

**RAPID RESOURCE ASSESSMENT
AND MANAGEMENT PLAN
ABBOTT OPEN SPACE
BOULDER COUNTY, COLORADO**

Prepared for—

City of Boulder
Open Space and Mountain Parks
66 S. Cherryvale Road
Boulder, Colorado 80303

Prepared by—

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ERO Project #4089

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SUMMARY

ABBOTT PROPERTY		
APPROXIMATE SIZE	ACQUISITION DATE	CURRENT ZONING
51 acres	January 14, 2002	Agricultural
MANAGEMENT DESIGNATION	PUBLIC ACCESS	
Natural Area	Closed	

GENERAL DESCRIPTION OF SITE RESOURCES

The property includes a large irrigated hay field to the north and a non-irrigated pasture area to the south. A small drainage crosses the southern portion of the property, while a large ditch crosses the northern portion. A narrow corridor of unmanaged land extends east to 63rd Street. A small cluster of mature cottonwood riparian/wet meadow habitat in the southern portion of the property supports typical wildlife species, including a nesting red-tailed hawk (*buteo jamaicensis*). A small black-tailed prairie dog (*Cynomys ludovicianus*) colony is located in the southwest corner.

OPEN SPACE VALUES BASED ON RESOURCE ASSESSMENT

The property is important for open space because it maintains—

- Potential agricultural land as an aesthetic and community resource
- Nesting and foraging habitat for various raptor species, including red-tailed hawk

MANAGEMENT ISSUES BASED ON RESOURCE ASSESSMENT

Some management issues that could adversely affect the open space values on the property include—

- Several noxious weeds occur on the property, including Canada thistle, leafy spurge, and redstem stork's bill
- Potential trespass livestock use of the southern portion of the property

INTRODUCTION

PURPOSE

The City of Boulder Open Space and Mountain Parks Department (OSMP) retained ERO Resources Corporation (ERO) to conduct a rapid resource assessment and develop a property management plan for the 51-acre Abbott Property (“property”) near the city of Boulder in Boulder County, Colorado (Figure 1). The conditions on the property have generally been documented through photo points (Appendix A). The purpose of this rapid resource assessment and management plan for the property is to—

- Summarize the physical/ecological characteristics and conditions
- Document and record existing conditions and open space values
- Identify and prioritize management needs and opportunities
- Prescribe management actions
- Classify the property into a management area

The OSMP Visitor Master Plan directs that plans be completed for properties before they are opened and that visitor access be considered. Specific guidance for new properties is as follows:

New Property Planning and Facilities. Complete planning and infrastructure improvements in a timely manner, prior to opening newly acquired properties to public access. However, as appropriate, preserve existing public access during the planning and improvement process. Open Space and Mountain Parks will complete a site management plan recommending appropriate locations, types of uses and visitor infrastructure, and how to provide adequate visitor infrastructure and services.

Property plans direct immediate planning and improvement needs, while Trails Study Areas (TSA) planning will be used to periodically update visitor access needs based on conditions at the time.

METHODS

OSMP supplied records, documents, and GIS data applicable to the property. On June 6, 2008, a team of natural resource planners and ecologists from ERO walked the extent of the property documenting ecological and physical characteristics and identifying management needs and opportunities.

ERO consulted several organizations, agencies, and databases including the Colorado Natural Heritage Program (CNHP), Colorado Office of Archeology and Historic Preservation (OAHP), the Colorado Natural Diversity Information Source (NDIS), and Boulder County pertaining to resources on the property. Published information, such as U.S. Geological Survey (USGS) and Natural Resources Conservation Service (NRCS) maps, also was used to prepare the inventory.

REPORT ORGANIZATION

This report presents a summary of the information gathered for the rapid resource assessment and describes the results of ERO's evaluation of the resources and open space values on the property. The report is organized into five narrative sections and three appendices. Following the *Summary* and *Introduction*, the *General Description* section provides information on the setting. The *Site Resources* section summarizes the ecological and cultural resources; existing trails and access; land use and management; and improvements and legal considerations on the property. The *Property Management Plan* describes short- and long-term management needs, management actions, and Management Area designation.

Appendix A contains photographs of the property with narrative descriptions and a corresponding photo point map. Appendix B presents plant and animal species identified during the site visit, and Appendix C includes report references.

GENERAL DESCRIPTION

The property is located near the western edge of the Great Plains physiographic province. The property encompasses about 51 acres characterized by irrigated pasture land, open range land and a small cluster of mature cottonwood riparian habitat.

LOCATION AND ACCESS

The property is located in central Boulder County about 8 miles north of downtown Boulder (Figure 1). Specifically, the property is located in Sections 22 and 23 in Township 2 North, Range 70 West of the 6th P.M. (Figure 2).

Primary access is from 63rd Street along the eastern edge of the property. From downtown Boulder, travel northeast on the Diagonal Highway (Highway 119), turning left onto north 63rd Street. Follow 63rd Street north for about 3.5 miles to the edge of the property. Turn left on Plateau Road, which turns into Boulder Hills Drive as it bends to the south, to reach the west edge of the property.

Primary gated administrative and emergency access is along the west boundary, from Boulder Hills Drive. Secondary gated access is from 63rd Street.

ACQUISITION

The City of Boulder acquired the Abbott Property jointly with Boulder County on January 14, 2002. The total price for 51 acres was \$750,000.

LAND USE

The property has been historically used for agriculture, including irrigated and non-irrigated pasture and livestock grazing. The southern extension of the property is currently used by horses, while the northern pasture areas has had no agricultural use since its purchase by OSMP.

LANDSCAPE CONTEXT

The property is located in rural Boulder County, and is surrounded primarily by agricultural lands and rural residential areas. The Left Hand Creek riparian corridor is located about 1½ miles to the south of the property, while Table Mountain is located about 1 mile to the west.

NEIGHBORING PROPERTIES

NEIGHBORING AGRICULTURAL, RESIDENTIAL, AND COMMERCIAL PROPERTIES

Agricultural, residential, or commercial properties and basic land uses identified near the property during the site visit and with a property record search available through the Boulder County Assessor’s Office (Boulder County 2008a) are summarized below.

OWNER	LOCATION AND LAND USE
Greenspan, Douglas Howard & Milliren, Priscilla R. 6250 Plateau Rd. (PO Box 4656; Boulder, CO 80306) Parcel No. 131722000018	North of property Agriculture – farm/ranch residence
Struthers Hogan, Jodi & Hogan, Evan J. 8439 N 63 rd St. Longmont, CO 80503-8864 Parcel No. 131722000019	East of property Agriculture – farm/ranch residence
Johns, Jeanette K. 8215 N. 63 rd St (6400 E 6 th Ave.; Denver, CO 80220-5346) Parcel No. 131722000017	Southeast of property Agriculture – farm/ranch residence
Oconnor, Becca Oxford Rd. (8003 N. 63 rd St.; Longmont, CO 80503) Longmont, CO 80503-8828 Parcel No. 131722001008 <i>Dannybrook Farm Conservation Easement (NUPUD Outlot)</i>	South of property Agriculture
Mayer, Raymond C. & Christine 5860 Boulder Hills Dr. Longmont, CO 80503-8811 Parcel No. 131722200022	West of property Agriculture – farm/ranch residence
Williams, Katherine 5890 Boulder Hills Dr. Longmont, CO 80503-8811 Parcel No. 131722209001	West of property Single family residence
Klingenstein, Kenneth J & Woltz, Barbara C. 8454 Boulder Hills Dr. Longmont, CO 80503-8866 Parcel No. 131722201004	West of property Single family residence

Bates, Mary Ellen 8494 Boulder Hills Dr. Longmont, CO 80503-8866 Parcel No. 131722201003	West of Property Single family residence
Gunderson, Richard L. & Nancy M. 8584 Boulder Hills Dr. Longmont, CO 80503-8866 Parcel No. 131722201006	West of property Single family residence

SITE RESOURCES

This section documents in more detail the basic physical and ecological characteristics and conditions that directly support the open space values of the property. Key features are shown on Figure 3.

