



# Bear Creek Regional Park

## Master Plan



*November, 2014*

## **Acknowledgements**

### **Board of County Commissioners**

Dennis Hisey, Chairperson  
Amy Lathen, Vice Chair  
Sallie Clark, Parks Liaison  
Darryl Glenn  
Peggy Littleton

Jeff Greene, County Administrator  
Monnie Gore, Deputy County Administrator

### **Park Advisory Board**

Barbara Remy  
Michael Straub  
Ann Nichols  
Jeff Cramer  
Anna Sparks  
Shirley Gipson  
Judi Tobias  
Terri Hayes  
Jane Dillon

### **Master Plan Advisory Committee**

Jeff Cramer, Park Advisory Board  
Debbie Bibb, Trails and Open Space Coalition Board  
Bill Koerner, Trails and Open Space Coalition  
Johnny Walker, Norris-Penrose Event Center  
Chris Leiber, City of Colorado Springs, Parks  
Michael Schultze, City of Colorado Springs, Land Use Review  
Risè Foster-Bruder, Friends of El Paso County Nature Centers  
Tammy Horner, Citizen  
Sandra Matthews, Citizen  
Tom Ori, Citizen  
Wilson Reynolds, Citizen  
Sarah Stowe, Citizen

### **Key Staff**

Tim Wolken, Community Services Department Director  
Elaine Kleckner, Planning Manager  
Tasha Brackin, Project Manager  
Todd Marts, Recreation and Cultural Resources  
Brad Bixler, Park Operations Manager  
Jason Meyer, Park Planner  
Ross Williams, GIS Specialist

## Table of Contents

<b>CHAPTER 1. Introduction.....</b>	<b>Page 1</b>
<b>CHAPTER 2. Site History.....</b>	<b>Page 2</b>
<b>CHAPTER 3. Public Outreach/Planning Process.....</b>	<b>Page 4</b>
<b>CHAPTER 4. Natural Resources, Improvements and Park Users.....</b>	<b>Page 7</b>
4.1 Natural Resources.....	Page 7
4.2 Improvements.....	Page 17
4.3 Park Users.....	Page 21
<b>CHAPTER 5. Conservation Easement.....</b>	<b>Page 23</b>
<b>CHAPTER 6. Goals and Objectives.....</b>	<b>Page 25</b>
<b>CHAPTER 7. The Plan.....</b>	<b>Page 27</b>
7.1 General Park and Trail Enhancements and Activities.....	Page 27
7.2 Park Rules.....	Page 29
7.3 Maintenance of Park Facilities.....	Page 29
7.4 Enhancements to Active-use areas.....	Page 30
7.5 New Facilities at Active-use areas (Concept Plans) .....	Page 33
7.6 Protection of Natural / Passive-use areas.....	Page 36
7.7 Recreation and Education .....	Page 37
7.8 Forest and Weed Management.....	Page 38
<b>CHAPTER 8. Implementation.....</b>	<b>Page 45</b>
8.1 Staffing and Funding.....	Page 45
8.2 Operations and Maintenance Costs.....	Page 47
8.3 Capital Costs.....	Page 47
8.4 Phasing.....	Page 48
8.5 Implementation Table.....	Page 48
<b>Bibliography.....</b>	<b>Page 57</b>
<b>Maps and Plans.....</b>	<b>Page 59</b>
<b>Appendices.....</b>	<b>Page 67</b>

---

## List of Maps and Plans

General Reference Map.....	Page 59
Conservation Easement Zone Map.....	Page 61
Creek Crossing Concept Plan.....	Page 63
Bear Creek Terrace North Concept Plan.....	Page 65
Bear Creek Terrace South Concept Plan.....	Page 67
Equestrian Skills Course Concept Plan.....	Page 69
Overlook Gardens Concept Plan.....	Page 71

## List of Appendices

A. Bear Creek Regional Park Master Plan Update Community Survey.....	Page 73
B. Public Meeting Notes – June Meeting.....	Page 85
C. Public Meeting Notes – September Meeting.....	Page 89
D. List of Wildlife Species Present at Park.....	Page 97
E. Bear Creek Regional Park Master Plan Estimated Maintenance Costs...	Page 117

## CHAPTER 1: INTRODUCTION

Bear Creek Regional Park is located on the western edge of the City of Colorado Springs, within El Paso County, Colorado. The park includes over 545 acres of rolling hillside land nestled in the foothills beneath Pikes Peak. Bear Creek Regional Park is the most frequently visited park within the El Paso County park system. It is a unique park, in that it is owned and operated by El Paso County, yet is entirely surrounded by the urbanized area of the City of Colorado Springs. The park provides a variety of active and passive outdoor recreation opportunities for citizens of El Paso County as well as a large number of visitors each year.

The existing Bear Creek Regional Park Master Plan was prepared in 2008. Many of the recommendations of the past plan have been implemented, but some recommendations were investigated and deemed to not be feasible for a variety of reasons. The national recession that weakened the economy caused a shift in funding within the County, resulting in budget and personnel cuts that created ongoing challenges for park maintenance. Nevertheless, there have been substantial investments in the park since 2008, including the following actions:

- Expanded and repaired several miles of trails within the park;
- Renovated restroom at Bear Creek Terrace;
- Renovated northwest tennis courts;
- Paved parking area;
- Improved and expanded archery course;
- Enhanced landscaping near tennis courts.

In addition to these accomplishments, there have been changes in the demographics of, and interests among, park users. The community is requesting new, updated, and/or different facilities as a result of the population growth and cultural changes within the region. The survey conducted for the El Paso County Parks Master Plan Update of 2013 documents some of these new requests, and demonstrates that an update to the Bear Creek Master Plan would be a very timely and worthwhile exercise. A park-specific survey was also conducted as part of the Bear Creek Regional Park Master Plan update of 2014, and is included as Appendix A to this Plan.

This Plan will be used by County Park staff and policy makers to aid in decisions related to capital improvements, maintenance, and land stewardship activities for the next 5-10 years. For the purpose of this master plan update, the Bear Creek Dog Park is not included. There exists a separate master plan for the dog park that was prepared in 2008 and remains relevant. The Dog Park Master Plan addresses very specific issues and recommendations that are particularly focused on the activities and unique features of the dog park. The dog park master plan will be updated as needed, as part of a separate planning effort.



*One of the many scenic views from within Bear Creek Regional Park*

## CHAPTER 2: SITE HISTORY

Bear Creek Regional Park, situated at the mouth of Bear Creek Canyon, has a varied history, including utilization as a hunting ground, then as a crucial crossroad for explorers and settlers, a gateway to the gold mines, a ranch, a place of refuge, and is now enjoyed by all as a regional park.

According to numerous accounts, the original inhabitants of the Pikes Peak region were the Ute Indians, who lived in the mountains and valleys of Colorado, Utah and part of New Mexico and Arizona. One band of the nomadic Utes roamed from the foothills of Pikes Peak to the valleys west of the Peak. They had a summer camp near Glen Eryie and probably hunted in Bear Creek Canyon during the summer. They called themselves “Nuche” or “the People”, and were credited by early pioneers with establishing the first trail to the summit of Pikes Peak. This trail, the Old Bear Creek trail, became the primary route to the summit of Pikes Peak until 1877 or so when the Barr Trail was established.

In May 1899, El Paso County purchased the Liebig Ranch for \$18,000. The property would eventually become Bear Creek Regional Park. The early 1900's was the beginning of the Progressive Era, a time for social reform where concern for public health and safety was raised.



*Poor Farm 1909*

In October of 1900, El Paso County constructed a Poor Farm facility for \$25,000 on the Liebig Ranch site where Park Headquarters stands today. It was dedicated as a place to shelter the homeless, which included the elderly, mentally ill and addicted members of society. At its height, the Poor Farm consisted of one main residential building, several outlying buildings serving as dormitories for nearly 80 people, and a 500-acre working farm complete with hogs, chickens, and dairy cattle.



Alfalfa and rye were the main crops, and a garden was maintained near the present day garden plots. The Poor Farm was run by a full time staff with the help of able-bodied residents. The residents of the Poor Farm came for a variety of reasons that included poverty, mental illness, mental retardation, or alcoholism and drug addiction. Also, the elderly who were unable to care for themselves were given care at the Poor Farm.

In March of 1901, the golden spike was driven into the completed Colorado Springs and Cripple Creek District Railroad (“The Short Line”) runs through Bear Creek Canyon. The main purpose of the railroad was to transport gold ore from the mines in Cripple Creek to the Golden Cycle Mill in Colorado Springs. It also became a popular way for tourists to travel to Cripple Creek. President Teddy Roosevelt was a prominent passenger. He described his experience as “the trip that bankrupts the English language”. In 1920 the Short Line Railroad went bankrupt since there was little gold to transport. It was sold at public auction to W.D. Corley in 1922. He turned the railroad bed into the Corley Mountain Highway, a toll road. The highway operated from 1924 to 1939 when the use permit from the Forest Service expired. In 1940, the road was renamed Gold Camp Road and operated by the U.S. Forest Service as a public road.



*Colorado Springs and Cripple Creek District Railroad*

The county Smallpox Hospital was built on the site in 1901 and served as an isolation hospital for victims of smallpox. At the corner of 21<sup>st</sup> Street and Lower Gold Camp Road, the Paupers cemetery was developed for the final resting place for victims of smallpox. The Poor Farm closed in 1984 due to a variety of issues, including the poor conditions of the buildings.

In 1968, the county land that had been part of the original Liebig ranch purchase, except the buildings, was set aside for open space. In the early 1970s, a struggle ensued between developers, who were interested in constructing homes, and citizens, who wanted the property used as open space or a county park. In 1972, the land was turned over to El Paso County Parks and Recreation for use as a park for all citizens of El Paso County.



*Bear Creek Nature Center*

In 1976, the Solar Trails Center was constructed and completed. Its purpose was to increase awareness and understanding of the natural and historic environment of these foothills. In 1979, it was renamed Bear Creek Nature Center, and remodeled in 1993-1995 with a new emphasis on the foothills ecosystem. A fire destroyed much of the nature center in 2001. With the significant public support, the nature center was rebuilt and expanded to its present day form.

During the 1970's the property west of 21st Street, then known as Bear Creek Gardens and now known as Bear Creek Terrace, was added to the regional park. The development of Bear Creek Terrace was completed in 1986.

In 1987 the Park Administration Office building was added to Bear Creek Regional Park. The Bear Creek Dog Park was added in 1996 to provide an off-leash facility for dogs and is one of the more popular facilities in the park. The Bear Creek Dog Park, although within the property boundary of BCRP, has become such a popular facility that it has its own "Friends" group, and its own separate master plan, and therefore the area is excluded from this master plan.



*Bear Creek Nature Center Entrance Sign*



### CHAPTER 3: PUBLIC OUTREACH/PLANNING PROCESS

The Bear Creek Regional Park Master Plan update process began with the establishment of an advisory committee in February of 2014, comprised of citizens who live near the park, as well as certain subject matter experts. Committee members were selected based upon their representing the interests of the County park users as a whole, as well as specific users, such as equestrians, hikers, nature center volunteers, and conservation interests. All Committee members were very familiar with the park and visited it often. The members also conducted numerous conversations with interested neighbors and friends to seek input, and make recommendations to County staff regarding the Master Plan. This committee worked with County staff to prepare a community survey, which was distributed in the Spring of 2014 seeking comments from the general public related to park improvements. County staff and the Committee used the survey results, in combination with input from the public meeting held in June, and historic requests known to staff, to develop site-specific concept plans illustrating park enhancements for consideration in the Master Plan. In addition to the two public meetings and three committee meetings that occurred over the course of 2014, the Master Plan will be presented at public hearings before the Park Advisory Board for endorsement in November 2014, and the Board of County Commissioners for approval in December 2014. Below is the timeline for completion of the plan.

BCRP-Master Plan Update Project Timeline											
	2014										
Task	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Review Existing Plans, Reports, Documents	█										
Staff meeting and internal assessment	█										
Data Collection/ Analysis	█	█									
Prepare Existing Conditions Report		█	█								
Establish Committee		█	█								
Committee Meeting #1			█								
Prepare and Distribute Survey			█								
Conduct Public Meeting				█							
Analyze Input and Develop Recommendations				█							
Committee Meeting #2					█						
Identify Proposed Projects and Costs					█	█					
Develop Draft Master Plan						█	█	█			
Committee Meeting #3								█			
Draft Master Plan Public Meeting								█			
Produce Final Master Plan									█		
PAB Presentation/ Approval										█	
BoCC Presentation/ Approval											█

## Public Survey

A community survey was distributed electronically via email, posted on the County website, as well as provided at the Park Administration Building and at the Bear Creek Nature Center in hard-copy format, to collect input from citizens about Bear Creek Regional Park. A press release notification of the survey was issued, and advertisements were published in the Cheyenne Edition and Westside Pioneer newspapers. In all, over 400 survey responses were received. Input from the surveys was used in conjunction with the comments from the public meetings to establish an inventory of issues, needs, and opportunities at the park.

The results of the survey demonstrated that the park's trail system is the most popular feature. Over 73% of survey participants' rank trails as their favorite feature of the park, and 40% of respondents would like to see the trail system expanded. Approximately 43% of respondents would like to see the amount of open space and/or natural areas expanded. There were a significant number of respondents that value the park for its active use area, however over 50% of participants prefer to leave the following facilities and improvements as they are at present, rather than seeing major improvements or expansions:

- Pavilions
- Playgrounds
- Landscaping
- Community garden
- Dog park
- Volleyball courts
- Tennis courts
- Multi-use fields

Positive comments were received supporting protection of natural resources for wildlife and passive enjoyment. The majority of comments regarding maintenance of facilities were in favor of "taking care of what we have" before adding new amenities to park facilities. This recommendation is consistent with public input received during the update of the El Paso County Parks Master Plan in 2013. All comments and suggestions were taken into consideration in preparing goals and objectives for this document. A copy of the survey results is attached as Appendix A.

## Public Meetings

El Paso County hosted two public meetings to provide information about the planning process and to collect public input on elements of the Master Plan. The meetings were held at the Bear Creek Nature Center, and involved both a staff presentation on the plan, as well as an open house to allow individuals to view specific maps and project descriptions. Public feedback was solicited through general discussion, written comments, and voting on specific facility improvement priorities.

Meeting notes summarizing the comments provided at the June and September public meeting are included as Appendices B and C. Additional public hearings will be held before the Park Advisory Board and Board of County Commissioners prior to plan adoption.

## County Website & Email

The County maintained a website throughout the public process. The website provided a link to the public survey and a summary of the master plan update process, as well as information about the advisory committee and the proposed conservation easement. A list of people including their email addresses was generated based upon citizens who signed up at public meetings as "Interested Parties", members of local homeowners associations, and participants in the conservation easement project. These people were contacted via email and encouraged to participate in the plan update.

## CHAPTER 4: NATURAL RESOURCES, IMPROVEMENTS AND PARK USERS

This chapter contains information about the natural features of the park, including topography, soils, geology, hydrology, vegetation, wildlife, and scenic attributes. In addition, a description of the structures and improvements that exist at the park are listed at the end of this chapter.

Bear Creek Regional Park is a 545-acre public amenity owned and operated by El Paso County. Located within the City of Colorado Springs, the park is surrounded by urban development. Bear Creek Regional Park is informally divided into two main portions, East and West, which are divided by 21<sup>st</sup> Street. Additional designations have been applied to certain areas within the park based upon the facilities that occur there, and these areas are shown on Map 1, General Reference Map.

Improved areas within the portion known as “Bear Creek West” include: the Bear Creek Nature Center; the Storage Yard (along Lower Gold Camp Road); the Dog Park; Bear Creek Terrace North, and Bear Creek Terrace South. On the opposite side of 21<sup>st</sup> Street, the area known as “Bear Creek East” includes the Parks Administration area; Community Gardens; Maintenance Shop; and the Equestrian area that presently contains several advanced equestrian jumps. These areas are connected via a system of multi-use trails that meander throughout the park’s open space. In addition, a number of secondary trails have been established for limited purposes, such as the Songbird Trail, a single-track nature trail near the Bear Creek Nature Center that runs alongside the creek within sensitive riparian vegetation and offers handicapped-accessible viewing of wildlife.

### 4.1 NATURAL RESOURCES

Below are descriptions of the natural aspects of the park, including topography, climate, soils, hydrology, vegetation, wildlife, and scenic resources. The baseline report for the Bear Creek Regional Park Conservation Easement prepared by Blue Mountain Environmental Consulting in 2014 is the source for much of this information.

#### Topography

Bear Creek Regional Park is situated along the foothills of the Front Range on rolling hills that are punctuated by small creeks that drain towards the east. Elevation ranges between 6,100 feet at the northeast corner and 6,500 feet at the southwest corner.



