



CITY OF LONGMONT PLANNING AND DEVELOPMENT SERVICES DEPARTMENT

385 Kimbark Street
Longmont, CO 80501
303-651-8330 / 303-651-8696 (fax)
longmont.planning@longmontcolorado.gov www.longmontcolorado.gov

Prairie Dog Management Permit

Date of application: 2/3/2020

Applicant (First): Art (Last): Kleinstein

Property Address of where prairie dogs are located (or directions from nearest cross streets):
17-ac property immediately south of Great Western Drive & E. 3rd Ave. intersection.

County: Boulder Parcel Number: 131512000024

If applicable, please list additional addresses and parcel numbers:

Address: 10012 N. 119th Street Parcel Number: _____

Address: _____ Parcel Number: _____

Applicant Address: 333 S. Monroe Street

City: Denver State: CO ZIP: 80209

Applicant Email: [REDACTED]

Applicant Phone: [REDACTED]

Property Owner (if different from applicant): _____ Last: _____

Property Owner Address: Same

City: _____ State: _____ ZIP: _____

Minor Prairie Dog Permits are applicable if the property is less than 1 acre and/or if there are less than 25 prairie dogs. If applying for a Major Prairie Dog permit, a \$500 application fee will be charged. At the issuance of the permit, an applicant for a Major Prairie Dog permit may also be issued a \$1,200 Habitat Restoration Fee for each acre of active prairie dog habitat lost. There are also fees and/or deposits associated with signs used for relocation and extermination.

I hereby certify that the information submitted is true and correct. In submitting the signed application, I acknowledge and agree that the application is subject to all the terms and conditions for Prairie Dog Control as defined in Ordinance 0-2019-01. I understand that any false statements or omissions may result in denial or revocation of this permit. I also understand that in accordance with Ordinance 0-2019-01, the City has permission to enter property to confirm the site, prairie dog active habitat size, and count.

Applicant Name (Printed): **Art Kleinstein** Applicant Signature: 

INTERNAL OFFICE USE ONLY

Approved by (Printed): **Don Burchett** Signature:  Date: **2/4/2020**

Conditions of Approval: *1. Notice of Extermination is required (section 7.06.070) unless Carbon monoxide is used to exterminate. 2. A Habitat Restoration Fee is required in (section 7.06.080.B) the amount of \$2,640.00 which is due to the City within 14 days of Extermination unless Carbon Monoxide is used. Proof of Carbon monoxide is required.*

Fees, if applicable: **\$500.00**

Conditions of Approval:

1. Notice of any extermination is required according to Section 7.06.070 of the LMC unless carbon monoxide is used to exterminate the prairie dogs. If you are not using carbon monoxide we have signs for this notice in our offices. The signs cost \$20.00.
2. A habitat restoration fee is required (See LMC Section 7.06.080.B) in the amount of \$2,640.00 which is due to the city within 14 days of the extermination unless carbon monoxide is used.
3. Proof of the use of carbon monoxide is required to be provided to the city.
4. The applicant must pay the City \$500.00 for this Major Prairie Dog Management Permit. Please pay this in our offices as soon as possible.

WESTERN ENVIRONMENT AND ECOLOGY, INC

November 13th, 2019

CJ Kirst
Tahoe Consulting, LLC
o/b
Western Sugar LLC
333 South Monroe Street
Denver, Colorado

Subject: Black Tailed Prairie Dog (*Cynomys ludovicianus*) Survey - Approximately 17.92 Acres within Section 12, Township 2 North, Range 69 West, Longmont, Colorado. 80504 Western Environment and Ecology, Inc. Project Number 810-001-01.

Dear Mr. Kirst,

At your request, Western Environment and Ecology, Inc (Western Environment) performed an inspection of the above referenced property (Figure 1). This survey was performed for ongoing monitoring of total prairie dog population on the subject property as requested by the City of Longmont. During a previous inspection conducted by Western Environment on June 17th, 2019, active burrows were present on the northeast corner of the site, and approximately 5 Prairie dogs were observed. At the time of the survey, the site contained areas of bare soil and limited vegetation consisting of sagebrush, curly dock, Canada thistle, tumble mustard, Russian thistle, and field bindweed.

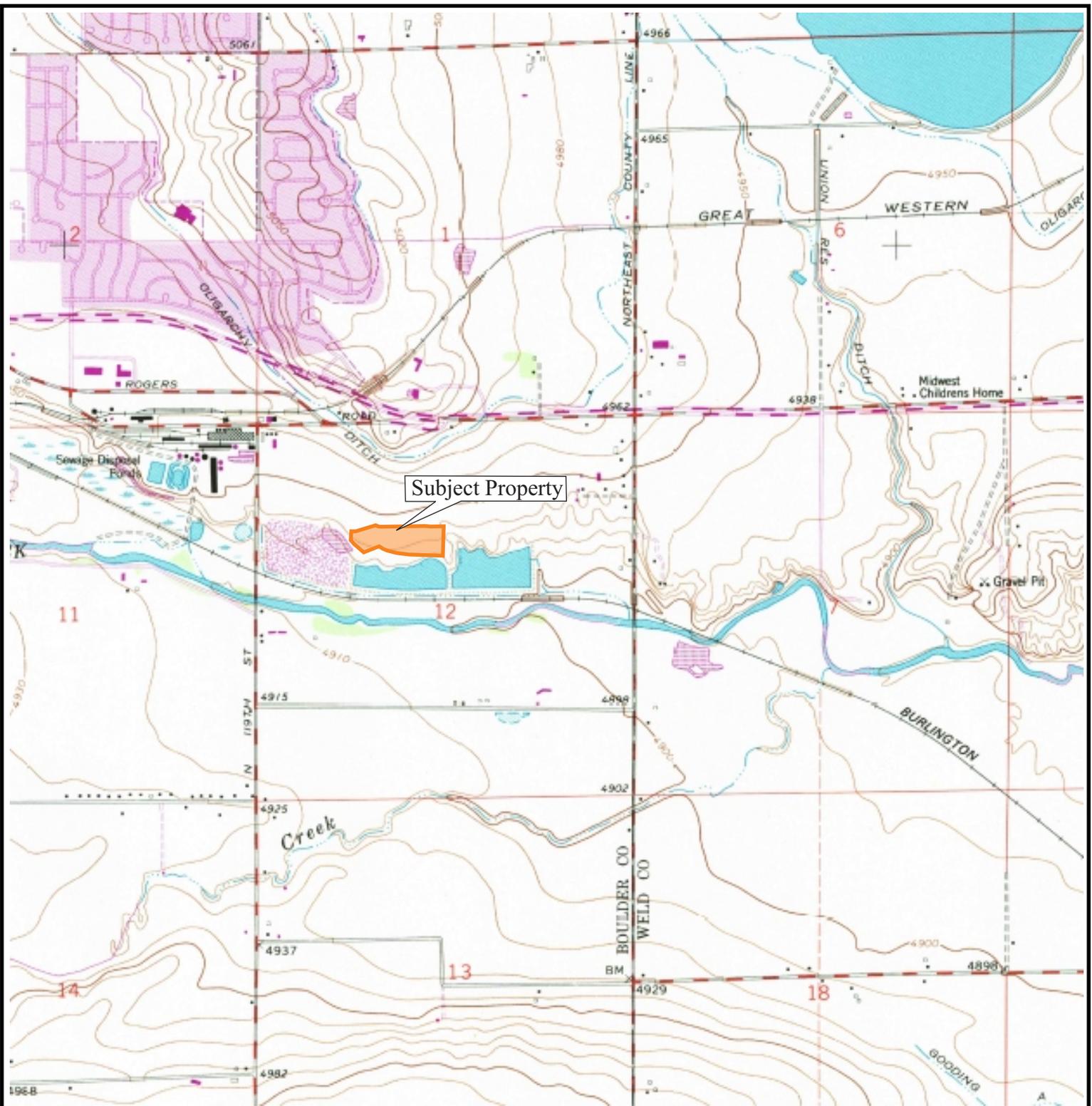
Western Environment staff observed the property and surrounding land from one location on the northern property border on October 25th, 2019 between 1030 hours and 1100 hours (Figure 2). The weather was clear and sunny with temperatures rising from 54 degrees Fahrenheit. Wind speeds were at approximately 2-5 mph, originating from the south. A Bausch and Lomb 60mm spotting scope and a Bushnell 16 X 32 binocular were used. Observations such as wildlife identified and general ecological conditions were documented in a field notebook. Few significant non-target species were observed.