TOPOGRAPHY

Elevations on the property range from about 5,230 feet in the northwestern corner to about 5,190 feet along the eastern boundary. The USGS Topographical map of the property is shown in Figure 2.

GEOLOGY

The property occurs along the western margin of the Denver Basin of northeastern Colorado, which contains sedimentary rocks of Cretaceous age. Generally the area includes the upper unit of Pierre Shale. Pierre Shale contains areas of sandstone (Tweto 1979).

SOILS

The Natural Resources Conservation Service (NRCS) has mapped six soil types on the property. Each mapping unit is described below and Figure 4 shows the NRCS soil mapping. All soil information was gathered from the NRCS soil survey (NRCS 1975).

Mapping Unit SaD. Samsil clay (3 to 12 percent slopes). This soil includes small areas of shale outcrop, a few areas of Shingle loam, and a few small areas of Renohill silty clay loam. In places this soil has scattered gravel and cobbles on the surface. Runoff is rapid and the erosion hazard is high. Native vegetation is mainly little bluestem, western wheatgrass, sideoats grama, blue grama, green needlegrass, sedges, and forbs

Mapping Unit HeB. Heldt Clay (0 to 3 percent slopes). This soil includes small areas of Nunn clay loam, Colby silty loam, and Renohill silty clay loam. Runoff is medium to rapid and the erosion hazard is moderate. Native vegetation is primarily western wheatgrass, green needlegrass, blue grama, and basin wildrye.

Mapping Unit RnD. Renohill silty clay loam (3 to 9 percent slopes). This soil includes small areas of Gaynor silty clay loam, Samsil clay, and Renohill silty clay loam. In a few places this soil has scattered gravel and cobbles on the surface. Native vegetation consists of western wheatgrass, green needlegrass, blue grama and scattered big sagebrush.

Mapping Unit NuB. Nunn clay loam (1 to 3 percent slopes). This soil includes small areas of Kim soils, Nunn sandy clay loam, Nunn clay loam, and Valmont clay loam. Runoff is medium, permeability is slow, and the erosion hazard is moderate. Native vegetation is blue grama, buffalograss, needlegrass and wheatgrass.

Mapping Unit LoB. Longmont clay (0 to 3 percent slopes). This soil includes small areas of Colby silty clay loam and Heldt clay. Shale is typically found at a depth of less than 40 inches. Runoff is slow, permeability is slow, and the erosion hazard is slight. Principal native vegetation is alkali sacaton and saltgrass.

Mapping Unit Te. Terrace escarpments. These areas consist of undifferentiated shallow soils that have many cobbles and stones on the surface. In many places there is merely a thin layer of cobbles over sandstone or shale. Only limited moisture is available for plants because these undifferentiated soils are shallow. Runoff is rapid and the erosion hazard is high.

HYDROLOGY

SURFACE HYDROLOGY

A lateral of the Table Mountain Ditch crosses the northern portion of the property. An unnamed, ephemeral stream crosses the property flowing from west to east. The property is not located within a designated floodplain.

According to topographic information from the USGS 7.5 minute quadrangle map, surface water on the property flows east towards Dry Creek (USGS 1968, photorevised 1979).

SUBSURFACE HYDROLOGY

Based on a review of the USGS Hygiene and Niwot quadrangles, shallow ground water would flow in an easterly direction towards the Dry Creek drainage (USGS 1968, photorevised 1979; USGS 1967, photorevised 1979). There are no permitted water wells on the property (CDWR 2008), and no seeps or springs were identified on the property.

WETLANDS

Some wetlands occur on the property, primarily in the southern portion adjacent to the cottonwood riparian area. Wetlands were not delineated during the field study but wetland vegetation was mapped according to dominant vegetation type.

VEGETATION

GENERAL VEGETATION DESCRIPTION

Most of the property was used as agricultural areas and cultivated hay grass. The northern and southern portion of the property is dominated by a Smooth Brome Herbaceous Alliance. The remainder of the property is an irrigated meadow/wetland area and an Introduced Species Agricultural Pasture. Vegetation communities are described below and shown in Figure 5. A list of plant species identified during the field visit appears in Appendix B.

INTRODUCED SPECIES AGRICULTURAL PASTURE (ISAP)

The central portion of the property, including the long arm to the west, is dominated by introduced species and fits the description of an Introduced Species Agricultural Pasture (ISAP). This community type is dominated by introduced annual/biennial forbs and introduced perennial cool season grasses. The most dominant species in this community type are tall tumbled mustard (*Sisymbrium altissimum*), littlepod false flax (*Camelina microcarpa*), and smooth brome (*Bromopsis inermis*).

SMOOTH BROME HERBACEOUS ALLIANCE (SBH)

The smooth brome herbaceous alliance is the most dominant community type and is present in the north and south of the property. This alliance is dominated by smooth brome with very little diversity. The most dominant species are typically introduced annual/biennial forbs with some scattered native species. Dominant species include tall tumbled mustard, littlepod false flax, and western wheatgrass (*Pascopyrum smithii*).

EASTERN COTTONWOOD TEMPORARILY FLOODED WOODLAND ALLIANCE (ECTW)

The central portions of the property are periodically flooded and patches of plains cottonwood are present. Plains cottonwood (*Populus deltoids* ssp. *monilifera*) is the dominant overstory species. Understory species such as poison hemlock (*Conium maculatum*), broad and narrowleaf cattail (*Typha latifolia* and *T. angustifolia*), and common threesquare (*Schoenoplectus pungens*) are present.

THREESQUARE HERBACEOUS ALLIANCE (THA)

Threesquare is an obligate wetland plant and is found as a dominant species in the central portions of the property within the irrigated meadow adjacent to the main ditch.

BALTIC RUSH SEASONALLY FLOODED HERBACEOUS ALLIANCE (BRSH)

South of the THA alliance a Baltic rush seasonally flooded herbaceous alliance is present (BRSH). Baltic rush (*Juncus articus*) is an obligate wetland plant is dominant within this community type. Tall fescue (*Festuca arundinacea*), an introduced perennial cool season grass, is common within this community type.

TALL FESCUE HERBACEOUS ALLIANCE (FH)

South of the BRSH alliance a tall fescue herbaceous alliance is present (FH). Tall fescue is the dominant plant in this community type but Baltic rush is also common.

SOAPWEED YUCCA SHRUB SAVANNAH HERBACEOUS ALLIANCE (SYSH)

Soapweed yucca shrub savannah herbaceous alliance is present in the southeastern corner of the property. This alliance is dominated by soapweed yucca (*Yucca glauca*), a native agavoid. Other species such as needle-and-thread, and western wheatgrass are present.

AMERICAN PLUM SHRUBLAND ALLIANCE (APS)

American plum (*Prunus americana*) is dominant species along the irrigation ditch in the northern portion of the property.

RARE PLANTS AND PLANT COMMUNITIES

No rare plants or plant communities have been identified by CNHP on the property (CNHP 2006) and none were observed during the site visits.