*Topography of Bear Creek Regional Park*

#### Climate

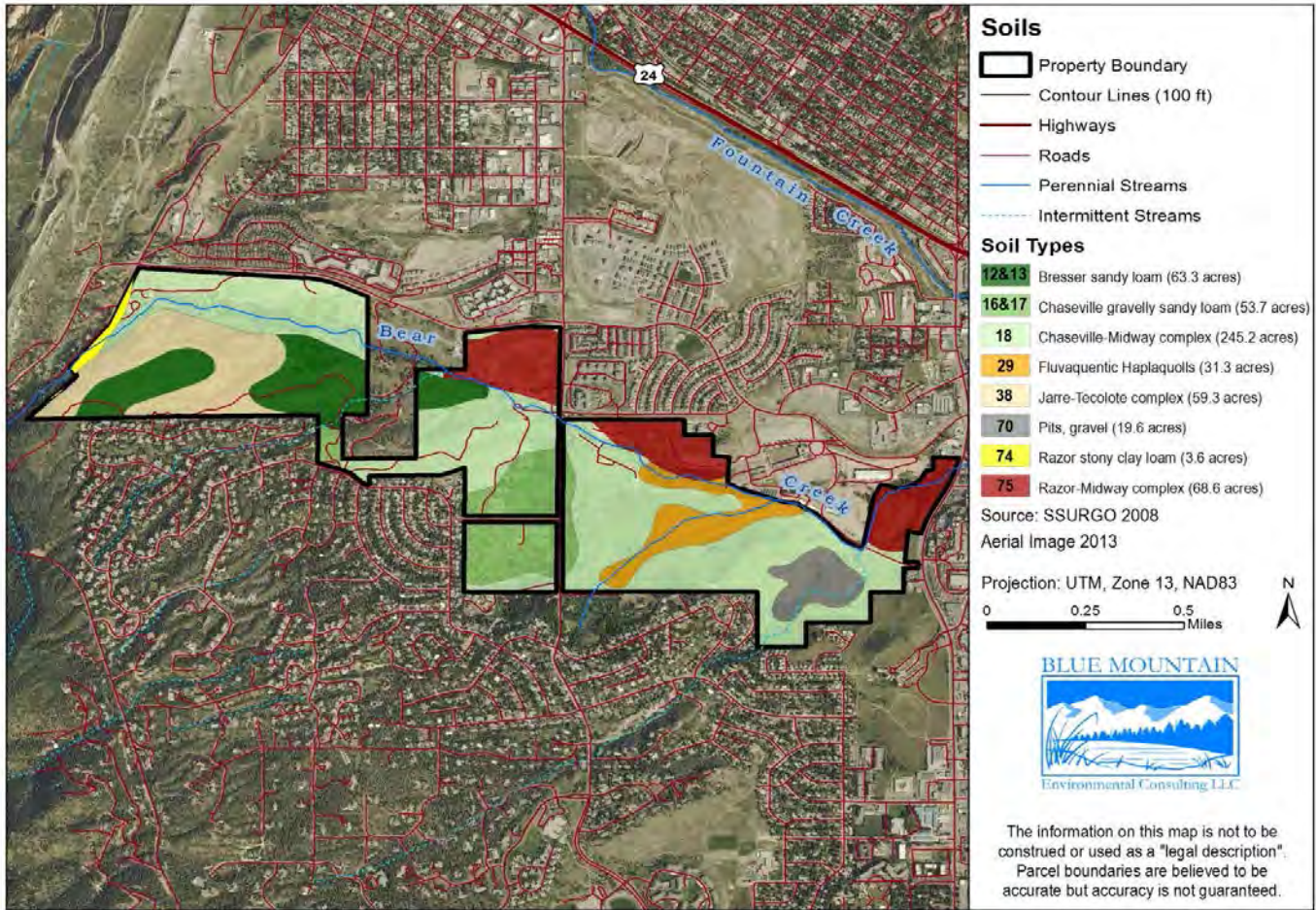
Bear Creek Regional Park is located within Colorado Springs city limits in El Paso County, Colorado. Average annual precipitation for the nearest climate station at Colorado Springs is 15.74 inches and average snowfall is 39.0 inches. Average maximum temperature is 62.3 degrees (F) and average minimum temperature is 35.6 degrees (F).

#### Soils

Soils perform a range of functions that support key processes in biomass production (crops and forestry), and sustainably managed soils also support a range of ecological services, including water



purification and habitat diversity. The distribution of soil types at Bear Creek Regional Park is illustrated on the following Soils Map.



Soil types on the Property were identified on the Web Soil Survey (2014). A description of soil types at Bear Creek Regional Park is provided in the following table.

NAME	ACRES	PATHS AND TRAILS	WIND ERODIBILITY	RANGE SITE	K FACTOR	DRAINAGE CLASS
Bresser Sandy Loam	63.3	Somewhat Limited	3	Sandy Foothill	.20	Well Drained
Chaseville Gravelly Sandy Loam	53.7	Somewhat Limited	3	Gravelly Foothill	.15	Somewhat Excessively Drained
Chaseville Midway Complex	245.2	Very Limited	3	Gravelly Foothill	.15	Somewhat Excessively Drained
Fluvaquentic Haplaquolls	31.3	Not Rated	8	N/A	N/A	Poorly Drained

Jarre-Tecolote Complex	59.3	Somewhat Limited	3	Loamy Park	.10	Well Drained
Pits-Gravel	19.6	Not Rated	8	N/A	.02	N/A
Razor Stony Clay Loam	3.6	Somewhat Limited	4L	Clayey Foothill	.15	Well Drained
Razor-Midway Complex	68.6	Somewhat Limited	4L	Alkaline Plains	.15	Well Drained

*Source: Bear Creek Regional Park Conservation Easement Baseline Report, 2014*

## Hydrology

Bear Creek Regional Park is located within the Fountain Creek Watershed, which includes approximately two and a half miles of Bear Creek within the Property. The watershed is an important recreation area along the Front Range of Colorado, providing recreation opportunities on a well-established trail network. It also supports the sole known remaining population of genetically pure greenback cutthroat trout within the upper reach of Bear Creek (Metcalf et al. 2012).

The Fountain Creek Watershed is one of 13 watersheds located within the Upper Arkansas River Basin of the Arkansas-White-Red water-resource region, which includes all of Oklahoma and parts of Arkansas, Colorado, Kansas, Louisiana, Missouri, New Mexico and Texas. The Arkansas River is the main drainage of the 24,600-square-mile Upper Arkansas River Basin. This sub-region includes portions of the states of Colorado, Kansas and New Mexico. The Arkansas River flows from its headwaters above 12,500 feet in the Mosquito Range northeast of Leadville through Pueblo and onto the Great Plains. High-altitude snowfall and subsequent spring runoff in the Mosquito, Sawatch and Sangre de Cristo mountain ranges dictate the river's flow regime. In Oklahoma, the Arkansas River is joined by its two major tributaries, the Cimarron River and the Canadian River. The river then continues east across Arkansas where it connects with the Mississippi River.



*Greenback Cutthroat Trout (Source: USFWS)*

## Vegetation

Bear Creek Regional Park contains 12 land-cover types, according to the Southwest Regional Gap Analysis Project (SWReGAP) classification scheme, which result from topographic, edaphic or cultural influences. A majority of the Property is classified as Rocky Mountain and is comprised of Gambel Oak-Mixed Montane Shrubland and Lower Montane Riparian Woodland and Shrubland land-cover types. The following discussions of land-cover types were obtained from the SWReGAP Land-cover Legend Description Database, referenced in the bibliography at the end of this document.

Land cover descriptions for Bear Creek Regional Park include:



**Agriculture (19.6 acres):** This land-cover type includes areas of grasses, legumes or grass-legume mixtures planted for livestock grazing or the production of seed or hay crops, typically on a perennial cycle.

**Developed, Med-High Intensity (10.2 acres):** This type includes areas with a mixture of constructed materials and vegetation. Impervious surface accounts for 50-79 percent of the total cover. It also includes highly developed areas where people reside or work in high numbers. Impervious surfaces account for 80 to 100 percent of the total cover.

**Developed, Open Space-Low Intensity (43.9 acres):** This land-cover type includes areas with a mixture of some construction materials, but mostly vegetation in the form of lawn grasses. Impervious surfaces account for less than 20-49 percent of total cover. These areas most commonly include large-lot single-family housing units, parks, golf courses, and vegetation planted in developed settings for recreation, erosion control, or aesthetic purposes.

**Invasive Perennial Grassland (7.3 acres):** These areas are dominated by introduced perennial grass species such as crested wheatgrass (*Agropyron cristatum*), smooth brome (*Bromus inermis*), Lehmann lovegrass (*Eragrostis lehmannianna*), fountaingrass (*Pennisetum* spp.), bulbous bluegrass (*Poa bulbosa*), Kentucky bluegrass (*P. pratensis*) and intermediate wheatgrass (*Thinopyrum intermedium*).

**Rocky Mountain Gambel Oak-Mixed Montane Shrubland (202.0 acres):**

These shrublands are most commonly found along dry foothills, lower mountain slopes, and at the edge of the western Great Plains and are often situated above pinyon-juniper woodlands. Vegetation is typically dominated by Gambel oak (*Quercus gambelii*) alone or codominant with Saskatoon serviceberry (*Amelanchier alnifolia*), Utah serviceberry (*Amelanchier utahensis*), big sagebrush (*Artemisia tridentata*), mountain mahogany (*Cercocarpus montanus*), chokecherry (*Prunus virginiana*), Stansbury cliffrose (*Purshia stansburiana*), antelope bitterbrush (*Purshia tridentata*), New Mexico locust (*Robinia neomexicana*), mountain snowberry (*Symphoricarpos oreophilus*) or roundleaf snowberry (*Symphoricarpos rotundifolius*).



Rocky Mountain Gambel Oak-Mixed Montane Shrubland

**Rocky Mountain Lower Montane Riparian Woodland & Shrubland (105.9 acres):** This land-cover type often occurs as a mosaic of multiple communities that are tree-dominated with a diverse shrub component. This system is dependent on a natural hydrologic regime, especially annual to episodic flooding. Occurrences are found within the flood zone of rivers, on islands, sand or cobble bars, and immediate streambanks. Dominant trees may include boxelder (*Acer negundo*), narrowleaf cottonwood (*Populus angustifolia*), balsam poplar (*Populus balsamifera*), eastern cottonwood (*Populus deltoides*), Fremont cottonwood (*Populus fremontii*), Douglas-fir (*Pseudotsuga menziesii*), blue spruce (*Picea pungens*), peachleaf willow (*Salix amygdaloides*) or common juniper (*Juniperus scopulorum*). Dominant shrubs include Rocky Mountain maple (*Acer glabrum*), gray alder (*Alnus incana*), water birch (*Betula occidentalis*), redosier dogwood (*Cornus sericea*), river

hawthorn (*Crataegus rivularis*), stretchberry (*Forestiera pubescens*), chokecherry, sumac skunkbrush (*Rhus trilobata*), willow (*Salix* spp.), silver buffaloberry (*Shepherdia argentea*) or snowberry. (This community type was not identified in the National Wetland Inventory database for Bear Creek Park.)

**Rocky Mountain Ponderosa Pine Woodland (5.6 acres):** These woodlands occur at the lower treeline/ecotone between grassland or shrubland and more mesic coniferous forests typically in warm, dry, exposed sites. Occurrences are found on all slopes and aspects; however, moderately steep to very steep slopes or ridgetops are most common. Ponderosa pine (*Pinus ponderosa*; primarily var. *scopulorum* and var. *brachyptera*) is the predominant conifer; Douglas-fir, twoneedle pinyon (*Pinus edulis*), and juniperus may be present in the tree canopy. The understory is usually shrubby, with black sagebrush (*Artemisia nova*) big sagebrush, greenleaf manzanita (*Arctostaphylos patula*), kinnickinnik (*Arctostaphylos uva-ursi*), mountain mahogany, Stansbury bitterbrush, antelope bitterbrush, Gambel oak, mountain snowberry, chokecherry, Saskatoon serviceberry, and rose. Bluebunch wheatgrass (*Pseudoroegneria spicata*) and species of needle and thread (*Hesperostipa* spp.), needlegrass (*Achnatherum* spp.), fescue (*Festuca* spp.), muhly (*Muhlenbergia* spp.) and grama grass (*Bouteloua* spp.) are some of the common grasses. Mixed fire regimes and ground fires of variable return intervals maintain these woodlands, depending on climate, degree of soil development, and understory density.



*Ponderosa Pine Woodland*



*Pinus Edulis*

**SRM Pinyon-Juniper Woodland (1.0 acres):** This land-cover type occurs on warm, dry sites on mountain slopes, mesas, plateaus and ridges. Twoneedle pinyon and/or oneseed juniper (*Juniperus monosperma*) dominate the tree canopy. Common juniper may codominate or replace oneseed juniper higher elevations. Understory layers are variable and may be dominated by shrubs, grasses or be absent.

**Western Great Plains Floodplain Herbaceous Wetland (6.7 acres):** Alluvial soils and periodic, intermediate flooding (every 5-25 years) typify this system. Dominant communities within this system range from floodplain forests to wet meadows to gravel/sand flats; however, they are linked by underlying soils and the flooding regime. Dominant species include eastern cottonwood and willow. Grass cover underneath the trees is an important part of this system and is a mix of



tallgrass species, including switchgrass (*Panicum virgatum*) and big bluestem (*Andropogon gerardii*). This class is identified as either PEMC or PEMCh in the wetland section below.

**Western Great Plains Foothill & Piedmont Grassland (117.1 acres):** This land-cover type usually has multiple plant associations that may be dominated by big bluestem, little bluestem (*Schizachyrium scoparium*), mountain muhly (*Muhlenbergia montana*), green needlegrass (*Nassella viridula*), western wheatgrass (*Pascopyrum smithii*), sand dropseed (*Sporobolus cryptandrus*), blue grama (*Bouteloua gracilis*), needle and thread (*Hesperostipa comata*) or New Mexico feathergrass (*Hesperostipa neomexicana*). Typical adjacent ecological systems include foothill shrublands, ponderosa pine savannas, juniper savannas, as well as shortgrass prairie.

**Western Great Plains Riparian Woodland & Shrubland (16.9 acres):** This system is found in the riparian areas of medium and small rivers and streams throughout the Western Great Plains. Communities within this system range from riparian forests and shrublands to gravel/sand flats. Dominant species include eastern cottonwood, willow, silver sagebrush (*Artemisia cana* ssp. *cana*), western wheatgrass, sand dropseed and little bluestem. Tamarisk (*Tamarix* spp.) and less desirable grasses and forbs can invade degraded areas.



Western Great Plains Shortgrass Prairie

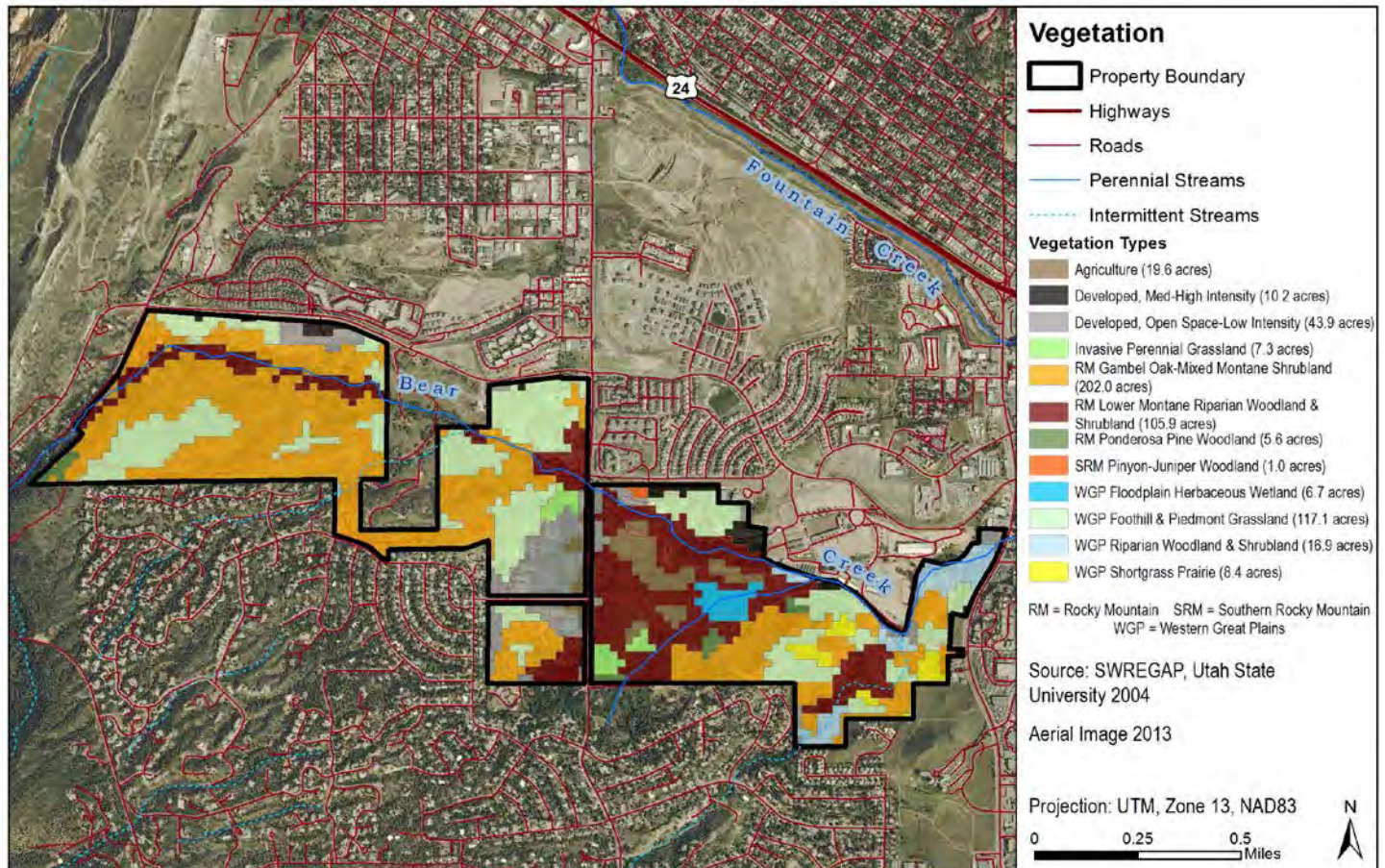
**Western Great Plains Shortgrass Prairie (8.4 acres):** Blue grama dominates this land-cover type. Associated grasses may include purple threeawn (*Aristida purpurea*), sideoats grama (*Bouteloua curtipendula*), hairy grama (*Bouteloua hirsuta*), buffalograss (*Buchloe dactyloides*), needle and thread, junegrass (*Koeleria macrantha*), western wheatgrass, galleta (*Pleuraphis jamesii*), alkali sakaton (*Sporobolus airoides*) and sand dropseed. Although mid-height grass species may be present, especially on more mesic land positions and soils, they are secondary in importance to the sod-forming short grasses. Sandy soils have higher cover of needle and thread, sand dropseed and soap tree yucca (*Yucca elata*). Scattered shrub and dwarf-dwarf species such as sand sagebrush (*Artemisia filifolia*), fringed sagebrush (*Artemisia frigida*), big sagebrush, fourwing saltbush (*Atriplex canescens*), spreading buckwheat (*Eriogonum effusum*), broom snakeweed (*Gutierrezia sarothrae*) and pale desert-thorn (*Lycium pallidum*) may also be present. Large-scale processes such as climate, fire and grazing influence this system. The short grasses that dominate this system are extremely drought- and grazing-tolerant. This system in combination with the associated wetland systems represents one of the richest areas for mammals and birds. Endemic bird species to the shortgrass system may constitute one of the fastest declining bird populations.



