistle, several small wildflowers, and various grasses, with a few deciduous trees planted along the northern edge of the parcel, near the historic residence and outbuildings. The entire area is infested with harvester ants and their large anthills, devoid of vegetation, dot the landscape and can range in diameter from 1 to 2 meters. A small herd of approximately 20 adult and juvenile yaks grazes on the property.

Management Data Form

Resource Number: 5EP.8362

Temporary Resource Number: GY1

21. **Soil depth (cm) and description:** The soil is tan-colored sand with areas of siltier soils along the drainage and at several settling pond locations within the site's boundary.

22. **Condition**

a. Architectural/Structural

- Excellent
- Good
- Fair
- Deteriorated
- Ruin

b. Archaeological/Paleontological

- Undisturbed
- Light disturbance
- Moderate disturbance
- Heavy disturbance
- Total disturbance

23. **Describe condition:** Only a couple of small breaches of the berms were noted. Otherwise, the features appear to be complete, intact, and still functioning as erosional control features.

24. **Vandalism:** Yes No
Describe:

IV. NATIONAL/STATE REGISTER ELIGIBILITY ASSESSMENT

25. **Context or Theme:** Civilian Conservation Corps

26. **Applicable National Register Criteria:**

- A. Associated with events that have made a significant contribution to the broad pattern of our history
- B. Associated with the lives of persons significant in our past
- C. Embodies the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction
- D. Has yielded, or may be likely to yield, information important in history or prehistory
- Does not meet any of the National Register criteria
- Qualifies under exceptions A through G. List exception(s):

27. **Applicable State Register Criteria:**

- A. Property is associated with events that have made a significant contribution to history
- B. Property is connected with persons significant in history
- C. Property has distinctive characteristics of a type, period, method of construction or artisan
- D. Property is of geographic importance
- E. Property contains the possibility of important discoveries related to prehistory or history
- Does not meet any of the State Register criteria

28. **Area(s) of significance:** Agriculture and Government/Politics

Management Data Form

Resource Number: 5EP.8362

Temporary Resource Number: GY1

29. Period(s) of significance: 1938-1940

30. Level of significance: National State Local

31. Statement of significance: The site is associated with the Civilian Conservation Corps (CCC) program and represents a discrete project performed by the Soil Conservation Service (SCS) on the eastern plains of Colorado. The site was constructed by Work Company #2117, which was located at the CCC camp SCS-9-C from July 1938 through the beginning of January 1940, and was involved in constructing contour furrowing and check dams in the area around the towns of Calhan, Yoder, and Rush. The site contains a maze of zig-zagging contour furrows with earth berms (water spreaders), a centralized earthen dam and stock pond, and two settling ponds. These features formed part of a complex water spreading system that limited soil erosion to the immediate area (and downstream erosion), increased water infiltration into the immediate soil by harvesting the water to recharge the water table, and increased the retained moisture to the adjacent land for increased vegetation growth and retention. Though the site's features are simple furrows and earthen berms cut into or built up on the natural landscape, they represent a concerted effort by a U.S. government-sponsored work program to plan, survey, and construct a complex erosional control system. In addition, the site boundary encompasses the entire historical boundary of the ranch of Jacob Strum. Therefore, the entire specific erosional control system was constructed for a specific ranch property and is a prime example of a small farm/ranch CCC erosion control project in eastern El Paso County.

32. Statement of historic integrity related to significance: The entire erosional control system retains very good integrity. A few small breaks in the berm features have allowed a few erosional cuts to form along the property but the damage is minimal and not significant enough to alter the integrity of the individual furrow/berm or of the overall erosional control system. The site retains all seven aspects of integrity: location, design, setting, association, feeling, materials, and workmanship.

33. National Register Eligibility Field Assessment: Eligible Not eligible Need data
Linear Segment Evaluation (if applicable): Supporting Non Supporting

34. Status in an Existing National Register District: Contributing Non-contributing

35. State Register Eligibility Field Assessment: Eligible Not eligible Need data

36. Status in an Existing State Register District: Contributing Non-contributing

37. National/State Register District Potential: Yes No Describe: This site is one of thousands of farms and ranches on the eastern plains of Colorado on which New Deal-era erosion control features are present. Many of these features were specifically constructed by four sets of work companies based at CCC camp SCS-9-C, located approximately 30 miles northwest of the site). Taken as a whole, these sites represent an important genesis of environmental concern in the U. S. They also represent a concerted effort by the U.S. government to implement social and environmental programs to improve the wellbeing of the country and its occupants. The immensity of the features lends itself to dividing districts by geographical divisions; such as by the stream/creek or by features adjacent to settlements.

38. Cultural Landscape Potential: Yes No Describe: Because the site consists of landscape-altering features, it is more likely to be characterized as a landscape rather than a district.

Management Data Form

Resource Number: 5EP.8362

Temporary Resource Number: GY1

39. If Yes to either 37 or 38, is this site: [X] Contributing [] Non-contributing Explain: The site represents the land of an individual farm/ranch and contains a complete erosion control system designed and constructed between July 1938 and January 1940 for this ranch/farm by the CCC.

V. MANAGEMENT AND ADMINISTRATIVE DATA

40. Threats to Resource: [X] Water erosion [] Wind erosion [X] Grazing [] Neglect [] Vandalism [] Recreation [X] Construction [] Other (explain):

41. Existing protection [] None [] Marked [X] Fenced [] Patrolled [] Access controlled Other (specify):

Comments: Private property that is enclosed within barbed wire fencing.

42. Local landmark designation: N/A 43. Easement: N/A

44. Recorder's Management Recommendations: Although these features are associated with a historic event of national, state, and local significance, they are not unique to this area. Similar features abound in the area. The dam should be preserved intact, for both historic and functional reasons, but further cultural resources with the erosion control features is unnecessary.