STATE NOXIOUS WEEDS

Based on the site visits, four List B noxious weed species occur on the property: Canada thistle (*Breca arvensis*), leafy spurge (*Tithymalus esula*), redstem stork’s bill (*Erodium cicutarium*) and Russian olive (*Elaeagnus angustifolia*). Canada thistle was found in wet meadows and in the west-central portion of the property in medium to high densities. One dense population of leafy spurge, about 5 feet wide was found along the eastern fence line near the northern portion of the property. Redstem stork’s bill was found scattered throughout the upland areas in low densities. Russian olive was found in the riparian areas in low densities. List C species include poison hemlock, cheatgrass (*Anisantha tectorum*), common mullein (*Verbascum thapsus*) and field bindweed (*Convolvulus arvensis*). Cheatgrass was found scattered throughout the upland areas in low densities. Poison hemlock was found in high densities in the riparian understory. Common mullein was found scattered in the upland areas in low densities. Field bindweed was found scattered in disturbed areas and areas dominated by introduced species in low to medium densities.

Table 1. Noxious weeds present on the property.

Common Name	Scientific Name	OSMP Priority	Boulder County Weed List	State of Colorado Noxious Weed List
Canada thistle	<i>Breca arvensis</i>	Moderate	x	B
cheatgrass (downy brome)	<i>Anisantha tectorum</i>	Moderate	not listed	C
common mullein	<i>Verbascum thapsus</i>	none	not listed	C
field bindweed	<i>Convolvulus arvensis</i>	none	not listed	C
leafy spurge	<i>Tithymalus esula</i>	High	x	B
poison hemlock	<i>Conium maculatum</i>	none	not listed	C
redstem stork's bill	<i>Erodium cicutarium</i>	none	not listed	B
Russian olive	<i>Elaeagnus angustifolia</i>	High	not listed	B
smooth brome	<i>Bromopsis inermis</i>	Moderate	not listed	not listed

The Colorado Noxious Weed Act §§ 35-5.5-101 through 119, C.R.S. (2003) states that “List B noxious weed species are species for which the Commissioner of Agriculture, in consultation with the state noxious weed advisory committee, local governments, and other interested parties, develops and implements state noxious weed management plans designed to stop the continued spread of these species. List C weed species are species for which the Commissioner, in consultation with the state noxious weed advisory committee, local governments, and other

interested parties, will develop and implement state noxious weed management plans designed to support the efforts of local governing bodies to facilitate more effective integrated weed management on private and public lands. The goal of such plans will not be to stop the continued spread of these species but to provide additional education, research, and biological control resources to jurisdictions that choose to require management of List C species.”

WILDLIFE

GENERAL DESCRIPTION

The property provides habitat for a variety of wildlife species associated with agricultural lands in Boulder County. The irrigation ditch, riparian area, and pastures on the property contain potential habitat for a variety of wildlife species. Large cottonwoods in the southern portion of the property provide potential nesting sites for raptors, as well as denning sites for mid-sized mammals such as raccoon (*Procyon lotor*). Typical bird species likely include song sparrow (*Melospiza melodia*), vesper sparrow (*Pooecetes gramineus*), western meadowlark (*Sturnella neglecta*), potentially grasshopper sparrow (*Ammodramus savannarum*), savannah sparrow (*Passerculus sandwichensis*), and lark sparrow (*Chondestes grammacus*), and various species of raptors. A red-tailed hawk (*Buteo jamaicensis*) associated with an active nest adjacent to the property was present during the site visit.

Small rodents that probably occur along the ditch include deer mouse (*Peromyscus maniculatus*), house mouse (*Mus musculus*), and western harvest mouse (*Reithrodontomys megalotis*). Other mammals that occur or are likely to occur on the property include coyote (*Canis latrans*), red fox (*Vulpes vulpes*), and raccoon. All of these species probably frequent the areas along the ditch, although coyote may be more common in open areas.

Prairie dogs. A small black-tailed prairie dog (*Cynomys ludovicianus*) colony exists near the southwest corner of the property. During the site visit, this colony appeared to have some activity, though no prairie dogs were observed. (Prairie dog populations in this area have recently been eradicated or severely reduced by plague). These areas have potential to support burrowing owl (*Athene cunicularia*).

THREATENED, ENDANGERED, OR CANDIDATE WILDLIFE SPECIES

According to the Colorado Division of Wildlife Natural Diversity Information Source (NDIS) and CNHP databases for the area, there are no threatened or endangered species on the property (NDIS 2008).

COLORADO DIVISION OF WILDLIFE DESIGNATIONS

According to the NDIS database, there are no wildlife habitat designations on the property.

BOULDER COUNTY COMPREHENSIVE PLAN DESIGNATIONS

The property does not contain any county-designated Critical Wildlife Habitats or other designations related to wildlife.

CULTURAL RESOURCES

OFFICE OF ARCHAEOLOGY AND HISTORIC PRESERVATION FILE SEARCH

The Colorado Historical Society Office of Archaeology and Historic Preservation conducted a search of the Colorado Inventory of Cultural Resources database for the property (OAHF 2008). This database contains information on documented federal or state studies or findings regarding any cultural resources. According to the search, no sites and or surveys have been conducted on the property (OAHF 2008). Other potential unidentified cultural resources, including those associated with the existing structure on the property, may exist within the property boundaries.

OTHER RESOURCES AND DESIGNATIONS

The property is not located within any areas designated for cultural resources in the Boulder County Comprehensive Plan (Boulder County 2008b).

AGRICULTURE

AGRICULTURAL USE

The property is divided into two primary areas for agricultural use. The northern area consists of irrigated pasture, while the southern area consists of non-irrigated pasture. The property is not currently leased and most of the property has not been under active management since its purchase by OSMP. However, the southern area appears to be used by horses from the adjoining property to the east, with access through an open gate in the southeast corner.

INFRASTRUCTURE

The property is bounded on all sides by barbed-wire fences, while an interior fence separates the northern and southern areas. An extension of the interior fence to the east is down and missing in several areas. However, this section of fence does not appear to serve a management purpose and was likely removed deliberately. A lateral of the Table Mountain Ditch crosses the northern portion of the property. This ditch meets a headgate along the east boundary that conveys water to several lateral ditches. A smaller lateral ditch also extends along the west boundary, in the northern portion of the property.

BOULDER COUNTY COMPREHENSIVE PLAN DESIGNATIONS

The Boulder County Comprehensive Plan has identified portions of the property to be Significant Agricultural Land – Lands of Local Importance (Boulder County 2008c).

RECREATION

Public access is not permitted on the property. Prior to public ownership, the property was privately owned and was not open to public access. No public access or use was evident during the site visit, though some neighbors are known to walk on the property.

PROPERTY INFRASTRUCTURE

STRUCTURES

An old structure, possibly a house or storage building, is located along the ditch in the north central portion of the property. While the main structure appears to be in stable condition, much of the attached structural elements have fallen down. Vegetation patterns in the area suggest that this site was formerly a farmstead area.

INFRASTRUCTURE AND UTILITIES

Fencing on the property is described above under *Agriculture*.

A lateral of the Table Mountain Ditch crosses the northern portion of the property, while several smaller lateral ditches convey water along the property boundaries and into the irrigated pasture area. A concrete headgate is located along the east boundary.

No utilities were observed on the property.

ROADWAYS AND TRAILS

A faint two-track access road enters the property from the west. This road/track extends for a short distance before it is overcome by pasture grasses. Several horse tracks wind through the southern portion of the property. Many of these trails originate at the gate in the southeast corner. No other roads or trails were observed on the property.

LEGAL CONSIDERATIONS

WATER RIGHTS

Purchase of the property did not include any water rights. The City will have the first right of refusal to purchase 20 shares of Left Hand Ditch water from the Abbots when they decide to sell those shares. OSMP owns other water rights that can be used on the property.

MINERAL RIGHTS

Purchase of the property included all mineral rights, including sand, gravel, coal, and oil and gas owned by seller.

EASEMENTS AND RIGHTS-OF-WAY INFORMATION

See OSMP property file.

LOCAL PLANNING DESIGNATIONS

The entire property is currently zoned Agriculture (Boulder County 2008d).

