

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

*Prepared for—*

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## SUMMARY

RYAN PROPERTY		
<b>APPROXIMATE SIZE</b>	<b>ACQUISITION DATE</b>	<b>CURRENT ZONING</b>
70 acres	November 28, 2001	Agricultural
<b>MANAGEMENT DESIGNATION</b>	<b>PUBLIC ACCESS</b>	
Natural Area	Closed	

## GENERAL DESCRIPTION OF SITE RESOURCES

The property includes two steep bluffs separated by a broad central valley containing grassland, wet meadow, and wetland habitats. The steep bluffs provide habitat for Bell's twinpod (*Physaria bellii*) and include a known population. The property contains habitat for a variety of grassland and wetland wildlife species.

## OPEN SPACE VALUES BASED ON RESOURCE ASSESSMENT

The property is important for open space because it maintains—

- A small population of Bell's twinpod (*Physaria bellii*), a rare plant species
- A large complex of wet meadow and cattail wetlands
- Diverse and striking topography as the bluff rises steeply from the plains setting
- An important component of a regional complex of protected open space land

## MANAGEMENT ISSUES BASED ON RESOURCE ASSESSMENT

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

- Noxious weeds including Mediterranean sage, a high priority weed species
- Double fence along the south and east boundaries creates an unnecessary barrier for wildlife movement

## 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 Ryan 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 4, 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 70 acres dominated by steep bluffs, an open, central valley, and a large wetland complex.

## LOCATION AND ACCESS

The property is located in central Boulder County about 10 miles north of downtown Boulder (Figure 1). Specifically, the property is located in Sections 4 and 5 in Township 2 North, Range 70 West of the 6th P.M. (Figure 2).

Primary access is from north 49th street near the eastern edge of the property. From downtown Boulder, travel north on Highway 36, turning right onto Saint Vrain Road. Follow Saint Vrain Road east to north 49th Street. The northeastern corner of the property is located about 1/2 a mile south of Saint Vrain Road and about a 1/4 mile west of north 49<sup>th</sup> street.

Direct walk-in access to the property is from the Jacob and Andrea properties, adjacent to the east. The only options for gated vehicle access would be from the private lands to the north and west.

There is deeded access to this property. The best emergency vehicle access would be through the private lands to the north, where two gates could provide access to the property.

## ACQUISITION

The City of Boulder acquired the Ryan Property on November 28, 2001. The total price for 70 acres was \$1,397,500.

## LAND USE

The property has been historically used for livestock grazing. The property has not been managed for agricultural use in recent years, and is currently managed by OSMP as undeveloped open space land. There is currently no grazing or active management.

## LANDSCAPE CONTEXT

The property is located in rural Boulder County, and is surrounded primarily by agricultural lands and rural residential areas. The property is adjacent to a complex of other OSMP lands, including the Jacob and Andrea properties to the east, as well as Boulder County Open Space land to the southeast. These properties conserve a scenic and biologically diverse area located about 1.5 miles east of the Front Range foothills.

## 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
Caw De Rado Llc. 10809 N. 49 <sup>th</sup> St. (4560 St Vrain Rd.; Longmont, CO 80503) Parcel No. 131705000009	North of property Agriculture – farm/rural residence
Loukonen Family Llc. & E Leonard 1501 Nelson (12993 North Foothills Hwy.; Longmont, CO 80503) Parcel No. 131708000001	South of property Agriculture
Loukonen E. Leonard & Reino E. 9050 N Foothills (12993 North Foothills Hwy.; Longmont, CO 80503) Parcel No. 131705000002	West of property Agriculture-Complaint filed stating that grading on property will degrade ditch. Mediterranean sage and scotch thistle reported on property

**NEIGHBORING GOVERNMENT PROPERTIES**

Government-owned 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
County of Boulder 10077 N. 51 <sup>st</sup> St. (PO Box 471; Boulder, CO 80306-0471) Parcel No. 131709000004	Southeast of property Boulder County Open Space
City of Boulder 10299 N. 49 <sup>th</sup> St. (1777 Broadway; Boulder CO, 80302) Parcel No. 131704000021	East of property Open Space (Jacob Property)
City of Boulder N. 49 <sup>th</sup> St. (1777 Broadway; Boulder CO, 80302) Parcel No. 131704000040	East of Property Open Space (Andrea Property)

**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**

The property is located in a broad, shallow, drainage basin near the base of the foothills. An unnamed ephemeral stream crosses the property from west to east at an elevation of about 5,320 feet. Elevations surrounding the basin range from about 5,420 feet on the hillside in the northwest to about 5,450 feet on the plateau in the south. 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 lower unit of Pierre Shale. Pierre Shale contains areas of sandstone (Tweto 1979).

**SOILS**

The Natural Resources Conservation Service (NRCS) has mapped four 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 VcC. Valmont cobbly clay loam** (1 to 5 percent slopes). This soil includes areas of Valmont clay loam and Nunn clay loam. The surface layer is about 8 inches of cobbly clay

loam and the subsoil is about 14 inches of cobbly clay loam or cobbly clay. Runoff is medium and the erosion hazard is slight to moderate. Native vegetation is blue grama, western wheatgrass, and cactus.

**Mapping Unit SeE. Samsil-shingle complex** (5 to 25 percent slopes). This soil includes small areas of Renohill silty clay loam, Gaynor silty clay loam, and Kutch clay loam. Also included along some gullies are outcrops of shale or sandstone. 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 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

An unnamed ephemeral stream traverses the center of 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, most of the surface water on the property flows towards the unnamed stream located in the center of the property. Near southern end of the property, surface water flows south off the hillside to an unnamed ephemeral stream located off the property (USGS 1968, photorevised 1979).

### SUBSURFACE HYDROLOGY

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

### WETLANDS

Wetlands were not delineated during the site visit but wetland vegetation was observed and mapped in the central portion of the property adjacent to the drainage. Dominant wetland vegetation in the area is Baltic rush (*Juncus arcticus* ssp. *ater*), clustered field sedge (*Carex praeegracilis*), Nebraska sedge (*Carex nebrascensis*), and broadleaf cattail (*Typha latifolia*).