VI. DOCUMENTATION

45. Previous actions accomplished at the site: [] Tested [] Partial excavation [] Complete excavation

Date(s): N/A

a. Excavations: N/A

b. Stabilization: N/A Date(s): N/A

c. HABS/HAER documentation [date(s) and numbers]: N/A

d. Other: N/A

46. Known collections/reports/interviews and other references (list): N/A

47. Primary location of additional data: N/A

48. State or Federal Permit number: State of Colorado Archaeological Permit No. 73803

49. Collection: Artifact collection authorized: [] Yes [X] No Were artifacts collected: [] Yes [X] No Artifact repository: N/A

Collection method: [] Diagnostics [] Grab Sample [] Random Sample

Other (specify):

50. Photograph Numbers: Digital P9120001 – P9120089, DSCF0138-0177

Files or negatives stored at: AECOM, 6200 S. Quebec Street, Greenwood Village, CO 80111

51. Report title: NextEra Grazing Yak Project, El Paso County, Colorado: Intensive Cultural Resources Inventory

52. Recorder(s): Juston Fariello Date: September 12-13, 2018

53. Recorder affiliation: AECOM, 6200 S. Quebec Street, Greenwood Village, CO 80111

Phone number/Email: 303-740-2600

NOTE: Please attach a site map, a photocopy of the USGS 1:24000 map indicating resource location, and photographs.

History Colorado - Office of Archaeology & Historic Preservation
1200 Broadway, Denver, CO 80203
303-866-3395

COLORADO CULTURAL RESOURCE SURVEY
Historic Archaeology Component Form

OAHP 1402
Rev. 11/10

1. **Resource Number:** 5EP.8362 2. **Temporary Resource Number:** GY-1
3. **Site Name:** Jacob Sturm Farmland with Civilian Conservation Corps Erosional Features
4. **Does this form pertain to the site in general?** Yes No

If no, please supply a feature/structure number or name:

5. **Site, Component or Feature Type:** Erosion control furrows and dam

6. **Narrative History (based on archival research, expand as necessary):** In 1933, President Franklin Roosevelt created the Emergency Conservation Work Act, which established the Civilian Conservation Corps (CCC) (NACCCA 2018). By the time the CCC was disbanded in 1942, it had engaged over three million young men and is considered the most popular experiment of the New Deal (NACCCA 2018). Several federal and state agencies employed CCC men for various projects (Colorado State Archives 2018). The Forest Service participated in work projects that protected timbered areas from fire, insects, and disease. The U.S. Division of Grazing agency constructed water tanks, stock reservoirs, wells, dams, bridges, fences, truck trails, driveways, and range corrals. The U.S. Division of Grazing also revegetated areas, eradicated poisonous weeds, controlled rodents, and developed animal watering holes. The Bureau of Reclamation rehabilitated existing storage and irrigation systems, as well as developed and constructed new supplemental storage facilities for drought-affected areas. The Bureau of Reclamation also constructed recreational facilities at some irrigation reservoirs. The National Park Service built or enlarged campgrounds and picnic areas, extended nature trails, constructed parking areas, and opened new park sections. The Soil Conservation Service participated in soil conservation and rehabilitation works and constructed diversion dams and ditches (Colorado State Archives 2018).

By 1935, over 2,650 camps were in operation in all states, as well as Hawaii, Alaska, Puerto Rico, and the Virgin Islands (NACCCA 2018). The CCC reached maturity in 1937, but its popularity soon began to decline, partly the result of political disagreements but also due to the gathering storm clouds in Europe. The advent of World War II ultimately spelled the demise of the CCC. Congress liquidated the agency in June 1942 (NACCCA 2018).

As was generally the case throughout the southern and western United States, soil conservation techniques taught and practiced by the CCC included "checking and healing" of small drainages, terracing, and other practices (Salmond 1967:125). The work performed on small drainages or gullies was also known as "up-stream engineering," and was practiced on both national forest lands and on private property (Lacy 1976:152). As the CCC evolved, it incorporated different kinds of soil conservation practices, such as contour furrowing, and tailored the erosion control to the land on which they were working (Lacy 1976:154). In conjunction with these soil erosion practices, the CCC also built rock and earth dams, developed springs, and constructed wells to facilitate water conservation practices. Preference was given to earthen rock dams and springs due to the minimal cost of materials and the more efficient use of manual labor (Lacy 1976:159).

In Colorado, more than 100 CCC camps were established between 1933 and 1941. Most regions of the state benefited from the activities of the CCC: from the eastern plains, across the mountains, and into the plateau country of western Colorado. The peak activity occurred in 1934, slowly declining thereafter (NACCCA 2018). On the eastern plains, CCC projects focused on soil erosion control. The soil conservation projects performed include the construction of levees, dikes, jetties, earth and rock dams, diversion ditches, terraces, terrace outlets, bank sloping, tree planting, grass seeding, contouring, rip-rapping, quarrying, grass and tree seed collection, experimental plots, surveying, and rodent control (Gleyre and Alleger 1936:69).

The work camp in eastern El Paso County, with the federal designation of SCS-9-C, was first occupied in late October 1935 and had four work companies assigned to it through early June 1942 (Audretsch 2017). The main work camp and barracks was located along Elbert Road, approximately 3.5 miles north of Elbert and 6 miles south of Kiowa. The camp buildings were located just west of the highway, where the historic Carnahan Ranch is located. This area around the Carnahan Ranch is located near Kiowa Creek and flooding is common during heavy rain events, causing major erosion to the soil. In addition, the area is affected by heavy wind erosion (CCC 1938).

The camp and its four companies of workers participated in soil conservation projects chosen to mitigate soil erosion and prevent flooding on private lands in the northeastern and eastern portions of El Paso County (CCC 1938). The locations of the projects performed were specifically in the areas between Kiowa and Elbert, between Calhan and Rush/Yoder, and immediately west of Limon (Audretsch 2017). Most of the projects performed involved creating contour furrows and building check dams (CCC 1938).