Boulder County Comprehensive Plan designations on the property include—

- Significant Agricultural Land – Lands of Statewide Importance

The property is also considered to have moderate geologic constraints due to expansive soils or the potential for landslides, mudslides, mudfalls, or debris fans.

PROPERTY MANAGEMENT PLAN

MANAGEMENT AREA DESIGNATION

Recommended management area designation: Natural Area.

The location and features of the property are generally consistent with the characteristics, goals, and strategies outlined for Natural Areas in the OSMP Visitor Master Plan, including variable condition of natural ecosystems, varying levels of visitor use opportunities, and compatibility with adjacent land uses (OSMP 2005). This management area designation is consistent with the historic and current uses of the property and its primary open space values, and with the management designation of other nearby OSMP properties.

PUBLIC ACCESS

Recommended status: Closed.

This property consists of potentially productive agricultural land that does not offer compatible recreation opportunities.

The property will remain closed because it is isolated and not connected to a larger open space area, there is no visitor infrastructure, and property infrastructure is not complete. Public access and facilities on this property will be evaluated further in a future Trail Study Area or other planning processes.

MANAGEMENT ISSUES

The following management issues were identified on the property based on observations during the site visit, existing documentation, and input from OSMP staff.

Trespass livestock Although the property is not leased for grazing, some evidence of potential grazing use (horses) on the south side of the property from the adjacent property to the east is evident. Evidence of such use includes an open gate between the pastures, several livestock trails extending through the property, and other general signs of recent use.

Noxious weeds. The property contains four List B weed species, and four List C species. While most of the noxious weed species are typical of agricultural and open space properties in the region, ongoing weed management is necessary to minimize infestations and the spread of weeds onto adjacent properties.

MANAGEMENT STRATEGIES

Management objectives and recommended management actions for various resources on the property are outlined below. In general, management objectives are a concise statement of what OSMP wants to achieve in protecting open space values, addressing management issues related to a particular resource type. Management actions are the specific tasks or tools that can be used to fulfill the objective and address the issue.

VEGETATION

Objective 1: Prevent the spread of noxious weeds from current conditions documented in the resource assessment.

Action: Continue control efforts for state-listed noxious weeds identified on the property.

Action: Provide follow-up monitoring and weed control.

FENCING AND SIGNING

Objective 1: Identify property as OSMP land through clear and defined fencing and signing of the property boundary.

Action: Install OSMP signs along property boundary.

Action: Evaluate boundary fence to ensure that it meets OSMP standards.

HISTORIC STRUCTURE

Objective 1: Evaluate and determine desired long-term condition of the historic structure on the property.

Action: Evaluate the structure for historical significance, structural integrity, general public safety, and compatibility with long-term management needs.

Action: Remove or stabilize portions of the structure that could pose a hazard to the public.

Action: Determine a long-term management options for the area, including but not limited to general clean up, structural stabilization, or removal.

AGRICULTURAL MANAGEMENT

Objective 1: Lease the property for productive agricultural use.

Action: Implement agricultural management strategies that are consistent with regional vegetation and wildlife management needs.

Objective 2: Investigate and manage potential trespass livestock from adjacent property.

Action: Identify actual use of horses or other livestock on the property.

Action: Close and lock gates.

Action: Contact adjacent landowner(s) to inform them of OSMP's management objectives and potential opportunities for a grazing lease on the property.

WILDLIFE MANAGEMENT

Objective 1: Manage wildlife species to ensure protection of wildlife in context with agricultural management.

Action: Evaluate prairie dog colony for use by burrowing owl.

Action: Evaluate hay field for presence of nesting bobolinks.

Objective 2: Evaluate size and use of prairie dog colony on the property.

Action: Include property in annual prairie dog mapping.

Action: Designate colony using criteria for management designation in the Grassland Ecosystem Management Plan.

Action: Monitor colony for potential poisoning or shooting from nearby landowners.

CONSERVATION AND COORDINATION

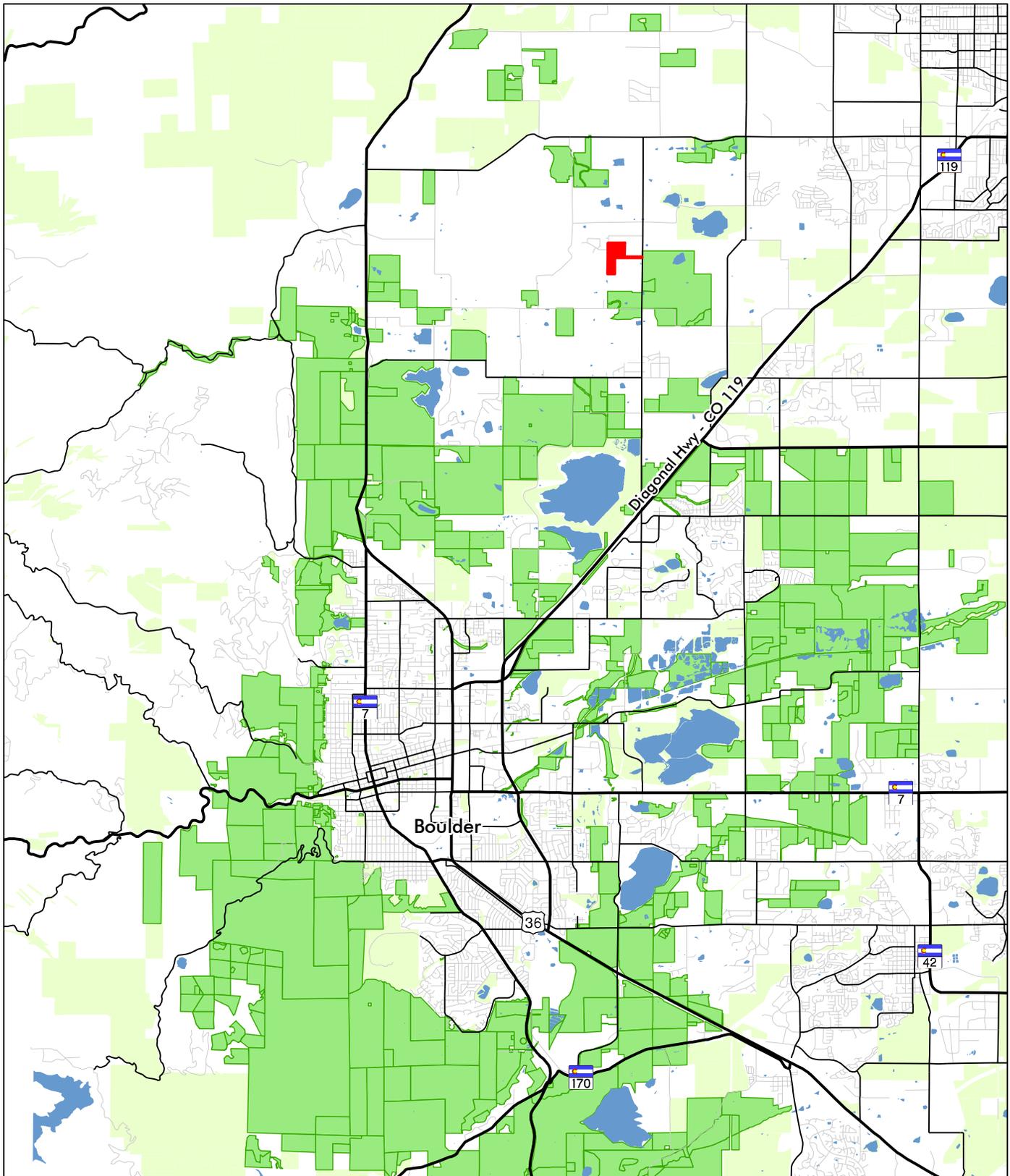
Objective 1: Work with adjacent landowners to provide consistent, sustainable management to the greater area.