## VEGETATION

### GENERAL VEGETATION DESCRIPTION

The property consists of native upland areas, introduced grasslands, and low-lying wetland areas. The native areas are found along the slopes and high areas in the northwest and southern portion of the property. Native areas comprise a western wheatgrass herbaceous alliance (WWH), a needle-and-thread – blue grama herbaceous alliance (NTH), a New Mexico needlegrass herbaceous alliance (NNH), a three-leaved sumac shrub savannah herbaceous alliance (TSUS), and a snakeweed dwarf-shrubland alliance (SDS). The introduced grasslands are comprised of a smooth brome semi-natural herbaceous alliance (SBH), a tall fescue herbaceous alliance (FH), and a Kentucky bluegrass semi-natural herbaceous alliance (KBH). The low-lying wetlands areas are comprised of a cattail herbaceous semipermanently flooded alliance (CHSH) and a Baltic rush seasonally flooded herbaceous alliance (BRSH). Vegetation communities are described below and shown in Figure 5. A list of plant species identified during the field visit appears in Appendix B.

### WESTERN WHEATGRASS HERBACEOUS ALLIANCE (WWH)

The western wheatgrass herbaceous alliance is present in the southern and in patches in the western portion of the property as well as on slopes and rocky areas. Western wheatgrass, a native perennial cool season grass, is the dominant grass in this community but other native grass species such as needle-and-thread (*Hesperostipa comata*), purple threeawn (*Aristida purpurea*), and Indian ricegrass (*Achnatherum hymenoides*) are present. Introduced annual/biennial forbs such as small flower alyssum (*Alyssum parviflorum*), redstem stork's bill (*Erodium cicutarium*), and tall tumble mustard (*Sisymbrium altissimum*) are common. Native perennial forbs such as Kansas gayfeather (*Liatris punctata*), prairie flax (*Adenolinum lewisii*), scarlet globemallow (*Sphaeralcea coccinea*) are present.

### NEEDLE-AND-THREAD – BLUE GRAMA HERBACEOUS ALLIANCE (NTH)

The needle-and-thread – blue grama herbaceous alliance is present in the southern portion of the property. This alliance is dominated by needle-and-thread, blue grama grass (*Chondrosium gracile*), western wheatgrass, and soapweed yucca (*Yucca glauca*).

### NEW MEXICO NEEDLEGRASS HERBACEOUS ALLIANCE (NNH)

In the northwest corner of the property a New Mexico needlegrass herbaceous alliance is present. In this community is dominated by New Mexico needlegrass/feathergrass (*Hesperostipa neomexicana*). Other dominant species in this community include western wheatgrass, purple threeawn, Indian ricegrass, and blue grama grass. Shrubs such as fourwind saltbush (*Atriplex canescens*), and broom snakeweed (*Gutierrezia sarothrae*) are present.

### THREE-LEAVED SUMAC UPLAND SHRUBLAND ALLIANCE (TSUS)

In the southern portion of the property a three-leaved sumac upland shrubland alliance is present. The dominant overstory species in this alliance is skunkbrush sumac (*Rhus aromatica* ssp. *trilobata*). Other dominant species include needle-and-thread, western wheatgrass, and black chokecherry (*Padus virginiana* ssp. *melanocarpa*).

#### **SNAKEWEED DWARF-SHRUBLAND ALLIANCE (SDS)**

Along the slopes in the northwestern and southeastern portion of the property a snakeweed dwarf-shrubland alliance is present. This community type is dominated by broom snakeweed, a native subshrub, and a mixture of native perennial cool and warm season grasses such as western wheatgrass, Indian ricegrass, blue grama grass, and purple threeawn. Native perennial forbs such as Howard's evening-primrose (*Oenothera howardii*), hairy false goldenaster (*Heterotheca villosa*), and shaggy dwarf morning-glory (*Evolvulus nuttallianus*) are also present.

#### **SMOOTH BROME HERBACEOUS ALLIANCE (SBH)**

The smooth brome herbaceous alliance is present in the northern section of the property. This alliance is dominated by smooth brome (*Bromopsis inermis*). Other dominant species include broom snakeweed, western wheatgrass, and alfalfa (*Medicago sativa*).

#### **TALL FESCUE HERBACEOUS ALLIANCE (FH)**

North of the drainage a tall fescue herbaceous alliance is present (FH). Tall fescue (*Festuca arundinacea*) is the dominant plant in this community type but smooth brome is also common.

#### **KENTUCKY BLUEGRASS HERBACEOUS ALLIANCE (KBH)**

South of the drainage, a Kentucky bluegrass herbaceous alliance is present. In this community Kentucky bluegrass (*Poa pratensis*) is the dominant species. Some introduced perennial forb species such as Canada thistle (*Breea arvensis*), alfalfa, and curly dock (*Rumex crispus*) are common.

#### **CATTAIL HERBACEOUS SEMI-PERMANENTLY FLOODED ALLIANCE (CHSH)**

The northeastern section of the property is dominated by a cattail herbaceous semi-permanently flooded alliance. This community is dominated by narrow and broadleaf cattail (*Typhia angustifolia* and *T. latifolia*).

#### **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.

#### **PERENNIAL FORB DISTURBANCE COMMUNITY (PFDC) & CANADA THISTLE WEEDY FORB GREAT PLAINS HERBACEOUS VEGETATION (CTH)**

In the east central portion of the property two areas dominated by introduced species are present. The perennial forb disturbance community is dominated by introduced annual/biennial forbs as well as introduced perennial forbs. Dominant species include yellow sweetclover (*Melilotus officinalis*), alfalfa, Canada thistle, tall tumbled mustard (*Sisymbrium altissimum*), and chicory (*Cichorium intybus*). The Canada thistle weedy forb community is dominated by Canada thistle. Other introduced species are present but are not dominant.

#### **RARE PLANTS AND PLANT COMMUNITIES**

A Bell's twinpod (*Physaria bellii*) population was found in the northwest corner of the property on the dark shale outcropping (Figure 3, Photo 23). Bell's twinpod is an endemic species that is believed to be imperiled globally or in the state of Colorado (G2/S2) (Riedel 2008). A New

Mexico feathergrass community was found in the northwest corner of the property in the shale outcropping area. The New Mexico feathergrass community is a rare plant community listed by the Colorado Natural Heritage Program.