Historic Archaeology Component Form

Resource Number: 5EP.8362

Temporary Resource Number: GY-1

The first work group to occupy the SCS-9-C camp, Company #2547, arrived on October 23, 1935. The enrolled men were mostly from West Virginia, with a few Colorado enrollees and a smaller number of men from a disbanded tent camp (F-52-C) located near Walden, Colorado (CCC 1938). The majority of their work was soil-related projects located on private ranches that were adjacent to or near the main work camp's barracks (Audretsch 2017). Company #2547 was dissolved one year later in October 1936 and the men were transferred to California (CCC 1938).

The second occupant of camp SCS-9-C was Company #3885, which included men from Oklahoma and Texas (CCC 1938). They completed mostly soil-related projects located in the area approximately 30 miles east of the main camp (Audretsch 2017). This company occupied the camp for approximately 18 months, from October 23, 1936 until on June 30, 1938, when the company was disbanded (CCC 1938).

The third occupant of the camp was Company #2117, which arrived at the camp on July 20, 1938. These men were mostly from the Boston, Massachusetts area, with the supervisors and a few leaders from Colorado (CCC 1938). They worked mostly on soil-related projects between Calhan and Yoder/Rush, approximately 30 miles southeast of the main work camp. This company occupied the camp for approximately 17 to 18 months, leaving sometime in January 1940 (Audretsch 2017).

The last company to occupy the camp was Company #3896. They arrived January 6, 1940 and participated in soil-related projects on lands approximately 30 miles east of the main work camp. This company occupied the camp for approximately 29 months, leaving June 6, 1942 (Audretsch 2017).

The lands where the CCC features are located are on the property of Jacob Sturm. Jacob Sturm, aka John (Johan) Sturm, John Jacob, or Jacob John Sturm, was born in Germany on April 11, 1877 (U.S. Government 1918). He immigrated to the United States in 1903 at the age of 23, moved westward across the country, and ended up in eastern Colorado (U.S. Census Bureau 1910). Jacob Sturm purchased land a few miles southeast of Calhan, Colorado, in northeastern El Paso County and set up a small farm/ranch on 320 acres of land (Cannon 1939). According to the El Paso County Assessor records, the farm/ranch features a one-story residence built in 1919. The farm's 320 acres of land, located south of the buildings, contain CCC erosion control features that were built between July 20, 1938 and the first week of January 1940 by CCC Work Company #2117, who were stationed at CCC camp SCS-9-C, located 20 miles northeast of the ranch (1938). Jacob continued to live at the farm/ranch as a single man until his death in 1949 (Find a Grave 2018).

References cited:

Audretsch, Robert W. compiler
2017 A Colorado Civilian Conservation Corps Enrollee Name Index. Robert W. Audretsch, Lakewood, Colorado.

Cannon, R. M.
1939 El Paso County Map (cartographic material). R. M. Cannon, Colorado.

Civilian Conservation Corps (CCC)
1938 History of the Civilian Conservation Corps Colorado and Wyoming District. O'Brien Printing Company, Pueblo, Colorado.

Colorado State Archives
2018 History of Civilian Conservation Corps in Colorado: Save the Soil, Save the Forests, Save the Young Men. Electronic document, <https://www.colorado.gov/pacific/sites/default/files/History%20of%20the%20CCC%20in%20Colorado.pdf>, accessed on 20 September 2018.

Find a Grave
2018 Jacob Sturm, Evergreen Cemetery, Colorado Springs, El Paso County Colorado entry. Electronic document, <https://www.findagrave.com/memorial/35153308/jacob-sturm>, accessed 09/24/2018.

Gleyre, L.A. and C.N. Allegre, compilers
1936 *History of the Civilian Corps in Colorado*. Unpublished information on file at the Douglas County Library, Castle Rock, Colorado.

Historic Archaeology Component Form

Resource Number: 5EP.8362

Temporary Resource Number: GY-1

Lacy, Leslie Alexander

1976 *The Soil Soldiers. The Civilian Conservation Corps in the Great Depression.* Chilton Book Company, Radnor, Pennsylvania.

National Association of Civilian Conservation Corps Alumni (NACCCA)

2018 Roosevelt's Tree Army: A Brief History of the Civilian Conservation Corps. Electronic document, <http://www.justinmuseum.com/ccchistory/treearmy.html>, accessed on 20 September 2018.

Salmond, John A.

1967 *The Civilian Conservation Corps, 1933-1942: A New Deal Case Study.* Duke University Press, Durham, North Carolina.

U.S. Census Bureau

1910 U.S. Census, Population Schedule, Calhan, Precinct 17, El Paso County, Colorado, John Sturm entry, Electronic document, <http://www.ancestry.com>, accessed 09/24/2018.

1920 U.S. Census, Population Schedule, Calhan, Precinct 47, El Paso County, Colorado, John J. Sturm entry, Electronic document, <http://www.ancestry.com>, accessed 09/24/2018.

1930 U.S. Census, Population Schedule, Calhan, Precinct 52, El Paso County, Colorado, Jacob Sturm entry, Electronic document, <http://www.ancestry.com>, accessed 09/24/2018.

1940 U.S. Census, Population Schedule, Calhan, Precinct 52, El Paso County, Colorado, Jacob Sturm entry, Electronic document, <http://www.ancestry.com>, accessed 09/24/2018.

U.S. Government

1918 World War I Selective Service System Draft Registration Card for Jacob Sturm in Calhan, El Paso County, Colorado. Electronic document, <http://www.ancestry.com>, accessed 09/24/2018.

7. Is this site located in a NRHP historic landscape? Yes No; If yes, please describe: There is potential for a historic landscape designation in the region in relation to the features associated with the CCC.