Blue grama



Below is a map illustrating vegetation types at Bear Creek Regional Park (“BCRP”):



Source: Bear Creek Regional Park Conservation Easement Baseline Report, 2014

### Invasive Vegetation

Noxious weeds are invasive, non-native plants that have been introduced without any natural biological controls. This allows them to spread readily, dominate a site and crowd out native plant species. They are most commonly established on soils that have been disturbed by construction, vehicles, road maintenance, erosion, or overgrazing. The Colorado Noxious Weed Act (35-5.5-101-119. C.R.S) regulates the control of noxious weeds in Colorado. There are three categories of Noxious Weeds separated into lists A, B, and C. List A species are mandated to be eradicated. Species on List B require a plan to stop their spread. List C species should have plans to provide educational, research, and biological control resources for management (Colorado Weed Management Association 2004).

The table that follows shows the noxious weed species identified in the park, and describes their abundance, and rankings of concern (one being of greatest concern, three being of least concern).

NOXIOUS WEED SPECIES POTENTIALLY OCCURRING AT BEAR CREEK REGIONAL PARK			
Common Name	Scientific Name	Abundance	Ranking
Canada Thistle	<i>Cirsium arvense</i>	Abundant	2
Diffuse Knapweed	<i>Centaurea diffusa</i>	Moderate	2

Musk Thistle	<i>Carduus nutans</i>	Moderate	3
Yellow Toadflax	<i>Linaria vulgaris</i>	Moderate	2
Dalmatian Toadflax	<i>Linaria dalmatica</i>	Rare	2
White Top	<i>Cardaria draba</i>	Moderate	2
Common Burdock	<i>Arctium minus</i>	Moderate	3
Common Mullein	<i>Verbascum thapsus</i>	Moderate	3
Common Teasel	<i>Dipsacus fullonun</i>	Abundant	2 or 3
Poison Hemlock	<i>Conium maculatum</i>	Moderate	2 or 3
Field Bindweed	<i>Convolvulus arvensis</i>	Abundant	3
Bouncingbet	<i>Saponaria officinalis</i>	Moderate	1
Chinese Clematis	<i>Clematis orientalis</i>	Abundant	1

Source: Bear Creek Regional Park Conservation Easement Baseline Report, 2014

Of the species of noxious weeds found in BCRP, Canada thistle is the only noxious weed subject to mandatory control. Within BCRP, this species is intermixed with common teasel and may occur in dense stands or as single plants intermixed with other species. Because of this variation in density, it is almost impossible to consistently and accurately map the full extent of the Canada thistle populations in BCRP. Additional information specific to noxious weeds is included in Chapter 7.

### Wetlands and Riparian Areas

There are two types of isolated wetlands on the property including PEMC (palustrine emergent seasonally flooded) and PEMCh (palustrine emergent seasonally flooded, diked or impounded). Both wetlands are in the palustrine system which includes all nontidal wetlands dominated by trees, shrubs, emergents, mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean derived salts is below 0.5 ppt. Code descriptions and data for the discussion of wetland and riparian areas are from the National Wetlands Inventory.



Bear Creek Riparian Area

Wetland and riparian areas are highly prized for their recreation, fish and wildlife, water supply and cultural and historic values. According to Riparian Area Management (Prichard et al. 1998), riparian wetlands function properly when there is adequate vegetation, landforms or large woody debris present to:

- dissipate stream energy associated with high water flow,
- filter sediment, capture bedload and aid floodplain development,
- develop root masses that stabilize streambanks,
- develop diverse ponding and channel characteristics to provide the habitat and the water depth, duration and temperature necessary for fish production, waterfowl breeding and other uses and
- support greater diversity.



Riparian condition at BCRP is best on the western portion of the Property near the Nature Center, and gradually declines as the creek flows to the east. The western portion of Bear Creek is characterized by a robust and diverse riparian corridor with clear waters while the eastern portion of the creek is characterized by a greater preponderance of exotic species, incised banks and a marked increase in turbidity. In addition to providing tremendous wildlife habitat, this creek is important because, at present, the sole known remaining population of genetically pure greenback cutthroat trout can be found in its waters upstream from Bear Creek Regional Park.

## Wildlife

Ranging in elevation from 5,100 feet to 14,115 feet, El Paso County provides wildlife with an extremely diverse range of habitat. The lowland riparian corridor and surrounding shortgrass prairie at BCRP provide habitat to numerous wildlife species. According to the Bear Creek Nature Center Field Checklist of Colorado Birds, 204 different species of birds have been seen utilizing the Property at different times of the year. A comprehensive list of wildlife species, their probability of occurrence and their abundance is provided in Appendix D.



*White-tailed fawn*

In Colorado, habitats associated with rivers, streams and lakes have the highest wildlife species richness and density and are used by more than 429 of the 680 vertebrate species found in Colorado. Also, according to the State Wildlife Action Plan (SWAP), Bear Creek Regional Park is on the “high priority habitat for protection from disturbance” for multiple species including mule deer, Mexican spotted owl, and greenback cutthroat trout.

El Paso County provides habitat for 16 special-status species (NDIS, n.d.). Included in this category are federal candidates, federally endangered, state endangered, state threatened and state species of special concern. There also 35 game species including big game, furbearer, small game bird, small game mammal and other game species (NDIS, n.d.). The table of special-status and game species that follows was developed following site visits and conversations with the Park Staff. Also included are species identified by the Wildlife Resource Information Source (WRIS) as having potential habitat on the Property.

SPECIES	GLOBAL STATUS	STATE STATUS	PROBABILITY
Colorado Checkered Whiptail	G2G3	S2	Uncommon
Hops Azure	G2G3	S2	Uncommon
Mountain Plover	G3	SB2	Known/ Likely
Gunnison’s Prairie Dog	G5	S5	Uncommon
Arkansas Darter	G3G4	S2	Uncommon
Cutthroat Trout	G4	S4	Known
Greenback Cutthroat Trout	G4T2T3	S2	Known
Mexican Spotted Owl	G3T3	S1B	Known

Preble's Meadow Jumping Mouse	G5T2	S1	Uncommon
Abert Squirrel	CPW Small Game		Known
Elk	CPW Big Game, CPW WRIS		Known
Geese	CPW Small Game		Possible
Great blue heron	CPW WRIS		Known
Mountain lion	CPW Big Game, CPW WRIS		Known
Mule deer	CPW Big Game, CPW WRIS		Known
Pronghorn	CPW Big Game, CPW WRIS		Known
White-tailed deer	CPW Big Game, CPW WRIS		Known

Source: Bear Creek Regional Park Conservation Easement Baseline Report, 2014

## Scenic Resources

Scenic resources, as defined by Scenic America, are “the visual attributes of landscape that include features having natural, cultural, social, historic, archaeological, and recreational significance; and views that are distinctly characteristic of a region” (Byers & Ponte 2005). The Internal Revenue Service Code §1.170A-14 expands the definition of “scenic” for conservation easement purposes, to include the preservation of open space for the scenic enjoyment of the general public. The IRS Code suggests the factors to be considered when evaluating scenic and open-space qualities of a landscape include: the compatibility of the land use with other land in the vicinity, visual contrast, openness, relief from urban closeness, harmonious variety of shapes and textures, the degree to which the land use maintains the scale and character of the urban landscape (to preserve open space, visual enjoyment, and sunlight for the surrounding area) and consistency of the proposed scenic view with a state scenic identification program.



View of Pikes Peak and Bear Creek Terrace North

Bear Creek Regional Park supports a variety of attractive plant types including scrub (Gambel) oak, mountain mahogany, native grasses, and wildflowers. Scrub oak thickets, cottonwood riparian areas, ponderosa pine forests, native grasslands, and interesting geological formations give this park its varied character. Development of the Property would degrade scenic values because it is largely undeveloped, but is situated among the urbanized community of Colorado Springs. The entire park is visible from points accessible to the general public from outside the Property. Views from inside the Property boundaries showcase views of Pikes Peak, Cheyenne Mountain and other peaks along the Front Range. Because the public has access to the entire park, and therefore views from the entire property, w, scenic views are a resource at the Park that warrant preservation.

## 4.2 IMPROVEMENTS

Bear Creek Regional Park supports public recreational uses in the form of picnic pavilions, playfields, tennis courts, playgrounds, an archery range, horseshoe pits and volleyball and basketball courts. The park also provides over 12 miles of multi-purpose, non-motorized trails that

wind throughout the park and along Bear Creek. Approximately two and a half miles of Bear Creek meanders through the park. Adjacent and nearby park lands are managed by the City of Colorado Springs and include the Bear Creek Canyon Park and Red Rock Canyon Open Space to the west, and North Cheyenne Canyon Park to the south. The Bear Creek Regional Park property is surrounded by privately owned lands on all sides, including the Norris Penrose Event Center and multiple residential neighborhoods.



*View of Pavilions at Bear Creek Terrace North*

Bear Creek Regional Park has extensive improvements for recreational and educational uses. The main areas that contain these improvements are illustrated on the General Reference Map provided at the end of this document.

Other improvements such as utility lines and park infrastructure exist that are not mapped. Below is a discussion of the main improved areas within Bear Creek Regional Park, starting with the portion of the park known as Bear Creek East, and then discussing the portion known as Bear Creek West.

**Administration Area:** This area is home to the El Paso County Community Services Administration building, which handles reservations, community outreach, grant administration and park planning functions. The headquarters building also houses support facilities for staff, including seven offices, restrooms, an employee break room, copier/supply room, a drinking fountain, and a public community room available to citizens and groups for meetings, with separate restroom facilities open to park users. Two picnic pavilions are located near the southeast corner of 21<sup>st</sup> street and Rio Grande. This area is served by an unpaved parking lot and includes a sand volleyball court and a horseshoe pit. The two large picnic pavilions can be reserved (for a fee) by private parties for special events. The area also includes a playground for elementary-school-aged children.



*Community Garden*

**Community Garden:** A non-profit organization has entered into a facility use agreement with El Paso County to operate the community garden. The garden is served with potable water from Colorado Springs Utilities and offers garden plots to citizens for use on a seasonal basis. Two unpaved parking areas serve the garden.

**Bear Creek Maintenance Shop Area:** The Maintenance Shop area includes a storage yard that is used for outdoor storage of various landscape materials, equipment and vehicles. The area also contains various outbuildings as well as a fueling station. An unpaved parking area for staff is located

just outside the lockable gate to the storage yard (a layer of asphalt millings has been spread over this parking area as a better all-weather surface). The main shop building accommodates an operations office, maintenance worker's offices, break room, vehicle bays for maintenance and repair of park equipment, and indoor storage of tools and materials.



**Parking Areas:** Multiple paved and unpaved parking areas are provided throughout Bear Creek Regional Park. Within Bear Creek East, the parking area normally used by equestrians is located off the paved main Bear Creek East entrance driveway, and consists of an unpaved parking area adjacent to the creek and trail. This lot is commonly used by equestrians due to the unpaved surface there, and the large turning radius required by horse trailers. Another unpaved parking area occurs uphill from the equestrian lot, and a large unpaved parking lot serves the playground and pavilion area. A paved parking lot serves the Park Administration building. Parking areas within Bear Creek West are also a mix of paved and unpaved areas, as described below.

**Bear Creek Terrace North:** The most developed portion of the Property, Bear Creek Terrace includes areas known as Bear Creek Terrace North and Bear Creek Terrace South. Located on the north side of Argus Boulevard, Bear Creek Terrace North includes three multi-use playfields served by one large paved and two smaller unpaved parking lots. Organized active recreation facilities in this area include a basketball court, volleyball court and two playgrounds. In addition, three large pavilions and a restroom are located adjacent to the playing fields. Two smaller picnic pavilions and several picnic tables are located on the west side of the main access driveway. Several miles of hiking trails depart from two points on the access driveway.



*Playground at Bear Creek Terrace North*

**Bear Creek Terrace South:** Located on the south side of Argus Boulevard, Bear Creek Terrace South includes seven tennis courts, a pickleball court, a drinking fountain, an archery range, a small play structure and an obstacle (exercise) course. This exercise course includes a small assembly of obstacles that can be used to prepare for “boot-camp”-style running races, as well as a longer trail with benches for passive recreation such as wildlife viewing and passive activities.



*Playground at Bear Creek Terrace South*

**Bear Creek Dog Park:** The dog park provides a paved parking lot, trails, benches, one restroom facility, canine agility course, fenced small dog area and creek access for dogs. For additional information about the dog park, please refer to the El Paso County Bear Creek Dog Park Master Plan, prepared by Terry Putnam and Associates, Inc. in 2008.

***Bear Creek Nature Center:*** Outdoor and environmental education opportunities are provided by the Bear Creek Nature Center, located on the westernmost portion of the Property. Constructed in 2002, the Bear Creek Nature Center is an 8,900-square-foot facility that houses an interpretative center (exhibit space), community room, staff offices, break room and public restrooms. The center is accessed via Bear Creek Road and is served by paved parking lots and an overflow lot with separate access for large events, both of which are accessed from Bear Creek Road. Outside the Bear Creek Nature Center there is an outdoor classroom, picnic pavilion, demonstration garden that exhibits native plants and an extensive trail network with numerous interpretive signs. A large open area near the Nature Center, just south of Lower Gold Camp Road, is currently used for bulk materials storage. Substantial open space areas surround the nature center, completing the land uses within this approximately 225-acre area.

The mission of the Bear Creek Nature Center is to connect people to their natural and cultural resources and inspire them to become stewards of our parks and environment. Bear Creek Nature Center offers quality environmental education programs for children in preschool and up to 8th grade. During a one-hour to two-hour program, students have the opportunity to interact with hands-on exhibits, observe wildlife, explore the foothills during a hike, watch an educational puppet show or short film and, most importantly, connect with nature. All programs are designed to meet Colorado's New Academic Standards.



*Bear Creek Nature Center in Winter*

Each year, the Nature Center accommodates approximately 140,000 visitors providing 650 interpretative programs or special events to participants. Programs range from short nature walks to week-long summer camps. The Center also accommodates field trips for all El Paso County School Districts, averaging 6,000 students each year. Interpretive programs, special events, guided and self-guided tours and media presentations are offered all year.

Visitors to the Bear Creek Nature Center are very likely to observe a variety of wildlife, including red-tailed hawks, great-horned owls, black bears, mule deer and coyotes, as well as a variety of birds. Scrub oak thickets, ponderosa pine forests, a mountain creek and lush meadows covered with native grasses and wildflowers give this site its Rocky Mountain foothills character that attracts children and adults of all ages. As a window to the foothills life zone, the nature center offers wildlife viewing areas, interpretive signage, a three-dimensional map of the park and surrounding foothills, a wildlife diorama that features a black bear and cub and a live honeybee observation hive. Also featured are interactive, computerized touch-screens and other exhibits that provide information about the park, as well as local foothills history, geology, weather and climate, wildlife and native plants. Visitors also enjoy bird watching and wildlife viewing on the patio, spectacular views of the mountains to the west, and a large-screen video presentation in the center's Bear Den Classroom that introduces many fascinating features of the park and the surrounding foothills.



In summary, the following facilities exist at Bear Creek Regional Park:

- 1 nature center
- 1 administration building with community room
- 1 maintenance yard
- 1 community garden
- 1 dog park
- 1 exercise course
- 24 acres of irrigated turf
- 3 multi-use playing fields
- 3 playgrounds
- 1 basketball court
- 7 tennis courts
- 1 pickleball court
- 2 volleyball courts
- 3 horseshoe pits
- 1 archery range
- 9 picnic pavilions
- 3 restroom buildings with separate sides for both genders
- 82 picnic tables
- 57 trash can cribs, including 38 which are bear-proof
- 13 BBQ grills
- 48 benches
- Approximately 12 miles of trails (varying widths)
- Six+ paved parking areas: headquarters, nature center, dog park, terraces (2+), maintenance yard employee parking area
- Eleven unpaved parking areas: community garden (2), nature center overflow, maintenance yard, tennis courts (2), terraces, materials storage area, playground near HQ, equestrian area near HQ, overlook near HQ
- Approximately 56,130 square feet of landscape beds.