During the survey, seven individual prairie dogs were observed, in burrows ranging from the northeast corner to the north-central portion of the property (Figure 2). Based upon the observations of this survey, Western Environment utilized the total population model described by Severson and Plumb (Severson, K. E. , and Plumb, G. E. 1998. *Comparisons of methods to estimate population densities of black-tailed prairie dogs*. Wildlife Society Bulletin 26, 859-866.) to estimate the total population size: Total Population = (Maximum Count (7)-3.04)/0.40 = **10 prairie dogs**. It is the opinion of Western Environment that the total population of Black Tailed Prairie Dog (*Cynomys ludovicianus*) on the subject property remains below the 25 prairie dog threshold for the City of Longmont major permit.

Please feel free to contact us with any questions you may have. Thank you for the opportunity to provide these services.

Sincerely,
Western Environment and Ecology, Inc.

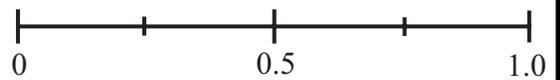
Brendan Calonge
Senior Staff Scientist



USGS Longmont Quadrangle, 7.5 Minute Series, 1979

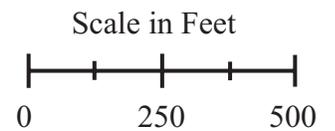


Scale in Miles



WESTERN ENVIRONMENT
AND ECOLOGY, INC.
2217 West Powers Avenue
Littleton, Colorado 80120

Figure 1 - Property Location Map
Approximately 17.92 Acres within Section 12
Township 2 North, Range 69 West
Longmont, Colorado 80504



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Figure 2 - Site Location Map
Approximately 17.92 Acres within Section 12
Township 2 North, Range 69 West
Longmont, Colorado 80504



Active Prairie dog location
approximately 2.22 Acres



Scale in Feet
0 250 500

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Figure 2 - Site Location Map
Approximately 17.92 Acres within Section 12
Township 2 North, Range 69 West
Longmont, Colorado 80504

GENERAL ECOLOGICAL RESOURCES SURVEY

Approximately 17.92 Acres within Section 12
Township 2 North, Range 69 West
Longmont, Colorado 80504



Prepared for:

Western Sugar, LLC

333 South Monroe Street
Denver, Colorado 80209

WESTERN ENVIRONMENT AND ECOLOGY, INC.

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GENERAL ECOLOGICAL RESOURCES SURVEY

Approximately 17.92 Acres within Section 12
Township 2 North, Range 69 West
Longmont, Colorado 80504

Western Environment and Ecology, Inc.
Project Number: 810-001-01

January 6th, 2020

Prepared for:

Western Sugar, LLC

333 South Monroe Street
Denver, Colorado 80209

Prepared by:



Brian Kraus
Staff Technician

Reviewed by:



Brendan Calonge
Senior Scientist

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1.0 INTRODUCTION

Western Environment and Ecology, Inc. (Western Environment) was retained by Mr. CJ Kirst of Tahoe Consulting, LLC, on behalf of Mr. Art Kleinstein of Western Sugar, LLC, to conduct a general survey of ecological resources, including threatened and endangered species, wetlands, and other significant habitats, on approximately 17.92 acres in the northwest 1/4 of Section 12, Township 2 North, Range 69 West, Longmont, Colorado (Figure 1). Mr. Kirst indicated that this study was in response to the potential development of the site. Western Environment previously conducted a General Ecological Resources Surveys on the site for Sugarmill Partnership and Western Sugar, LLC, dated March 23rd, 2018 and June 19th, 2019. This report is an update to the June 2019 assessment.

The objectives of this study were to (1) establish presence/absence and potential habitat of any federal or state threatened and endangered species on the property, (2) identify any wetlands or other ecologically sensitive areas on or adjacent to the property, and (3) make practical recommendations based on the results of the study if required.