8. **Component or Feature Description (expand as necessary):** A total of 43 individual contour furrows with berms (water spreaders), one earthen dam, one excavated stock tank, and two settling ponds were built on the ranch land of Jacob Sturm, which encompasses one-half section (320 acres). The earthen dam and stock tank are located along the bottom of an unnamed tributary of Horse Creek. The dam has a truncated triangular shape, the base measures 70 feet wide, and the crest measures 15 feet wide. The berm is 6 feet tall and 400 feet long, connecting one side of the tributary's bank to the other side. The south end of the berm has a small channel to direct water around the top of the earthen berm. Four rocks are aligned along the top of the berm for 10 feet, imbedded flush into the top of the berm and partially obscured by grass and dirt. The land on each side of the tributary contains the contour furrowing and settling ponds. The southern portion of land rises towards a flat top and contains 15 of the 43 contour furrows. The north side of the tributary also rises to a flat area before descending to the north and contains the remaining 28 contour furrows and the two small settling ponds. The two settling ponds are in the northeast quarter of parcel and collect the water that is introduced into the maze of water spreaders, allowing some of the finer particulates (silt and sodium) to settle out before the water is distributed through the rest of the maze of furrows and ultimately penetrating into the soil. The ponds are approximately 80-100 feet in diameter at maximum pool level. The furrows and berms (water spreaders) are consistently the same width and depth across the entire site, with some minor variations. Erosion has altered some sections. The furrows typically measure 10-13 feet wide and the bottom of the U-shaped furrow is approximately 20 feet wide. Sometimes the upslope bank has eroded away slightly, creating a shallower and wider furrow channel. The berm is on the downslope side of the furrow and is made of the excavated dirt removed from the contour furrow. The berm is approximately 2-3 feet high and approximately 10-12 feet wide at the base. The berm is a truncated triangle and the crest is rounded or flat and measures approximately 1 foot wide.

9. **Historic Component Date(s):** July 1938 – January 1940

Justification and Sources Consulted: This is when the CCC work Company #2117 participated in erosion control projects in the area around the site and would have constructed these features.

10. **Component Function(s):** Water control and soil erosion control system

Original Use: Water control and soil erosion control system

Present Use: Water control and soil erosion control system

Historic Archaeology Component Form

Resource Number: 5EP.8362

Temporary Resource Number: GY-1

11. Ethnic affiliation of occupants: Historic

Justification and Sources Consulted: Land owner and CCC laborers have European surnames

12. Historic Boundary Description: The parcel occupies one-half section of land, bounded to the north by Washington Road and on the other three sides by farmland.

Justification and Sources Consulted: The boundary is defined as the historical boundary of the parcel when the CCC constructed the erosion control features.

13. NRHP Area of Significance: Agriculture and Government/Politics

Justification and Sources Consulted: See references cited above

14. NRHP Period of Significance: 1938-1940

Justification and Sources Consulted: See references cited above

15. Site, Component, or Feature Theme (use the Historic Archaeology Lexicon): Rural Agriculture, Water Control and Distribution, Government

16. Does this component or feature support the NRHP eligibility of the entire resource?

Yes No Undetermined N/A

Justification: N/A

17. Recorder(s): Juston Fariello

18. Date: 09/12 and 09/13, 2018

19. Presence and Quantity of Artifacts (add types as necessary)

a. Vessel Glass	Quantity	e. Cans	Quantity
Amber (1860s-present)		Beverage: all aluminum (post-1970)	
Amethyst (pre-1920)		Beverage: aluminum ends (post-1953)	
Aqua (ca. 1870-1920s)		Beverage: cone-top (1935-1960)	
Cobalt		Beverage: flat top, all-steel (1935-1970s)	
Colorless (ca. 1920s-present)		Beverage: pull tab (1962-1983)	
Light green (1860s-present)		Beverage: UPC code (post-1980)	
Milk/White (1890s-present)		Hole-in-cap: double-locked side seam (1890-1915)	
Olive green (early 1860s)		Hole-in-cap: lapped side seam (ca. 1880s-1900)	
Yellowish (1918-1950s)		Round quart motor oil: all metal (1933-1970s)	
		Round quart motor oil: paper-sided (late 1940s-late 1980s)	
		Sanitary can (1904 +)	
		Sanitary ends, lapped side seam (1904+; very rare)	
		Sardine tin: lapped and soldered (pre-1910)	
b. Ceramics	Quantity	Sardine tin: one piece bottom (early 1900s +)	
Earthenware		Tobacco tin: complex friction lid (post 1948)	
Porcelain		Tobacco tin: simple friction lid (1907-1948)	
Refined Earthenware		Tobacco tin: upright pocket (late 1890s-1988)	
Stoneware		Tobacco tin: hinged lid (ca. 1910-present)	
		Vent hole (hole-in-top) (1900-1980s)	
		Vent hole with two solder dots (hole-in-top) (1890s-early 1900s)	
c. Nails	Quantity		
Hand-made cut (wrought)		f. Structural Artifacts	Quantity
Machine-made cut		Adobe	
Railroad Spike		Brick, common	
Wire		Brick, fire	
		Concrete: natural lime (pre-1915)	
d. Industrial Artifacts	Quantity	Concrete: Portland (post-1910)	
55-gallon drum		Corrugated sheet iron (post-1890)	
Animal shoe		Dimensional lumber	
Automobile/Truck Part		Fieldstone	
Bailing wire		Hinge	
Barbed wire		Log: hewn	
Barrel hoop		Log: peeled	
Bracket		Log: raw	
Bucket		Sheet iron	
Cable/Wire rope		Stovepipe	

Historic Archaeology Component Form

Resource Number: 5EP.8362

Temporary Resource Number: GY-1

Cartridge: centerfire		Tarpaper	
Cartridge: rimfire		Timber bolt	
Cartridge: pin fire		Timber spike	
Cartridge: shotgun shell		Window glass: aqua (pre-1920)	
Clinker		Window glass: colorless	
Coal		Window glass: yellowish tint (1918-1950s)	
Electric light fixture			
Electrical wire			
Forge-cut iron scrap			
Horse tack/harness			
Iron scrap: cut sheet metal		g. Domestic Artifacts	Quantity
Iron scrap: forge-cut		Beads	
Lag bolt		Bed frame/springs	
Machine bolt		Buttons	
Machine part		Clothing	
Mine rail		Cookware	
Nut: hex		Doll head	
Nut: jamb		Stove/parts (cast iron/tin)	
Pipe			
Wagon parts			
Washer			

20. **Total assemblage size:** Or estimate: 0-10 11-100 101-1000 1001-10,000 >10,000

21. **Artifact density:** High Medium Low Describe: No artifacts older than approximately the 1970s were noted on the parcel of land.