Action: Establish and maintain lines of communication with adjacent landowners.

Action: Monitor resource conditions (e.g., weeds, prairie dogs) on adjacent properties and identify potential issues or opportunities.

Action: Allow OSMP to become a resource for landowners seeking knowledge or advice on various land management topics.

FIGURES



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Abbott Property RRA and Management Plan

- Abbott Property
- City of Boulder Open Space
- Other Open Space

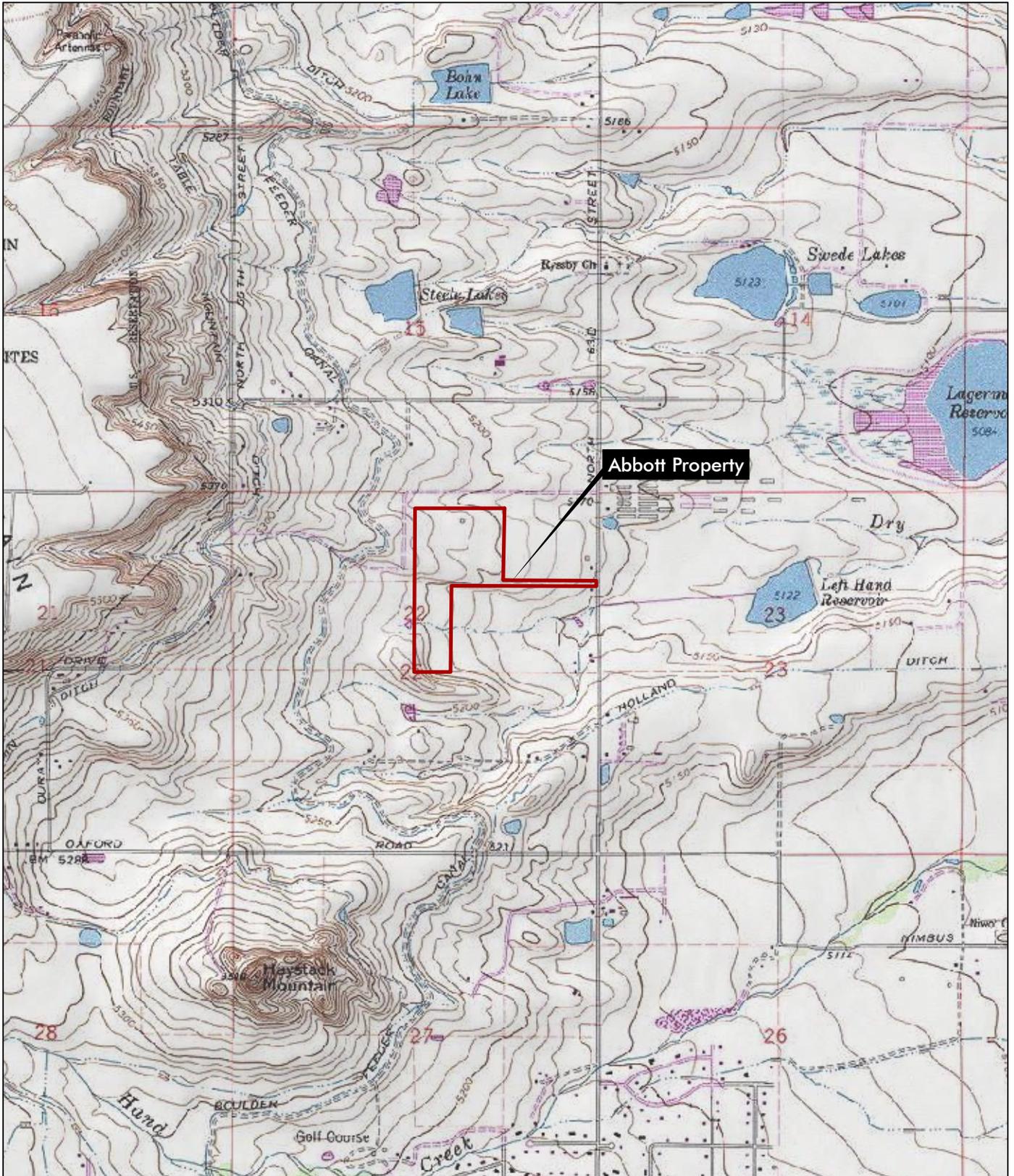


1 inch = 2 miles



**Figure 1
 Vicinity Map**

Prepared for: City of Boulder Open Space
 and Mountain Parks
 File: 4089 Figure1.mxd
 March 2008



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Abbott Property RRA and Management Plan
 Sections 22 & 23, T2N, R70W
 UTM NAD83 Coordinate Zone 13N; 481756mE, 4441910mN
 USGS Hygiene and Niwot CO, Quadrangles
 Boulder County, Colorado

0 2,000 4,000 Feet
 1 inch = 2,000 feet



Figure 2
Location

Prepared for: City of Boulder Open Space
 and Mountain Parks
 File: 4089 Figure 2.mxd
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Abbott Property RRA and Management Plan