*One of the many multi-use trails within BCRP*

Bear Creek Regional Park offers such a great variety of amenities and resources, that it is the most frequently-utilized park within the County's park system. In 2013, nearly 900 reservations of facilities at BCRP were made, including users of picnic pavilions, athletic fields, tennis courts, and meeting rooms. Paid reservations for athletic fields and picnic pavilions brought in nearly \$58,500 to the County Park system, making up over one-third of the budgeted revenue from park rentals system-wide. These funds are kept within the Parks budget and combined with other revenue sources to pay for park maintenance, equipment, and facility repairs. Additional information regarding the funding of County Parks operations is included in Chapter 8, Implementation.

### 4.3 PARK USERS

Bear Creek Regional Park attracts nearly every type of park enthusiast, as a result of the diverse array of recreation opportunities available. The population served by this park is relatively diverse as well. As noted in the El Paso County Parks Master Plan (2013), the majority (71%) of El Paso County's nearly 620,000 residents live within the city limits of Colorado Springs. This urban core within El Paso County has one of the more ethnically diverse populations within the County. While a high percentage (79.7%) of El Paso County residents are Caucasian, the urban core area includes a sizeable population cohort that represents persons of Hispanic origin (16.4%), as well as residents

from a variety of ethnic groups that are represented by the following percentages: African American (6.4%); Multi-racial/two or more races (5.5%); Asian (3%); American Indian (1%); and other races (5.6%).

The urban core area (Colorado Springs) has a median household income of \$54,743, slightly higher than that of the entire County median (\$54,531 in 2011.) The gender distribution within the County as a whole is 50.2 percent female, and 49.8 percent male. Median age of County residents in 2010 was 34.1, somewhat lower than the median age for the United States. Average household size within the urban core area was slightly lower (2.45) than that of the County overall (2.56). Over half of the residents in the urban core area have attended college, and approximately 37% of residents have attained either a Bachelor's Degree or Graduate/Professional Degree. The El Paso County Parks Master Plan (2013) considers these demographics in more detail, as they relate to trends that could affect the provision of services tailored to certain groups.

For the purposes of the Bear Creek Regional Park Master Plan, it is also helpful to describe park users based upon the type of activities in which they participate. Currently there are four primary user groups that frequent the park: the equestrian user; the active trail user; the active recreation area user; and the passive area user. Each group is unique in how they impact the park and how they interact with the other group types. Below are descriptions of some common categories of park users.

### **Equestrian Users**

Equestrian users require large parking spaces and turning radii. They often park their vehicles for long periods of time and spend time in the parking lot longer than the other two user groups. They tend to avoid the smaller trail corridors and use the regional trail. They may stay in the park, or ride the regional trail to other areas in the vicinity of Bear Creek Regional Park, such as Red Rock Canyon Open Space and Bear Creek Canyon Park.

### **Active Trail Users**

Bikers, runners and hikers fit into this user category. They can be visiting for a leisure hike, trail running, mountain biking, or even commuting to and from work. This group represents the most frequent visitors to the park. They do not require large spaces or turning radii like equestrian trailers do. This group uses every type of trail corridor in the park.



*Equestrians using Bear Creek Regional Park trails*

### Active Recreation Area User

The active recreation area user group is a broad category. It includes people who rent a pavilion, participate in a soccer game, use fields to fly a kite, play catch, use tennis courts, visit the playground, and use other park amenities. This group tends to use the main parking area at Bear Creek Terrace North, next to the multi-use play fields, as well as the Park Administration area parking lots. They tend to stay in the active use areas and off of the trails. They have a high turnover rate and are typically in the park on weekends or holidays.



*Active users at Bear Creek Terrace North*

### Passive Area User

The passive area user group includes people who visit the park to enjoy the natural resources. These users may participate in individual or collective behavior such as bird watching and wildlife viewing. They may use a bench or picnic table for contemplative observation, or to read a book. The main distinction of this group is that their primary purpose to visit the park is to passively appreciate the natural setting, as opposed to using the property for exercise.

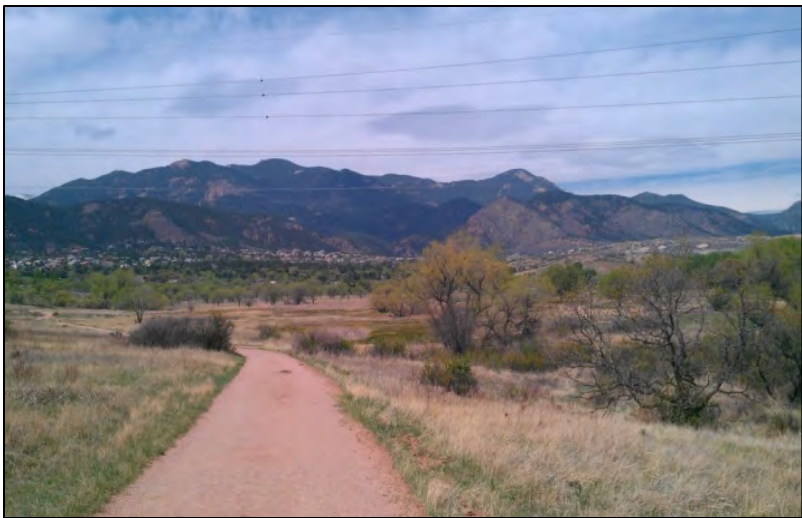
All users are important, and park amenities should address the needs and desires of each group.



## CHAPTER 5: CONSERVATION EASEMENT

When the El Paso County Parks Master Plan was updated in 2013, the pursuit of best management practices in park operations was a primary goal. The establishment of conservation easements on County park properties was included as one example of such a management activity. A conservation easement is a binding legal agreement between a landowner and a qualified conservation organization that protects land with certain recognized conservation “values” or purposes. The concept of a conservation easement over a County park is to provide assurance that the property will remain a park in perpetuity, as a public benefit.

To this end, a citizens group appointed by the El Paso County Park Advisory Board began a two year process of holding meetings and researching the concept. Through this process, several community meetings were held and significant support was expressed for the idea. The group evaluated the property’s assets, analyzed current activities conducted at the park, and addressed the balance of active use versus passive use that should occur at Bear Creek Regional Park. This citizens group then launched a fundraising campaign to raise money to establish the conservation easement.



*Scenic views and natural habitat present at BCRP*

A consultant specializing in conservation easements provided a baseline report of existing conditions at the park, and identified eligible conservation values that occur there, as a formal step toward the establishment of the conservation easement. The report addressed format and content recommendations of the Land Trust Alliance and the Trust for Public Lands (Byers and Ponte 2005) as well as the requirements of the Internal Revenue Service with respect to charitable contributions. The specific “Conservation Values” that were identified in the baseline report for Bear Creek Regional Park include:

- Preservation of land for outdoor recreation;
- Preservation of land for education;
- Protection of “Relatively Natural Habitat” for wildlife and plants; and
- Preservation of open space for the scenic enjoyment of the general public.

Each of these purposes is considered to provide a significant public benefit, and these Values represent the aspects of the property that are worthy of protection in the public’s interest. Further, the Park is known to provide wildlife with an extremely diverse range of habitat. However, because the Property is utilized as an active park, human disturbance is relatively high. The driving conservation concerns in the area include habitat loss, alteration, and fragmentation. By placing the Bear Creek Regional Park under a conservation easement a critical corridor along Bear Creek will be protected in this relatively urbanized system.

The conservation easement includes defined zones or areas that regulate uses within the park based upon three types of activity levels. The zones and allowable land uses within each that are proposed for the Bear Creek Regional Park are as follows:

**Zone 1 (“Passive Use Areas”)**: Trails, benches, interpretive signage, and wildlife viewing.

**Zone 2 (“Mixed Use Areas”)**: Improvements are limited to 10% of total acreage and may include picnic facilities, pavilions, playgrounds, parking, kiosks, interpretive signage, and access roads.

**Zone 3 (“Active Use Areas”)**: Roads, parking lots, trailheads, trails, nature centers, dog parks, gardens, permitted athletic facilities, pavilions, park support facilities.

A map illustrating these zones/areas is located on page 57 of this document, and is entitled “Conservation Easement Zone Map”.

Improvements proposed as part of the updated Master Plan for Bear Creek Regional Park must be consistent with the zones established by the conservation easement. Based upon this requirement, six areas within Bear Creek Regional Park have been identified as “Active Use Areas”. These areas are identified as follows:

- The Bear Creek Nature Center and Materials Storage Yard along Lower Gold Camp Road;
- The Bear Creek Terrace North athletic fields area;
- The Bear Creek Terrace South Obstacle Course/Tennis Court/Archery Range area;
- The Community Garden/Park Administration/Maintenance area;
- The Equestrian area along 8<sup>th</sup> Street adjacent to the Norris/Penrose Event Center; and
- The Dog Park Area.

Titles used to describe the areas are informal, but are intended to represent existing facilities within the areas. These Active Use Areas were analyzed in terms of existing uses, issues, and opportunities for improvements or enhancements. Concept plans for portions of these active use areas have been developed to address concerns as well as provide recommendations for facility improvements. The evaluation of areas and the action items recommended are based upon the goals and objectives listed in the section that follows.



*Abundant wildlife exists at Bear Creek Regional Park*



## CHAPTER 6: GOALS AND OBJECTIVES

Goals and objectives serve to establish the foundation of the planning process, as they not only guide decisions of future use of the property, but they also provide direction and structure for the master planning process. The goals and objectives created for this plan were derived from the El Paso County Parks Master Plan (2013), previous Bear Creek Regional Park master plans, input from the advisory committee, park users, and County Staff. Below is an explanation of the development of goals and objectives put forth for Bear Creek Regional Park.

The El Paso County Parks Master Plan (2013) includes the following Mission Statement:

*"The Mission of El Paso County Parks is to enhance quality of life in El Paso County by:*

- *Acquiring, developing, maintaining, and preserving regional parks, trails, and open space.*
- *Providing responsible resource management for open space lands characterized by unique natural environments.*
- *Providing natural and cultural history interpretation, education, and information services.*
- *Supporting major community events and festivals that celebrate our County's heritage and culture."*
- *Providing and managing visitor destinations and experiences."*

In concert with this Mission Statement, a number of goals and objectives were established in the Parks Master Plan for the County Parks organization as a whole. Included among these goals are several statements related to regional parks such as the Bear Creek Regional Park. For example, one overall system goal is to:

*"Balance passive/active use of county parks and open space and determine what is most appropriate for individual sites based on community need and master planning processes."*

Other goals adopted with the overall Parks Master Plan specifically address regional parks and recreation areas. These include the following goals:

*"Provide high-quality and safe experiences for users of county park facilities and recreational areas" and*

*"Enhance communication and engagement with users to maximize satisfaction with the visitor experience" and*

*"Maintain a consistent and equitable level of services by filling gaps in existing service levels and providing new facilities and services to meet future population demand."*

The goals and the overall mission statement listed above provide the basis for the planning of Bear Creek Regional Park and for the development of recommendations to be included in the updated plan. With the above principles in mind, the following vision statement was developed for the Bear Creek Regional Park Master Plan:

### **VISION STATEMENT:**

**"Bear Creek Regional Park and Nature Center provide opportunities for outdoor recreation, education, conservation and enjoyment of nature for the citizens of El Paso County and its visitors".**

The establishment of goals and objectives specific to the Bear Creek Regional Park Master Plan update was based upon the above-noted vision statement; overall park system goals and objectives; and an understanding of the community preferences demonstrated by the community surveys of both the 2013 update of the Parks Master Plan, and the 2014 Bear Creek Regional Park Master Plan update. The following goals and objectives have been developed for this Master Plan:

**GOAL I: Maintain and enhance existing facilities to improve functionality, protect infrastructure, and enhance user experience**

OBJECTIVES:

- A. Provide general improvements park-wide as appropriate
- B. Enhance enforcement of park rules
- C. Enhance maintenance of facilities at the park

**GOAL II: Enhance existing facilities at active use areas consistent with conservation easement restrictions**

OBJECTIVES:

- A. Enhance Creek Crossing active use area
- B. Enhance Bear Creek Terrace North active use area
- C. Enhance Bear Creek Terrace South active use area
- D. Enhance Bear Creek Nature Center and Lower Gold Camp Road active use area

**GOAL III: Provide new facilities to meet current user needs.**

OBJECTIVES:

- A. Implement proposed improvements within the Creek Crossing active use area as recommended in the concept plan.
- B. Implement proposed improvements within the 8<sup>th</sup> Street active use area as recommended in the Equestrian Skills Course concept plan.
- C. Implement proposed improvements within the Bear Creek Terrace South active use area as recommended in the concept plan.
- D. Implement proposed improvements within the Lower Gold Camp Road active use area as recommended in the concept plan.

**GOAL IV: Protect passive use areas and natural areas for long-term sustainability.**

OBJECTIVES:

- A. Implement management recommendations within conservation easement areas; annually monitor activities and conditions.
- B. Restore, protect, and enhance Bear Creek and aquatic habitat.

**GOAL V: Provide high-quality and safe recreational and educational experiences for users of park facilities and recreation areas.**

OBJECTIVES:

- A. Continue to provide successful recreational and educational programs that serve the community and attract visitors.
- B. Explore innovative programs to meet the needs of the current population.

Action items for each of the above objectives were developed through a comprehensive planning process that included site analysis, evaluation of alternatives, consideration of conservation easement restrictions, advisory committee recommendations, and public input. These action items are described in Chapter 7: The Plan; and recommended prioritization of action items related to the Master Plan's implementation timeframe are included in Chapter 8: Implementation.

## CHAPTER 7: THE PLAN

This Master Plan has been developed through the input of numerous stakeholders, staff, and the public via the structured input process that took place in 2014. As described in Chapter 3, County staff worked with an advisory committee to generate goals and objectives; analyze public survey comments; evaluate comments from the public meetings; and address priorities for action items. Park Operations Staff were key contributors, bringing in-depth knowledge of the property as well as experience with management and maintenance issues. These sources helped ensure that recommendations included in this chapter will make the best use of limited resources, in part by assuming action items would be implemented according to a phased schedule. More information about phasing is included in Chapter 8, Implementation. The Plan was also developed with sustainability and responsible resource management as key principles.

The proposed improvements and management actions evolved from various options presented to the committee and general public. As stated in Chapter 6, goals and objectives specific to the Bear Creek Regional Park Master Plan update were based upon overall park system goals and objectives; and an understanding of the community preferences demonstrated by the community surveys of both the 2013 update of the Parks Master Plan, and the 2014 Bear Creek Regional Park Master Plan update. The input from the community survey was vital, as it reinforced what was important to park users.

The discussion of action items that follows is organized into sections, beginning with ideas for improvements that apply throughout the park (Goal I); and then addressing specific ideas for areas classified as “Active Use” under the Bear Creek Regional Park conservation easement (Goals II and III). In addition to the recommendations related to physical enhancements, action items within this chapter include suggestions for managing the natural and passive use areas, such as restoring the creek habitat and providing fire mitigation (Goal IV). Finally, several objectives are included to ensure the continued provision of recreational and educational activities through the Bear Creek Nature Center and its programs (Goal V). The recommended improvements and activities are also illustrated in the concept plan graphics that follow this narrative.

### 7.1 GENERAL PARK AND TRAIL ENHANCEMENTS AND ACTIVITIES

Recommendations for improvements to the park that resulted from this planning process involve a wide range of activities and facility suggestions. The goals and objectives related to existing facilities are intended to address priority improvements at the principal existing active use areas. These recommendations assume that implementation will occur in compliance with the requirements of the Bear Creek Conservation Easement. Activities that may occur in locations outside Active Use Zones (e.g.: addressing erosion of trails) are intended to preserve natural resources and protect sensitive passive use areas as desired under the conservation easement.

The first overarching goal of this plan relates to general park and trail enhancements, and appears below.

#### **GOAL I: Maintain and enhance existing facilities to improve functionality, protect infrastructure, and enhance user experience.**

There are three objectives associated with this goal, and all focus on the way that existing improved areas at Bear Creek Regional Park are managed. The three objectives address general enhancements to existing facilities, enforcement of rules at the park, and maintenance concerns.



The first objective and its action items are intentionally general, and are intended to address issues with current functions, safety, and site constraints.