22. **Unique Artifact Descriptions.** Particularly important attributes are listed following the artifact class and standardized terminology can be found in the Appendix to the instructions. Expand or contract tables as necessary. All of these items should be included in the counts of the Artifact table above.

a. Glass: type, function, color, bottle part, manufacturing method, vessel style/contents, embossing/markings, dimensions, worked or modified?
b. Ceramics: type, function, surface treatment/glaze, color, shape, trademarks, decorations, dimensions.
c. Nails: type, function, dimensions.
d. Industrial: type, function, manufacturing method, marking, dimensions.
e. Cans: material type, side-seam, opening, vessel style/contents, embossing/markings, dimensions.
A couple of scrap pieces of rusty flat steel found – likely sanitary food cans or steel body beverage cans
f. Structural: type, function, manufacturing method, marking, dimensions.
g. Domestic: type, function, manufacturing method, marking, dimensions.
h. Other/miscellaneous: type, function, manufacturing method, marking, dimensions.

23. **Are standing structures present on the site?** Yes No

If yes, please complete Architectural Inventory Form(s)(1403)

24. **Feature Descriptions** Include a site map, to scale, with each feature listed below depicted on it. Please use the Historic Archaeology Lexicon for feature types. Insert rows and feature types into table as necessary. If desired, sort table by feature number.

Historic Archaeology Component Form

Resource Number: 5EP.8362

Temporary Resource Number: GY-1

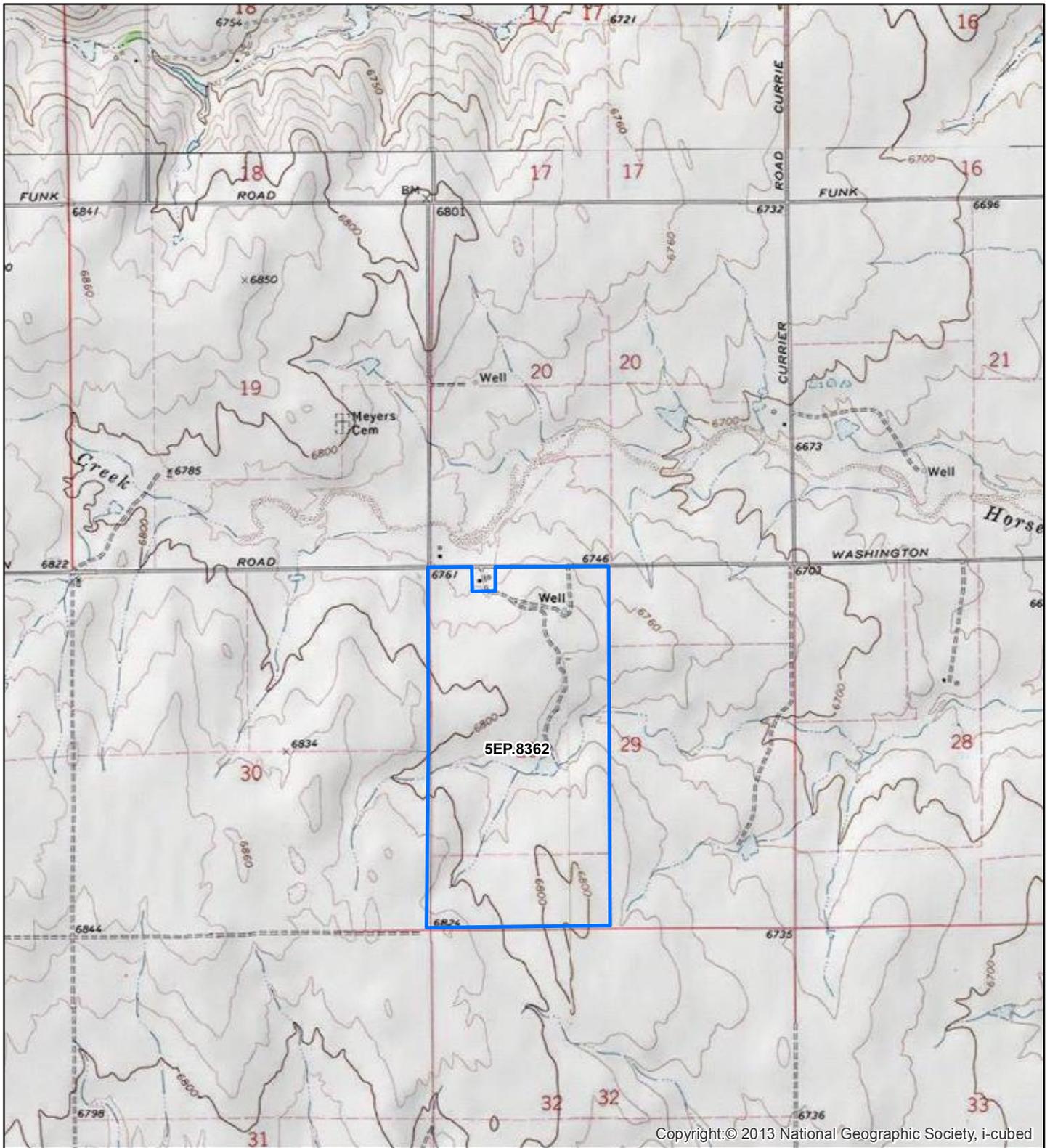
Feature Type (add others as necessary)	Feature Number/Name	Dimensions (feet / inches)	Description
Adit			
Aspen art			
Cabin			
Cairn			
Corral			
Ditch/canal			
Depression			
Dugout			
Foundation			
House			
Log cabin			
Mine shaft			
Outbuilding			
Platform			
Privy			
Railroad grade/bed			
Road/Trail			
Shaft			
Trash scatter			
Waste Rock pile			
Dam		400 ft x 70 ft	Earthen dam for water retention and distribution
Stock Tank		80-100 ft diameter	Excavated depression behind earth dam
Berm		10-13 ft wide and 2-3 ft high	Excavated contour furrows with earth berms – water spreader

