

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

Prepared for—

City of Boulder
Open Space and Mountain Parks
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ERO Project #4089

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SUMMARY

PAPPINI PROPERTY		
APPROXIMATE SIZE	ACQUISITION DATE	CURRENT ZONING
77 acres	2007	Agricultural
MANAGEMENT DESIGNATION	PUBLIC ACCESS	
Natural Area	Allowed, but not encouraged	

GENERAL DESCRIPTION OF SITE RESOURCES

The property includes rolling grasslands, steep hillsides and irrigated pasture areas. An unnamed drainage across the property supports several ponds and associated cottonwood riparian habitat, while the Farmers Ditch and its associated riparian vegetation traverses through the property. A large portion of the property contains artificial burrows and a barrier fence associated with prairie dog reintroduction efforts. Several livestock trails connect to the adjacent agricultural property to the north, while undocumented walking trails connect to residential properties to the east. The property supports habitat for a variety of grassland and riparian wildlife species.

OPEN SPACE VALUES BASED ON RESOURCE ASSESSMENT

The property is important for open space because it maintains—

- A diversity of grassland and riparian habitat types in a localized area
- The southern edge of the Boulder Valley Ranch/Beech Open Space Environmental Conservation Area
- A buffer between open space and residential land uses
- High-quality pond habitat
- Irrigated agricultural production

MANAGEMENT ISSUES BASED ON RESOURCE ASSESSMENT

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

- Noxious weeds, including Canada thistle, bouncingbet, redstem stork's bill, Russian olive, and others
- Undesignated trail access from adjacent properties
- Encroachment of yard waste and landscaping materials from adjacent residences to the east
- Uncertain need for and management of the currently inactive prairie dog relocation area and associated barrier fencing on 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 77-acre Pappini 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 77 acres characterized by rolling grasslands, irrigated pasture land, and riparian areas at the interface with residential land uses.

LOCATION AND ACCESS

The property is located in central Boulder County about 4 miles northeast of downtown Boulder (Figure 1). Specifically, the property is located in Section 8 in Township 1 North, Range 70 West of the 6th P.M. (Figure 2).

Primary access is from Kelso Road at the southern end of the property. From downtown Boulder, travel north on the 28th Street (Highway 36), turning right on Jay Road. Follow Jay Road East to 51st Street. Travel north on 51st Street about 1 mile to Kelso Road. The property is located just west of the Valhalla Subdivision (Valhalla Drive) on Kelso Road.

Primary access to the east portions of the property is along a graded access road that crosses the property. The west portions of the property may be accessed from a gated dirt road that runs along the south boundary of the property. Emergency access would be from these two main access points.

ACQUISITION

The City of Boulder acquired the Pappini Property in 2007. The property was formerly owned by the City Parks and Recreation Department, which purchased it as a possible park site in 1984.

LAND USE

Most of the property has historically been used for agriculture, including irrigated pasture and livestock grazing. Portions of the property show evidence of recent agricultural use including hay cultivation and grazing.

LANDSCAPE CONTEXT

The property is along the urban-rural interface on the north side of the City of Boulder. A medium-density residential area abuts the property to the east, while open space lands associated with the Boulder Valley Ranch open space complex area adjacent to the west. Boulder Reservoir is located about one mile to the northeast.

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
Nutting, Donald & Lila Rose. 5433 Kelso Rd. (1295 Ithaca Dr.; Boulder, CO 80305) Parcel No. 146308000001	North of property Agriculture – farm/rural residence Noxious weeds reported on property
Snapp, Joyce Elaine 4847 N. 47th St. (PO Box 19798; Boulder, CO 80308) Parcel No. 146308000017	South of property Agriculture –farm/rural residence
Droddy, Darrell J. 4767 Valhalla Dr. Boulder, CO 80301-5354 Parcel No. 146309008001	East of property Single family residence
Crittenden, John L. 4771 Valhalla Dr. Boulder, CO 80301 Parcel No. 146309008005	East of property Single family residence
Smith, Rodney Scott & Soroya 4775 Valhalla Dr. Boulder, CO 80301 Parcel No. 146309008002	East of property Single family residence
Rohret, Daniel L. & Analisa 4779 Valhalla Dr. Boulder, CO 80301-4354 Parcel No. 146309008003	East of property Single family residence
Price, Allen F. & Janet H. N. 4783 Valhalla Dr. Boulder, CO 80301-4354 Parcel No. 146309008006	East of property Single family residence
Gower, Charles J. & Dipanfilo, Cheryl J. 4787 Valhalla Dr. Boulder, CO 80301 Parcel No. 146309008004	East of property Single family residence

Bechard, Roger D. & Laura R. 4743 Loki Ave. Boulder, CO 80301-4352 Parcel No. 146309003001	East of property Single family residence
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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
City of Boulder N. 26th St. (1777 Broadway; Boulder CO 80302) Parcel No. 146308001005 <i>City of Boulder Open Space</i>	West of property Undeveloped land
City of Boulder Municipal Property Authority N. 47 th St. (1777 Broadway; Boulder CO 80302) Parcel No. 146308000024 <i>City of Boulder Open Space</i>	South of property Undeveloped land

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

Topography on the property generally slopes to the northeast. Elevations range from about 5,400 feet along the western boundary to about 5,270 feet in the northeast corner. An unnamed drainage flows from west to east through the property at an elevation of about 5,300 feet. 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 middle unit of Pierre Shale. Pierre Shale contains areas of sandstone (Tweto 1979).

SOILS

The Natural Resources Conservation Service (NRCS) has mapped five 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 RnB. Renohill silty clay loam (1 to 3 percent slopes). This soil includes small areas of Gaynor silty clay loam, Samsil clay, and Heldt clay. Runoff is medium and erosion hazard is moderate. Native vegetation consists of western wheatgrass, green needlegrass, blue grama and scattered big sagebrush.

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 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 VaB. Valmont clay loam (1 to 3 percent slopes). This soil includes small areas of Valmont cobbly clay loam and Nunn clay loam. The surface layer is about 9 inches of clay loam and the subsoil is about 6 inches of clay that grades into limy clay loam about 14 inches thick. Runoff is medium and the erosion hazard is moderate. Principal native vegetation is blue grama, western wheatgrass, and cactus.