- City of Boulder Open Space
- Other Open Space
- Active prairie dog colony

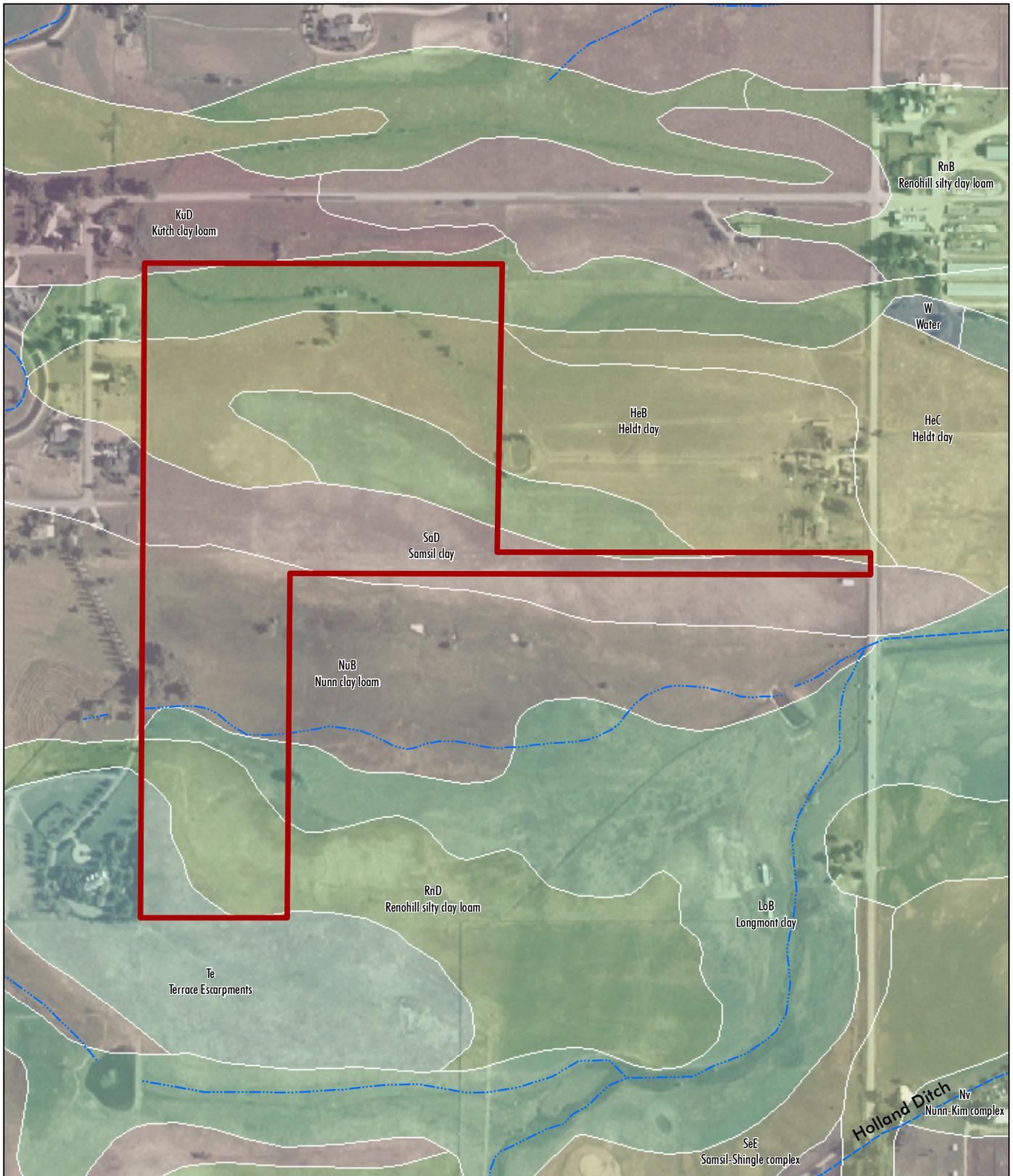


1 inch = 500 Feet



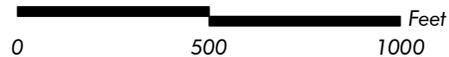
**Figure 3
 Property Features**

Prepared for: City of Boulder Open Space
 and Mountain Parks
 File: 4089 Figure 3 Abbott.pdf
 July 2008



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 Denver, CO 80218
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 Fax: (303) 830-1199

Abbott Property RRA and Management Plan

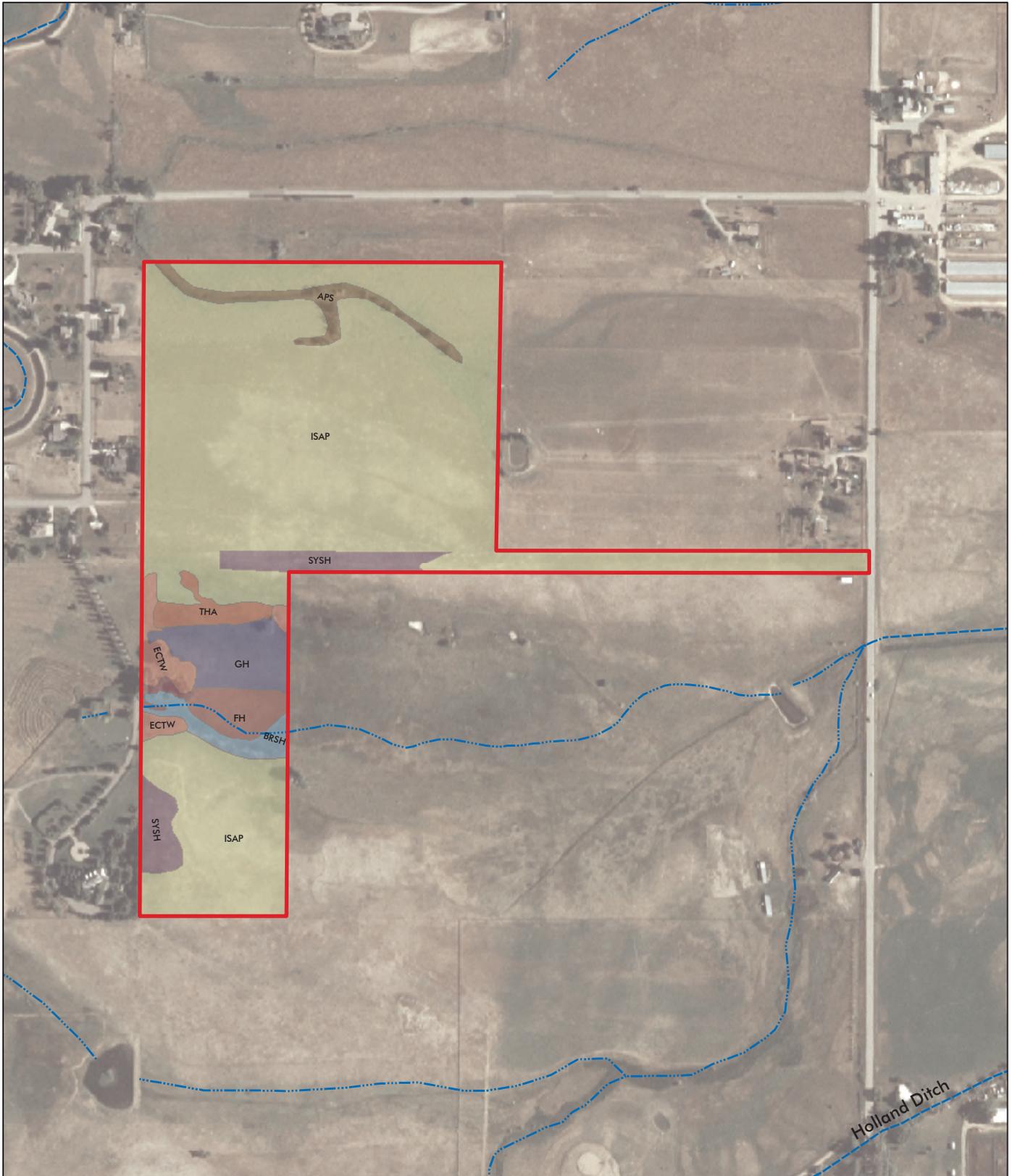


1 inch = 500 Feet



**Figure 4
 Soils**

Prepared for: City of Boulder Open Space
 and Mountain Parks
 File: 4089 Figure 4.mxd
 February 2008



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 (See following page for for vegetation community names)