**STATE NOXIOUS WEEDS**

Based on the site visits, one List A species, Mediterranean sage (*Salvia aethiopsis*), four List B, and five list C noxious weed species occur on the property. Mediterranean sage was located in the southern portion of the property and locations are displayed on Figure 3. Canada thistle (*Breea arvensis*) was found in the wet meadows near the center of the property. High densities of Canada thistle were found near the eastern property boundary. Musk thistle (*Carduus nutans*) was found outside of the wet meadows in the low swales near the center of the property in low densities. Redstem stork’s bill (*Erodium cicutarium*) was found in the upland areas near the southern edge of the property in low densities. Russian olive (*Elaeagnus angustifolia*) was found in the east central, central, northwest, and west central portions of the property lining wet meadows and drainages. Cheatgrass (*Anisantha tectorum*) was found in the upland areas near the southern and northern portion of the property in medium densities. Chicory (*Cichorium intybus*) was found lining wet meadows and drainages in the central portion of the property in low to medium densities. Common burdock was found along the main drainage near the central portion of the property in low densities. Common mullein was found in the upland areas in low densities. Field bindweed was found in the upland areas as well as wet meadow areas in the south and central portion of the property. Field bindweed was found in low, medium, and high densities. Smooth brome is not listed as a State noxious weed but is listed as an OSMP priority weed. Smooth brome was found in the upland areas in the south central and north central portion of the property in high 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>Breea arvensis</i>	Moderate	x	B
cheatgrass (downy brome)	<i>Anisantha tectorum</i>	Moderate	not listed	C
chicory	<i>Cichorium intybus</i>	none	not listed	C
common burdock	<i>Arctium minus</i>	none	not listed	C
common mullein	<i>Verbascum thapsus</i>	none	not listed	C
field bindweed	<i>Convolvulus arvensis</i>	none	not listed	C
Mediterranean sage	<i>Salvia aethiopsis</i>	High	not listed	A
Musk thistle	<i>Carduus nutans</i>	Low	x	B
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 A species are species for which the Commissioner of Agriculture has designated for eradication. 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 shortgrass prairie and agricultural lands in Boulder County. The grasslands on the property contain potential habitat for a variety of wildlife species. Typical bird species likely include song sparrow (*Melospiza melodia*), vesper sparrow (*Pooecetes gramineus*), and western meadowlark (*Sturnella neglecta*) and potentially grasshopper sparrow (*Ammodramus savannarum*), savannah sparrow (*Passerculus sandwichensis*), and lark sparrow (*Chondestes grammacus*). Mammals that occur or are likely to occur on the property include mule deer (*Odocoileus hemionus*), elk (*Cervus canadensis*), coyote (*Canis latrans*), red fox (*Vulpes vulpes*), and raccoon.

### **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, the property is considered to be within both winter range and a winter concentration area for elk, winter range for mule deer, and a human conflict area for mountain lion (*Puma concolor*) (NDIS 2008).

### **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, one site and three surveys occur on the property (OAHF 2008). These sites are generally associated with the bluffs on either end of the property, and the lateral ditch near the center of the property. Other potential unidentified cultural resources 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**

There is currently no agricultural use of the property, and it is not actively irrigated. It appears to have been used for both open rangeland and irrigated pasture in the past.

### **INFRASTRUCTURE**

The property is bounded on all sides by barbed-wire fences, generally in good condition. The eastern, southern, and western boundaries also have a parallel electrical wire fence (about 2 feet from the barbed wire). This fence is down in the southwest corner and is in marginal condition in many locations. This double fence could be detrimental to the movement of some wildlife species. Two steel gates are located along the north property boundary, while an older wire gate is located along the west boundary.

A lateral ditch parallels the drainage through the wet meadows in the central portion of the property, while several other lateral ditches enter the west property boundary contouring to the north.

### **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 recreational access or use was evident during the site visit.

## **PROPERTY INFRASTRUCTURE**

### **STRUCTURES**

No structures exist on the property.

### **INFRASTRUCTURE AND UTILITIES**

Fences and ditches on the property are described above.

No utilities were observed on the property.

### **ROADWAYS AND TRAILS**

No roads or trails were observed on the property.

## **LEGAL CONSIDERATIONS**

### **WATER RIGHTS**

Purchase of the 70 acres (2001) included 13 shares of Left Hand Ditch Company water. The water rights are valued at \$32,500.00.

### **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—

- Environmental Conservation Area – South St. Vrain/Foothills
- Significant Agricultural Land – Lands of Statewide Importance

The property is also considered to have minor to 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

There is no evidence of existing public access on the property. If informal public access does occur, the potential for resource damage would be minimal.

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.

**Noxious weeds.** The property contains one List A noxious weeds species (Mediterranean sage) and four List B species, and five List C species. While most of the noxious weed species are typical of agricultural and open space properties in the region, Mediterranean sage is a high priority species for both OSMP and the State of Colorado, and should be aggressively managed to prevent its spread.

**Fencing.** The fence lines along the south and east boundaries contiguous with OSMP's Jacob and Andrea properties have two fences. The immediate (internal) fences are electrical wire, while the adjacent (outer) fences have barbed wire. These double fence lines create an unnecessary impediment for the movement of some wildlife species (particularly large mammals) and may not be necessary for management. Excessive fencing between the Ryan property and the adjacent Jacob and Andrea properties may inhibit their function and management as a complex of open space land and habitat.

## 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:** Target and control Mediterranean sage on the property, with the goal of eradication.

Action: Implement efforts to aggressively control Mediterranean sage.

Action: Conduct follow-up monitoring and treatments to ensure effectiveness.

**Objective 2:** Prevent the spread of other noxious weeds from current conditions documented in the resource assessment.

Action: Continue control efforts for Canada thistle, musk thistle, Russian olive, and any other noxious weeds identified on the property.

Action: Provide follow-up monitoring and weed control.

**Objective 3:** Identify and protect any occurrences of Bell's twinpod (*Physaria bellii*), New Mexico feathergrass communities, or other rare plant species on the property.

Action: Conduct targeted surveys to confirm extent of Bell's twinpod populations (or other species) on the property.

Action: Consider additional measures (e.g., additional use restrictions/enforcement, habitat management/restoration) as needed to protect the population.

**Objective 4:** Coordinate long-term management with sensitive breeding periods for wildlife.

Action: Minimize disturbance (burning, mowing, grazing, and chemical spraying) during the nesting season for grassland birds.

### 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 for resource management and wildlife passage.

**Objective 2:** Remove unnecessary or redundant fencing, consistent with agricultural management and habitat conservation needs.

Action: Identify agricultural management and fencing needs for the Jacob, Ryan, and Andrea properties.

Action: Remove fences that are not needed for management purposes.

Action: If fences are removed, consider retaining fence posts to allow for future adaptations.

**AGRICULTURE**

*Objective 1:* Evaluate the feasibility to irrigate and graze the property.

Action: Review infrastructure needs to establish agricultural use on the property.