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 drainage bisects the property from west to east. The property is not located within a designated floodplain (Boulder County 2008a). Within the property boundary, several stock ponds have been excavated in the unnamed drainage.

According to topographic information from the USGS 7.5 minute quadrangle map, surface water on the property flows towards the unnamed drainage and then east towards the Boulder Reservoir (USGS 1967, photorevised 1979). Farmers Ditch traverses the center of the property flowing from south to north.

SUBSURFACE HYDROLOGY

Based on a review of the USGS Niwot quadrangle, shallow ground water would flow in a northeasterly direction towards the Boulder Reservoir (USGS 1967, photorevised 1979). There is one permitted water well on the property (CDWR 2008), which is described below under *Water Rights*. No seeps or springs were identified on the property.

WETLANDS

Wetlands were not delineated during the field survey but dominant wetland vegetation was mapped. Wetlands were found along the unnamed drainage crosses the northern half of the property. Dominant wetland vegetation included broad leaf cattail (*Typha latifolia*), softstem bulrush (*Schoenoplectus lacustris* ssp. *acutus*), and common threesquare (*Schoenoplectus pungens*).

VEGETATION

GENERAL VEGETATION DESCRIPTION

Most of the property is former agricultural land and consists of both irrigated pasture and dryland meadow areas. Clusters of old growth cottonwoods are present along the unnamed drainage in the north and some are scattered in the southeastern portion of the property along the Farmers Ditch. Vegetation communities are described below and shown in Figure 5. A list of plant species identified during the field visit appears in Appendix B.

TALL FESCUE HERBACEOUS ALLIANCE

The northern section of the property is an irrigated meadow area dominated by tall fescue (*Festuca arundinacea*), an introduced perennial cool season grass. Other introduced grass species typically found in irrigated meadows are present such as smooth brome (*Bromopsis inermis*), orchard grass (*Dactylis glomerata*), and Kentucky bluegrass (*Poa pratensis*).

EASTERN COTTONWOOD TEMPORARILY FLOODED WOODLAND ALLIANCE (ECTW)

Large old growth plains cottonwood trees (*Populus deltoids* spp. *monilifera*) are present in the southeastern property corner as well as along the unnamed lateral ditch in the northern section of the property. In the north along the drainage, understory species include broadleaf cattail, soft stem bulrush, and sandbar willow (*Salix exigua*). In the southern areas the dominant understory species include American plum (*Prunus americana*) and black chokecherry (*Padus virginiana* ssp. *melanocarpa*).

WESTERN WHEATGRASS HERBACEOUS ALLIANCE (WWH)

The western wheatgrass herbaceous alliance is present in the south western portion of the property and stretches to the north. Western wheatgrass (*Pascopyrum smithii*) is the dominant grass in this community but other native grass species such as needle-and-thread (*Hesperostipa comata*) and purple threeawn. Native perennial forbs such as Kansas gayfeather (*Liatris punctata*), prairie flax (*Adenolinum lewisii*), scarlet globemallow (*Sphaeralcea coccinea*) are present. Introduced annual/biennial forbs such as smallflowered alyssum (*Alyssum parviflorum*), tall tumbled mustard (*Sisymbrium altissimum*), and redstem stork's bill (*Erodium cicutarium*) are common. Field bindweed an introduced perennial forb is scattered throughout this community type.

SMOOTH BROME HERBACEOUS ALLIANCE (SBH)

The smooth brome herbaceous alliance present in the eastern portion 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, smallflowered alyssum, and field bindweed.

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

The needle-and-thread – bluegrama herbaceous alliance is present near the southeastern corner of the property. This alliance is dominated by needle-and-thread (*Hesperostipa comata*) and blue grama grass (*Chondrosum gracile*). The soapweed yucca (*Yucca glauca*), an agavoid, and twistspine pricklypear, a succulent species, is dominant in this community type.

PERENNIAL FORB DISTURBANCE COMMUNITY (PFDC)

In the western corner of the property the perennial forb disturbance community is present. This community is found adjacent to an inactive prairie dog town. Dominant species include field bindweed, smallflowered alyssum, tall tumbled mustard, redstem stork’s bill, and western wheatgrass.

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. The lower shale-dominated slopes of the small hill near the southeastern corner of the property could provide habitat for Bell’s twinpod (*Physaria bellii*), a species that is believed to be imperiled globally or in the state of Colorado (G2/S2). During the site visit the vegetation on the small hill appeared degraded due to encroachment of smooth brome and grazing.

STATE NOXIOUS WEEDS

Based on the site visits, five List B noxious weed species occur on the property. Bouncing bet (*Saponaria officinalis*) and Scotch cottonthistle (*Onopordum acanthium*) were found in the northwestern property corner near the unnamed lateral ditch. Canada thistle (*Breca arvensis*) occurs near the north central property corner. Redstem stork’s bill was found scattered throughout the perennial forb disturbance community. Russian olive was found along the unnamed lateral ditch and scattered near the northeast property corner. List C species were found in low densities throughout the property.

Table 1. Noxious weeds present on the property.

Common Name	Scientific Name	OSMP Priority	Boulder County Weed List	State of Colorado Noxious Weed List
bouncingbet	<i>Saponaria officinalis</i>	Low	not listed	B
Canada thistle	<i>Breca arvensis</i>	Moderate	x	B
cheatgrass (downy brome)	<i>Anisantha tectorum</i>	Moderate	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
redstem stork's bill	<i>Erodium cicutarium</i>	None	not listed	B
Russian olive	<i>Elaeagnus angustifolia</i>	High	not listed	B
Scotch cottonthistle	<i>Onopordum acanthium</i>	Moderate	x	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. At this time, there is no state noxious weed management plan for either Canada thistle or musk thistle. Until a plan for a particular species is developed and implemented by rule, all persons are recommended to manage that species.

WILDLIFE

GENERAL DESCRIPTION

The property provides habitat for a variety of wildlife species associated with mixedgrass prairie, riparian areas, and agricultural lands in Boulder County. Large cottonwoods along the ditch and near the ponds provide potential nesting sites for raptors and songbirds, 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*), and various species of raptors. Wetland birds include red-winged blackbird (*Agelaius phoeniceus*), common yellowthroat (*Geothlypis trichas*), and yellow warbler (*Dendroica petechia*).