**Objective A: Provide general improvements park-wide as appropriate.**

**Action Items:**

- 1) Explore security enhancements in parking lots
- 2) Install more interpretive signs and ID plaques for plants and wildlife
- 3) Install directional signs from neighborhoods for connectivity
- 4) Provide additional directional signs within park for wayfinding
- 5) Consider signs that contain trail system mapping
- 6) Label parking lots and provide identification signs
- 7) Install barriers to keep vehicles from driving on grass
- 8) Provide additional parking spaces at established parking lots
- 9) Provide additional benches and bicycle racks in park
- 10) Provide additional pavilions in parks, shelters along trails
- 11) Evaluate existing receptacles and provide appropriate trash receptacles, pet waste stations, and recycling receptacles
- 12) Provide additional sources of drinking water for park users, i.e. water bottle filling stations
- 13) Consider mountain bike wash station
- 14) Install ADA-compliant curbs and ramps at intersections
- 15) Update pavilion roofs as appropriate
- 16) Install landscaping around pavilions
- 17) Consider converting playing fields to synthetic turf
- 18) Address erosion on existing trails and provide resurfacing
- 19) Improve drainage and storm water systems
- 20) Explore opportunities for adding single-track /mountain bike trails
- 21) Evaluate trail alignments and realign for sustainability where needed



*A variety of sign types exists at Bear Creek Regional Park*

Suggestions from the public reflected a need for additional signs at the park, of various types. Wayfinding or directional signs are desired to address concerns with finding and identifying areas within the park, and include park entry signs, general park boundary markers, trail maps. Suggestions included developing names for the trails and illustrating the trail system on signs

within the park, as well as updating field signage for the active, multi-use playing fields. Operational signs include information about park rules and regulations. These are typically located at park entrances, and often include bulletin board space for posting of public notices and general information. Additional rules signs are needed in some areas to address certain issues such as vehicle parking on grass. Interpretive signs are intended to provide information to users beyond rules or directions. These sign types commonly contain information about historical, cultural, and natural features of a property or trail. Examples include education about the value of wetlands, forest health, social trail deterrence and trail etiquette. These signs should be strategically located where additional information could be provided about certain park assets, and where a slower pace of trail travel will not hinder active use of an area.

## 7.2 PARK RULES

During the planning process, numerous comments were received regarding the need to educate park users about rules, ranging from safety concerns with dogs off leash, to preventing inappropriate activities in the park after hours. Although it was acknowledged that patrolling an area as large as Bear Creek Regional Park is a physical as well as financial challenge, the following objective was nevertheless established due to the importance of this issue.

### **Objective B: Enhance the enforcement of park rules.**

#### **Action Items:**

- 1) Provide funding for security equipment and staff to monitor security cameras for illegal activities
- 2) Increase patrol of park by security officer and coordinate with City Police and the Humane Society for increased patrol and enforcement
- 3) Provide education to public including additional signs
- 4) Address overnight parking violators
- 5) Enhance enforcement of leash rules and animal waste removal requirements
- 6) Coordinate with community groups for courtesy patrol
- 7) Encourage increased funding for additional personnel



*Park Rules Sign*

## 7.3 MAINTENANCE OF PARK FACILITIES

As stated in the recently updated Parks Master Plan (2013), the parks budget receives only a modest amount of the County's general fund, making the maintenance of park property an ongoing challenge. This point was underscored in the feedback received in response to the community survey conducted for this update. Therefore, the objective and action items that follow are intended to guide enhanced park maintenance as funding is available.

### **Objective C: Enhance maintenance of facilities at the park.**

#### **Action Items:**

- 1) Ensure playing fields are properly irrigated
- 2) Encourage additional funding to address irrigation deficiencies
- 3) Address drainage and erosion problems
- 4) Convert areas to native grass where practical
- 5) Pave parking areas when funding is available

- 6) Provide funding for equipment needed to maintain trails
- 7) Address social trails by installing blockades
- 8) Address building deficiencies on a regular basis.
- 9) Address cracked pavement at pavilions
- 10) Engage volunteers for assistance when possible
- 11) Encourage increased funding for additional maintenance staff



*Proper irrigation of fields requires constant monitoring*

Additional information regarding the cost and timing for completing the above action items is included in the “Implementation Table” contained in Chapter 8.

## 7.4 ENHANCEMENTS TO ACTIVE-USE AREAS

The second over-arching goal of this plan is to provide enhancements to existing facilities to improve their functionality. Enhancements are focused on areas (listed below) that are within the designated “Active-Use Zones” of the conservation easement. These zones are defined on the Conservation Easement Map attached to this plan, and discussion within Chapter 5. Improvements in this section are considered to be relatively minor, of the type that does not involve establishing significant new activities or major changes in use. Examples include paving of parking lots, installation of specific signage, and renovation of existing equipment. For locations of the proposed action items, please refer to the concept plans for each respective area that follow this section.

### **GOAL II: Enhance Existing Facilities at Active Use Areas Consistent with Conservation Easement Restrictions**

The following objective and its action items are intended to improve facilities and functions that currently are provided at the park, rather than introducing new activities.

#### **Objective A: Enhance the Creek Crossing Area**

A wide mix of uses occurs within this active use area, including the buildings and parking areas associated with the Parks Administration Building, the Char Nyman Community Garden, the playground near Rio Grande Street, and the Maintenance Shop and storage yard area. The “Creek Crossing” active use area includes a stretch of Bear Creek that is crossed by the paved access drive to the Community Garden. The eastern edge of this area abuts the Norris Penrose Event Center, and the only “Mixed Use Zone” of the conservation easement occurs to the south of this area along the eastern side of 21<sup>st</sup> Street.



*Steps leading to creek from unpaved parking area*



**Action Items:**

- 1) Pave parking area serving playground and Pavilions #4 and #5
- 2) Pave parking area and access drive serving community garden
- 3) Pave trailhead parking areas on north side of creek
- 4) Install barriers to prevent vehicle parking on grass
- 5) Highlight existing connection to Norris-Penrose Equestrian Center, and install directional signage and rules signs where appropriate
- 6) Coordinate with Norris-Penrose Event Center for use of parking lots for major events
- 7) Install interpretive signs at headquarters to describe park history
- 8) Address facility deficiencies at Park Administration building.
- 9) Provide trail markers for 5K course to facilitate special events
- 10) Address connecting trails for common use during special events
- 11) Address drainage problems at maintenance shop yard
- 12) Consolidate existing material storage at yard
- 13) Enhance/formalize single-track trail near creek



*Materials storage at maintenance shop*

**Objective B: Enhance the Bear Creek Terrace North Area**

The area within the Bear Creek Terrace North portion of the park encompasses the recreation facilities, restrooms and parking areas associated with the active playing fields northwest of the intersection of 21<sup>st</sup> Street and Argus Boulevard. This area is directly south of the dog park and a stretch of Bear Creek, and it includes a small area of active open space to the west of the playing fields.

**Action Items:**

- 1) Pave and re-stripe parking areas
- 2) Install additional landscaping along driveway at park entrance
- 3) Refresh existing landscaping near pavilions
- 4) Update field signage and provide roof over bulletin board(s)
- 5) Install additional drinking fountains/water bottle filling stations
- 6) Install ADA-compliant access to Pavilion #4
- 7) Install drainage and erosion control structures where needed
- 8) Re-stripe basketball court and provide new nets
- 9) Replace broken play equipment at playground



*Field signage*

**Objective C: Enhance the Bear Creek Terrace South Area**

This active-use area includes the tennis courts, archery range, and associated parking area as well as the structures associated with the exercise trail.

**Action Items:**

- 1) Install restroom near tennis courts
- 2) Resurface remaining two tennis courts at southeast corner and install new nets
- 3) Consider installing striping and posts for half-size tennis courts
- 4) Rehabilitate archery targets and range signage
- 5) Install gutters for roof at archery range and update facility access
- 6) Install directional signage in parking area
- 7) Install landscaping along driveway
- 8) Pave parking lot and address erosion and drainage issues
- 9) Address grade change between the asphalt path leading downhill to the tennis courts and the concrete path to the play structure
- 10) Refresh landscaping and remove overgrown junipers
- 11) Re-establish lighting for nighttime play at tennis courts
- 12) Install exercise equipment, obstacles, and mile markers at course

*Tennis facilities***Objective D: Enhance the Bear Creek Nature Center / Gold Camp Road Area**

This area encompasses the nature center building and parking areas along with the outdoor classroom pavilion and overflow parking area. It also includes the large area along the south side of Lower Gold Camp Road presently utilized for material storage. Several comments provided in response to the community survey expressed concerns with the appearance of this storage area, and a desire to clean up storage materials and explore other recreational uses for this area.

**Action Items:**

- 1) Update nature center exhibits
- 2) Repair driveway to rear of facility
- 3) Replace birdseed dispensers
- 4) Repair building deficiencies at nature center
- 5) Replace boardwalk along Songbird Trail
- 6) Expand interpretive signage
- 7) Install directional signs on nearby streets to assist new visitors
- 8) Install lighting for overflow parking lot and adjacent trail
- 9) Pave overflow parking area
- 10) Address drainage and stormwater runoff problems
- 11) Clear area of materials stored at Lower Gold Camp Road storage yard

*Songbird Trail*

## 7.5 NEW FACILITIES AT ACTIVE USE AREAS (CONCEPT PLANS)

The third goal of the master plan involves providing limited new improvements to active use areas while keeping in mind the mission of this regional park and the land use relationships to surrounding properties. Examples include the addition of new parking spaces or areas, a new trail segment where a trail did not previously exist, or a new building. These action items may introduce new land uses to an area or involve relocation of certain functions for better sustainability.

### GOAL III: Provide New Facilities to Meet Current User Needs

Feedback received from the community survey regarding this update to the Master Plan included requests for certain amenities that are currently not provided at the park. Keeping in mind the desire of most survey respondents to keep the park as natural as possible, several recommendations were included with the understanding that most new facilities would represent modest expansions of existing active areas, and would not fall into the category of new land uses. The exception to this principle is the planned development of the area previously known as the “Materials Storage Yard” along Lower Gold Camp Road. The recommendations for that area do involve changes in use that will enhance the usefulness and appearance of this active use area. Details such as the size and operation of new facilities proposed in this section are yet to be designed, and are intentionally left open and somewhat vague due to the long-term, visionary nature of the recommendations.

Action items listed below are illustrated in the concept plans at the end of this chapter.

#### Objective A: Implement proposed improvements within the Creek Crossing Area as recommended in the concept plan

##### Action Items:

- 1) Construct trail from Rio Grande toward creek, at social trail
- 2) Create fenced area uphill from existing yard for materials storage
- 3) Create earthen berm along entry drive and western end of new storage area, to screen view of storage from Rio Grande Street
- 4) Expand space for indoor storage at maintenance shop yard
- 5) Expand parking areas north side of creek
- 6) Provide additional trails per concept plan
- 7) Install veterans memorial plaza near administration building
- 8) Install new pedestrian bridge over creek



*Pedestrian bridge across creek protects aquatic habitat*



### **Objective B: Implement proposed improvements within 8<sup>th</sup> Street Area as recommended in concept plan**

Enthusiasts of the proposed equestrian skills course have presented a well-developed plan for the creation of an equestrian obstacle course within Bear Creek Regional Park for use by the public. The obstacle course will involve low-intensity improvements to the property using primarily natural materials. The backers of this course will have a scheduled work day one day per month to address general issues such as trash pick-up in the area and making minor repairs and maintenance as needed. Supporters will also take this time to inspect the obstacles, parking area, trail and signage for safety, repair and maintenance issues.

#### **Action Items:**

- 1) Construct paved access road from 8<sup>th</sup> Street
- 2) Provide trailhead parking facility that accommodates horse trailers
- 3) Develop Equestrian Skills Course and fencing improvements
- 4) Add restrooms and picnic pavilion
- 5) Construct secondary trails using sustainable trail construction principles to address erosive soil concerns due to prior mining activities
- 6) Explore property acquisitions to expand area



*Equestrian navigating obstacle*

### **Objective C: Implement proposed improvements within Bear Creek Terrace South / Obstacle Course Area as recommended in concept plan**

The present users of this park area primarily include tennis players, visitors to the archery range, and passive recreation users. Enhancements are intended to address needs of current park users, while avoiding the introduction of major new land uses to the area.

#### **Action Items:**

- 1) Remove condensed series of obstacles from central area and reclaim area to natural state
- 2) Expand existing trail into exercise loop course per plan, and provide additional fitness course obstacles and mile markers
- 3) Construct bocce ball court along west side of entrance driveway
- 4) Provide restrooms near tennis courts
- 5) Install ADA-compliant path between archery range and Argus pedestrian crossing, including access to bocce ball court
- 6) Provide picnic pavilion and horseshoe pit near parking area
- 7) Expand parking area, correct slope issues and pave drive and lot
- 8) Formalize trail connections at 21<sup>st</sup> Street/Argus intersection, and east side of 21<sup>st</sup> Street
- 9) Enhance neighborhood connections at social trails



*Obstacle course area*

## Objective D: Implement proposed improvements within Lower Gold Camp Road Area as recommended in concept plan

Many master plan community survey responses included a comment that a more beneficial and appropriate park use should occupy the level area within Bear Creek Regional Park that exists along the south side of Lower Gold Camp Road. Some survey respondents specifically requested the addition of an area in Bear Creek Regional Park that could accommodate certain community-oriented events, such as a farmers market and small festivals. Further, several survey respondents suggested the park should have a modest-sized amphitheater for outdoor concerts, and that a splash park as well as open turf areas for non-organized recreation should be available for use by families at the park. To accommodate these types of events and improvements would require adequate areas for parking, restroom facilities, and open areas. It is acknowledged that the amenities proposed below are appropriate only within active-use areas under the conservation easement policies, and that the details of the facilities have not been analyzed nor designed. Nevertheless, the proposed new uses are included to initiate the process of planning for these long-term and visionary ideas so that the concepts may be further developed over the timeframe in which this plan is implemented.



*Example of outdoor amphitheater*



*Example of modest splash park*

### Action Items:

- 1) Relocate existing materials stored on the site to the new maintenance shop storage yard
- 2) Relocate entrance to align with entrance to residential care facility on opposite side of Lower Gold Camp Road
- 3) Provide earthen berm along roadway near entrance to screen views of the proposed parking area
- 4) Develop entrance plaza with ADA-compliant non-motorized access
- 5) Develop ornamental demonstration garden with plants identified
- 6) Consider establishing educational urban garden
- 7) Develop sensory garden for therapeutic and contemplative use
- 8) Evaluate development of demonstration streambed to meander through park and provide water-related education
- 9) Develop natural amphitheater using existing topography
- 10) Construct moderately-sized water feature/splash park for elementary-school aged children
- 11) Develop natural playground and provide play structures
- 12) Install restrooms and pavilion at entrance plaza
- 13) Provide irrigated turf areas for low-intensity active uses
- 14) Provide picnic pavilions, shade trees and benches
- 15) Provide parking in adequate amounts to serve planned activities
- 16) Provide unpaved parking area at west end for equestrian use
- 17) Provide trail connections to Nature Center and regional trail

## 7.6 PROTECTION OF NATURAL / PASSIVE USE AREAS

An essential part of the planning process for Bear Creek Regional Park included addressing concerns with balancing active and passive uses of the land. Much discussion occurred during the discussions related to the conservation easement project, and comments from the community survey contained numerous requests for keeping the park as natural and unstructured as possible. Recommendations for enhancements and improvements were intentionally limited, in keeping with this desire for balance. Addressing the preservation and protection of the natural resources within Bear Creek Regional Park, including the creek itself, has become a concern worthy of its own goal, with broad objectives and action items intended to maintain and protect these resources.

### **GOAL IV: Protect Passive Use Areas and existing natural areas for long-term sustainability**

Along with the desirable situation of attracting multiple users to the property, Bear Creek Regional Park is also subject to the unfortunate impacts that occur from overuse of the land. One of the more difficult impacts to address that is caused by high user demand is the development of social trails. A social trail is generally defined as an unofficial trail that diverges from an existing trail. Social trails are often developed over time due to convenience, trail hazards or more desirable shortcuts. Social trails negatively impact the landscape. They can damage sensitive vegetation, encourage the spread of noxious weeds, increase erosion potential, and make wayfinding difficult. Along with several action items related to vegetation management listed below, park staff must continue to address overuse of trails and actively monitor trail use to minimize the occurrence of social trails.

### **Objective A: Implement management recommendations within conservation easement areas, and conduct annual monitoring of activities and conditions.**

#### **Action Items:**

- 1) Provide forest management program for tree health, species diversity and wildfire mitigation
- 2) Develop plans for using native species and drought-tolerant plant materials to enhance natural ecosystem and reduce water use
- 3) Label and preserve areas with sensitive native plants
- 4) Address eradication of noxious weeds to protect native species
- 5) Expand wetlands and provide educational interpretive signage
- 6) Address erosion concerns related to mining impacts upon soil
- 7) Avoid construction of large buildings and overuse of concrete
- 8) Explore use of permeable pavement for parking areas
- 9) Address user conflicts and/or overuse affecting park resources
- 10) Provide public education on topics such as "Leave no Trace", respect and responsibility for nature, best practices in land stewardship, sustainability, and environmental ethics
- 11) Maintain and improve water and soil quality for wildlife habitat



*Natural resources worthy of protection*



## Objective B: Restore, protect, and enhance creek and aquatic habitat

### Action Items:

- 1) Address creek bank erosion
- 2) Implement bank stabilization infrastructure
- 3) Prepare vegetation management recommendations
- 4) Manage wildlife activities that impact creek health (i.e.: beavers)
- 5) Manage use of park areas by the public to prevent stream impacts
- 6) Coordinate with adjacent property owners to promote sustainable and ecological land use activities and prevent erosion into creek
- 7) Encourage the use of organic and/or non-toxic techniques
- 8) Provide educational / interpretive signs to inform and encourage a connection with the land, creek and wildlife by park users.