**CONSERVATION AND COORDINATION**

*Objective 1:* Seek opportunities to provide long-term conservation to the surrounding landscape and its associated resources.

Action: If possible, acquire fee ownership or a conservation easement over portions of the adjacent properties to the west and south.

*Objective 2:* Work with adjacent landowners to provide consistent, sustainable management to the greater Potato Hill/Lykins Gulch area.

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

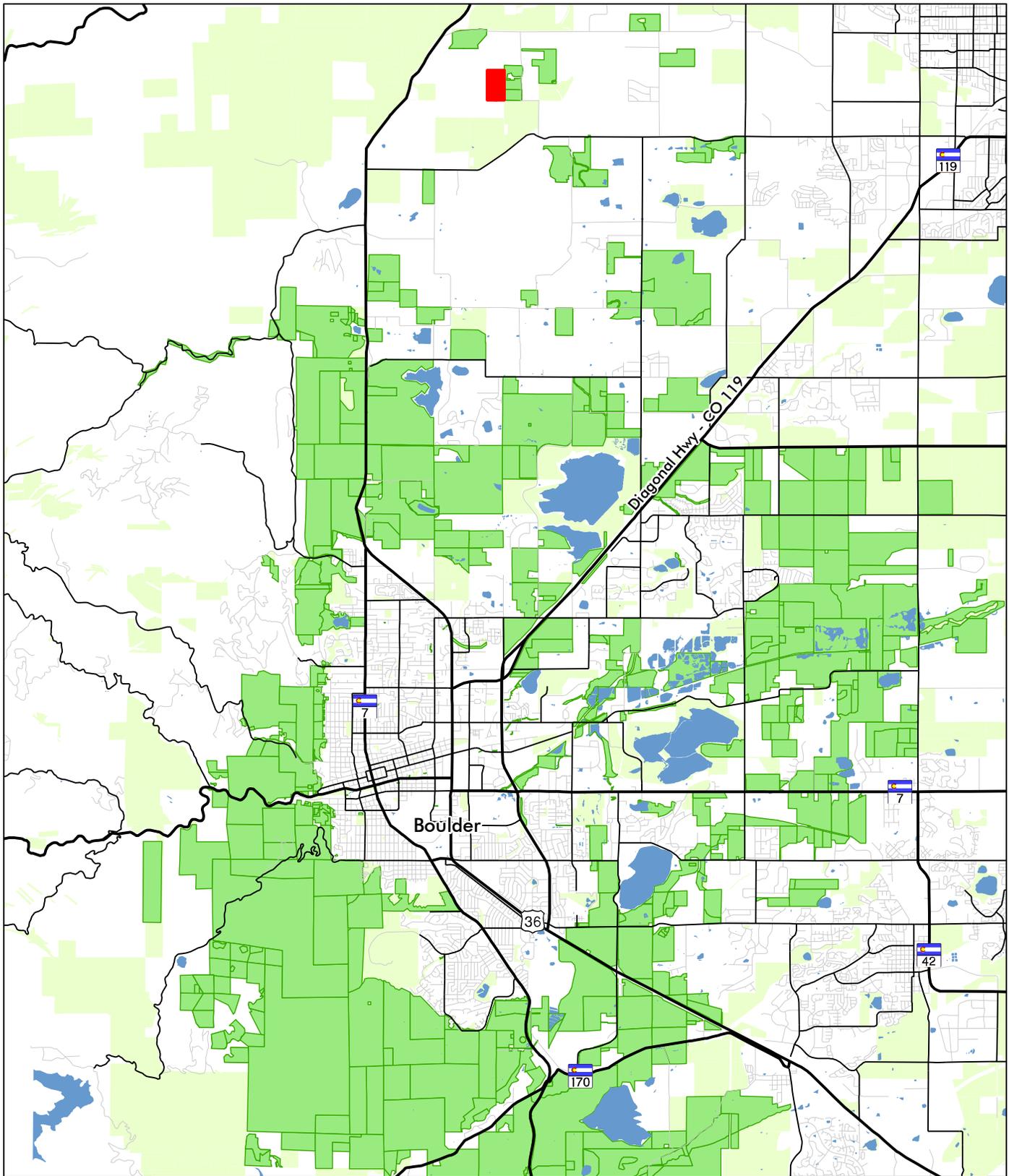
Action: Monitor resource conditions (e.g., weeds, prairie dogs) on adjacent properties and identify potential issues or opportunities.

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



## FIGURES





ERO Resources Corp.  
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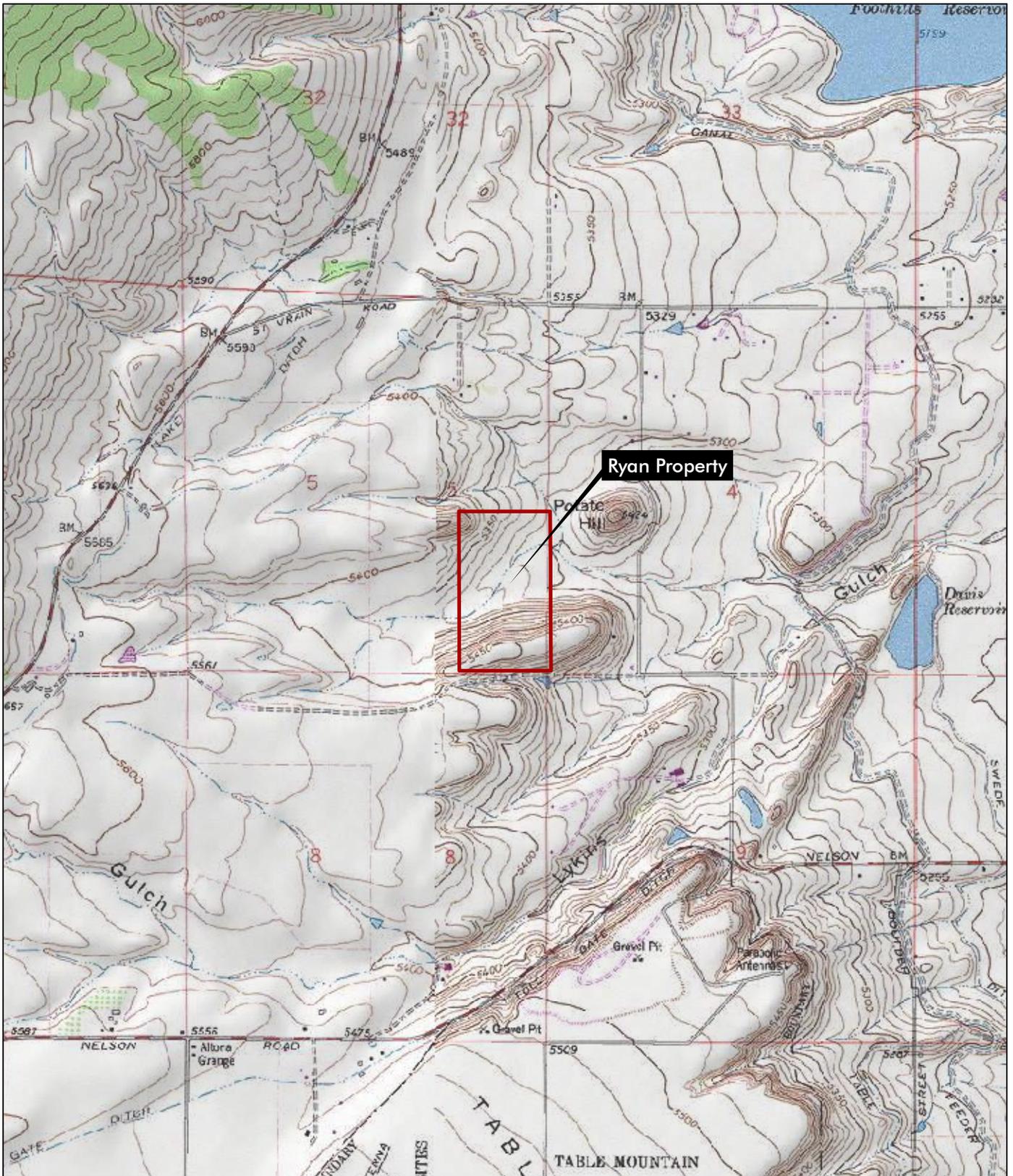
**Ryan Property RRA and Management Plan**