25. Potential for Additional Archaeological Information

Is there potential for additional information? Yes No Unknown If yes or unknown describe below.

Potential Within:	Describe
a. Subsurface deposits within a structural feature	No potential
b. Subsurface deposits outside a structural feature	No potential
c. Trash area	No potential
d. Privy pits	No potential
e. Other	No portion of the site indicated the potential for any additional artifacts or features beyond the observable erosional control features.

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 303-866-3395



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 Site Boundary

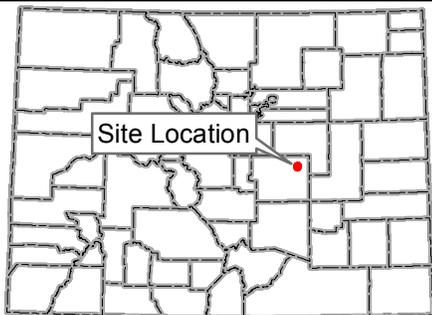
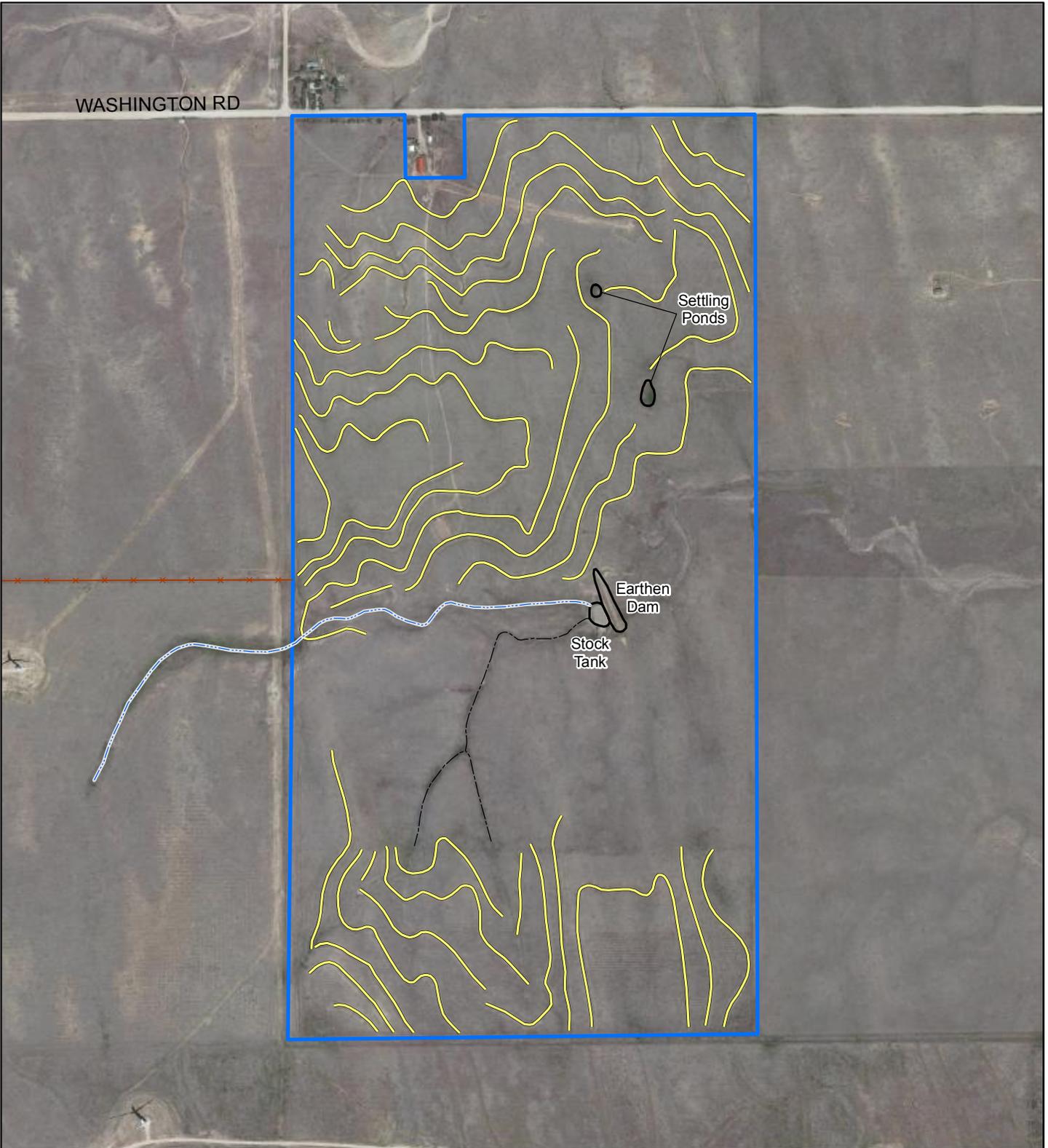
NextEra Grazing Yak Project