View of the Site from the East

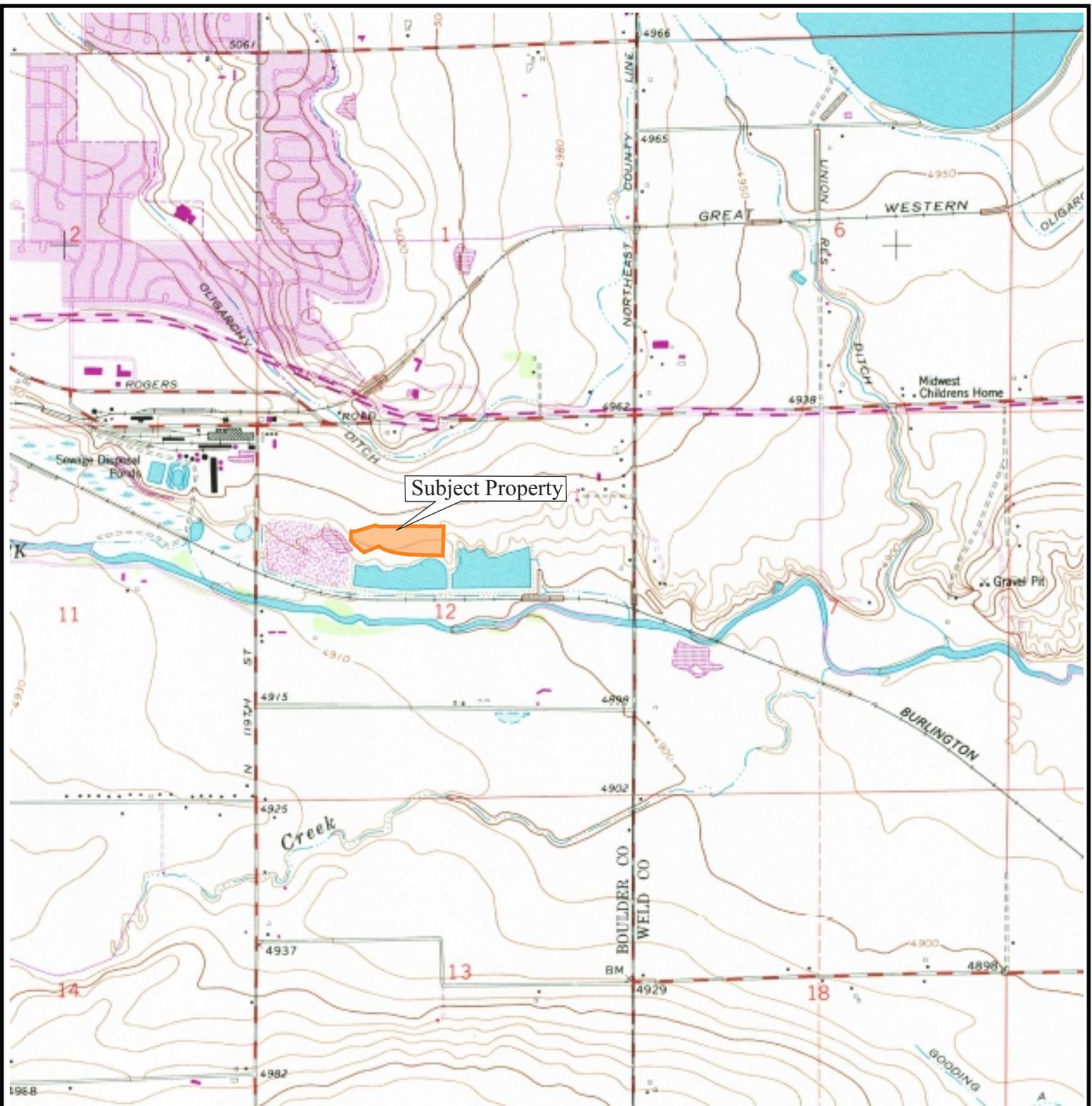
2.0 STUDY AREA

The project is located southwest of the intersection of Highway 119 and East 3rd Avenue, in Longmont, Colorado (Figure 2). The vacant site consists of approximately 17.92 acres bordered by Great Western Drive to the north. The property adjacent to the north across from Great Western Drive is under construction activities and the property adjacent to the west vacant. Settling ponds associated with the former sugar mill operations are located adjacent to the south and southeast. Single family residences and a single office building are present directly to the east and northeast. The Saint Vrain Creek is located approximately 550 feet to the south, and the Oligarchy Ditch occurs approximately 1,100 feet to the north across Highway 119.

The approximate elevation range of the site is 4,940 to 4,955 feet above sea level (USGS Longmont 7.5 Minute Quadrangle, 1979). The property topography is generally flat with less than 1 % to 3% slopes to the north and west. Site soils are predominately Ascalon sandy loam and Ascalon-Otero complex (NRCS) overlying the upper unit of Cretaceous Age Pierre Shale and Quaternary Age Modern Alluvium (Tweto, 1979 and Green, 1992). Review of the Flood Insurance Maps from the Federal Emergency Management Agency (FEMA) indicated that the site is not located with the 100-year flood plain. The presumed groundwater flow direction is to the south.



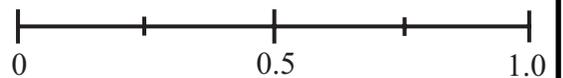
View of the Site from the West



USGS Longmont Quadrangle, 7.5 Minute Series, 1979



Scale in Miles



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Figure 1 - Property Location Map
Approximately 17.92 Acres within Section 12
Township 2 North, Range 69 West
Longmont, Colorado 80504



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Figure 2 - Site Location Map
Approximately 17.92 Acres within Section 12
Township 2 North, Range 69 West
Longmont, Colorado 80504

3.0 METHODS

Species that are federally or state listed as threatened or endangered, including federally proposed and candidate species, occurring or having historically occurred in the Colorado Front Range Piedmont, were considered for this study (Table 1). The Boulder County classification was determined by following the Colorado Field Office of the U.S. Fish and Wildlife Service's county checklist (USFWS, 2011). The list was narrowed based on habitat requirements of the species relative to existing habitats on the project.

The property was surveyed on January 2nd, 2020. Information was collected on topography, ecosystems, and species of flora and fauna found on and adjacent to the property. Photographs were taken, and emphasis was placed on potential habitat of threatened and endangered species or species of special concern, and the presence of wetlands. During the inspection the majority of the site consisted of bare soil with limited vegetation consisting of sagebrush (*Artemisia sp.*), curly dock (*Rumex crispus*), Canada thistle (*Cirsium arvense*), tumble mustard (*Sisymbrium altissimum*) and Russian thistle (*Salsola tragus*). Woody vegetation included cottonwood trees (*Populous sp.*) located on the southern end of the property. At the time of the site visit, evidence of a prairie dog colony was observed throughout the property. The majority of the prairie dog burrows on the site were inactive or filled in, however during the inspection approximately 5 active prairie dogs were observed on the northeastern portion of the property (see Figure 2).

Table 1. Common name, scientific name, and status of federal and state threatened and endangered species that could occur or historically occurred in the Colorado Piedmont (CPW, 2010; USFWS, 2011).

Common Name	Scientific Name	Status¹
Birds		
Bald eagle	<i>Haliaeetus leucocephalus</i>	SC
Whooping crane	<i>Grus americana tabida</i>	FE, SE
Least Tern	<i>Sterna antillarum</i>	FE, SE
Mountain plover	<i>Charadrius montanus</i>	SC
Mexican spotted owl	<i>Strix occidentalis lucida</i>	FT, ST
Piping plover	<i>Charadrius melodus</i>	FT, ST
Plains Sharp-Tailed Grouse	<i>Tympanuchus phasianellus jamesii</i>	SE
Western burrowing owl	<i>Athene cunicularia</i>	ST
Lesser Prairie Chicken	<i>Tympanuchus pallidicinctus</i>	ST
Ferruginous Hawk	<i>Buteo regalis</i>	SC
Mammals		
Black-footed ferret	<i>Mustela nigripes</i>	FE, SE
Preble's meadow jumping mouse	<i>Zapus hudsonius preblei</i>	FT, ST
Canada Lynx	<i>Lynx canadensis</i>	FT, SE
Black-tailed prairie dog	<i>Cynomys ludovicianus</i>	SC
Amphibians		
Boreal Toad	<i>Bufo boreas boreas</i>	SE
Plants		
Ute ladies'-tresses	<i>Spiranthes diluvialis</i>	FT
Colorado butterfly plant	<i>Gaura neomexicana coloradensis</i>	FT
Western prairie fringed orchid	<i>Platanthera praeclara</i>	FT

¹**Status Codes:** FE = Federally Endangered, FT = Federally Threatened, FPT = Federally Proposed as Threatened, FC = Federal Candidate, SE = State Endangered, ST = State Threatened, SC = State Concerned

4.0 RESULTS AND DISCUSSION

4.1 Wetlands

No perennial waters were observed on the subject property.

The U.S. Army Corps of Engineers (Corps) regulates the discharge of dredged or fill materials into Waters of the U.S. under the authority of Section 404 of the Clean Water Act. Waters of the U.S. include ephemeral, intermittent and perennial streams, their surface connected wetlands and adjacent wetlands, certain lakes, ponds, drainage ditches and irrigation ditches that have a nexus to interstate commerce.

Western Environment evaluated the project site for the three components of a jurisdictional wetlands as defined in the US Army Corps of Engineers, (USACE) Wetland Delineation Manual (1987). These components are: 1) Vegetation, 2) Soil and 3) Hydrology. The USACE Manual defines *Nonwetlands* as “including upland areas that are neither deepwater aquatic habitats, wetlands, nor other special aquatic sites. They are seldom or never are inundated, or if frequently inundated, they have saturated soils for only brief periods during the growing season, and, if vegetated, they normally support a prevalence of vegetation typically adapted for life only in aerobic soil conditions.”

It is the opinion of Western Environment that no wetlands or Waters of the U.S. subject to regulation under Section 404 of the Clean Water Act occur on the project.