1 inch = 500 Feet



Figure 5
Vegetation Communities

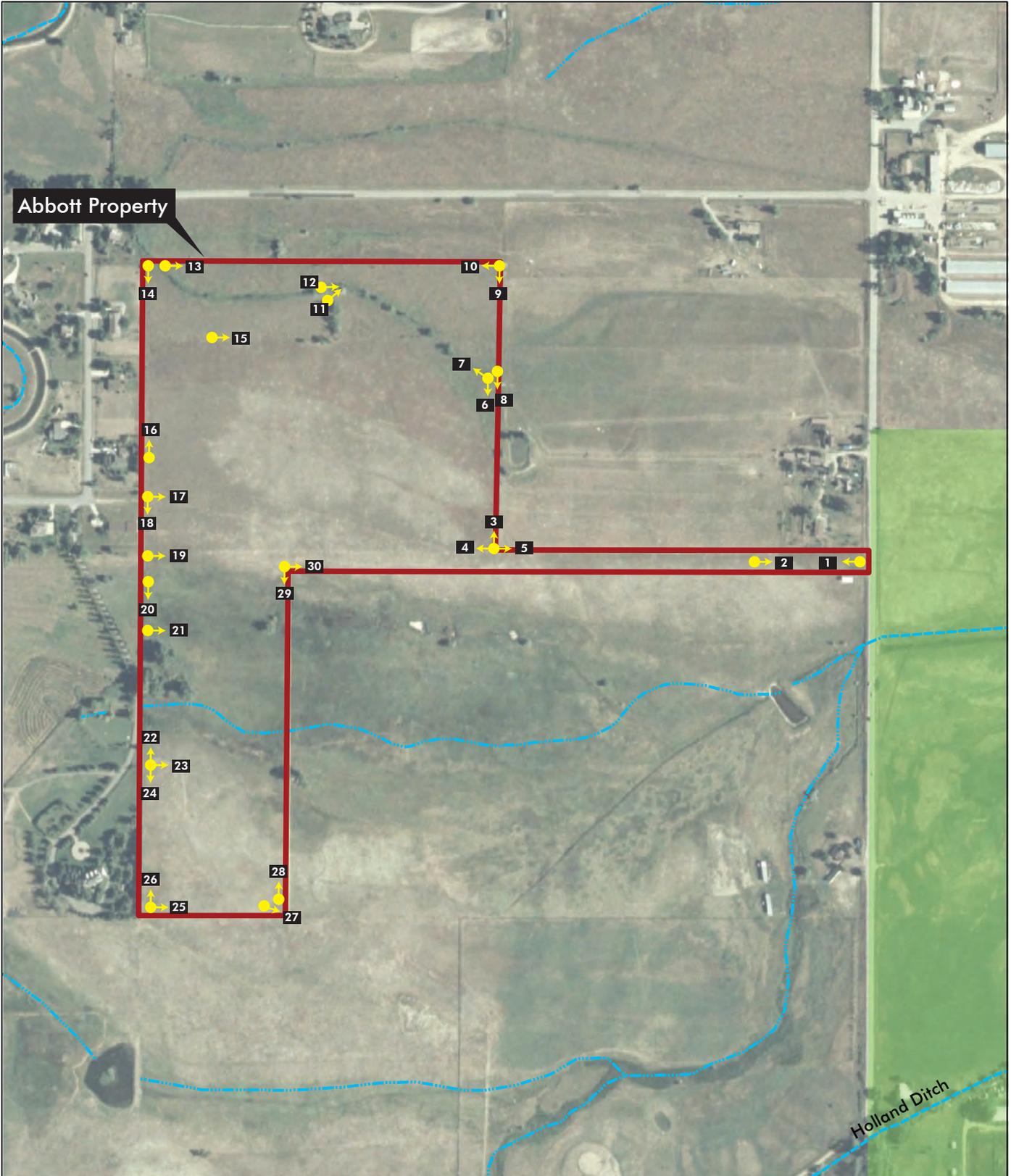
Prepared for: City of Boulder Open Space
 and Mountain Parks
 File: 4089 Figure 5.mxd
 June 2008

Vegetation Communities

Acronym, CmnName

	ADUD, Annual-dominant Upland Disturbance
	APS, American Plum Shrubland Alliance
	BBYH, Big Bluestem - (Yellow Indiangrass) Herbaceous Alliance
	BRSB, Baltic Rush Seasonally Flooded Herbaceous Alliance
	CFSH, Clustered Field Sedge Seasonally Flooded Herbaceous Alliance
	CHSH, Cattail Herbaceous Semipermanently Flooded Alliance
	CTH, Canada Thistle Weedy Forb Great Plains Herbaceous Vegetation [Provisional]
	CWH, Crested Wheatgrass Semi-Natural Herbaceous Alliance
	CWTS, (Coyote Willow, Sandbar Willow) Temporarily Flooded Shrubland Alliance
	CWW, Crack Willow (introduced) Temporarily Flooded Woodland Alliance
	DCAP, Disturbed Cultivated Agricultural Pasture
	DEV, Developed
	DFF, Douglas Fir Forest Alliance
	DFW, Douglas-fir Woodland Alliance
	ECTW, Eastern Cottonwood Temporarily Flooded Woodland Alliance
	ESSH, Emory Sedge Seasonally Flooded Herbaceous Alliance
	ETCW, Eastern Cottonwood Temporarily Flooded Woodland Alliance
	FBH, Foxtail Barley Temporarily Flooded Herbaceous Alliance
	FH, (Tall Fescue, Meadow Fescue) Herbaceous Alliance
	FSBH, Fourwing Saltbush Herbaceous Alliance
	GAH, Cultivated Alfalfa / Smooth Bromegrass Hay
	GH, Cultivated Grass Hay
	IC, Irrigated Cropland
	ISAP, Introduced Species Agricultural Pasture
	KBH, Kentucky Bluegrass Semi-Natural Herbaceous Alliance
	NNH, New Mexico Needlegrass Herbaceous Alliance
	NSH, Nebraska Sedge Seasonally Flooded Herbaceous Alliance
	NTH, Needle-and-Thread - Blue Grama Herbaceous Alliance
	OT, Ornamental Trees
	PDFF, Ponderosa Pine - Douglas-fir Forest Alliance
	PDFW, Ponderosa Pine - Douglas-fir Woodland Alliance
	PFDC, Perennial Forb Disturbance Community
	PMTH, Ponderosa Pine Wooded Mixed Herbaceous Alliance (Savannah)
	PPF, Ponderosa Pine Forest Alliance
	PPW, Ponderosa Pine Woodland Alliance
	PTSH, Ponderosa Pine Tallgrass Savannah Herbaceous Alliance
	PTW, Ponderosa Pine Temporarily Flooded Woodland Alliance
	QADF, Quaking Aspen - Douglas-fir Forest Alliance
	ROW, Russian Olive Semi-Natural Woodland Alliance
	SBH, Smooth Bromegrass Semi-Natural Herbaceous Alliance
	SDS, Snakeweed Dwarf-shrubland Alliance
	SKBH, Sun Sedge-Agassiz Kentucky Bluegrass Herbaceous
	SYS, Soapweed Yucca Evergreen Shrubland
	SYSH, Soapweed Yucca Shrub Savannah Herbaceous Alliance
	THA, Threesquare Herbaceous Alliance
	TSIS, Ill-scented Sumac Intermittently Flooded Shrubland Alliance
	TSSH, Three-leaved Sumac Shrub Savannah Herbaceous Alliance
	TSUS, Three-leaved Sumac Upland Shrubland Alliance
	WATER, Water
	WBSS, Water Birch Seasonally Flooded Shrubland Alliance
	WTFH, Western Wheatgrass Temporarily Flooded Herbaceous Alliance
	WWH, Western Wheatgrass Herbaceous Alliance

APPENDIX A
PHOTO POINT MAP AND DOCUMENTATION



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Abbott Property RRA and Management Plan

➔ 1 Photo Point



1 inch = 500 Feet



**Appendix A
 Photo Points**

Prepared for: City of Boulder Open Space
 and Mountain Parks
 File: 4089 Abbot photo points.mxd
 July 2008

PHOTO POINTS
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Photo 29 - View south from property corner along east boundary.



Photo 30 - View east from property corner, towards east segment.

APPENDIX B
PLANT SPECIES

APPENDIX B PLANT SPECIES

Species Name	Synonym	Common Name	Tall Fescue Herbaceous Alliance (FH)	Smooth Brome Semi- Natural Herbaceous Alliance (SBH)	Eastern Cottonwood Temporarily Flooded Woodland Alliance (ECTW)	Introduced Species Agricultural Pasture (ISAP)	American Plum Shrubland Alliance (ASP)	Soapweed Yucca Evergreen Shrubland (SYSH)
Native Annual/Biennial Forbs								
Cirsium undulatum		wavyleaf thistle				■		■
Erigeron divergens		spreading fleabane						■
Erysimum asperum		western wallflower				■		■
Grindelia squarrosa		curlycup gumweed					■	
Pterogonum alatum	Eriogonum alatum	winged buckwheat				■		
Introduced Annual/Biennial Forbs								■
Alyssum parviflorum	Alyssum simplex	smallflowered alyssum		■		■		
Arctium minus		common burdock	■		■			
Bassia sieversiana	Kochia scoparia, K. sieversiana	burning-bush					■	■
Camelina microcarpa		littlepod false fl■					■	
Carduus nutans ssp. macrolepis		nodding plumeless thistle, musk thistle	■					
Conium maculatum		poison hemlock						
Conyza canadensis		Canadian horseweed					■	