Small rodents that probably occur along the ditch and drainage 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. One coyote was observed during the site visit. Wetland and riparian areas provide habitat for a variety of amphibians, while the property is also known to support rattlesnake.

Prairie dogs. A large area encompassing the southwestern portion of the property has previously been used as a prairie dog (*Cynomys ludovicianus*) relocation site, as evidenced by the numerous artificial burrows and the extensive barrier fence in the area. No prairie dogs were observed during the site visit and the colony is most likely inactive. 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*).

Fish. The stock ponds offer the opportunity to create native fish refugia.

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 does not contain any CDOW-designated wildlife habitat areas.

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 occurs on the property (OAHF 2008). (This site is associated with Farmers Ditch). 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

The property is used for livestock grazing (horse) and irrigated cultivation of hay. These uses are associated with the adjacent agricultural property to the north. (An open gate between the property and the farmstead area showed signs of frequent use). Water from the Farmers Ditch irrigates portions of the property (Crifasi 2007).

INFRASTRUCTURE

The property is bounded by barbed-wire fences on the north, south, and west sides, with the exception of a broad opening near the southeast corner (where the dirt road enters). The east side does not have a uniform fence, and is bounded by various fences associated with the adjacent residences. Gates are found along the south-central boundary, in the northwest corner, along the north boundary (into the adjacent private property) and in the northeast corner.

The Farmers Ditch winds through the extent of the property. Three diversion structures serve the property through various lateral ditches. All of the structures are in need of repair (one of the structures allows water to pour onto the property in an uncontrolled fashion) (Crifasi 2007).

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

Informal public access is apparent on the property. Several undesignated trails extend onto the property from the residential areas to the east. Prior to OSMP ownership, the property was owned by the City of Boulder Parks Department.

A parking area is located adjacent to the southeast corner of the property, and a recreation trail abuts the southern boundary of the property.

PROPERTY INFRASTRUCTURE

STRUCTURES

No structures exist on the property.

INFRASTRUCTURE AND UTILITIES

Fencing and ditches are described above under *Agriculture*.

No utilities were observed on the property.

ROADWAYS AND TRAILS

A graded dirt road crosses the property from the southeast corner (at Kelso Road) to the north boundary, providing access to the adjacent agricultural property. Several faint two-track roads were observed on the eastern half of the property. These roads appear to be associated with agricultural use and ditch management.

Several undesignated trails extend from various points along the east boundary through the property. In the western half of the property, these foot paths merge with horse paths, which then extend to the gate in the northwest corner of the property. Informal plank footbridges are found in several locations where the trails cross the Farmers Ditch. These trails appear to be used primarily by nearby residences and do not appear to result in resource damage.

LEGAL CONSIDERATIONS

WATER RIGHTS

See OSMP property file.

According to the Colorado Division of Water Resources (CDWR 2008), there is one permitted water well on the property:

- Permitted well, permit #423

MINERAL RIGHTS

See OSMP property file.

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 – Boulder Valley Ranch/Beech Open Space

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: Allowed, but not encouraged

A small network of undesignated trails extend into the property from the adjacent residential area to the east and the private horse boarding facility to the north. While this access does not appear to result in resource damage, the proliferation of additional trails could become a problem. Several actions should be taken in the short term to ensure that public access does not result in resource damage.

The goal of this access status is to allow limited informal access if it should occur, but to prevent a pattern of passive recreational use from forming that is detrimental to natural, agricultural and cultural resources. Should public access result in resource damage, the property may be closed at the sole discretion of the OSMP department. External gates may be locked to prevent unauthorized vehicle access. 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 five List B weed species, and several 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.

Undesignated trail access. Several private access points (gates or gaps in the fence) from adjacent residential properties feed into undesignated trails on the eastern edge of the property. While there is currently little evidence of resource damage, additional use of these trails or the proliferation of additional trails could result in habitat damage due to fragmentation or the introduction or spread of noxious weeds. Long-term public access and use on the property will be an issue to be addressed in future Trail Study Area or other planning processes.

Encroachment. Encroachment from adjacent residential land uses is evident in a few areas along the eastern boundary of the property. Examples include piles of grass clippings, the placement of landscaping materials, and the storage of landscaping equipment.

Prairie dog relocation area. The prairie dog relocation area in the southwest corner of the property does not appear to be actively used, and the extensive barrier fencing in that area is unsightly and is in disrepair. The long-term management of prairie dog habitat in this area, and the subsequent need for the barrier fence should be considered.

Hay production. The presence of water rights infrastructure and appropriate soils provide the opportunity to continue high quality hay production.

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 noxious weeds identified on the property.

Action: Work with agricultural lessee (if any) to manage agricultural infrastructure and practices in a manner that reduces the potential for noxious weeds.

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 for resource management and wildlife passage.

ACCESS AND ENCROACHMENT

Objective 1: Manage undesignated trail access to provide reasonable public access while minimizing impacts to open space resources.

Action: Establish a single, preferred trail route onto the property from the east.

Action: Direct private access points along the fence line towards the preferred trail route with a constructed trail, signs, or other means.

Action: Manage access in conjunction with the conservation and management of pond and riparian habitat areas, as well as prairie dog habitat.

Action: Conduct targeted outreach (personal contact and/or mail) to adjacent landowners informing them of OSMP's management priorities, their ability to continue to access the property, and the importance of their cooperation.

Action: Monitor the property for additional trails or management issues related to access.

Action: If necessary, consider installing a new fence along the east boundary with access gaps only at specific, appropriate locations.

Objective 2: Manage to reduce or eliminate encroachment of waste and materials onto the property from adjacent residences.

Action: Remove yard waste and other refuse along the east property boundary.

Action: Conduct targeted outreach (personal contact and/or mail) to adjacent landowners informing them of OSMP's management priorities, and the importance of their cooperation.

Action: Monitor the property for additional encroachment.

AGRICULTURAL MANAGEMENT

Objective 1: Implement long-term agricultural management strategies that are consistent with system-wide grassland management objectives.

Action: Consider improving the irrigation infrastructure as part of an overall agricultural and habitat management strategy.

Action: Lease property for hay production and grazing.

Action: Repair or replace existing diversion structures to facilitate management of irrigation water on the property.

WILDLIFE MANAGEMENT

Objective 1: Manage prairie dogs consistent with vegetation and agricultural objectives for the property.