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



**Figure 1  
 Vicinity Map**

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



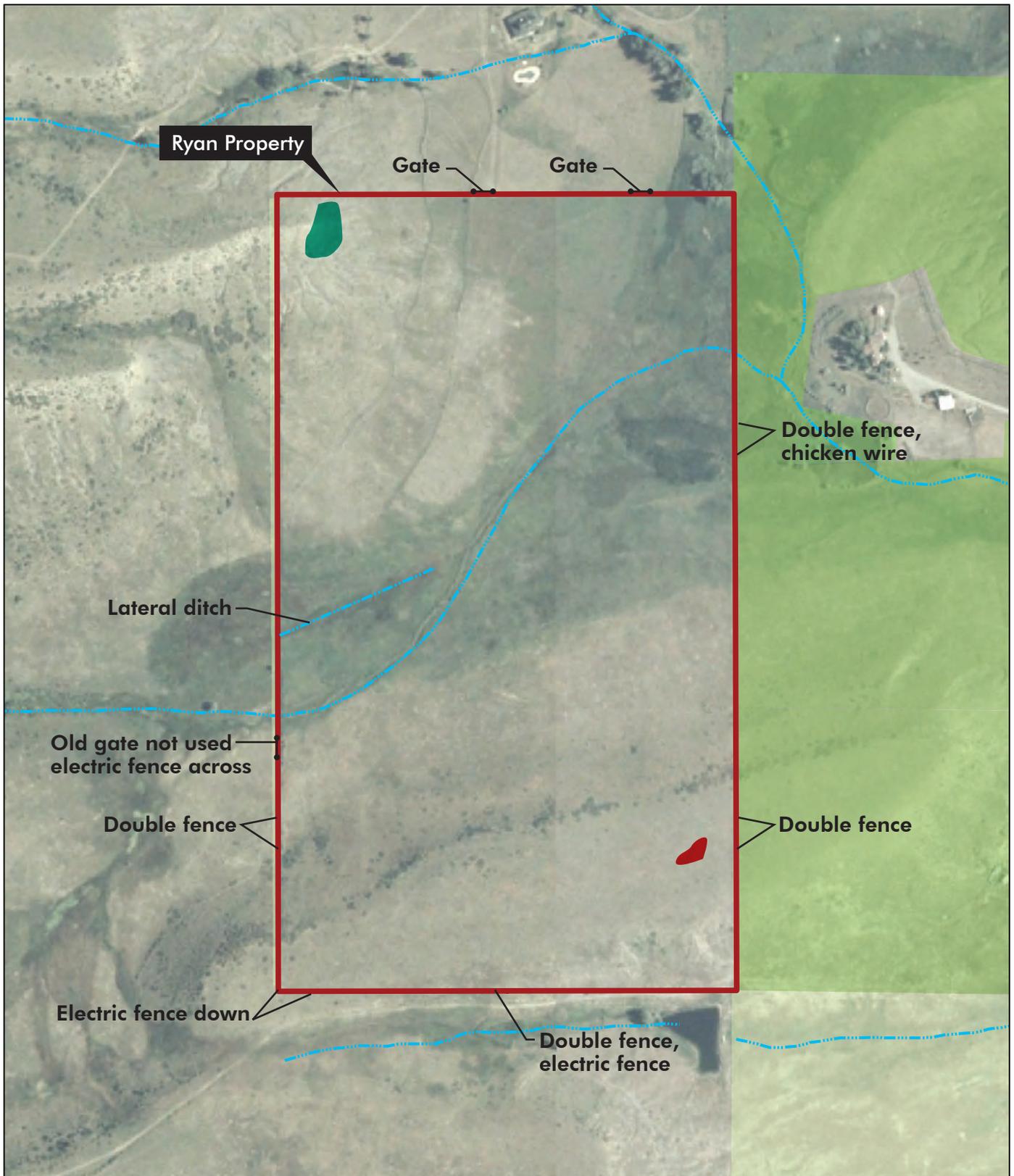
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**Ryan Property RRA and Management Plan**  
 Sections 4 & 5, T2N, R70W  
 UTM NAD83 Coordinate Zone 13N; 478975mE, 4445872mN  
 USGS Hygiene CO, Quadrangle  
 Boulder County, Colorado



**Figure 2**  
**Location**

Prepared for: City of Boulder Open Space  
 and Mountain Parks  
 File: 4089 Figure 2.mxd  
 February 2008



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### Ryan Property RRA and Management Plan

- City of Boulder Open Space
- Other Open Space
- Bell's twinpod
- Mediterranean sage



1 inch = 400 Feet



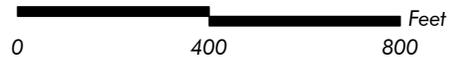
### Figure 3 Property Features

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



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**Ryan Property RRA and Management Plan**