4.2 Wildlife Species Eliminated from Consideration as Occurring on the Project

The following threatened and endangered species that have historically been thought to occur in the Colorado Piedmont were immediately ruled out of serious consideration for this project based on available habitat: Mexican spotted owl, whooping crane, least tern, Canada lynx, black-footed ferret, boreal toad, Colorado butterfly plant and western prairie fringed orchid.

The Mexican spotted owl was eliminated because it requires forests that are not present on the project. The whooping crane was also eliminated due to rarity in Colorado, and no known nesting or feeding habitat exists on or adjacent to the property. Less than 20 sightings of whooping cranes along the eastern plains and mountainous regions of Colorado have been recorded since 1931 (Andrews and Righter, 1992). The least tern inhabits sandy shorelines of reservoirs, lakes, and rivers with bare sandy shorelines. This shore bird is a casual to very rare spring and fall migrant on the northeastern plains of Colorado, and is unlikely to occur on the subject project.

The Canada lynx is a rare forest-dwelling species of northern latitudes that feeds primarily on snowshoe hares. No lynx habitat exist on the subject site. The black-footed ferret was eradicated from the Colorado Piedmont, however, in 2013 Colorado Parks and Wildlife has reintroduced populations in Larimer, Adams, Pueblo, Baca, and Powers Counties in Colorado.

Colorado's only alpine species of toad, the boreal toad, has been found in spruce-fir forests and alpine meadows at elevations between 7,000 and 12,000 feet. The toad also requires lakes, marshes, ponds, or bogs with shallow water for breeding. These habitats do not exist on the property.

The Colorado butterfly plant has been found in northern Larimer County in recent years and is generally associated with streams that do not exist onsite (Colorado Native Plant Society 1997). The western prairie fringed orchid is restricted to west of the Mississippi River, however only currently occurs in Iowa, Kansas, Minnesota, Nebraska, North Dakota and in Manitoba, Canada (USFWS, 2001).

4.3 Species Included in Survey

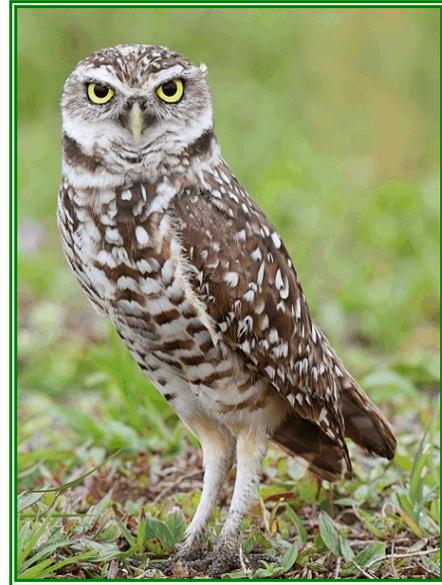
Western Burrowing Owl (*Athene cunicularia*)

State Threatened

The burrowing owl is found primarily in eastern Colorado as a summer resident. Two aspects of the biology of the western burrowing owl appear to influence both its regional and local abundance: 1) it prefers areas of short vegetation, and 2) it rarely, if ever, digs its own burrows. Historically, burrowing owls were common wherever there were prairie dog colonies in northeastern Colorado. Active prairie dog burrows were observed on the northeastern portion of the property.

Additionally, abandoned and filled burrows were present

throughout the site. **The Colorado Division of Parks and Wildlife (CPW) recommends that a burrowing owl survey be performed if construction is planned on abandoned or active prairie dog colonies during the owl's nesting season (March 1st to November 1st).**



Western Burrowing Owl.

Photo acquired from wildearthguardians.org

Bald Eagle (*Haliaeetus leucocephalus*)

State Threatened

The Bald Eagle was removed from the Endangered and Threatened Species List on July 9th, 2007. In winter bald eagles are transient and use areas that provide feeding and roosting opportunities. There is no permanent water on the site, however several large trees are present on the southern end of the property. No bald eagles or bald eagle nests were observed on or adjacent to the property. Western Environment reviewed National Diversity Information Source (NDIS) data maintained by the CPW (2018), which indicated that a historic roosting area is located to the south along the St. Vrain Creek. The subject site is located just outside of the listed 0.25 mile buffer roosting area.

Additionally, the data indicated that several active and inactive nests are located approximately 0.35 miles southeast of the site. However, more recent data reviewed from 2019

(see attached map) published by the City of Longmont Natural Resources Division, indicated that the bald eagle nests west of County Line Road are currently inactive. Furthermore, based upon monitoring research conducted by Western Environment, these nests have been inactive during the 2016, 2017 and 2018 nesting seasons. The City's map showed that the active nest is located approximately 1.15 miles southeast of the subject site across County Line Road.

During the 2018 assessment Western Environment contacted Sandy Vana-Miller of the FWS and the CPW District Wildlife Officer Jason Duetsch concerning the eagles in the area. Ms. Vana-Miller confirmed that the project was located more than 0.5 miles away from active or inactive nests and that she was not concerned with the development of the site. Additionally, Mr. Duetsch indicated that he was unaware of any significant roosting south of the subject property and therefore we may disregard the maps indicating such roosting area. **It is the opinion of Western Environment that planned development of the subject site will not impact the active Bald Eagle nests.**

Mountain Plover (*Charadrius montanus*)

State Concerned Species

Typical habitat characteristics of the mountain plover are a mixture of short vegetation, bare ground, and a flat topography at both breeding and wintering locations. This small shorebird breeds in Colorado, and in parts of its breeding range the species commonly shows a preference for prairie dog towns and sites that are heavily grazed by domestic livestock. Prairie dog grazing promotes the short grasses that the plover prefers, and their digging creates areas of bare soil important for plover nesting. Plovers breed in Eastern Colorado from approximately April 1st through August 1st. Mountain plovers were proposed for federal listing as threatened on February 16, 1999 (USFWS, 1999b), however the U.S. Fish and Wildlife Service withdrew the proposal on September 8th, 2003. The Mountain plover is a migratory bird and protected under the Migratory Bird Treaty Act. Harassment or destruction of the species or its nest is a federal offense. **Therefore, to ensure avoidance of the species, development within grazed sites or prairie dog colonies should not begin without a pre-construction inspection during plover breeding and fledging months from April 1st to August 1st.**

Piping Plover (*Charadrius melodus*)*Federally Threatened, State Threatened*

This small shorebird can be found on very sparsely vegetated beaches, mudflats and sandy areas near water on shores and islands. Piping Plovers usually arrive in Colorado in late April or early May, and leave when the nesting cycle is completed, or by late August. Nesting populations have been documented in eastern Colorado along the South Platte and Arkansas River drainages. Food sources for Piping Plovers include insects, crustaceans and other small aquatic animals. Plovers feed along beaches, especially in areas where waves have washed up debris (CPW, 1994). **Due to the lack of sandbars or mud-flats in the vicinity of the project, it is unlikely to occur.**

Plains Sharp-Tailed Grouse (*Tympanuchus phasianellus jamesii*)*State Endangered*

The Plains Sharp-Tailed Grouse historically occurred on Colorado's eastern grasslands. Grouse habitat is characterized by rolling hills with Gambles oak, sage brush, service berries and grassy glades. This grouse is a resident from Alaska east to the Hudson Bay, and south to northern New Mexico. Currently, Colorado populations occur in Douglas County, northern and eastern Weld County, and Logan County east of Sterling. **No known populations of the Plains Sharp-Tailed Grouse are known to occur in proximity to the subject project (CPW, 2018).**