Site Location Map
 5EP.8362
 Civilian Conservation Corps' Erosion
 Control Water Spreader System
 El Paso County, Colorado

USGS Map Quadrangle: Holcolm Hills
 Township 12S, Range 61W, Section 29

1:24,000





- Site Boundary
- Contour Furrow
- Erosional Cut
- Fenceline
- Intermittent Drainage

USGS Map Quadrangle: Holcolm Hills
Township 12S, Range 61W, Section 29

NextEra Grazing Yak Project

Site Sketch Map
5EP.8362
Civilian Conservation Corps' Erosion
Control Water Spreader System
El Paso County, Colorado

1:9,400





PHOTOGRAPHIC LOG

Client Name: NextEra Energy		Project: Grazing Yak Solar Facility and Collection Line	Project No.: 60586433
Photo No.: P9120002	Date: 09/10/18		
Site Number: 5EP.8362			
Description: View of contour furrow and earthen berm water spreader erosion control feature built by the CCC in 1938 along an unnamed tributary of Horse Creek. Looking east.			



PHOTOGRAPHIC LOG

Client Name: NextEra Energy		Project: Grazing Yak Solar Facility and Collection Line	Project No.: 60586433
Photo No.: P9120003	Date: 09/10/18		
Site Number: 5EP.8362			
Description: View of contour furrow and earthen berm water spreader erosion control feature. Looking east.			



PHOTOGRAPHIC LOG

Client Name: NextEra Energy		Project: Grazing Yak Solar Facility and Collection Line	Project No.: 60586433
Photo No.: P9120005	Date: 09/10/18		
Site Number: 5EP.8362			
Description: View of contour furrow and earthen berm water spreader erosion control feature. Historic Jacob (John) Strum farmstead at far right. Looking north.			



PHOTOGRAPHIC LOG

Client Name: NextEra Energy		Project: Grazing Yak Solar Facility and Collection Line	Project No.: 60586433
Photo No.: P9120006	Date: 09/10/18		
Site Number: 5EP.8362			
Description: View of contour furrow and earthen berm water spreader erosion control feature. Looking east.			



PHOTOGRAPHIC LOG

Client Name:
NextEra Energy

Project:
Grazing Yak Solar Facility and Collection Line

Project No.:
60586433

Photo No.:
P9120019

Date:
09/10/18



Site Number:
5EP.8362

Description:
View of contour furrow and earthen berm water spreader erosion control feature. Historic Jacob (John) Strum farmstead at far right. Looking northeast.



PHOTOGRAPHIC LOG

Client Name:
NextEra Energy

Project:
Grazing Yak Solar Facility and Collection Line

Project No.:
60586433

Photo No.:
P9120010

Date:
09/10/18



Site Number:
5EP.8362

Description:
View of contour furrow and earthen berm water spreader erosion control feature. Note semi-circle furrow at center. Looking north-northeast.



PHOTOGRAPHIC LOG

Client Name:
NextEra Energy

Project:
Grazing Yak Solar Facility and Collection Line

Project No.:
60586433

Photo No.:
P9120030

Date:
09/10/18

Site Number:
5EP.8362

Description:
View of earthen berm dam with stock tank (excavated depression). Contour furrow and earth berm water spreader in foreground. Looking east-southeast.



PHOTOGRAPHIC LOG

Client Name:
NextEra Energy

Project:
Grazing Yak Solar Facility and Collection Line

Project No.:
60586433

Photo No.:
P9120050

Date:
09/10/18

Site Number:
5EP.8362

Description:
View of earthen berm dam with stock tank (excavated depression) at right. Looking southeast.





PHOTOGRAPHIC LOG

Client Name: NextEra Energy		Project: Grazing Yak Solar Facility and Collection Line	Project No.: 60586433
Photo No.: P9120056	Date: 09/10/18		
Site Number: 5EP.8362			
Description: View of earthen berm dam with stock tank (excavated depression) at left. Looking north-northeast.			



PHOTOGRAPHIC LOG

Client Name: NextEra Energy		Project: Grazing Yak Solar Facility and Collection Line	Project No.: 60586433
Photo No.: P9120040	Date: 09/10/18		
Site Number: 5EP.8362			
Description: View of one of two settling ponds located within the maze of contour furrows and berms. White color is precipitated sodium chloride. Looking south.			

COLORADO CULTURAL RESOURCE SURVEY
Archaeological Isolated Find/Feature Form

OAHP 1408
Rev. 11/10

This form is not to be used for phenomena that are eligible for the National Register or are part of the built environment. To be **only** used for phenomena that meet the requirements of the recorder's definition as provided below. A map at 1:24,000 scale with IF clearly plotted must be attached.

1. **Site Number:** 5EP.8363 2. **Temporary Resource Number:** GY-3 3. **County:** El Paso
4. **Recorder's Definition of Isolated Find:** Less than 5 items within 30 m and lacking any associated features

5. **PM** 6th **Township** 12S **Range** 61W **Section** 29 NW ¼ NW ¼

If section is irregular, explain alignment method:

6. **USGS Quad:** Holcolm Hills (1976) 7. **Elevation:** 6795 ft.

8. **UTM Coordinates:** Datum used NAD 27 NAD 83 WGS 84 Other:

Zone: 13; 564318 mE 4314858 mN

9. **UTM Source:** Corrected GPS/rectified survey (<5m error) Uncorrected GPS Map template

Other (explain):

10. **Landowner:** Henriatte Long (private)

11. **Describe Artifact(s) and their distribution:** One cast iron stove door/panel fragment; the panel is embossed with a design but lacks any brand or maker's marks.

No artifacts

12. **Describe Feature (include dimensions):**

No features

13. **Cultural Affiliation and Justification:** Euroamerican; design and make of artifact.

14. **Time Period and Justification:** Historic, possibly early twentieth century.