*The Bear Creek beaver*

## 7.7 RECREATION AND EDUCATION

As part of the planning and public input process undertaken with this Master Plan update, it was recognized that the Park currently provides a diverse array of recreational and educational opportunities. Most of these activities are provided through the existing Nature Center programs. While the success of current programs has been a source of pride for parks staff, programs should be continually evaluated to determine whether the needs of the current population are being met. Suggestions from the community survey included numerous complimentary responses about existing programs, as well as requests for additional educational activities. This is especially true with regard to interpretive education on ecosystems and sustainability. Of course, it will be important to balance recreational use of the park with preservation of natural resources. The objectives and action items must be implemented with careful consideration of the limitations of the conservation easement and a sustainable mindset.



*Summer camp programs include creek habitat education*

## GOAL V: Provide High Quality and Safe Recreation and Education Experiences for Users of County Park Facilities and Recreation Areas.

**Objective A: Continue to provide successful recreational and educational programs that serve the community and attract visitors.**

**Action Items:**

- 1) Evaluate program levels of interest on a regular basis; identify ways to improve and expand
- 2) Enhance marketing of programs and events
- 3) Provide additional educational programs addressing park ecosystems and sustainability
- 4) Document, interpret, and protect cultural and historic resources
- 5) Provide an edible and medicinal plant guide
- 6) Install more interpretive signs and ID plaques for plants
- 7) Encourage additional funding to increase staffing levels



*Nature center programs offer a wide range of activities*

**Objective B: Explore innovative programs to meet needs of current population**

**Action Items:**

- 1) Coordinate with public and private partners for special programs
- 2) Work with user groups to manage and enhance use of facilities
- 3) Explore location and facilities to provide farmer's market
- 4) Provide family movie nights and events
- 5) Provide educational overnight camping programs
- 6) Enhance geo-caching activities as a recreational program
- 7) Explore programs to encourage social interactions, health awareness, crafts and hobbies.
- 8) Coordinate enhanced outreach to youth and seniors
- 9) Encourage funding increases to expand programs

## 7.8 FOREST AND WEED MANAGEMENT

One of the most prized aspects of Bear Creek Regional Park, as evidenced by responses to the community survey, is the existence of significant natural resources at the park, in the midst of a developed urban area. As described in Chapter 4, Site Inventory and Resources, a number of high-quality shrublands and woodlands occur within BCRP, with species that include Gambel Oak, Ponderosa Pine, and Pinyon Pine. Managing these natural resources is an essential part of the maintenance activities conducted by Park Staff. An understanding of the benefits of and risks to the trees and shrubs at Bear Creek Regional Park can help in developing management recommendations.



*High-quality shrublands and woodlands*



## Tree Benefits

Trees perform several vital functions in a given eco-system. In addition to producing oxygen and filtering the air, trees also clean the soil through a process known as *Phytoremediation* (absorption of dangerous chemicals and pollutants). When properly located, trees also provide effective wind/snow breaks, noise pollution control, and soil stabilization and erosion control.

Other ecological benefits of the woodlands at Bear Creek Regional Park include the following:

- Trees assist in air purification by filtering pollutants. Dust counts can be reduced up to 75% in areas of dense forestation.
- A forest canopy will reduce the impact of stormwater, and increases retention and aids in the recharge of groundwater. Runoff of sediment into streams and rivers is impeded. An open canopy allows more snow to reach the ground while less moisture is sublimated into the atmosphere thus increasing groundwater penetration.
- Forest litter introduces organic material into the soil minimizing the need for additional fertilizers which in turn, greatly reduces the quantity of chemical leaching into groundwater.
- Healthy forested areas encourage wildlife diversity. Pest populations are kept in control by beneficial species.
- Forested areas are highly prized for recreational use and they promote relaxation and a psychological benefit to people.



*The Bear Creek Bear*



*Shady trails reduce temperatures*

### Climate Remediation

- Trees can aid in the control of blowing and drifting snow. Plant trees perpendicular to the prevailing winds and 150-200' from the area or roadway you are trying to protect.
- By creating shade and releasing moisture into the air, ground and atmospheric temperatures are reduced.
- Depending on plant density, wind speeds can be reduced up to 80%.

### Monetary/Recreational Value

- When deciduous trees are located near structures, they reduce the cost of heating and cooling by moderating the climate. Large shade trees can reduce air conditioning bills up to 30% while evergreens serving as windbreaks can reduce heating costs 10-50%.
- Mature trees increase property values up to 20%.



Threats to trees and forested areas include wildfire, pests, and invasive species. Descriptions of these threats are summarized below.

### **Pest / Parasite Threat and Treatment**

While most insect species are beneficial and, in some cases, essential to the health of forest land, there are others whose presence can be extremely detrimental if populations are not kept in check. Mountain Pine Beetle (*Dendroctonus ponderosae*), Ips Beetle (*Ips pini/knausi/calligraphus*), Western Spruce Budworm (*Choristoneura occidentalis*), and Dwarf Mistletoe (*Arceuthobium*) currently pose the most significant threat in the El Paso County region. Adverse effects of these destructive insects/parasites range from aesthetic and scenic degradation, to tree mortality and increased risk of wildfire propagation. Often the occurrence of one pest can endanger the tree such that it is susceptible to infestations by other pests. The best defense against most pests is prevention; in other words, keeping trees healthy, well maintained, and thinned. Treatment of trees known to be infested by insects or parasites will vary, and depends upon the type of pest, the degree of infestation, and the value of the tree. For example, a tree infested by the Western Spruce Budworm can be treated by chemical spraying, if the tree is determined to be of significant value. Chemical application occurring during the two to three weeks immediately following budbreak or flush of new growth (mid-June in most areas) can be a successful way to control an outbreak without losing the tree. Similarly, when a slight infection of Dwarf Mistletoe occurs, pruning off the affected limbs is an effective control method. However, infestation by the Mountain Pine Beetle is very different: once infected by this pest, a tree cannot be saved. In fact, infested trees should be cut down and disposed of by removing any infested timber from the vicinity of healthy trees to prevent the pest from spreading to nearby trees.



*Impacts to trees from pests are visible in both of these photos*



El Paso County Parks utilizes a combination of methods to prevent and/or treat infestations. The most common procedures include applying pesticides, pruning, and tree removal, as appropriate according to the type of pest. Treatment of the trees within Bear Creek Regional Park is performed through implementation of an annual pest mitigation strategy, and is followed by continual monitoring of tree health and evaluation of treatment effectiveness. A summary of the methods used by park staff is included at the end of this chapter.

## Fire Mitigation

Wildfires are a natural and necessary occurrence in a forest ecosystem. In nature, when forests are left unhindered, the land is mitigated by frequent, low-intensity fires. These fires reduce the buildup of ground litter and thin unhealthy trees that have been compromised by insects and parasites. The result is a healthy forest consisting of multiple tree species of varying ages and sizes. When human interaction prevents these small fires from occurring groundcovers increase, tree over-crowding takes place, and diversity is diminished, which greatly increase the possibility of high-intensity, extremely destructive wildfires.



*Forest Management includes wildfire mitigation plans*

The trees within the Bear Creek Regional Park are worthy of protection from pests, parasites, noxious weeds, and wildfire. Although several recommendations appear below for addressing weeds in a portion of the park, a robust forestry and noxious weeds management plan should be prepared for the entire park, utilizing the proposed methods to ensure long-term protection of the trees in the park.



*Trees worthy of protection*

The objective of small acreage forest management is to considerably reduce the risk of damage to property and assets resulting from such factors as wildfire, insect and parasitic infestation, and disease. It is imperative to define objectives and map out a concerted action plan to implement management strategies that incorporate overall forest health and positive wildlife habitation. Soil stabilization and environment protection in the form of snow, wind, and noise pollution breaks should also be taken into account.

Firewise practices involve the strategic creation of wildfire-defensible zones to aid in the protection of residences and structures. The practice of selectively thinning and clearing materials that fuel wildfires is referred to as wildfire mitigation. The wildfire-defensible zones consist of areas where vegetation and other flammable fuels have been reduced or cleared to allow firefighting personnel to more efficiently gain access and perform their duties. Recommendations for fire mitigation by

zone are contained in the El Paso County "Forest Health and Ecology Guide", provided by the Environmental Division of the Community Services Department. These recommendations will be implemented in forested areas within Bear Creek Regional Park through the annual adoption of robust forestry, noxious weeds, vegetation management, and fire mitigation programs.



Through the employment of thoughtful management practices, environmentally sound forested areas will be enhanced and the impact of wildfire can be reduced.

### Integrated Weed Management

Landowners within the State of Colorado, including El Paso County, are required to comply with the Colorado Noxious Weed Act (Title 35 Article 5.5). This Act requires that both public and private property owners manage noxious weeds on their properties using integrated management principals if the weeds are likely to damage neighboring landowners' properties. Based on this requirement, El Paso County Parks has addressed noxious weed control within the park system using a variety of techniques. The common approaches include prevention, chemical, mechanical, cultural, and biological control methods. The following provides a brief history of these control measures.

In 1994, Canada thistle east of the community gardens was mapped by a local Boy Scout troop. During the fall of that same year, the area was mowed in an attempt to control weeds. In June of 1995, adult picture wing flies (*Urophora cardui*) were introduced to an infestation of Canada thistle at BCRP. Picture wing flies attack the stem of Canada thistle to prevent the plant from going to seed. Also during September 1995 the area east of the community gardens was again mowed and treated with pesticides.



*Canada Thistle*

In May of 1996, the area east of the community garden was again mowed and treated with pesticides. Also in 1996, a survey of BCRP showed that the population of Canada thistle had doubled from previous surveys. One possible explanation for this increase in Canada thistle may



*Goats assist with noxious weed control*

have been the 22.13 inches of rain that fell at BCRP from April to October 1995. In June 1996, all known Canada thistle stands in Bear Creek Regional Park were mowed. However, reseeding was not conducted at this time. Also in August of 1996, an action plan for the "Biological and Cultural Control of Canada Thistle in Bear Creek Regional Park" was implemented by the Colorado College. The plan recommended the elimination of herbicides within the park during the five-year time span. Under the College's plan it was suggested that weeds be treated with a number of non-chemical methods. As a part of this plan, black

plastic was placed over areas of Canada thistle to "burn" the plants. In addition, some hand clipping was done. Beginning in November of 1999 and continuing through to present day, a new approach to weed control was established through grazing of natural grass areas at the property. At various times during this period, there were between 650 and 1,000 cashmere goats grazing within the property. Once this cultural/biological method was introduced, very few additional weed control measures were used at Bear Creek Regional Park.



As part of the development of an Integrated Weed Management Plan for Bear Creek Regional Park, an inventory of weed species occurring in the Park was undertaken. The inventory is listed in Chapter 4, Site Inventory and Resources. In addition to the listed species, invasive ornamental noxious weed species found at BCRP are of concern. Ornamental noxious weeds are those that have become established from nurseries and landscaping activities, where as the other noxious weeds were established by species introduced from various other methods. Examples of two ornamental species identified at the Park include Chinese clematis (*Clematis orientalis*) and Bouncingbet



*Chinese Clematis*



*Bouncingbet*

(*Saponaria officinalis*), which is also commonly known as soapwort, crow soap, wild sweet William, and soapweed. Noxious weed professionals have indicated that these species should be managed for immediate eradication.

No single management technique is perfect for all weed control situations. Traditional weed management treats only the symptoms of weed infestations, however, Integrated Weed Management differs from ordinary weed management in attempting to address the ultimate causes of weed infestations, rather than simply focusing on controlling weeds. Integrated weed management is not only the law but it is also an industry standard for the control of noxious weeds (Colorado Natural Areas Program 2000). An integrated approach to weed management consists of two or more of the following methods: prevention, chemical, biological, mechanical, and cultural control. Each of these techniques is discussed briefly below.

### **Prevention**

Preventing new weed species from becoming established is one of the most important noxious weed management practices. Since weeds colonize disturbed ground, reseeding after disturbance is imperative. Proper land management, such as controlling grazing and recreational activities, are also a sound preventative management tools.

### **Chemical Control**

Chemical control is the use of herbicides. Herbicides are used to control, suppress, and interrupt plant growth. When used at the proper time and in accordance with the label directions, herbicides can be an effective tool in integrated weed management. Herbicides can be classified as either selective or nonselective. Selective herbicides have the ability to control certain plants while leaving others unharmed. Nonselective herbicides can kill all living actively growing plant material.

## Biological Control

The use of living organisms to control nonnative invasive species is a biological control method for noxious weeds. Examples of biological control methods include insects, animals (grazing can be considered both a biological control and or a cultural control), and pathogens. There has been little if any research regarding the affects of grazing upon Canada thistle.

## Mechanical Control

Mechanical control methods for noxious weeds can be hand pulling, mowing, tilling, hoeing, burning, and mulching.



*County Staff performing weed control*

## Cultural Control

A cultural control method for noxious weeds is the practice of creating an environment that is favorable to desired plant material. Examples of cultural control methods are seeding, grazing, and fertilizing. Cultural practices are an important part of any integrated weed management plan.



The Park Operations Division currently manages control of weeds at Bear Creek Regional Park with an annual plan for monthly treatment approaches. For more detailed information on current methods and management activities, please contact County Parks Administration or Operations staff. A combination of the above-described control methods will continue to be utilized and monitored at the Property. In addition, forest management activities will occur as stipulated in the El Paso County Parks Maintenance Manual, and as described in this chapter.

Forest and vegetation management activities to be conducted on a regular basis at BCRP include:

- preparation of annual maintenance plans that address pesticide use, pruning, removal and replacement of trees and shrubs;
- preparation of annual forest management recommendations, based upon the best management practices applicable to the species at the property; management actions may target threats such as dwarf mistletoe, mountain pine beetle, and wildfire fuel mitigation;
- regular monitoring of park maintenance areas for identification of hazard trees; hazardous trees bordering trails, high active use areas and property boundaries should be the first priority and should be targeted for removal as soon as possible;
- implementation of a long-term tree and shrub management and replacement program;
- conducting fuel mitigation activities including selective pruning and clearing; and
- coordinating with the Environmental Division for integrated noxious weed control, including mowing, spraying, reseeding, and cultural control.

## CHAPTER 8: IMPLEMENTATION

### 8.1 PARK STAFFING AND FUNDING

El Paso County Parks is currently comprised of three divisions: Park Operations, Planning, and Recreation and Cultural Services, all of which are part of the six-division Community Services Department. The Director of Community Services provides the leadership for the six divisions and provides the ultimate direction for El Paso County Parks. There are currently 31 full time employees (five of which primarily support parks and also provide services to other departments/divisions), five part time employees, and temporary / seasonal employees that are mostly tasked with maintenance of parks, trails and open space areas.

The Park Operations Division is responsible for the daily maintenance of all park property and landscaping functions at numerous County buildings. The Recreation and Cultural Services Division is responsible for the management of the Bear Creek and Fountain Creek Nature Center and the provision of a wide variety of interpretive and recreation programming. This division is also responsible for management of the County Fair as well as non-fair programming. The Planning Division coordinates the planning functions of El Paso County Parks and provides long-range planning expertise for other County departments/divisions. The staff coordinates development of master plans and construction plans for parks, open space, and trail projects; and provides project management of Parks capital projects.

The Administrative Services staff is responsible for the management of the financial operations, front desk, human resources, and other functions related to the park operations. Staff members include an Administrative Services Supervisor and support staff, a Grant Analyst, and a Community Outreach Coordinator.

Volunteers are critical to the ongoing operations of El Paso County Parks, especially for recreation and cultural programs, including nature-based programming. One prominent volunteer group is the non-profit docent organization known as the “Friends of El Paso County Nature Centers”. Other groups of volunteers giving to BCRP include the “Friends of Bear Creek Dog Park” and the “Friends of Bear Creek Regional Park”. Volunteers from these Friends groups contribute more than 27,000 volunteer hours annually, in addition to conducting fundraising drives for park facilities and events.

There are a variety of mechanisms used by El Paso County to fund park operations and development. Explained below are the key points of the primary funding sources.

#### **General Fund Tax Support**

The El Paso County Parks are funded in part by approximately \$1.45 million each year from the County General Fund. These funds are sourced from a combination of property tax and sales tax, as well as various fees and charges. These funds are used for administrative and supervisory salaries, materials and supplies, and other general operation expenses.

#### **Conservation Trust Funds**

El Paso County Parks currently receives approximately \$1.2 million annually from the State of Colorado’s Conservation Trust Fund (CTF). State CTF funds are provided to counties, cities, and special districts to develop new and expanded parks, trails, and open spaces. Due to significant financial pressure occurring with the softening economy beginning in 2008, the amount of El Paso



County general fund monies dedicated to parks was decreased significantly. This reduction resulted in the need to utilize a majority of the CTF monies for park maintenance salaries and benefits. El Paso County utilizes the remainder of the annual allotment for ongoing maintenance.

### **Development Fees and Land Dedication**

Development fees are one-time charges imposed on development projects at the time of permit issuance to recover capital costs for public parks facilities needed to serve new developments and the additional residents, employees, and visitors they bring to the community. State laws, with a few minor exceptions, prohibit the use of impact fees for ongoing maintenance or operations costs.

El Paso County Parks receives regional and urban park fees from new housing development in the County. The regional park fees can be used for development of park facilities or the purchase of park property or open space. The regional fees must be used in designated areas where the fees were collected. Contributions to this fund are approximately \$25,000-\$50,000 annually.