Lesser Prairie Chicken (*Tympanuchus pallidicinctus*)*State Threatened*

Historically, this bird occupied the grasslands of Texas, Oklahoma, New Mexico, Kansas and southeastern Colorado. It prefers sandy grassland areas abundant in midgrasses, sandsage and yucca. The majority of Colorado breeding pairs occur in the southeastern portion of the state in Baca, Prowers, Kiowa and Cheyenne Counties, and for the most part, on the Comanche National Grasslands near Campo. **No known populations of the Lesser Prairie Chicken are known to occur in proximity to the subject project (CPW, 2018).**

Ferruginous Hawk (*Buteo regalis*)*State Concerned*

This hawk is known to occur throughout eastern Colorado and in northwestern Colorado. In Colorado, the species is a common winter resident, but is considered an uncommon summer resident on the eastern plains (Andrews and Righter, 1992). Areas that could be potential nesting sites include large trees, rock outcrops, manmade structures such as windmills and power poles, or the ground. These birds often can be seen associated with prairie dog colonies, which they utilize for foraging. **At the time of this survey, no ferruginous hawks were observed. The Ferruginous Hawk is also federally protected under the Migratory Bird Species Act.**

Preble's Meadow Jumping Mouse (*Zapus hudsonius preblei*)*Federally Threatened, State Threatened*

Typical Preble's habitat has been described as "well-developed plains riparian vegetation with relatively undisturbed grassland and a water source in close proximity," and "dense herbaceous vegetation consisting of a variety of grasses, forbs and thick shrubs" (Armstrong et al., 1997). Although any vegetation could offer cover and hibernacula for Preble's, the species is mostly known from habitat containing shrub cover, such as willow or narrow-leaf cottonwood. Preble's are known to regularly range outward into adjacent uplands to feed and hibernate. For this reason, the U.S. Fish and Wildlife Service generally requires a 300 foot development buffer from the edge of the 100 year flood plain. The property is located outside the 300 foot buffer from the flood plain. **It is the opinion of Western Environment that typical Preble's riparian habitat does not occur on or adjacent to the subject site.**



Preble's meadow jumping mouse
Photo acquired from usaifa.isportsman.net

Black-tailed Prairie Dog (*Cynomys ludovicianus*)*Former Candidate for Federal Listing, State Concerned*

The U.S. Fish and Wildlife Service was petitioned to list the black-tailed prairie dog as a threatened species in July of 1998. The agency determined on February 3rd, 2000, that listing the species was warranted, but it is precluded by other species in greater need of protection (USFWS, 2000). The black-tailed prairie dog was added to the candidate list, and the species' status was reviewed annually. On August 12th, 2004 the USFWS determined that the black-tailed prairie dog no longer meets the Endangered Species Act definition as threatened, and was removed as a candidate for federal listing. **During the inspection, it was observed that burrows had been backfilled following lethal control on the site. However, at the time of the site visits active burrows were observed on the northeastern portion of the property.** Western Environment performed prairie a dog survey on the property (attached). This survey estimated the total population size on the property is **10 prairie dogs**.

The City of Longmont, Wildlife Management Plan (2005) states "Prairie dog habitat has been identified as the largest single wildlife issue facing the City...". The plan provides four management strategies that include 1) Preserve, 2) Replace, 3) Exclude, and 4) Remove. The removal strategies are described by the management plan as:

Relocate – Used when relocation to another site is a viable option. See Section 4.4.3 regarding regulatory compliance. Section 4.5.1 discusses the reason that relocations of prairie dogs—if done properly—are fundamentally different from relocations of the other problem wildlife described above.

Relocation from City land should occur during the period June through October if practicable to avoid the fall/winter season (November through February, when relocations may be less successful due to cold weather and snow cover, and the spring birthing/nursing season (March through May). Prior to release, the captured prairie dogs should be dusted for fleas as a means of reducing the potential for transmission of sylvatic plague, in conformance with requirements of the Colorado Division of Wildlife.

Relocation should not be used in situations involving the need to remove fewer than 25 prairie dogs from a single area. This provision reflects the lower survival associated with small relocations as well as the disproportionate administrative and fiscal burden for the City as well as the Colorado Division of Wildlife in relation to the ecological and societal benefit.

Remove/Euthanize – Same as Relocate, except that removed prairie dogs are donated to the U.S. Fish and Wildlife Service black-footed ferret recovery program or an approved raptor rehabilitation program as a food source. The U.S. Fish and Wildlife Service has found that ferrets raised on prairie dogs for food fare better following release than those raised on other types of food. Note that captured animals are euthanized before being fed to the ferrets or to raptors. If this method is used, the City should retain the services of a professional or qualified volunteer organization to capture and transport the animals to the designated location.

The City should also ensure that the removal is performed as humanely as possible, given the limitations of the method

employed. If the March-May birthing/nursing season cannot be avoided, use of a chemical fumigant (aluminum phosphide) or asphyxiant (carbon dioxide) should be used to dispatch any young prairie dogs not removed by the trapping or other removal method.

Exterminate – Same as Remove/Euthanize, except that prairie dogs are euthanized in their burrows with the use of a chemical fumigant (aluminum phosphide) or asphyxiant (carbon dioxide). This option should be used only as a last resort. Any plan to exterminate prairie dogs on City land must first be approved by the City Manager after being provided with information on the size and location of the colony, the number of prairie dogs affected, the reasons for the proposed extermination, the other options considered, and the reason(s) the other options were deemed infeasible or impracticable. If extermination is used, the City should retain a professional prairie dog exterminator or use a qualified staff member who has spent at least 5 days assisting a professional.

The order of priority for removal of prairie dogs from City lands should be as follows:

Preferred Option – Relocation, if the number to be removed is greater than 25 animals and a suitable release site has been identified, approved by the Colorado Division of Wildlife and City Council, and the public given adequate notice.

Second Option – Removal for donation to the U.S. Fish and Wildlife Service black-footed ferret recovery program or raptor rehabilitation program OR extermination within the burrows. The choice among these two should be based on criteria such as urgency, cost, and the express need for euthanized animals for ferret recovery or raptor rehabilitation programs.

Furthermore, the 2003 Chapter 15.05: Development Standards Title 15: Longmont Land Development Code:15.05.030: Habitat and Species Protection Standards also outlines Prairie Dog Removal strategies:

Before the commencement of construction of the development site, any black-tailed prairie dogs inhabiting portions of the site that shall be disturbed shall be relocated according to a relocation plan approved by the City. Relocation plans must be in compliance with applicable state laws pertinent to relocation and include provisions for recolonization of the prairie dogs to a property. The relocation plan shall include the written consent of the owner of the relocation property.

Only after a good faith effort to relocate the prairie dogs and after consultation with the City about alternatives, may an Applicant eradicate the prairie dogs. All good faith efforts shall be documented in writing and submitted to the City for consideration. Eradication shall be by the use of a poisonous substance that was either approved for such use by the United States Environmental Protection Agency or was applied by a certified operator regularly engaged in the business of fumigation or pest extermination and was licensed by the State of Colorado pursuant to C.R.S35-10-114.

Additionally, as of September 10th, 2019, Ordinance 0-2019-51, amends Title 7 of the Longmont Municipal Code on Prairie Dog Control by adding Chapter 7.06 Prairie Dog Control. The ordinance amends Section 15.05.030 (G)(9) which states:

Before the approval of any development application that would authorize construction, grading, or paving on any land carrying any prairie dogs as defined in chapter 7.06, the applicant must also secure a prairie dog management permit under that chapter. No person shall undertake any construction, grading or paving on any land which, at such time, carries any prairie dogs.