Species Name	Synonym	Common Name	Tall Fescue Herbaceous Alliance (FH)	Smooth Brome Semi-Natural Herbaceous Alliance (SBH)	Eastern Cottonwood Temporarily Flooded Woodland Alliance (ECTW)	Introduced Species Agricultural Pasture (ISAP)	American Plum Shrubland Alliance (ASP)	Soapweed Yucca Evergreen Shrubland (SYSH)
Erodium cicutarium		redstem stork's bill		■		■	■	
Lactuca serriola		prickly lettuce					■	
Melilotus officinalis		yellow sweetclover					■	
Onopordum acanthium		Scotch cottonthistle						
Sisymbrium altissimum		tall tumbled mustard					■	■
Tragopogon dubius ssp. major		yellow salsify				■		■
Verbascum thapsus		common mullein				■	■	
Introduced Annual Grasses								
Anisantha tectorum	Bromus tectorum	cheatgrass		■		■	■	
Native Perennial Forbs								
Achillea lanulosa	Achillea millefolium	western yarrow						
Adenolinum lewisii	Linum lewisii	prairie flax						
Ambrosia psilostachya var. coronopifolia		Cuman ragweed				■	■	■
Asclepias speciosa		showy milkweed						■
Erigeron flagellaris		trailing fleabane				■		
Heterotheca villosa		hairy false goldenaster				■		
Liatris punctata		Kansas gayfeather				■		
Mentha arvensis		wild mint						

Species Name	Synonym	Common Name	Tall Fescue Herbaceous Alliance (FH)	Smooth Brome Semi-Natural Herbaceous Alliance (SBH)	Eastern Cottonwood Temporarily Flooded Woodland Alliance (ECTW)	Introduced Species Agricultural Pasture (ISAP)	American Plum Shrubland Alliance (ASP)	Soapweed Yucca Evergreen Shrubland (SYSH)
Oenothera villosa	Oenothera strigosa	hairy evening-primrose						
Ratibida columnifera		upright prairie coneflower						
Sphaeralcea coccinea		scarlet globemallow						
Introduced Perennial Forbs								
Asparagus officinalis		garden asparagus						
Breca arvensis	Cirsium arvense	Canada thistle			■		■	
Convolvulus arvensis		field bindweed		■	■	■	■	
Medicago sativa		alfalfa	■					
Rumex crispus		curly dock	■					
Saponaria officinalis		bouncingbet						
Taraxacum officinale		common dandelion						
Tithymalus esula	Euphorbia esula	leafy spurge						
Native Perennial Cool Season Grasses and Grass Like								
Achnatherum hymenoides	Oryzopsis hymenoides, Stipa hym.	Indian ricegrass				■		
Elymus trachycaulus	Agropyron trachycaulum	slender wheatgrass			■			
Hesperostipa comata	Stipa comata	needle and thread				■		
Juncus arcticus ssp.	Juncus balticus	Baltic rush						

Species Name	Synonym	Common Name	Tall Fescue Herbaceous Alliance (FH)	Smooth Brome Semi-Natural Herbaceous Alliance (SBH)	Eastern Cottonwood Temporarily Flooded Woodland Alliance (ECTW)	Introduced Species Agricultural Pasture (ISAP)	American Plum Shrubland Alliance (ASP)	Soapweed Yucca Evergreen Shrubland (SYSH)
ater								
Koeleria macrantha	Koeleria gracilis	prairie Junegrass				■		
Nassella viridula	Stipa viridula	green needlegrass				■		
Pascopyrum smithii	Agropyron smithii	western wheatgrass				■		
Schoenoplectus lacustris ssp. creber	Scirpus validus, Schoenoplectus tabernaemontani	softstem bulrush						
Schoenoplectus pungens	Scirpus pungens, S. americanus	common threesquare						
Introduced Perennial Cool Season Grass								
Agropyron desertorum	A. cristatum	crested wheatgrass	■					
Agrostis gigantea	A. alba	redtop	■					
Bromopsis inermis	Bromus inermis	smooth brome	■	■				
Dactylis glomerata		orchardgrass		■				
Festuca arundinacea	Schedonorus phoenix	tall fescue	■					
Native Perennial Warm Season Grass								
Chondrosom gracile	Bouteloua gracilis	blue grama grass				■		
Native Shrubs and Subshrubs								
Artemisia frigida		prairie sagewort		■		■		
Atriplex canescens		fourwing saltbush				■		
Chrysothamnus nauseosus	Ericameria nauseosa	rubber rabbitbrush			■			

Species Name	Synonym	Common Name	Tall Fescue Herbaceous Alliance (FH)	Smooth Brome Semi-Natural Herbaceous Alliance (SBH)	Eastern Cottonwood Temporarily Flooded Woodland Alliance (ECTW)	Introduced Species Agricultural Pasture (ISAP)	American Plum Shrubland Alliance (ASP)	Soapweed Yucca Evergreen Shrubland (SYSH)
Gutierrezia sarothrae		broom snakeweed				■		
Krascheninnikovia lanata	Ceratoides lanata	winterfat				■		
Padus virginiana ssp. melanocarpa	Prunus virginiana ssp. melanocarpa	black chokecherry			■		■	
Prunus americana		American plum			■		■	
Native Trees								
Negundo aceroides	Acer negundo	box elder			■			
Populus deltoides ssp. monilifera		plains cottonwood			■			
Salix amygdaloides		peachleaf willow			■			■
Introduced Trees								
Elaeagnus angustifolia		Russian olive			■			
Native Succulents and Agavoids								
Opuntia macrorhiza		twistspine pricklypear			■	■		
Yucca glauca		soapweed yucca			■	■		■

APPENDIX C
REFERENCES

APPENDIX C

REFERENCES

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PHOTO POINTS
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Photo 1 - View west from east boundary near 63rd Street.



Photo 2 - View east of east boundary area.

PHOTO POINTS
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Photo 3 - View north from property corner on east side.



Photo 4 - View west from property corner on east side.

PHOTO POINTS
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Photo 5 - View east along north boundary of east segment.



Photo 6 - View south along east boundary fence.

PHOTO POINTS
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Photo 7 - View northwest along ditch from east boundary.



Photo 8 - View of ditch headgate along east boundary.

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Photo 9 - View south from northeast corner.



Photo 10 - View west from northeast corner.

PHOTO POINTS
ABBOTT



Photo 11 - Structure in north-central portion of property.



Photo 12 - View east along lateral ditch near the structure.

PHOTO POINTS
ABBOTT



Photo 13 - View east from northwest corner.



Photo 14 - View south from northwest corner.

PHOTO POINTS
ABBOTT



Photo 15 - Culvert along lateral ditch in north portion of property.



Photo 16 - View north along west boundary.

PHOTO POINTS
ABBOTT



Photo 17 - View east from access gate on west boundary.



Photo 18 - View south from access gate on west boundary.

PHOTO POINTS
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Photo 19 - View east along fence line across the center of the property.



Photo 20 - Riparian habitat along west boundary, looking south.

PHOTO POINTS
ABBOTT



Photo 21 - Livestock trail in south portion of property, looking east.



Photo 22 - Wetland and riparian area along west boundary, looking north.

PHOTO POINTS
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Photo 23 - View of southern portion of property, looking east.



Photo 24 - Southwest corner of the property.

PHOTO POINTS
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Photo 25 - View east from southwest corner of property.



Photo 26 - View northeast from southwest corner of property.

PHOTO POINTS
ABBOTT



Photo 27 - View of open gate and livestock trail in southeast corner.



Photo 28 - View north from southeast corner.

PHOTO POINTS
ABBOTT



Photo 29 - View south from property corner along east boundary.



Photo 30 - View east from property corner, towards east segment.