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

Action: Designate management based on criteria established in the Grassland Ecosystem Management Plan.

Objective 2: Consider opportunities for other wildlife values.

Action: Evaluate conservation value for fish and amphibians before allowing public access (i.e., fishing).

CONSERVATION AND COORDINATION

Objective 1: Seek opportunities to provide long-term conservation to adjacent lands and their associated resources.

Action: If possible, acquire fee ownership or a conservation easement over portions of the adjacent property to the north.

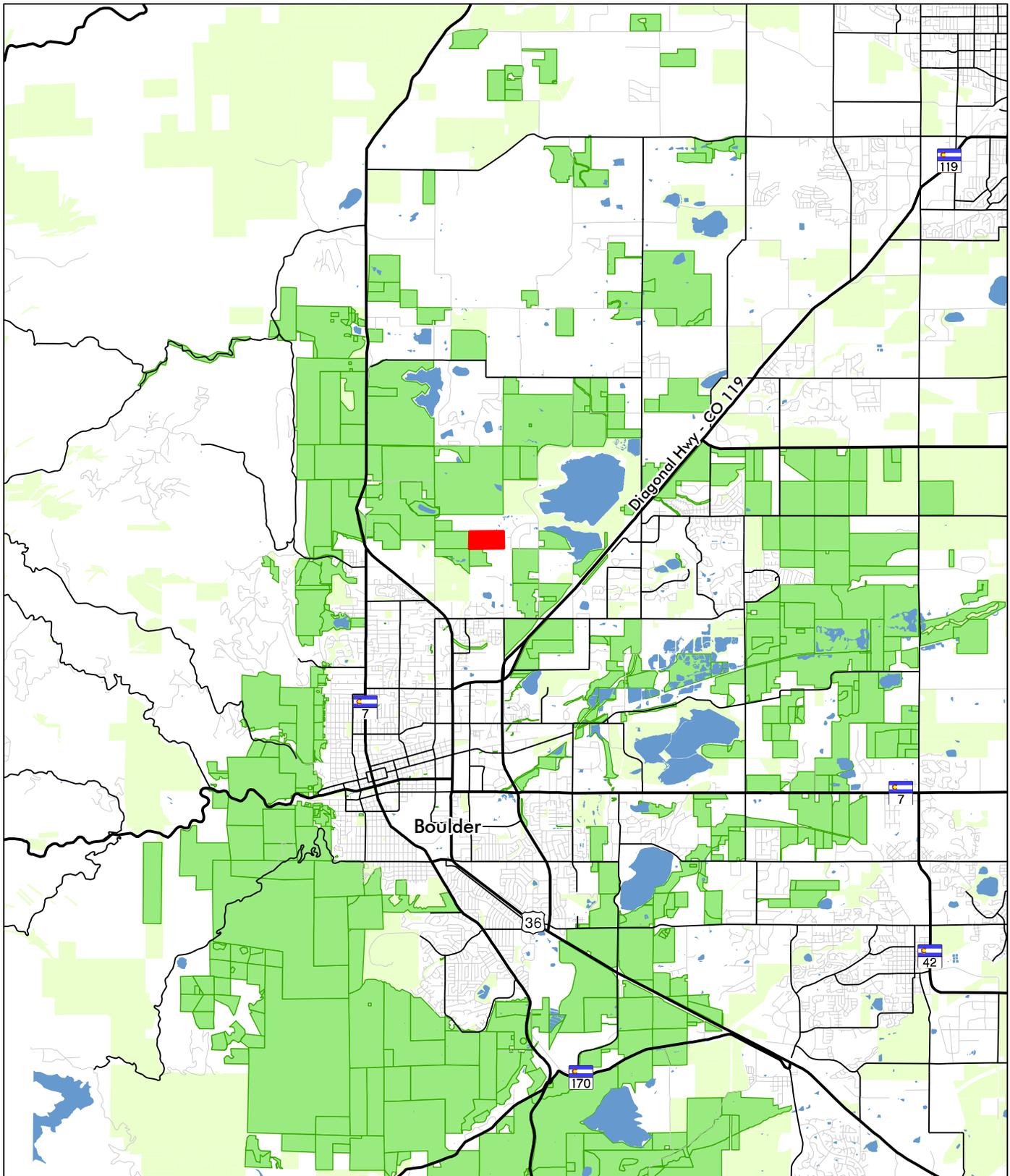
Objective 2: Work with adjacent landowners to provide consistent, sustainable management to the property and surrounding area.

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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Pappini Property RRA and Management Plan