The ordinance continues by classifying prairie dog management permits into either a minor or major category which states in Section 7.06.050:

Minor permit - A person seeking to destroy prairie dogs on property that is less than 1.5 acres, or that has active prairie dog habitat less than 1.5 acres in size, or that has existing urban level development, shall be eligible to receive a minor prairie dog management permit.

The applicant must agree that the city or its consultants may inspect the property to determine the location and size of the active prairie dog habitat.

Major permit - A person seeking to destroy prairie dogs on property that has an active prairie dog habitat greater than 1.5 acres, or that does not have existing urban level development must first attempt in good faith to relocate the prairie dogs. The applicant shall notify the public, in the form and manner prescribed by the director, and with the information the director determines necessary, that prairie dogs will become available for relocation. If the property for which the permit is sought is the subject of a development application, the notice shall be given at the time the application is made, or as soon as the city determines that the property has active prairie dog habitat greater than 1.5 acres.

Any landowner may agree to accept the prairie dogs by notifying the applicant and the city, in the form and manner prescribed by the director. Acceptance must include the relocation plan, all information the director determines necessary, and all other necessary approvals. Should any landowner timely agree to accept the prairie dogs, as determined by the director, the applicant shall relocate the prairie dogs to the receiving site at its own expense. An applicant undertaking responsibility to relocate the prairie dogs shall submit a relocation plan to the city, including all information the director determines necessary, and including any other approvals and permits necessary to facilitate the relocation. No relocation of prairie dogs shall occur between April 1 and June 1. An applicant for a major prairie dog management permit shall pay an application processing fee of \$500.00 to offset administrative costs associated with issuing and monitoring these permits. This application fee shall be in addition to any other mitigation costs or payment required in conjunction with approved prairie dog management practices. At time of issuance of permit, an applicant for a major prairie dog management permit shall be invoiced for a fee of \$1,200.00 per acre of active prairie dog habitat loss, prorated for any partial acres of lot habitat.

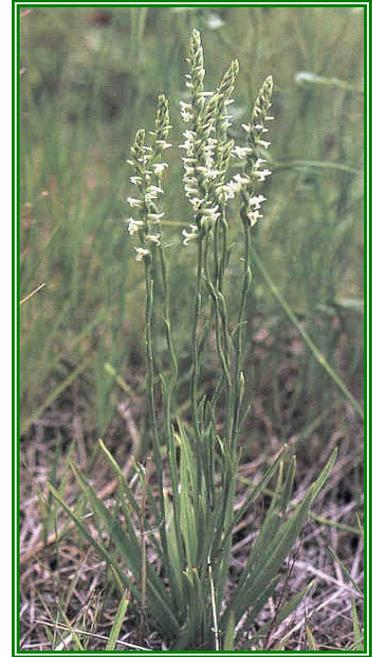
Due to the invasive nature of the prairie dog, Western Environment would not recommend their removal until construction is imminent.



Prairie Dogs on Site

Ute Ladies'-Tresses Orchid (*Spiranthes diluvialis*)*Federally Threatened*

This orchid usually occurs in "...old stream channels, alluvial terraces, wet meadows, and other sites where the soil is saturated to within 18" of the surface at least temporarily during the growing seasons" (USFWS, 1992). The eastern Colorado populations of species are located in mesic riparian meadows in relict tall grass prairie areas near Boulder Creek, South Boulder Creek, and Saint Vrain Creek in Boulder County, Colorado, and in mesic meadows in the riparian woodland understory along Clear Creek in Jefferson County, Colorado (USFWS 50 CFR Part 17). One population was historically identified in Weld County east of Greeley near Crow Creek in 1856, but is now considered extirpated. Soil conditions and vegetation composition of known



Ute Ladies'-Tresses Orchid

Spiranthes sites suggest that wetlands regulated by the Corps under the Clean Water Act qualify as potential *Spiranthes* habitat. The property is not within *Spiranthes* designated Critical Habitat.

It is the opinion of Western Environment that *Spiranthes* does not inhabit the project.

Other Wildlife

Western Environment reviewed the raptor nest location map published by the City of Longmont Natural Resources Division for 2019. This map (attached) indicated that two active red-tailed hawk (*Buteo jamaicensis*) nests and one active great horned owl (*Bubo virginianus*) nest are located within 0.25 miles of the subject property. These raptors, as are all **raptor species considered migratory birds, and are therefore federally protected under the Migratory Bird Species Act of 1918, which prohibits their harassment, take or nest destruction.**

During the site visits, no raptors or other migratory birds were observed on the property.

Western Environment also reviewed the species list indicated in the City of Longmont's 2005 Wildlife Manage Plan, that "contribute to the overall biodiversity in Longmont". During the site visits, Western Environment did not observe any of these species or any other wildlife on or adjacent to the subject property.

5.0 CONCLUSIONS AND RECOMMENDATIONS

At the time of the survey, no threatened or endangered species or their obvious habitat were seen on the subject site. Additionally, no wetlands or Waters of the U.S. subject to regulation under Section 404 of the Clean Water Act occur on the project.

- The presence of an active **prairie dog** (*Cynomys ludovicianus*) colony on the subject project requires that **burrowing owl** (*Athene cunicularia*) and **mountain plover** (*Charadrius montanus*) surveys be performed prior to construction if work is to begin between March 1st and November 1st. Additionally, the City of Longmont has required that developers perform a “good faith effort” to “manage” prairie dogs that are present on property scheduled for development. In order to ensure a good faith effort, the City requires an application for prairie dog management permits which are determined by the number of prairie dogs observed on site. At the time of the inspection, Western Environment has estimated a total of **10 prairie dogs** on site. The property is over 1.5 acres, requiring a “major prairie dog management permit” from the City of Longmont prior to the development of the property. Furthermore, the city request no prairie dog management occur during breeding season between April 1st and June 1st. The City has allowed the trapping and euthanasia of prairie dogs as a food source for Federal or State wildlife rehabilitation projects. City regulations only allow for the extermination of prairie dogs if no other alternatives exist. The CPW requires a relocation permit be secured for the trapping of prairie dogs. The permit lists specific conditions that must be adhered to during capture and relocation. Violation of any of the conditions can result in suspension of the permit. In addition to the CPW permit, State law (SB-99111) requires approval of the Board of Commissioners of the receiving County for any live relocation crossing county lines.
- Several inactive **bald eagle** (*Haliaeetus leucocephalus*) nests are located southeast of the site. The nearest active nest is located approximately 1.15 miles to the southeast. The CPW recommends a 0.25 mile buffer zone of “no surface occupancy” (beyond that which historically occurred in the area) of active nests, and a seasonal restriction to human encroachment within 0.5 miles between October 15th to July 31st. However, the U.S. Fish and Wildlife Service enforcement of the Bald and Golden Eagle Protection Act of 1940 (16

U.S.C. 688-668c) requires a 660 foot buffer from building construction but will take into account local circumstances and conditions to adjust the buffer. The CPW and FWS have been consulted regarding development in this area, it is our opinion that development of the site will not impact the active bald eagle nest.