### **User Fees**

User fees are charged for a variety of individual or group uses currently generating approximately \$425,000 per year for the park system overall. Examples of user fees employed by El Paso County include:

- Park and recreation facility rentals
- Recreational program fees
- Booth Lease Space: for vendors in parks, special events and tournaments
- Special use permits
- Admissions/Ticket Sales
- County Fair fees

### **Grants**

Grants often supplement or match funds that have already been received. For example, grants can be used for programs, planning, design, seed money, and construction. Due to their generally unpredictable nature, grants are often used to fund a specific venture and should not be viewed as a continuous source of funding. El Paso County Parks aggressively pursues grants from Great Outdoors Colorado (GOCO), Colorado Parks and Wildlife, federal enhancement funds, and state and local private foundations, for respective park projects.

### **Volunteer Programs**

Programs such as adopt-a-park and friends of the park may be created with and supported by the residents, businesses, and/or organizations located in the park's vicinity. These programs allow volunteers to actively assist in improving and maintaining parks, related facilities, and the community in which they live. In addition, volunteers help to reduce the burden of hiring staff for certain activities, and aid in engaging the community in the operation of their park. Examples include:

- Friends associations
- Volunteers/In-kind services
- Adopt-a-Park/Adopt-a-Trail

- Focused fundraising efforts
- Gifts/ Gift catalogs

These examples illustrate the creative efforts that have been undertaken to continue to provide park and recreation services while enduring the reduced funding available to maintain service levels. Additional funding opportunities that may be available to supplement existing sources are further explored in Chapter 9 of the El Paso County Parks Master Plan (2013).

## 8.2 OPERATIONS AND MAINTENANCE COSTS

The annual operating budget for maintaining BCRP involves over \$56,000 for utilities, which includes electrical and gas utility costs of approximately \$22,600 for the year, and water costs of over \$34,000. The majority of the cost for water is due to the substantial irrigation required to maintain the multi-use playing fields and turf areas. Salaries for park maintenance personnel at Bear Creek Regional Park alone are over \$97,500 of the system-wide annual operations costs, including full time and temporary/seasonal workers.

Additional items addressed in the budget include fertilizer, herbicides, paper products, paint, irrigation maintenance and repair supplies. The system-wide Park Operations budget includes \$10,000 for all of these items. Costs for vehicles are not included in the Operations budget, because County vehicles used for park maintenance are included within the vehicle maintenance service provided to the entire Community Services Department through the Fleet Division of the Public Services Department, at an annual cost of \$58,000.

Many of the recommended Master Plan improvements are designed to reduce future maintenance costs. Using sustainable trail design principles, and upgrading materials used for existing facilities to those with greater strength to withstand heavy usage and longevity, will lead to a better utilization of County Staff time and reduced costs over time.

General maintenance costs can be categorized as routine and periodic. Routine maintenance costs are less intensive and are done on a consistent schedule. Periodic maintenance requires significant staff time but is done less frequently. The proposed improvements outlined in the plan will require both routine and periodic maintenance and will require relative increases to the costs estimated in Appendix E: BCRP Master Plan Estimated Maintenance Personnel Costs.

## 8.3 CAPITAL COSTS

Capital improvements at Bear Creek Regional Park are typically made based upon available funding, and in accordance with the Community Services Department Capital Improvement Program. As needs are identified for particular areas, the improvements are evaluated and included in the 5-year program if funding is available. The current (2015-2019) CIP projects planned for BCRP, and the associated costs and years planned for implementation, are listed below:

- Pavilion Roof Replacements: \$25,000 in 2015 and \$25,000 in 2016.
- Tennis Court Repairs: \$110,000 in 2018
- Nature Center Exhibits: \$150,000 in 2016
- Park Upgrades: \$150,000 in 2017 (includes parking lot curbs, gutters, and paving of Lot #1 at Bear Creek Terrace North, and other erosion/road repairs throughout the park.)

The above projects are planned to be implemented using Regional Park Fee funds.

In addition to the above County-funded projects, there are additional improvements needed for Nature Center exhibits that are proposed to be funded by third-party sources, such as donations.

Action items included in this plan have been evaluated to determine general costs associated with their implementation. These cost figures are based upon a combination of industry standards, and historical cost information specific to El Paso County. Cost information is provided to assist in prioritization and phasing of recommended improvements. Costs for project elements are included in the Implementation Table below. Funding sources for these projects will be determined as part of the CIP process.

#### **8.4 PHASING**

The enhancements and improvements identified in the previous chapter have been assigned to one of three categories related to their implementation, as follows:

- Short-term timeframe: 1-2 years
- Mid-term timeframe: 3-5 years
- Long-term timeframe: 6 years or more

Recommended phasing is based on a combination of elements, and includes factors such as the cost, scope, and complexity of the activity or action; the urgency and need for the item; and the priorities of County Leadership. Suggestions for prioritizing improvements and activities were provided by the advisory committee, and input was also solicited at the public meeting in September. Recommended phasing is provided in the Implementation Table that follows.

#### **8.5 IMPLEMENTATION TABLE**

The following table provides a structured view of the proposed action items. It includes descriptions of the proposed activities, data on the anticipated costs for improvements, and recommendations for a schedule for implementation. It should be noted that these recommendations are based upon the best information available at this point in time, and are subject to change due to unforeseen circumstances or as funding availability changes.



**BEAR CREEK REGIONAL PARK MASTER PLAN IMPLEMENTATION TABLE**

**VISION STATEMENT: BEAR CREEK REGIONAL PARK AND NATURE CENTER PROVIDE OPPORTUNITIES FOR OUTDOOR RECREATION, EDUCATION, CONSERVATION AND ENJOYMENT OF NATURE FOR THE CITIZENS OF EL PASO COUNTY AND ITS VISITORS**

Goals, Objectives, and Actions	Cost	Timing*
<b>GOAL I: Maintain and enhance existing facilities to improve functionality, protect infrastructure and enhance user experience</b>		
<b>OBJECTIVE A: Provide general improvements park-wide as appropriate</b>		
<p><b>ACTION ITEMS</b></p> <ol style="list-style-type: none"> <li>1) Explore security enhancements in parking lots</li> <li>2) Install more interpretive signs and ID plaques for plants</li> <li>3) Install directional signs from neighborhoods for connectivity</li> <li>4) Provide additional directional signs within park for wayfinding</li> <li>5) Consider signs that contain trail system mapping</li> <li>6) Label parking lots and provide identification signs</li> <li>7) Install barriers to keep vehicles from driving on grass</li> <li>8) Provide additional parking spaces at established parking lots</li> <li>9) Provide additional benches and bicycle racks in park</li> <li>10) Provide additional pavilions in parks, shelters along trails</li> <li>11) Evaluate existing receptacles and provide appropriate trash receptacles, pet waste stations, and recycling receptacles</li> <li>12) Provide additional sources of drinking water for park users</li> <li>13) Consider mountain bike wash station</li> <li>14) Install ADA-compliant curbs and ramps at intersections</li> <li>15) Update pavilion roofs as appropriate</li> <li>16) Install landscaping around pavilions</li> <li>17) Consider converting playing fields to synthetic turf</li> <li>18) Address erosion on existing trails and provide resurfacing</li> <li>19) Improve drainage and stormwater systems</li> <li>20) Explore opportunities for adding single-track /mountain bike trails</li> <li>21) Evaluate trail alignments and realign for sustainability where needed</li> </ol>	<ol style="list-style-type: none"> <li>1) TBD</li> <li>2) \$1,000 per sign; \$50/plaque</li> <li>3) \$100 per sign</li> <li>4) \$100 per sign</li> <li>5) \$1,000 per sign</li> <li>6) \$100 per sign</li> <li>7) Fence: \$15/foot; Bollard: \$125; Boulder: \$150</li> <li>8) \$500 per parking space (not including drives)</li> <li>9) Bike Rack: \$300 and up; Bench: \$650</li> <li>10) Pavilion: \$30,000; Shelter: \$3,000 and up</li> <li>11) Bear-proof receptacle: \$800; pet waste station: \$100 and up; recycling receptacle: \$250</li> <li>12) \$400 and up for water bottle filling stations</li> <li>13) TBD</li> <li>14) Curb with ADA ramp: \$4,000 each ramp</li> <li>15) \$20,000 per pavilion</li> <li>16) TBD, depends upon site</li> <li>17) TBD, depends upon site</li> <li>18) TBD, depends upon site</li> <li>19) TBD, depends upon site</li> <li>20) TBD, depends upon site</li> <li>21) TBD, depends upon site</li> </ol>	<ol style="list-style-type: none"> <li>1) SHORT TERM</li> <li>2) SHORT TERM</li> <li>3) SHORT TERM</li> <li>4) SHORT TERM</li> <li>5) SHORT TERM</li> <li>6) SHORT TERM</li> <li>7) SHORT TERM</li> <li>8) SHORT TERM</li> <li>9) SHORT TERM</li> <li>10) LONG TERM</li> <li>11) SHORT TERM</li> <li>12) MID-TERM</li> <li>13) MID-TERM</li> <li>14) MID-TERM</li> <li>15) SHORT TERM</li> <li>16) SHORT TERM</li> <li>17) LONG TERM</li> <li>18) SHORT TERM</li> <li>19) SHORT TERM</li> <li>20) SHORT TERM</li> <li>21) SHORT TERM</li> </ol>
<b>OBJECTIVE B: Enhance enforcement of park rules</b>		
<p><b>ACTION ITEMS</b></p> <ol style="list-style-type: none"> <li>1) Provide funding for security equipment and staff to monitor security cameras for illegal activities</li> <li>2) Increase patrol of park by security officer, City staff, Humane Society</li> </ol>	<ol style="list-style-type: none"> <li>1) TBD</li> <li>2) Ongoing administrative/operations cost</li> </ol>	<ol style="list-style-type: none"> <li>1) SHORT TERM</li> <li>2) SHORT TERM</li> </ol>
<b>*TIMING / PRIORITIZATION: SHORT TERM = 1-2 years; MID TERM = 3-5 years; LONG TERM = 6 years or more</b>		

<ul style="list-style-type: none"> <li>4) Provide education to public including additional signage</li> <li>5) Address overnight parking violators</li> <li>6) Enhance enforcement of leash rules and animal waste removal</li> <li>7) Coordinate with community groups for courtesy patrol</li> <li>8) Encourage increased funding for additional personnel</li> </ul>	<ul style="list-style-type: none"> <li>3) \$100-\$1,000 per sign</li> <li>4) Ongoing administrative/operations cost</li> <li>5) Ongoing administrative/operations cost</li> <li>6) Ongoing administrative/operations cost</li> <li>7) Ongoing administrative cost</li> </ul>	<ul style="list-style-type: none"> <li>3)SHORT TERM</li> <li>4)SHORT TERM</li> <li>5)SHORT TERM</li> <li>6)SHORT TERM</li> <li>7)SHORT TERM</li> </ul>
---	--	--

**OBJECTIVE C: Enhance maintenance of facilities at the park**

<p><b>ACTION ITEMS</b></p> <ul style="list-style-type: none"> <li>1) Ensure playing fields are properly irrigated</li> <li>2) Encourage additional funding to address irrigation deficiencies</li> <li>3) Provide funding for equipment needed to maintain trails</li> <li>4) Address drainage and erosion problems</li> <li>5) Convert areas to native grass where practical</li> <li>6) Pave parking areas when funding is available</li> <li>7) Address building deficiencies on a regular basis.</li> <li>8) Address social trails by installing blockades</li> <li>9) Address cracked pavement at pavilions</li> <li>10) Engage volunteers for assistance when possible</li> <li>11) Encourage increased funding for additional maintenance staff</li> </ul>	<ul style="list-style-type: none"> <li>1) Ongoing operations cost</li> <li>2) Ongoing administrative cost</li> <li>3) TBD (Fleet Division Equipment Budget)</li> <li>4) TBD, site-specific</li> <li>5) TBD</li> <li>6) \$2.60 per square foot; see concept plan costs</li> <li>7) Ongoing administrative/operations cost</li> <li>8) Fence: \$15/foot; Bollard: \$125; Boulder: \$150</li> <li>9) TBD, site-specific</li> <li>10) n/a</li> <li>11) Ongoing administrative/operations cost</li> </ul>	<ul style="list-style-type: none"> <li>1)SHORT TERM</li> <li>2)SHORT TERM</li> <li>3)SHORT TERM</li> <li>4)SHORT TERM</li> <li>5)MID-TERM</li> <li>6)MID-TERM</li> <li>7)SHORT TERM</li> <li>8)SHORT TERM</li> <li>9)SHORT TERM</li> <li>10)SHORT TERM</li> <li>11)SHORT TERM</li> </ul>
---	--	--

**GOAL II: Enhance Existing Facilities at Active Use Areas Consistent with Conservation Easement Restrictions**

**OBJECTIVE A: Enhance Creek Crossing Active Use Area**

<p><b>ACTION ITEMS:</b></p> <ul style="list-style-type: none"> <li>1) Pave parking area serving playground and Pavilions #4 and #5</li> <li>2) Pave parking area and access drive serving community garden</li> <li>3) Pave trailhead parking areas north side of creek</li> <li>4) Install barriers to prevent vehicle parking on grass</li> <li>5) Highlight existing connection to Norris-Penrose Event Center, and install directional signage and rules signs where appropriate</li> <li>6) Enhance/formalize single-track trail near creek</li> <li>7) Install interpretive signs at headquarters to describe park history, poor farm, paupers cemetery, etc.</li> <li>8) Address facility deficiencies at Park Administration building.</li> <li>9) Provide trail markers for 5K course to facilitate special events</li> </ul>	<ul style="list-style-type: none"> <li>1)\$45,000</li> <li>2) \$90,000</li> <li>3) Overlook: \$13,000; Lot near creek: \$18,000</li> <li>4) Fence: \$15/foot; Bollard: \$125; Boulder: \$150</li> <li>5) Directional: \$100 per sign; Rules: \$1,000/sign; trail map on sign: \$1,000 per sign</li> <li>6) Single-track: \$10/l.f. = \$10,000</li> <li>7) Interpretive Signs: \$1,000/sign; 5 signs=\$5,000</li> <li>8) TBD</li> <li>9) \$25-\$50 per marker; 11 markers=\$500</li> </ul>	<ul style="list-style-type: none"> <li>1)MID-TERM</li> <li>2)LONG TERM</li> <li>3)LONG TERM</li> <li>4)SHORT TERM</li> <li>5)SHORT TERM</li> <li>6)SHORT TERM</li> <li>7)SHORT TERM</li> <li>8)SHORT TERM</li> <li>9)SHORT TERM</li> </ul>
--	---	--

<p>10) Address drainage problems at maintenance shop yard 11) Consolidate existing material storage at yard</p>	<p>10) TBD (may include culverts, grading, rip-rap) 11) n/a (ongoing operations cost) <b>TOTAL: \$184,000</b></p>	<p>10)SHORT TERM 11)SHORT TERM</p>
<b>OBJECTIVE B: Enhance Bear Creek Terrace North Active Use Area</b>		
<p><b>ACTION ITEMS:</b></p> <ol style="list-style-type: none"> <li>1) Pave and re-stripe parking areas</li> <li>2) Install additional landscaping along driveway at park entrance</li> <li>3) Refresh existing landscaping near pavilions</li> <li>4) Update field signage and provide roof over bulletin board(s)</li> <li>5) Install additional drinking fountains/water bottle filling stations</li> <li>6) Install ADA-compliant access to Pavilion #4</li> <li>7) Replace pavilion roofs</li> <li>8) Re-stripe basketball court and provide new nets</li> <li>9) Replace broken play equipment at playground</li> </ol>	<ol style="list-style-type: none"> <li>1) Paving: \$150,000; Striping: \$5,000</li> <li>2) TBD (\$1,000 and up; site-specific)</li> <li>3) TBD (site-specific)</li> <li>4) Kiosk: \$1,000 and up; Signage: \$100 per sign</li> <li>5) Filling Station: \$400 and up</li> <li>6) Grading, paving, handrails: \$6,000 and up</li> <li>7) \$20,000 per pavilion x 3 = \$60,000</li> <li>8) Nets: \$5 each; Striping: \$500</li> <li>9) \$5,000 to \$50,000 depending on selection</li> </ol> <p><b>TOTAL: \$250,300</b></p>	<ol style="list-style-type: none"> <li>1)MID-TERM</li> <li>2)SHORT TERM</li> <li>3)SHORT TERM</li> <li>4)MID-TERM</li> <li>5)MID-TERM</li> <li>6)MID-TERM</li> <li>7)SHORT TERM</li> <li>8)SHORT TERM</li> <li>9)SHORT TERM</li> </ol>
<b>OBJECTIVE C: Enhance Bear Creek Terrace South Active Use Area</b>		
<p><b>ACTION ITEMS:</b></p> <ol style="list-style-type: none"> <li>1) Resurface remaining two tennis courts and install new nets</li> <li>2) Consider installing posts and striping for half-size tennis courts</li> <li>3) Rehabilitate archery targets and signage within range</li> <li>4) Install gutters for roof at archery range and update facility access</li> <li>5) Install directional signage in parking area</li> <li>6) Install landscaping along driveway at entrance</li> <li>7) Pave parking lot and address erosion and drainage issues</li> <li>8) Address grade change of paved path near tennis courts</li> <li>9) Refresh landscaping and remove overgrown junipers</li> <li>10) Re-establish lighting for nighttime play at tennis courts</li> <li>11) Install exercise equipment, obstacles, and mile markers at course</li> </ol>	<ol style="list-style-type: none"> <li>1) Resurface: \$29,000 per court; Nets: \$150 each</li> <li>2) Posts: \$200 each; Striping: \$500 per court</li> <li>3) Foam Targets: \$50/sq. foot; approx. \$3,500</li> <li>4) Paved sidewalk: \$5,000; Gutters: \$500</li> <li>5) \$100 per sign; 3 signs = \$300</li> <li>6) TBD (\$1,000 and up; site-specific)</li> <li>7) \$91,000</li> <li>8) \$2,000</li> <li>9) TBD (\$1,000 and up; site-specific)</li> <li>10) TBD (utility budget increase required)</li> <li>11) \$2,000 per obstacle; \$50-100 per marker X 10</li> </ol> <p><b>TOTAL: \$159,500</b></p>	<ol style="list-style-type: none"> <li>1)MID-TERM</li> <li>2)SHORT TERM</li> <li>3)SHORT TERM</li> <li>4)MID-TERM</li> <li>5)SHORT TERM</li> <li>6)SHORT TERM</li> <li>7)LONG TERM</li> <li>8)SHORT TERM</li> <li>9)SHORT TERM</li> <li>10)MID-TERM</li> <li>11)MID-TERM</li> </ol>
<b>OBJECTIVE D: Enhance Bear Creek Nature Center and Gold Camp Road Active Use Area</b>		
<p><b>ACTION ITEMS:</b></p> <ol style="list-style-type: none"> <li>1) Update nature center exhibits</li> <li>2) Repair driveway to rear of facility</li> <li>3) Replace birdseed dispensers</li> </ol>	<ol style="list-style-type: none"> <li>1) \$150,000 total</li> <li>2) \$5,000</li> <li>3) \$50 each; up to \$500 total</li> </ol>	<ol style="list-style-type: none"> <li>1)SHORT TERM</li> <li>2)SHORT TERM</li> <li>3)SHORT TERM</li> </ol>