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

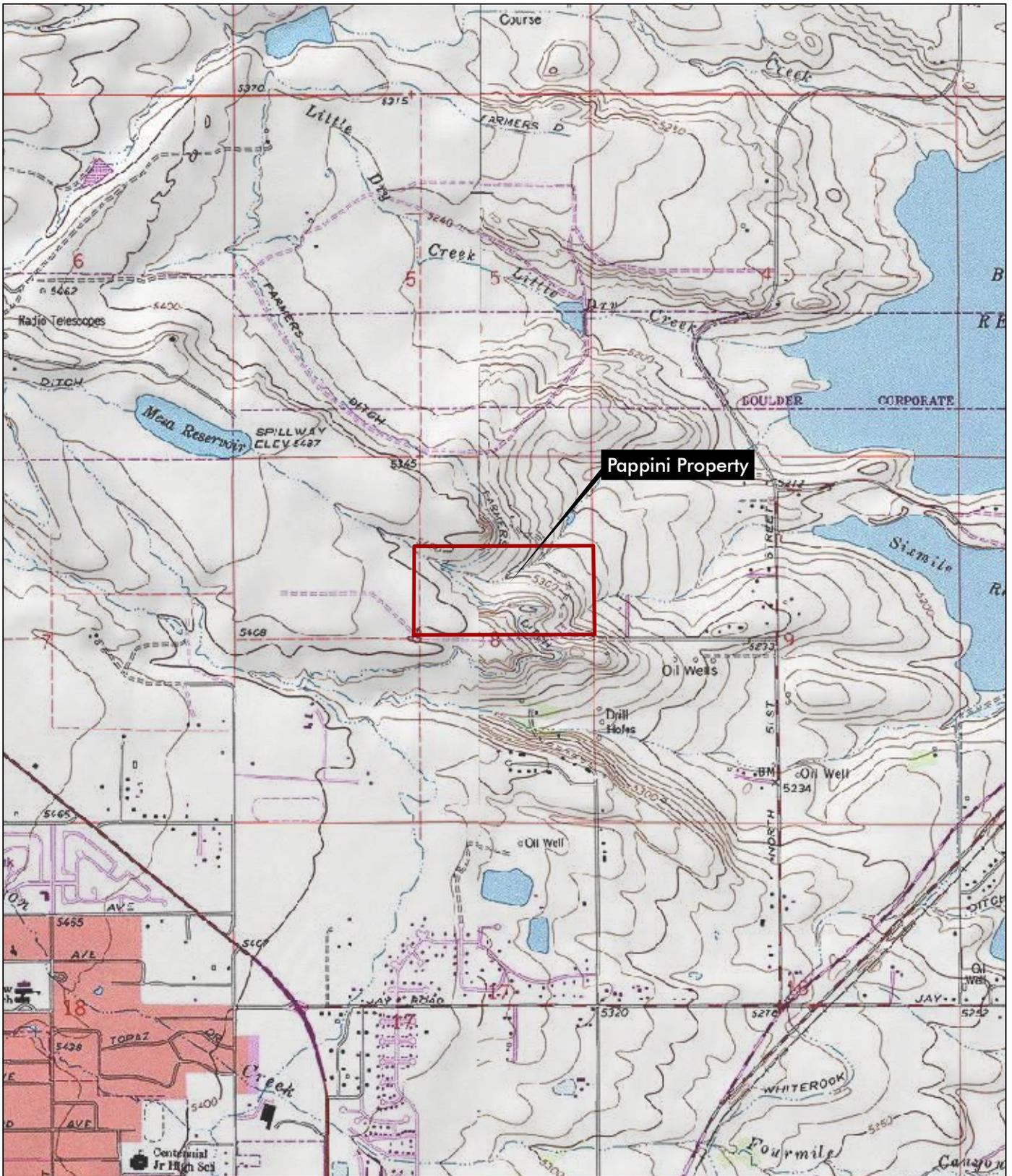


1 inch = 2 miles



**Figure 1
 Vicinity Map**

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



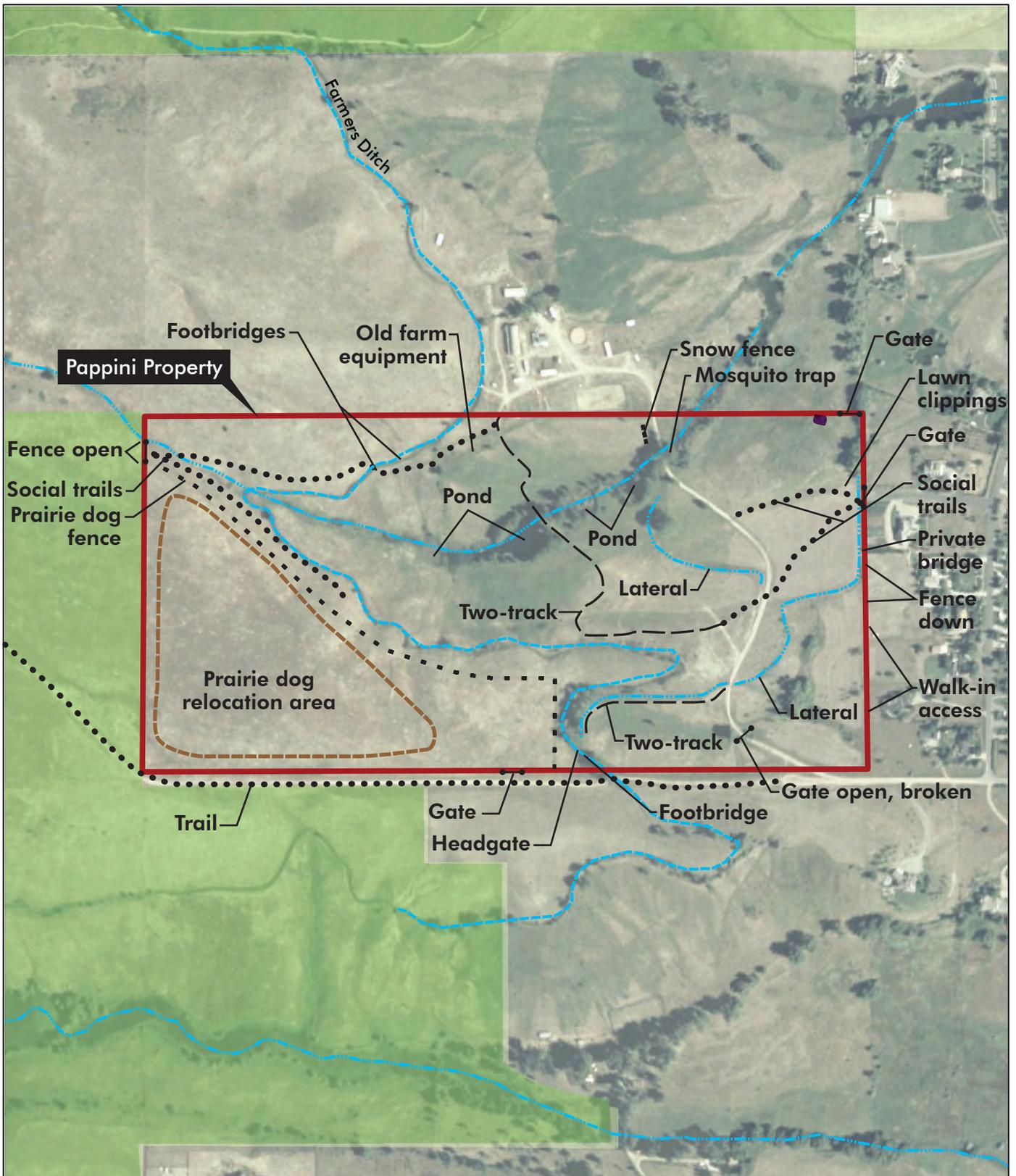
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Pappini Property RRA and Management Plan
 Section 8, T1N, R70W
 UTM NAD83 Coordinate Zone 13N; 3070200mE, 1267527mN
 USGS Boulder and Niwot CO, Quadrangle
 Boulder County, Colorado