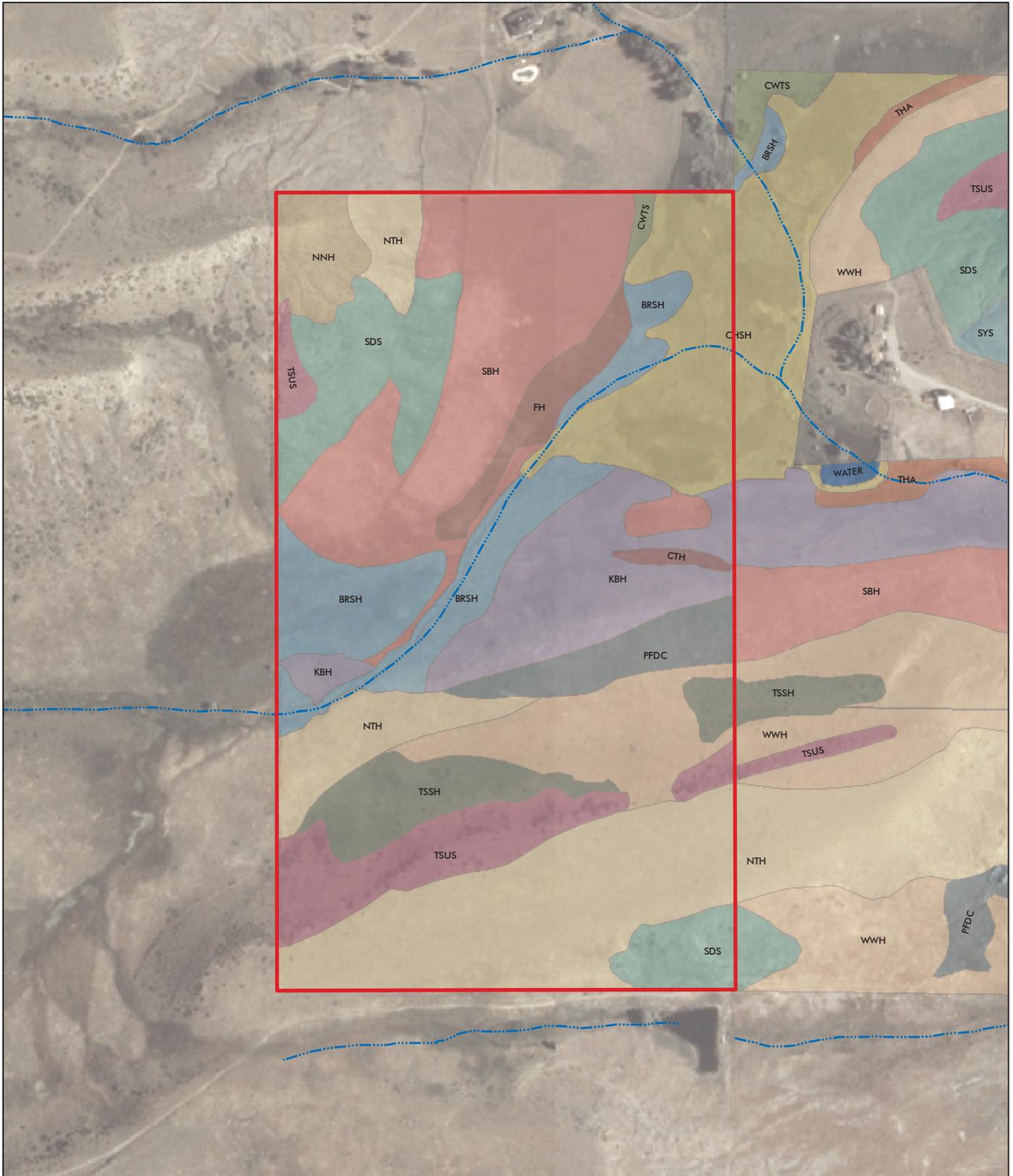


1 inch = 400 Feet



**Figure 4  
 Soils**

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



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**Ryan Property RRA and Management Plan**  
 (See following page for for vegetation community names)