15. **Relevant environmental information (e.g., elevation, topography, soils, vegetation, nearby water source):**
Flat to gently rolling prairie with low grasses and forbs.

16. **Is this isolate located in a cultural landscape?** Yes No

If yes, describe: Found near CCC-constructed erosion control features (5EP.8362) but not associated with that site.

17. **Why is this isolated find not eligible for the National Register?** This is a single, isolated artifact that lacks any potential to provide additional important information.

18. **Additional Information (e.g., narrative, drawings, photographs, sketch map; attach extra pages if desired):**

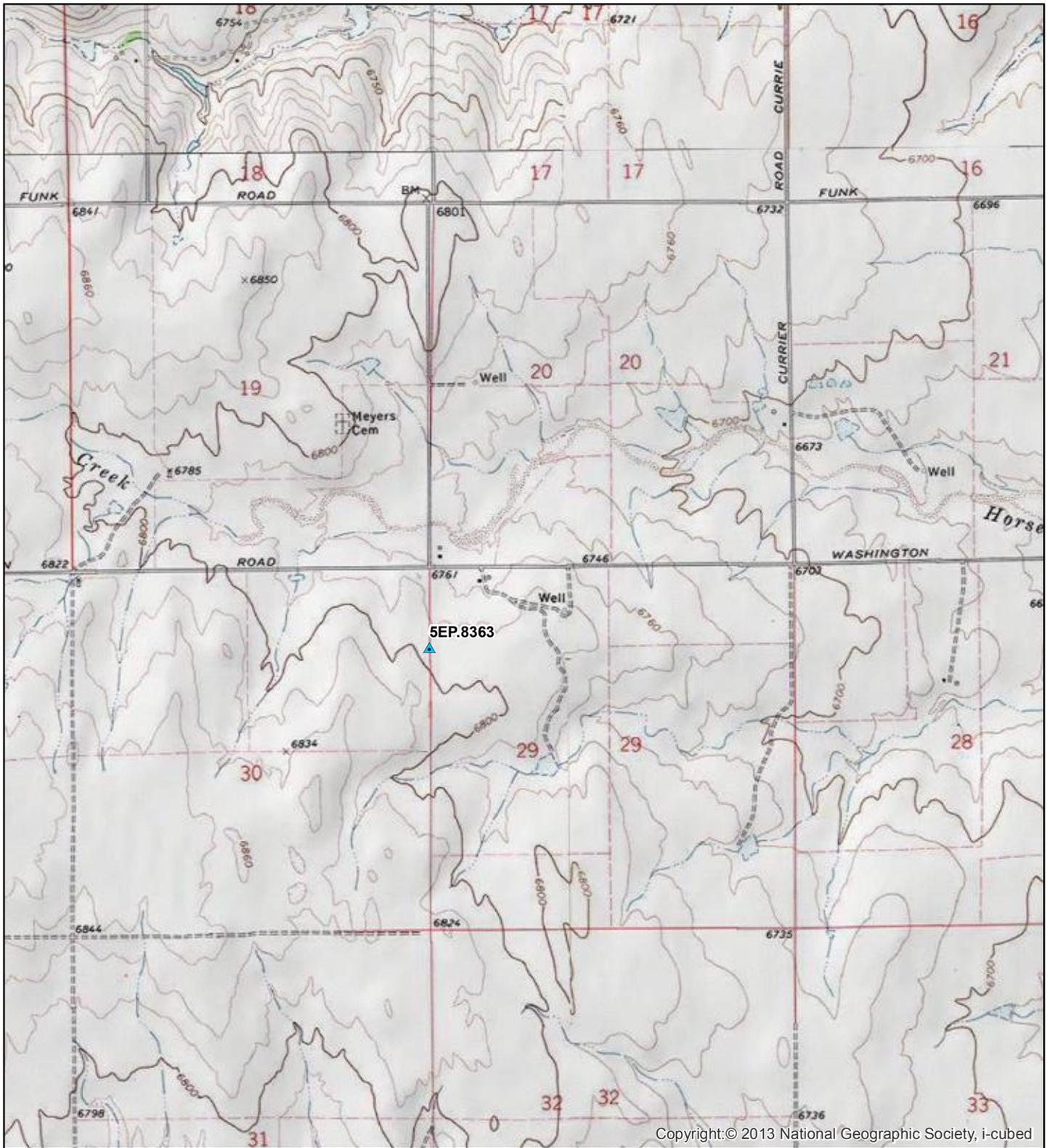
19. **Artifacts Collected?** Yes No

If yes, provide repository information:

20. **Report Title and Project Number:** NextEra Grazing Yak Project, El Paso County, CO: Intensive Cultural Resources Inventory

21. **Recorder and Affiliation:** D. Killam, H. Powel-Rummel; J. Farriello; AECOM Denver
Date: 9/12/2018

Colorado Historical Society - Office of Archaeology & Historic Preservation
1560 Broadway, Suite 400 Denver, CO 80202
303-866-3395



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▲ Isolate

NextEra Grazing Yak Project

Site Location Map
5EP.8363
El Paso County, Colorado

USGS Map Quadrangle: Holcolm Hills
Township 12S, Range 61W, Section 29

1:24,000





PHOTOGRAPHIC LOG

Client Name:
NextEra Energy

Project:
Grazing Yak Solar Facility and Collection Line

Project No.:
60586433

Photo No.:
IMG-4692

Date:
09/13/18

Site Number:
5EP.8363

Description:
Overview of isolated find location. Looking west.



PHOTOGRAPHIC LOG

Client Name:
NextEra Energy

Project:
Grazing Yak Solar Facility and Collection Line

Project No.:
60586433

Photo No.:
IMG-4692

Date:
09/10/18

Site Number:
5EP.8363

Description:
Close-up view of cast iron stove door/panel fragment. Looking down.