Figure 2
Location

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



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Pappini Property RRA and Management Plan

- City of Boulder Open Space
 - Other Open Space
 - Weed patch
 - Inactive prairie dog colony
- 0 500 1000 Feet
- 1 inch = 500 Feet



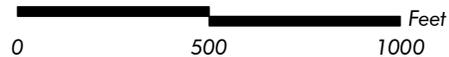
**Figure 3
 Property Features**

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



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Pappini Property RRA and Management Plan

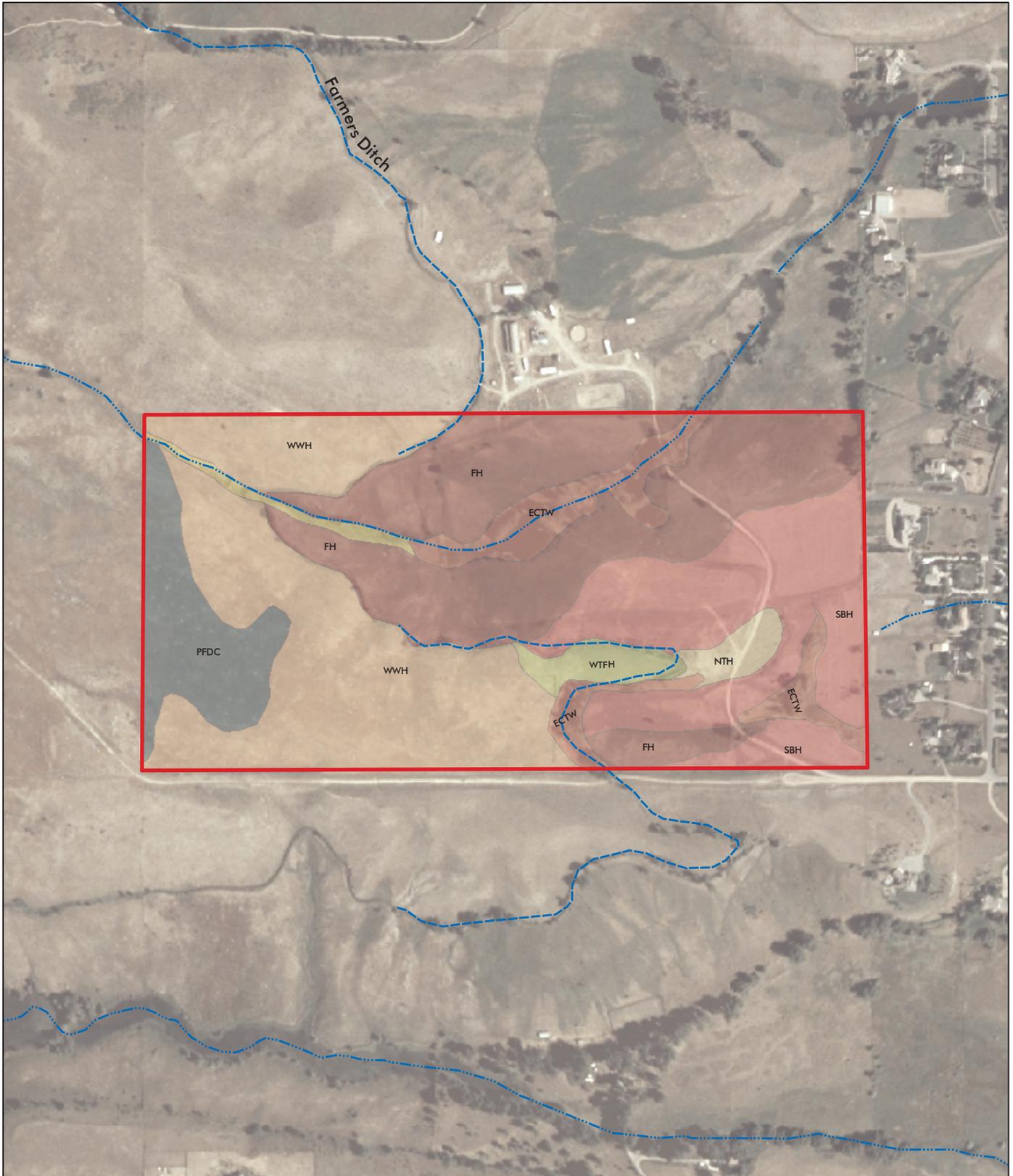


1 inch = 500 Feet



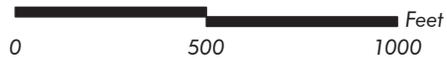
**Figure 4
 Soils**

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



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



1 inch = 500 Feet



Figure 5
Vegetation Communities

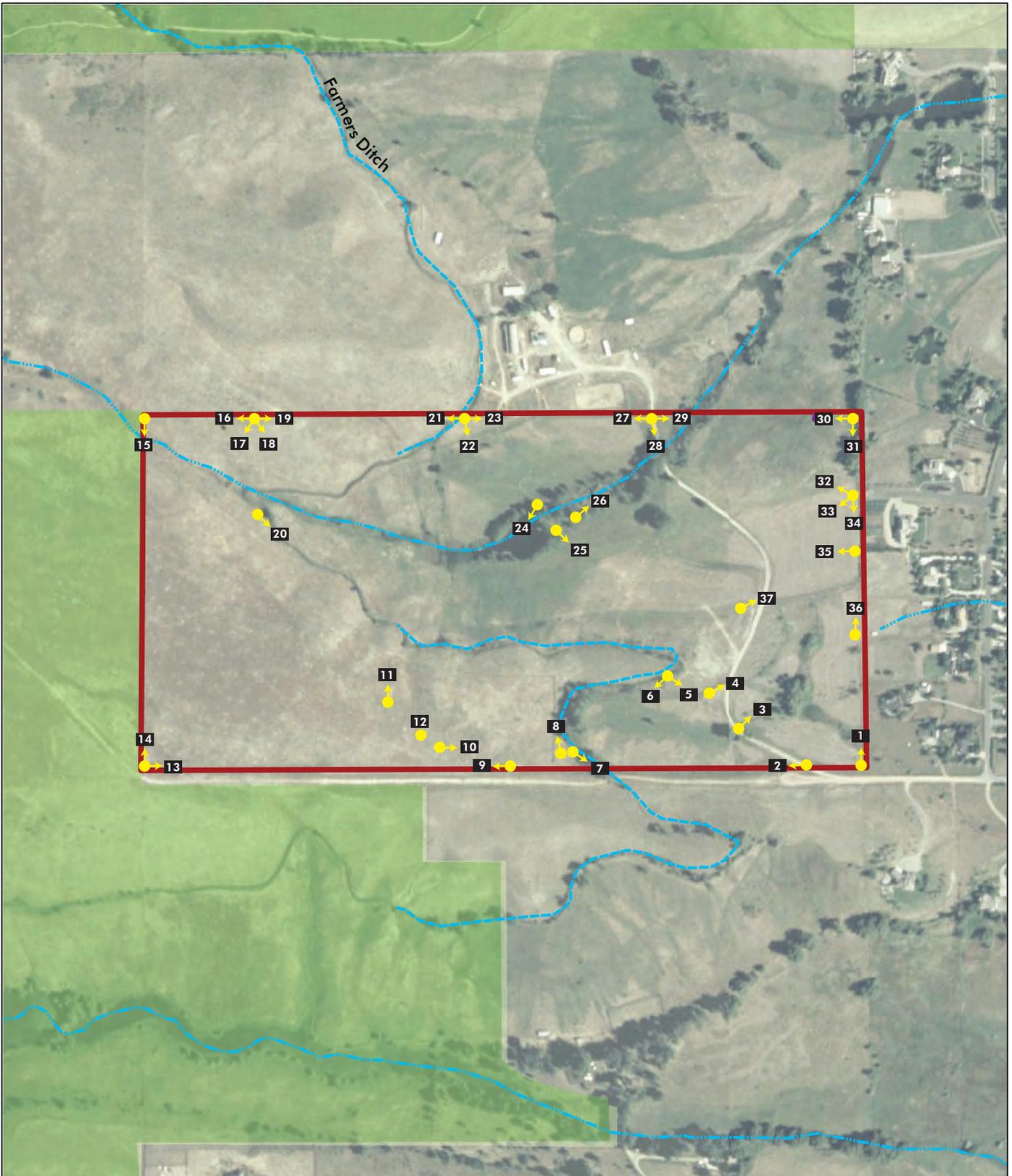
Prepared for: City of Boulder Open Space
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 File: 4089 Figure 5.mxd
 June 2008

Vegetation Communities

Acronym, CmnName

	ADUD, Annual-dominant Upland Disturbance
	APS, American Plum Shrubland Alliance
	BBYH, Big Bluestem - (Yellow Indiangrass) Herbaceous Alliance
	BRSF, 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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Pappini Property RRA and Management Plan

●■ Photo Point



1 inch = 500 Feet



**Appendix A
 Photo Points**

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

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)	Needle- and-thread Blue Grama Herbaceous Alliance (NTH)	Western Wheatgrass Herbaceous Alliance (WWH)	Perennial Forb Disturbance Community (PFDC)	Cattail Herbaceous Semi- permanently Flooded Alliance (CHSH)
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 flax						■	
Carduus nutans ssp. macrolepis		nodding plumeless thistle, musk thistle	■						
Conyza canadensis		Canadian horseweed						■	
Cynoglossum officinale		houndstongue			■				
Erodium cicutarium		redstem stork's		■		■	■	■	