1 inch = 400 Feet



**Figure 5  
 Vegetation Communities**

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

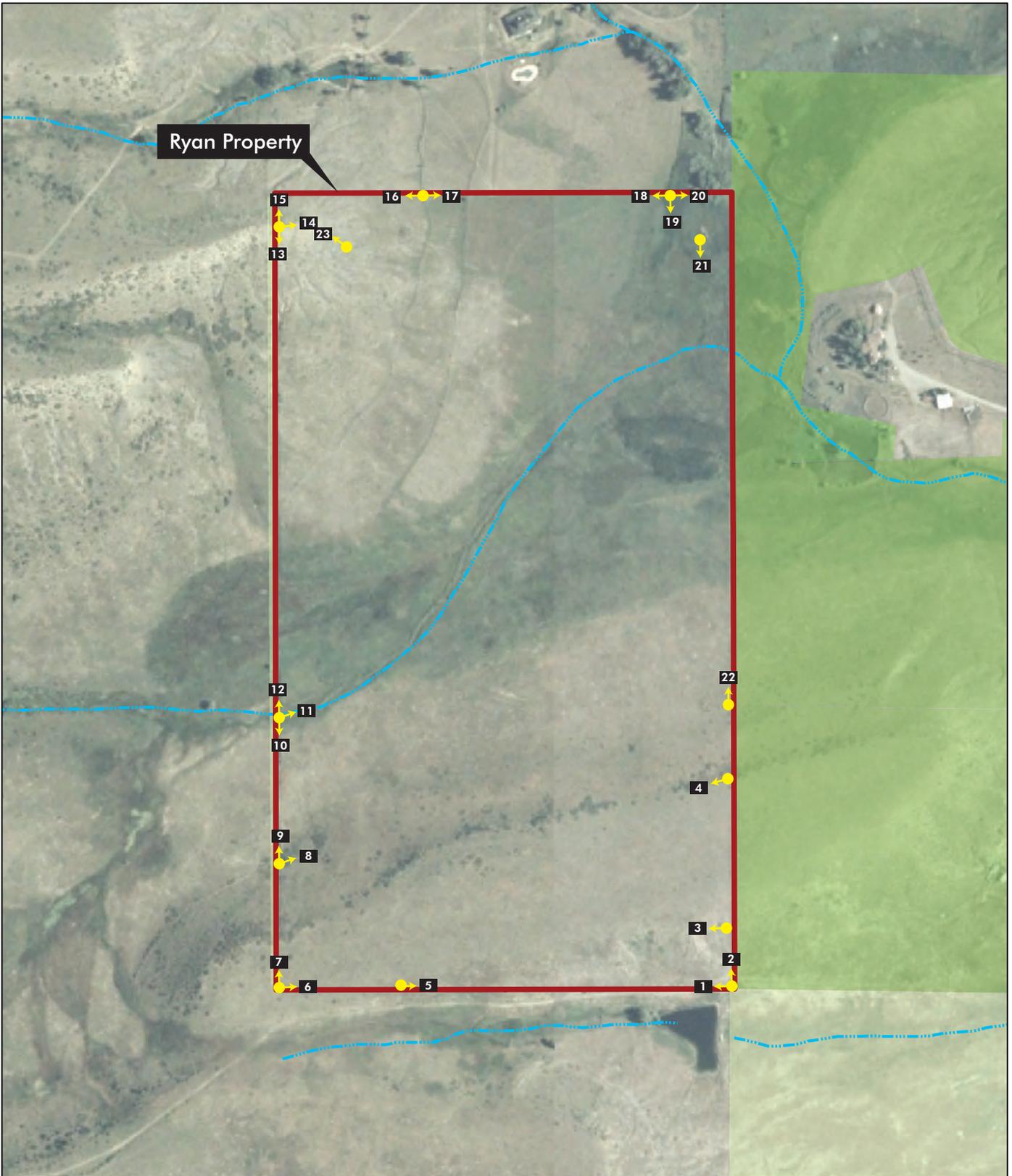
## Vegetation Communities

### 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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**Ryan Property RRA and Management Plan**

●→ 1 Photo Point



1 inch = 400 Feet



**Appendix A  
 Photo Points**

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

PHOTO POINTS  
RYAN



**Photo 23** - Bell's twinpod on bluff in northwest corner.



**APPENDIX B**  
**PLANT SPECIES**



## APPENDIX B PLANT SPECIES

Species Name	Synonym	Common Name	Needle-and-thread Blue Grama Herbaceous Alliance (NTH)	New Mexico Needlegrass Herbaceous Alliance (NNH)	Snakeweed Dwarf-Shrubland Alliance (SDS)	Western Wheatgrass Herbaceous Alliance (WWH)	Three-Leaved Sumac Shrub Savannah Herbaceous Allinace (TSSH)	Baltic Rush Seasonally Flooded Herbaceous Alliance (BRSH)	Kentucky Bluegrass Semi-Natural Herbaceous Alliance (KBH)	Canada Thistle Weedy Forb Great Plains Herbaceous Vegetation (CTH)	Cattail Herbaceous Semi-permanentl y Flooded Alliance (CHSH)	Smooth Brome Semi-Natural Herbaceous Alliance (SBH)	Tall Fescue Herbaceous Alliance (FH)
<b>Native Annual/Biennial Forbs</b>				■									
Cirsium undulatum		wavyleaf thistle	■	■	■	■							
Erigeron divergens		spreading fleabane	■		■	■							
Erysimum asperum		western wallflower			■								
Grindelia squarrosa		curlycup gumweed	■			■							
Pterogonum alatum	Eriogonum alatum	winged buckwheat	■	■		■							
<b>Introduced Annual/Biennial Forbs</b>													
Arctium minus		common burdock						■	■	■		■	■
Carduus nutans ssp. macrolepis		nodding plumeless thistle, musk thistle						■	■	■		■	■
Erodium cicutarium		redstem stork's bill	■		■	■							
Melilotus officinalis		yellow sweetclover						■					
Salvia aethiopis		Mediterranean sage	■		■	■							
Sisymbrium altissimum		tall tumblemustard	■	■	■	■							
Tragopogon dubius ssp. major		yellow salsify	■										
Verbascum thapsus		common mullein	■	■	■	■							
<b>Introduced Annual Grasses</b>													
Anisantha tectorum	Bromus tectorum	cheatgrass	■	■	■	■							

Species Name	Synonym	Common Name	Needle-and-thread Blue Grama Herbaceous Alliance (NTH)	New Mexico Needlegrass Herbaceous Alliance (NNH)	Snakeweed Dwarf-Shrubland Alliance (SDS)	Western Wheatgrass Herbaceous Alliance (WWH)	Three-Leaved Sumac Shrub Savannah Herbaceous Alliance (TSSH)	Baltic Rush Seasonally Flooded Herbaceous Alliance (BRSH)	Kentucky Bluegrass Semi-Natural Herbaceous Alliance (KBH)	Canada Thistle Weedy Forb Great Plains Herbaceous Vegetation (CTH)	Cattail Herbaceous Semi-permanentl y Flooded Alliance (CHSH)	Smooth Brome Semi-Natural Herbaceous Alliance (SBH)	Tall Fescue Herbaceous Alliance (FH)
<b>Native Perennial Forbs</b>													
Achillea lanulosa	Achillea millefolium	western yarrow							■	■		■	
Adenolinum lewisii	Linum lewisii	prairie flax	■										
Ambrosia psilostachya var. coronopifolia		Cuman ragweed		■									
Argemone polyanthemus		crested pricklypoppy	■	■	■		■						
Asclepias speciosa		showy milkweed	■	■	■	■							
Erigeron flagellaris		trailing fleabane			■	■	■						
Eriogonum umbellatum		sulphur-flower buckwheat											
Erysimum capitatum		sanddune wallflower	■	■		■							
Evolvulus nuttallianus		shaggy dwarf morning-glory		■									
Gaura coccinea		scarlet beeblossom				■							
Helianthus pumilus		little sunflower	■	■									
Heterotheca villosa		hairy false goldenaster	■	■	■	■	■						
Leucelene ericoides	Chaetopappa ericoides	rose heath			■	■	■						
Leucocrinum montanum		common starlily			■								
Liatis punctata		Kansas gayfeather	■	■	■	■	■						
Lithospermum spp.		puccoon		■									
Mentha arvensis		wild mint						■	■		■	■	
Oenothera villosa	Oenothera strigosa	hairy evening-primrose	■	■									
Paronychia jamesii		James' nailwort	■	■		■							