- Two active **red-tailed hawk** (*Buteo jamaicensis*) nests and one **great horned owl** (*Bubo virginianus*) nest occur within 0.25 miles of the subject property. The location of these nests are shown on the City of Longmont Natural Resources Division map included in the Appendix. The CPW recommends a 0.33 mile buffer zone of “no surface occupancy (beyond that which historically occurred in the area)” from active red-tailed hawk nests between February 15th to July 15th. However, the CPW also indicates that “some members of this species have adapted to urbanization and may tolerate human habitation to within 200 yards of their nest”. Great horned owls also have high tolerance for human activity. It is the opinion of Western Environment that the impact from the proposed development on these raptors is not likely to be any greater than the impact from the existing development of the surrounding the area.

No other Ecological Issues were found.

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APPENDICES

National Flood Hazard Layer FIRMette



40°9'30.88"N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

- | | | |
|-----------------------------|--|---|
| SPECIAL FLOOD HAZARD AREAS | | Without Base Flood Elevation (BFE)
Zone A, V, A99 |
| | | With BFE or Depth Zone AE, AO, AH, VE, AR |
| | | Regulatory Floodway |
| OTHER AREAS OF FLOOD HAZARD | | 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X |
| | | Future Conditions 1% Annual Chance Flood Hazard Zone X |
| | | Area with Reduced Flood Risk due to Levee. See Notes. Zone X |
| | | Area with Flood Risk due to Levee Zone D |
| OTHER AREAS | | Area of Minimal Flood Hazard Zone X |
| | | Effective LOMRs |
| GENERAL STRUCTURES | | Area of Undetermined Flood Hazard Zone D |
| | | Channel, Culvert, or Storm Sewer |
| | | Levee, Dike, or Floodwall |
| OTHER FEATURES | | Cross Sections with 1% Annual Chance Water Surface Elevation |
| | | Water Surface Elevation |
| | | Coastal Transect |
| | | Base Flood Elevation Line (BFE) |
| | | Limit of Study |
| | | Jurisdiction Boundary |
| MAP PANELS | | Coastal Transect Baseline |
| | | Profile Baseline |
| | | Hydrographic Feature |
| | | Digital Data Available |
| | | No Digital Data Available |
| | | Unmapped |



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **5/8/2019 at 6:16:09 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

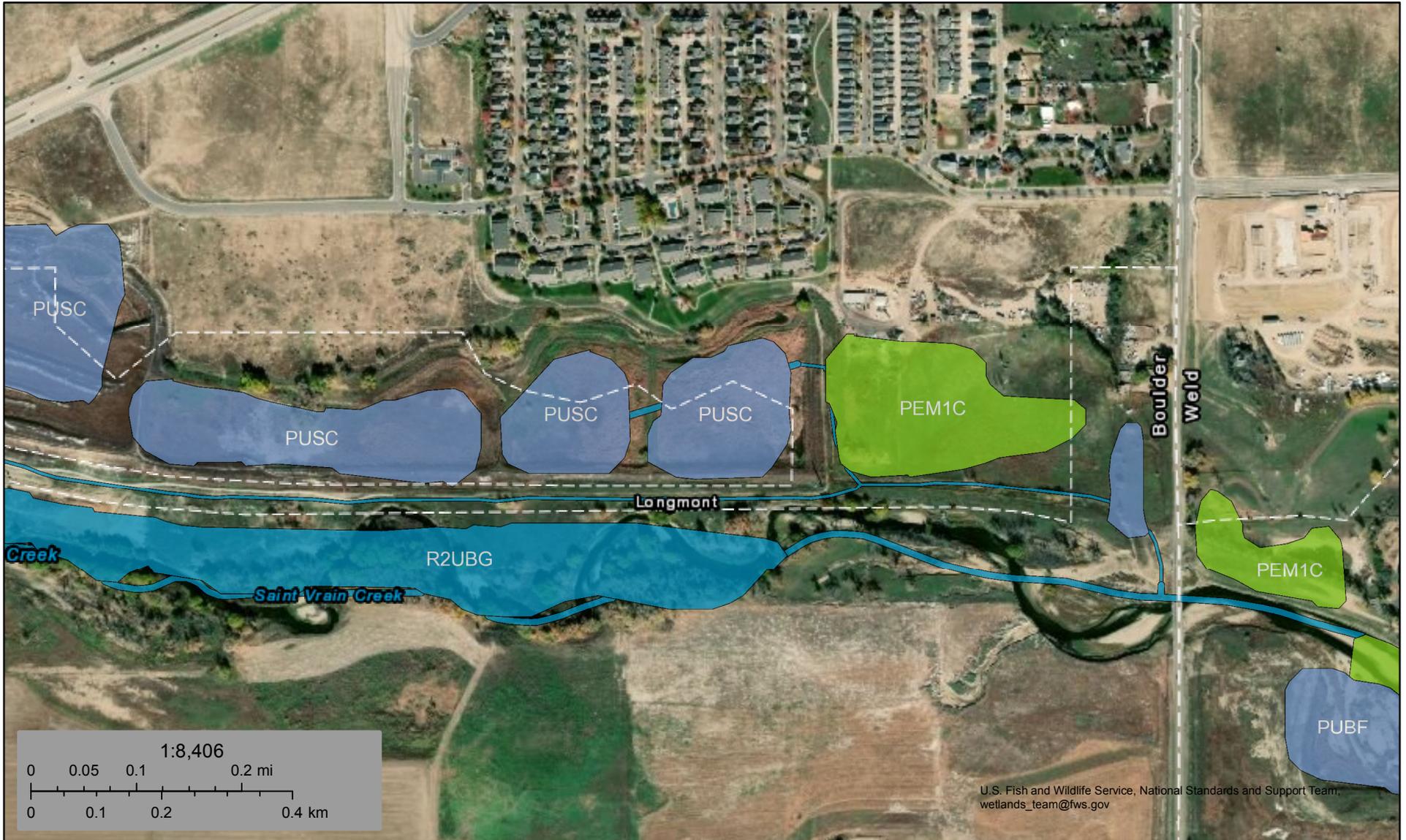
This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

USGS The National Map: Orthoimagery. Data refreshed April, 2019.