Species Name	Synonym	Common Name	Tall Fescue Herbaceous Alliance (FH)	Smooth Brome Semi-Natural Herbaceous Alliance (SBH)	Eastern Cottonwood Temporarily Flooded Woodland Alliance (ECTW)	Needle-and-thread Blue Grama Herbaceous Alliance (NTH)	Western Wheatgrass Herbaceous Alliance (WWH)	Perennial Forb Disturbance Community (PFDC)	Cattail Herbaceous Semi-permanently Flooded Alliance (CHSH)
		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				■	■	■	
Argemone polyanthemus		crested pricklypoppy				■			
Asclepias speciosa		showy milkweed							■
Erigeron flagellaris		trailing fleabane				■	■		
Eriogonum umbellatum		sulphur-flower buckwheat				■			
Erysimum capitatum		sanddune				■			

Species Name	Synonym	Common Name	Tall Fescue Herbaceous Alliance (FH)	Smooth Brome Semi-Natural Herbaceous Alliance (SBH)	Eastern Cottonwood Temporarily Flooded Woodland Alliance (ECTW)	Needle-and-thread Blue Grama Herbaceous Alliance (NTH)	Western Wheatgrass Herbaceous Alliance (WWH)	Perennial Forb Disturbance Community (PFDC)	Cattail Herbaceous Semi-permanently Flooded Alliance (CHSH)
		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				■			
Psoralidium tenuiflorum	Psoralea tenuiflora	slimflower scurfpea					■	■	
Ratibida columnifera		upright prairie coneflower					■		
Sphaeralcea coccinea		scarlet globemallow					■		
Introduced Perennial Forb									
Asparagus officinalis		garden asparagus							■

Species Name	Synonym	Common Name	Tall Fescue Herbaceous Alliance (FH)	Smooth Brome Semi-Natural Herbaceous Alliance (SBH)	Eastern Cottonwood Temporarily Flooded Woodland Alliance (ECTW)	Needle-and-thread Blue Grama Herbaceous Alliance (NTH)	Western Wheatgrass Herbaceous Alliance (WWH)	Perennial Forb Disturbance Community (PFDC)	Cattail Herbaceous Semi-permanently Flooded Alliance (CHSH)
Breea arvensis	Cirsium arvense	Canada thistle			■			■	■
Convolvulus arvensis		field bindweed		■	■	■	■	■	
Medicago sativa		alfalfa	■						
Rumex crispus		curly dock	■						■
Saponaria officinalis		bouncingbet					■		
Taraxacum officinale		common dandelion					■		■
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. ater	Juncus balticus	Baltic rush							■
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							■