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<i>Physaria bellii</i>		Front Range twinpod	■	■									
<i>Psoralidium tenuiflorum</i>	<i>Psoralea tenuiflora</i>	slimflower scurfpea			■	■	■						
<i>Ratibida columnifera</i>		upright prairie coneflower			■		■						
<i>Sphaeralcea coccinea</i>		scarlet globemallow	■	■	■	■	■						
<b>Introduced Perennial Forbs</b>													
<i>Breca arvensis</i>	<i>Cirsium arvense</i>	Canada thistle						■	■	■	■	■	
<i>Cichorium intybus</i>		chicory						■			■	■	
<i>Convolvulus arvensis</i>		field bindweed	■		■	■	■	■		■	■	■	
<i>Rumex acetosella</i>	<i>Acetosella vulgaris</i>	common sheep sorrel	■					■		■		■	
<i>Taraxacum officinale</i>		common dandelion						■	■	■	■	■	
<b>Native Perennial Cool Season Grasses and Grass Like</b>													
<i>Achnatherum hymenoides</i>	<i>Oryzopsis hymenoides</i> , <i>Stipa hym.</i>	Indian ricegrass	■	■	■								
<i>Elymus trachycaulus</i>	<i>Agropyron trachycaulum</i>	slender wheatgrass							■	■	■		
<i>Hesperostipa comata</i>	<i>Stipa comata</i>	needle and thread	■	■	■	■	■						
<i>Hesperostipa neomexicana</i>	<i>Stipa neomexicana</i>	New Mexico feathergrass		■									
<i>Juncus arcticus</i> ssp. <i>ater</i>	<i>Juncus balticus</i>	Baltic rush						■	■	■	■	■	
<i>Koeleria macrantha</i>	<i>Koeleria gracilis</i>	prairie Junegrass	■	■	■								
<i>Nassella viridula</i>	<i>Stipa viridula</i>	green needlegrass	■	■									
<i>Pascopyrum smithii</i>	<i>Agropyron smithii</i>	western wheatgrass	■	■	■	■	■						

Species Name	Synonym	Common Name	Needle-and-thread Blue Grama Herbaceous Alliance (NTH)	New Mexico Needlegrass Herbaceous Alliance (NNH)	Snakeweed Dwarf-Shrubland Alliance (SDS)	Western Wheatgrass Herbaceous Alliance (WWH)	Three-Leaved Sumac Shrub Savannah Herbaceous Alliance (TSSH)	Baltic Rush Seasonally Flooded Herbaceous Alliance (BRSH)	Kentucky Bluegrass Semi-Natural Herbaceous Alliance (KBH)	Canada Thistle Weedy Forb Great Plains Herbaceous Vegetation (CTH)	Cattail Herbaceous Semi-permanently Flooded Alliance (CHSH)	Smooth Brome Semi-Natural Herbaceous Alliance (SBH)	Tall Fescue Herbaceous Alliance (FH)
Schoenoplectus lacustris ssp. creber	Scirpus validus, Schoenoplectus tabernaemontani	softstem bulrush									■		
Schoenoplectus pungens	Scirpus pungens, S. americanus	common threesquare									■		
<b>Introduced Perennial Cool Season Grass</b>													
Bromopsis inermis	Bromus inermis	smooth brome										■	■
Dactylis glomerata		orchardgrass	■									■	■
Phleum pratense		timothy	■									■	■
<b>Native Perennial Warm Season Grass</b>													
Andropogon gerardii		big bluestem	■	■			■						
Aristida purpurea		purple threeawn	■	■									
Bouteloua curtipendula		sideoats grama	■	■	■	■	■						
Buchloe dactyloides	Bouteloua dactyloides	buffalograss	■	■	■	■							
Chondrosum gracile	Bouteloua gracilis	blue grama grass	■	■	■	■	■						
<b>Native Shrubs and Subshrubs</b>													
Artemisia frigida		prairie sagewort	■	■		■						■	
Atriplex canescens		fourwing saltbush	■	■									
Chrysothamnus nauseosus	Ericameria nauseosa	rubber rabbitbrush					■						
Gutierrezia sarothrae		broom snakeweed	■	■	■	■	■						
Krascheninnikovia lanata	Ceratoides lanata	winterfat	■	■			■						
Padus virginiana ssp. melanocarpa	Prunus virginiana ssp. melanocarpa	black chokecherry			■		■						

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Prunus americana		American plum					■						
<b>Native Succulents and Agavoids</b>													
Echinocereus viridiflorus		nylon hedgehog cactus		■		■	■						
Opuntia macrorhiza		twistspine pricklypear	■	■	■	■	■						
Yucca glauca		soapweed yucca	■	■	■	■	■					■	
<b>Introduced Trees</b>													
Elaeagnus angustifolia		Russian olive						■	■	■	■	■	■



**APPENDIX C**  
**REFERENCES**



## **APPENDIX C**

### **REFERENCES**

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**PHOTO POINTS**  
**RYAN**



**Photo 1** - View from southeast corner, looking west.



**Photo 2** - View from southeast corner, looking north.

**PHOTO POINTS**  
**RYAN**



**Photo 3** - View west from east boundary fence.



**Photo 4** - View west along north slopes of bluff.

**PHOTO POINTS**  
**RYAN**



**Photo 5** - View east along south boundary fence.



**Photo 6** - View east from southwest corner.

**PHOTO POINTS**  
**RYAN**



**Photo 7** - View north from southwest corner.



**Photo 8** - View east along north slopes of bluff.

**PHOTO POINTS**  
**RYAN**



**Photo 9** - View north along west boundary fence.



**Photo 10** - View south along west boundary fence.

**PHOTO POINTS**  
**RYAN**



**Photo 11** - View east along drainage from west boundary fence.



**Photo 12** - Small drainage and west boundary fence, looking north.

**PHOTO POINTS**  
**RYAN**



**Photo 13** - View south along west boundary from bluff in northwest corner.



**Photo 14** - Top of bluff in northwest corner, looking east.

**PHOTO POINTS**  
**RYAN**



**Photo 15** - View of northwest property corner.



**Photo 16** - Bluff in northwest corner, looking west.

**PHOTO POINTS**  
**RYAN**



**Photo 17** - View east along north boundary fence.



**Photo 18** - Access gate along north boundary.

**PHOTO POINTS**  
**RYAN**



**Photo 19** - View south from north-central boundary.



**Photo 20** - Wetlands complex in northeast corner, looking east.

**PHOTO POINTS**  
**RYAN**



**Photo 21** - Wet meadow area and Russian olive in northeast corner, looking south.



**Photo 22** - View north along east boundary fence.

PHOTO POINTS  
RYAN



Photo 23 - Bell's twinpod on bluff in northwest corner.