40°9'3.38"N

105°3'44.50"W



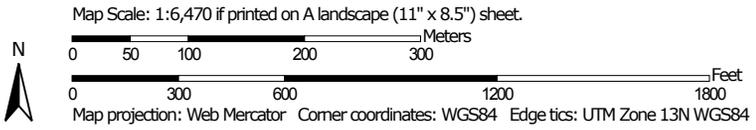
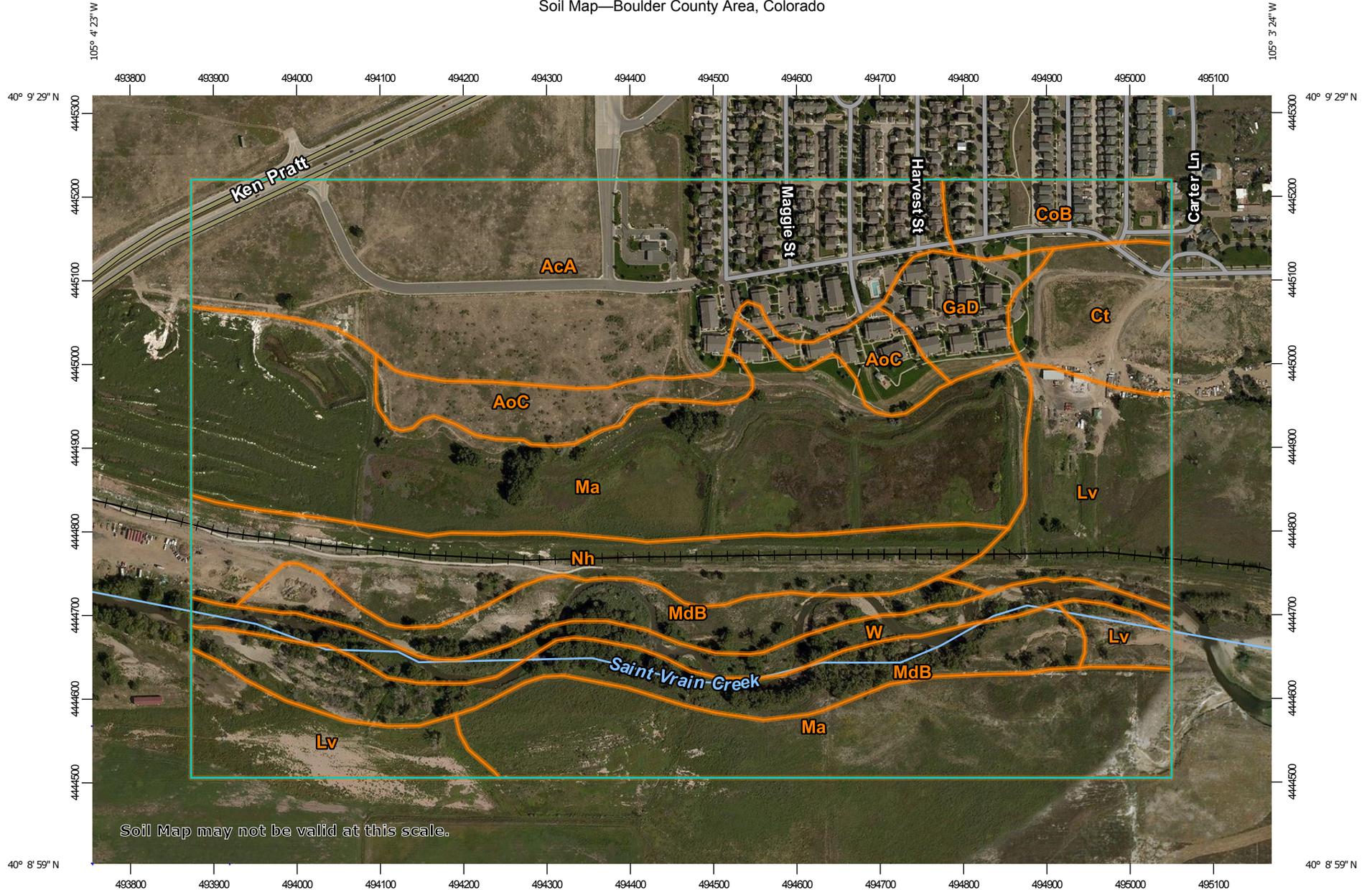
December 12, 2018

Wetlands

- Estuarine and Marine Deepwater
- Freshwater Emergent Wetland
- Estuarine and Marine Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Soil Map—Boulder County Area, Colorado



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Boulder County Area, Colorado
 Survey Area Data: Version 15, Sep 10, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 16, 2012—Sep 18, 2014

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AcA	Ascalon sandy loam, 0 to 3 percent slopes	44.4	21.2%
AoC	Ascalon-Otero complex, 3 to 5 percent slopes	9.2	4.4%
CoB	Colby silty clay loam, 1 to 3 percent slopes	5.6	2.7%
Ct	Colby-Gaynor association	7.3	3.5%
GaD	Gaynor silty clay loam, 3 to 9 percent slopes	4.8	2.3%
Lv	Loveland soils	21.1	10.1%
Ma	Made land	65.4	31.3%
MdB	Manter sandy loam, 1 to 3 percent slopes	24.2	11.6%
Nh	Niwot soils	18.3	8.8%
W	Water	8.6	4.1%
Totals for Area of Interest		208.8	100.0%

APPENDIX A
City of Longmont Raptor Nest Map

3rd Ave

County Line Rd

Hwy 119

Great Western Dr

Text

2019 Raptor Nests

Species

- Great-horned Owl
- Not Active
- No Longer Exists
- Red-tailed Hawk



WESTERN ENVIRONMENT AND ECOLOGY, INC

January 6th, 2020

CJ Kirst
Tahoe Consulting, LLC
o/b
Western Sugar LLC
333 South Monroe Street
Denver, Colorado

Subject: Black Tailed Prairie Dog (*Cynomys ludovicianus*) Survey - Approximately 17.92 Acres within Section 12, Township 2 North, Range 69 West, Longmont, Colorado. 80504 Western Environment and Ecology, Inc. Project Number 810-001-01.

Dear Mr. Kirst,

At your request, Western Environment and Ecology, Inc (Western Environment) performed an inspection of the above referenced property (Figure 1). This survey was performed for ongoing monitoring of total prairie dog population on the subject property as requested by the City of Longmont. Western Environment has surveyed the site on June 17th, 2019, October 25th, 2019 and January 2nd, 2020. During the most recent inspection, approximately 5 Prairie dogs were observed. At the time of the survey, the site contained areas of bare soil and limited vegetation consisting of sagebrush, curly dock, Canada thistle, tumble mustard, Russian thistle, and field bindweed.

Western Environment staff observed the property and surrounding land from one location on the northern property border on January 2nd, 2020 between 1300 hours and 1400 hours (Figure 2). The weather was clear and sunny with temperatures rising from 47 degrees Fahrenheit. Wind speeds were at approximately 2-5 mph, originating from the southeast. A Bausch and Lomb 60mm spotting scope and a Bushnell 16 X 32 binocular were used. Observations such as wildlife identified and general ecological conditions were documented in a field notebook. Few significant non-target species were observed.

During the surveys, a maximum of 7 individual prairie dogs were observed, in burrows ranging from the northeast corner to the north-central portion of the property (Figure 2) on October 25th, 2019. Based upon the observations of this survey, Western Environment utilized the total population model described by Severson and Plumb (Severson, K. E. , and Plumb, G. E. 1998. *Comparisons of methods to estimate population densities of black-tailed prairie dogs*. Wildlife Society Bulletin 26, 859-866.) to estimate the total population size: Total Population = (Maximum Count (7)-3.04)/0.40 = **10 prairie dogs**.

Please feel free to contact us with any questions you may have. Thank you for the opportunity to provide these services.

Sincerely,
Western Environment and Ecology, Inc.

Brendan Calonge
Senior Staff Scientist

Hours machine running

8:20 - 8:58

Hours spent filling in inactive burrows.

12:30 - 3:45



Brett Boddicker

PO Box 550

Windsor • CO 80550

970-674-1619 • Cell phone: 970-590-5022

FAX: 970-674-3383

Licensed by the Colorado Department of Agriculture No. 11757

Customer Service Report & Daily Log

Western Sugar LLC
 c/o Art Kleinstein
 333 S. Monroe Street
 Denver, CO 80209

Date: Feb. 29, 2020

Phone: 303 330-8947

Location of treatment site (if different from address above): South of Great Western Dr. & E. Third Ave., Longmont, CO

Target Pest: Black-tailed prairie dog County of application Boulder

Site, crop, or structure treated: rangeland / crop land / non-crop land

Device name: PERC machine Pesticide applied: Carbon Monoxide

Percentage of active ingredient: 2.5% Carrier: exhaust gases |

Total Chemical used: N/A Number of holes treated: 113

Application rate: 10-12 min / burrow Number of acres treated: 1.5

Time of application: 12:30-6:10 Temperature: 40s-50s

Precautions:

No burrows within 100 feet of an occupied structure treated.

Comments:

Operator's signature: _____