Species Name	Synonym	Common Name	Tall Fescue Herbaceous Alliance (FH)	Smooth Brome Semi-Natural Herbaceous Alliance (SBH)	Eastern Cottonwood Temporarily Flooded Woodland Alliance (ECTW)	Needle-and-thread Blue Grama Herbaceous Alliance (NTH)	Western Wheatgrass Herbaceous Alliance (WWH)	Perennial Forb Disturbance Community (PFDC)	Cattail Herbaceous Semi-permanently Flooded Alliance (CHSH)
Introduced Perennial Cool Season Grasses									
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 Grasses									
Andropogon gerardii		big bluestem				■			
Aristida purpurea		purple threeawn				■			
Bouteloua curtipendula		sideoats grama				■			
Buchloe dactyloides	Bouteloua dactyloides	buffalograss				■	■		
Chondrosium gracile	Bouteloua gracilis	blue grama grass				■	■		
Native Shrubs and Subshrubs									
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			■				

Species Name	Synonym	Common Name	Tall Fescue Herbaceous Alliance (FH)	Smooth Brome Semi- Natural Herbaceous Alliance (SBH)	Eastern Cottonwood Temporarily Flooded Woodland Alliance (ECTW)	Needle- and-thread Blue Grama Herbaceous Alliance (NTH)	Western Wheatgrass Herbaceous Alliance (WWH)	Perennial Forb Disturbance Community (PFDC)	Cattail Herbaceous Semi- permanently Flooded Alliance (CHSH)
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									
Echinocereus viridiflorus		nylon hedgehog cactus			■				
Opuntia macrorhiza		twistspine pricklypear			■	■			
Yucca glauca		soapweed yucca			■	■			

APPENDIX C
REFERENCES

APPENDIX C

REFERENCES

- Boulder County. 1996. County Open Space Plan.
<<http://www.co.boulder.co.us/lu/bccp/bccpmap/osplan.pdf>> January 25.
- Boulder County. 2008a. Boulder County Assessor's Office.
<http://www.co.boulder.co.us/assessor/asrproprecords/assess_input.asp>. January 24.
- Boulder County. 2008b. Boulder County Comprehensive Plan, Archaeologically Sensitive Areas. <http://www.co.boulder.co.us/lu/bccp/cult_res.htm>. January 25.
- Boulder County. 2008c. Boulder County Comprehensive Plan, Significant Agricultural Land. <<http://www.co.boulder.co.us/lu/bccp/images/sal.jpg>>. January 25.
- Boulder County. 2008d. Boulder County Zoning District Map.
<<http://www.co.boulder.co.us/lu/pdf/zoningmap.pdf>>. January 25.
- CDWR (Colorado Division of Water Resources). 2008. Online Mapping.
<<http://165.127.23.116/website/lttool>>. January 24.
- City of Boulder Open Space and Mountain Parks (OSMP). 2005. Visitor Master Plan.
- CNHP. (Colorado Natural Heritage program). 2006. Potential Conservation Area GIS database.
- Crifasi, Robert. 2007. City of Boulder Open Space and Mountain Parks. Email communication to Ann Goodhart regarding a site visit to the Papini Property. September 28, 2007.
- Manning, R., C. Jacobi, and J.L. Marion. 2006. Recreation Monitoring at Acadia National Park. The George Wright Forum. Volume 23, Number 2 (2006).
- NDIS (Natural Diversity Information Source). 2008. GIS mapping of significant habitat elements for various wildlife species. Prepared by the Colorado Division of Wildlife.
- NRCS (National Resource Conservation Service). 1975. Soil Survey of Boulder County Area, Colorado. Denver, CO.
- OAHP (Colorado Historical Society, Office of Archeology and Historic Preservation). 2008. Records Search. January 28. Denver, CO.
- Tweto, Ogden. 1979. Geologic Map of Colorado. U.S. Geological Survey. Denver, CO.
- USGS (U.S. Geological Survey). 1967, photorevised 1979. Niwot Quadrangle. Denver, CO.

PHOTO POINTS
EISENBERG



Photo 1 - View north from southeast corner.



Photo 2 - View west from near southeast corner.

PHOTO POINTS
PAPPINI



Photo 3 - View from access road, looking northeast.



Photo 4 - View along lateral ditch, looking northeast.

PHOTO POINTS
PAPPINI



Photo 5 - Southeast corner of property from bluff.



Photo 6 - Southern portion of property from bluff.

PHOTO POINTS
PAPPINI



Photo 7 - Headgate and footbridge along Farmers Ditch.



Photo 8 - View of prairie dog barrier fence, looking northwest.

PHOTO POINTS
PAPPINI



Photo 9 - View east along south boundary.



Photo 10 - View east from near south boundary.

PHOTO POINTS
PAPPINI



Photo 11 - View north along wire fence.



Photo 12 - Constructed prairie dog hole in southwest corner of property.

PHOTO POINTS
PAPPINI



Photo 13 - View east from southwest corner.



Photo 14 - View north from southwest corner.

PHOTO POINTS
PAPPINI



Photo 15 - View south from northwest corner.



Photo 16 - View of northwest corner, looking west.

PHOTO POINTS
PAPPINI



Photo 17 - View south from near northwest corner.



Photo 18 - View southeast from near northwest corner.

PHOTO POINTS
PAPPINI



Photo 19 - View east along north boundary.



Photo 20 - View along Farmers Ditch in the west part of the property.

PHOTO POINTS
PAPPINI



Photo 21 - View west along north property boundary.



Photo 22 - View south from north property boundary.

PHOTO POINTS
PAPPINI



Photo 23 - View east along north property boundary.



Photo 24 - Large pond near the center of the property, looking south.

PHOTO POINTS
PAPPINI



Photo 25 - Faint two-track road through center of property, looking southeast.



Photo 26 - View of smaller pond in north-central part of the property.

PHOTO POINTS
PAPPINI



Photo 27 - View west from access road at the north property boundary.



Photo 28 - View along access road from the north property boundary.

PHOTO POINTS
PAPPINI



Photo 29 - View east from access road at the north property boundary.



Photo 30 - View west from northeast corner.

PHOTO POINTS
PAPPINI



Photo 31 - View south from northeast corner.



Photo 32 - Social trail entering property from east boundary.

PHOTO POINTS
PAPPINI



Photo 33 - Social trail entering property from east boundary.



Photo 34 - Potential encroachment along east property boundary.

PHOTO POINTS
PAPPINI



Photo 35 - Private footbridge accessing the property from the east.



Photo 36 - Private walk-in access gates along east property boundary.

PHOTO POINTS
PAPPINI



Photo 37 - Social trail across east portion of the property, looking east.