<ul style="list-style-type: none"> <li>4) Repair building deficiencies at nature center</li> <li>5) Replace boardwalk along Songbird Trail</li> <li>6) Expand interpretive signage</li> <li>7) Install directional signs on nearby streets to assist new visitors</li> <li>8) Install lighting for overflow parking lot and adjacent trail</li> <li>9) Pave overflow parking area</li> <li>10) Address drainage and stormwater runoff problems</li> <li>11) Clear area of materials stored at Gold Camp Road yard</li> </ul>	<ul style="list-style-type: none"> <li>4) TBD</li> <li>5) \$17 per square foot; \$23,500 total</li> <li>6) \$1,000 per sign; 10 signs = \$10,000</li> <li>7) \$100 per sign; 5 signs = \$500</li> <li>8) \$250/bollard, plus utility cost; \$25,000 total</li> <li>9) \$40,000 (not including access road)</li> <li>10) TBD (grading, culverts, rip-rap, etc.)</li> <li>11) TBD (ongoing operations cost)</li> </ul> <p><b>TOTAL: \$254,500</b></p>	<ul style="list-style-type: none"> <li>4)MID-TERM</li> <li>5)SHORT TERM</li> <li>6)SHORT TERM</li> <li>7)SHORT TERM</li> <li>8)MID-TERM</li> <li>9)LONG TERM</li> <li>10)SHORT TERM</li> <li>11)SHORT TERM</li> </ul>
--	---	---

**GOAL III: Provide New Facilities to Meet Current User Needs**

**OBJECTIVE A: Implement proposed improvements within Creek Crossing Active Use Area as recommended in concept plan**

<p><b>ACTION ITEMS</b></p> <ul style="list-style-type: none"> <li>1) Construct trail from Rio Grande toward creek, at social trail</li> <li>2) Create fenced area uphill from existing yard for materials storage</li> <li>3) Create earthen berm to screen view of storage from Rio Grande</li> <li>4) Expand space for indoor storage at Maintenance Shop Yard</li> <li>5) Expand parking areas north side of creek, and community garden</li> <li>6) Provide additional trails per concept plan</li> <li>7) Install new pedestrian bridge over creek.</li> </ul>	<ul style="list-style-type: none"> <li>1) \$9,800 (Tier III, 3' to 4' wide)</li> <li>2) Fencing: \$11,500; Grading/Gravel: \$20,000; Retaining Wall: six-foot high timber =\$40,000</li> <li>3) \$10,000 earth work; \$3,000 tree planting</li> <li>4) \$10,000/barn + 15,000/building;=\$75,000 total</li> <li>5) Playground: \$26,000 (paved); Lot near creek: \$10,500 (paved); Garden: \$12,000 (gravel)</li> <li>6) \$10 per lineal foot; \$22,000 total</li> <li>7) \$1,100 per lineal foot; \$33,000 and up</li> </ul> <p><b>TOTAL: \$272,800</b></p>	<ul style="list-style-type: none"> <li>1)SHORT TERM</li> <li>2)MID- TERM</li> <li>3)MID- TERM</li> <li>4)LONG TERM</li> <li>5)MID-TERM</li> <li>6)MID-TERM</li> <li>7)MID-TERM</li> </ul>
---	--	---

**OBJECTIVE B: Implement proposed improvements within 8<sup>th</sup> Street Active Use Area as recommended in concept plan**

<p><b>ACTION ITEMS</b></p> <ul style="list-style-type: none"> <li>1) Construct paved access road from 8<sup>th</sup> Street</li> <li>2) Provide trailhead parking facility that accommodates horse trailers</li> <li>3) Develop Equestrian Skills Course and fencing improvements</li> <li>4) Add restrooms and picnic pavilion</li> <li>5) Construct secondary trails using sustainability principles to address erosion and soil concerns due to prior mining activities</li> <li>6) Explore property acquisitions to expand area</li> </ul>	<ul style="list-style-type: none"> <li>1) Pave Driveway to Penrose Gate: \$97,500</li> <li>2) Gravel and grading \$21,000; Retaining Wall: \$64 per lineal footX275 feet = \$17,600</li> <li>3) n/a (Volunteer project/donation)</li> <li>4) Restroom: \$125,000; Pavilion: \$30,000</li> <li>5) n/a (Volunteer project/donation)</li> <li>6) TBD</li> </ul> <p><b>TOTAL: \$291,100</b></p>	<ul style="list-style-type: none"> <li>1)MID-TERM</li> <li>2)MID-TERM</li> <li>3)SHORT TERM</li> <li>4)LONG-TERM</li> <li>5)SHORT TERM</li> <li>6)LONG TERM</li> </ul>
--	---	--

**OBJECTIVE C: Implement proposed improvements within Bear Creek Terrace South Active Use Area as recommended in concept plan**

<p><b>ACTION ITEMS</b></p> <ol style="list-style-type: none"> <li>1) Remove existing obstacles and reclaim area to natural state</li> <li>2) Expand existing trail into exercise loop course per plan, and provide additional fitness course obstacles and mile markers</li> <li>3) Construct bocce ball court along west side of entrance driveway</li> <li>4) Provide restrooms near tennis courts</li> <li>5) Install ADA-compliant path between archery range and Argus pedestrian crossing, including sidewalk alongside parking lot</li> <li>6) Provide picnic pavilion and horseshoe pit near parking area</li> <li>7) Expand parking area and pave new lot</li> <li>8) Provide formalized trail connections at 21<sup>st</sup> Street/Argus intersection, along east side of 21<sup>st</sup> Street</li> <li>9) Enhance neighborhood connections at social trails.</li> </ol>	<ol style="list-style-type: none"> <li>1) n/a (staff time; reseeding)</li> <li>2) \$2,000 per obstacle; \$50-100 per marker; 10 obstacles = \$20,000; 20 markers/signs=\$2,000</li> <li>3) \$1,000</li> <li>4) Restroom: \$125,000 (single stall each gender)</li> <li>5)\$15/lineal foot for trail= \$2,500; \$10/square foot for sidewalk=\$10,000;</li> <li>6) Pavilion: \$30,000; Horseshoe Pit: \$1,000</li> <li>7) Expand and Pave New: \$36,000</li> <li>8) Curb with ADA ramp: \$4,000 x 2 = \$8,000; Trail: \$15/l.f. x 1400 feet of trails = \$21,000</li> <li>9) Trail: \$15/lineal foot; 625 feet = \$6,300</li> </ol> <p><b>TOTAL: \$262,800</b></p>	<ol style="list-style-type: none"> <li>1)SHORT TERM</li> <li>2)MID- TERM</li> <li>3)SHORT TERM</li> <li>4)MID-TERM</li> <li>5)SHORT TERM</li> <li>6)LONG TERM</li> <li>7)LONG TERM</li> <li>8)SHORT TERM</li> <li>9)SHORT TERM</li> </ol>
<p><b>OBJECTIVE D: Implement proposed improvements within Lower Gold Camp Road Active Use Area as recommended in concept plan</b></p>		
<p><b>ACTION ITEMS</b></p> <ol style="list-style-type: none"> <li>1) Develop Concept Plan and conduct community input process</li> <li>2) Relocate existing materials stored on site to expanded maintenance shop storage yard</li> <li>3) Relocate entrance to align with residential care facility on opposite side of Lower Gold Camp Road</li> <li>4) Provide berm along roadway near entrance to screen parking area</li> <li>5) Develop entrance plaza with ADA-compliant non-motorized access</li> <li>6) Develop ornamental demonstration garden with plants identified</li> <li>7) Consider establishing urban garden</li> <li>8) Develop sensory garden for therapeutic and contemplative use</li> <li>9) Evaluate development of demonstration streambed to meander through park and provide water-related education</li> <li>10) Develop natural amphitheater using existing topography</li> <li>11) Construct water feature or splash park per concept plan</li> <li>12) Develop natural playground and provide play structures</li> <li>13) Install restrooms and pavilion at entrance plaza</li> <li>14) Provide irrigated turf areas for low-intensity active uses</li> <li>15) Provide picnic pavilions, shade trees and benches</li> <li>16) Provide parking in adequate amounts to serve planned activities</li> <li>17) Provide unpaved parking area at west end for equestrian use</li> <li>18) Provide trail connections to Nature Center and regional trail</li> </ol>	<ol style="list-style-type: none"> <li>1) TBD (possible staff function)</li> <li>2) Ongoing operations cost</li> <li>3) \$15,000 or more for new driveway apron</li> <li>4) \$20,000 for earthwork</li> <li>5) TBD (pending design)</li> <li>6) TBD (pending design)</li> <li>7) TBD (pending design)</li> <li>8) TBD (pending design)</li> <li>9) TBD (pending design)</li> <li>10) TBD (pending design)</li> <li>11) TBD (pending design)</li> <li>12) TBD (pending design)</li> <li>13) Restroom: \$125,000; Pavilion: \$30,000</li> <li>14) TBD (pending design)</li> <li>15) Pavilion: \$20,000; Bench: \$650; Tree: \$300</li> <li>16)TBD (pending design)</li> <li>17) TBD (pending design)</li> <li>18) \$15/lineal foot for Primary Regional Trail</li> </ol> <p><b>TOTAL: \$210,000 partial; other features TBD</b></p>	<ol style="list-style-type: none"> <li>1)SHORT TERM</li> <li>2)MID- TERM</li> <li>3)MID-TERM</li> <li>4)MID-TERM</li> <li>5)LONG TERM</li> <li>6)LONG TERM</li> <li>7)SHORT TERM</li> <li>8)MID- TERM</li> <li>9)MID-TERM</li> <li>10)LONG TERM</li> <li>11)LONG TERM</li> <li>12)MID-TERM</li> <li>13)LONG TERM</li> <li>14)MID-TERM</li> <li>15)LONGTERM</li> <li>16)MID- TERM</li> <li>17)MID-TERM</li> <li>18)MID-TERM</li> </ol>

**GOAL IV: Protect Passive Use Areas and Natural Areas for Long-Term Sustainability**

**OBJECTIVE A: Implement management recommendations within conservation easement areas; annually monitor activities and conditions.**

<p><b>ACTION ITEMS</b></p> <ol style="list-style-type: none"> <li>1) Provide forest management program for tree health, species diversity and fire mitigation</li> <li>2) Develop plans for using native species and drought-tolerant plant materials to enhance natural ecosystem and reduce water use</li> <li>3) Maintain and improve water and soil quality for wildlife habitat</li> <li>4) Label and preserve areas with sensitive native plants</li> <li>5) Address eradication of noxious weeds to protect native species</li> <li>6) Expand wetlands and provide educational interpretive signage</li> <li>7) Address erosion concerns related to mining impacts upon soil</li> <li>8) Avoid construction of large buildings and overuse of concrete</li> <li>9) Explore use of permeable pavement for parking areas</li> <li>10) Address user conflicts and/or overuse affecting park resources</li> <li>11) Provide public education on topics such as “Leave no Trace”, respect and responsibility for nature, best practices in land stewardship, sustainability, and environmental ethics</li> </ol>	<ol style="list-style-type: none"> <li>1) Ongoing administrative/operations cost</li> <li>2) Ongoing administrative cost</li> <li>3) Ongoing operations cost</li> <li>4) TBD (pending size and design)</li> <li>5) Ongoing operations cost</li> <li>6) TBD; Interpretive Signs: \$1,000 each</li> <li>7) TBD</li> <li>8) n/a</li> <li>9) TBD</li> <li>10) Ongoing operations cost</li> <li>11) Ongoing administrative/operations cost</li> </ol>	<ol style="list-style-type: none"> <li>1) SHORT TERM</li> <li>2) SHORT TERM</li> <li>3) SHORT TERM</li> <li>4) SHORT TERM</li> <li>5) LONG TERM</li> <li>6) MID-TERM</li> <li>7) LONG TERM</li> <li>8) SHORT TERM</li> <li>9) SHORT TERM</li> <li>10) SHORT TERM</li> <li>11) SHORT TERM</li> </ol>
--	--	---

**OBJECTIVE B: Restore, protect, and enhance creek and aquatic habitat**

<p><b>ACTION ITEMS</b></p> <ol style="list-style-type: none"> <li>1) Address creek bank erosion</li> <li>2) Implement bank stabilization infrastructure</li> <li>3) Prepare vegetation management recommendations</li> <li>4) Manage wildlife activities that impact creek health (i.e.: beavers)</li> <li>5) Manage use of park areas by the public to prevent stream impacts</li> <li>6) Coordinate with adjacent property owners to promote sustainable and ecological land use activities and prevent erosion into creek</li> <li>7) Encourage the use of organic and/or non-toxic techniques</li> <li>8) Provide educational / interpretive signs to inform and encourage a connection with the land, creek and wildlife by park users.</li> </ol>	<ol style="list-style-type: none"> <li>1) TBD</li> <li>2) TBD</li> <li>3) Ongoing administrative cost</li> <li>4) Ongoing operations cost</li> <li>5) Ongoing administrative/operations cost</li> <li>6) Ongoing administrative/operations cost</li> <li>7) Ongoing administrative/operations cost</li> <li>8) \$1,000 per sign; ongoing administrative cost</li> </ol>	<ol style="list-style-type: none"> <li>1) SHORT TERM</li> <li>2) MID-TERM</li> <li>3) SHORT TERM</li> <li>4) MID-TERM</li> <li>5) SHORT TERM</li> <li>6) MID-TERM</li> <li>7) SHORT TERM</li> <li>8) SHORT TERM</li> </ol>
---	---	--



GOAL V: Provide high quality and safe recreation and educational experiences for users of county park facilities and recreational areas		
OBJECTIVE A: Continue to provide successful recreational and educational programs that serve the community and attract visitors		
<p><b>ACTION ITEMS</b></p> <ol style="list-style-type: none"> <li>1) Evaluate program levels of interest on regular basis and identify ways to improve and expand</li> <li>2) Enhance marketing of programs and events</li> <li>3) Provide additional educational programs addressing park ecosystems and sustainable activities</li> <li>4) Document, interpret, and protect cultural and historic resources</li> <li>5) Provide an edible and medicinal plant guide</li> <li>6) Install more interpretive signs and ID plaques for plants</li> <li>7) Encourage additional funding to increase staffing levels.</li> </ol>	<ol style="list-style-type: none"> <li>1) Ongoing administrative cost</li> <li>2) Ongoing administrative cost</li> <li>3) Ongoing administrative cost</li> <li>4) Ongoing administrative cost</li> <li>5) Ongoing administrative cost</li> <li>6) TBD</li> <li>7) Ongoing administrative cost</li> </ol>	<ol style="list-style-type: none"> <li>1)SHORT TERM</li> <li>2)SHORT TERM</li> <li>3)SHORT TERM</li> <li>4)MID-TERM</li> <li>5)SHORT TERM</li> <li>6)SHORT TERM</li> <li>7)SHORT TERM</li> </ol>
OBJECTIVE B: Explore innovative programs to meet needs of current population		
<p><b>ACTION ITEMS</b></p> <ol style="list-style-type: none"> <li>1) Coordinate with public and private partners for special programs</li> <li>2) Work with user groups to manage and enhance use of facilities</li> <li>3) Explore location and facilities to provide farmer’s market</li> <li>4) Enhance geo-caching activities as a recreational program</li> <li>5) Provide family movie nights and events</li> <li>6) Provide educational overnight camping programs</li> <li>7) Explore programs to encourage social interactions, health awareness, crafts and hobbies.</li> <li>8) Coordinate enhanced outreach to youth and seniors</li> <li>9) Encourage funding increases to expand programs.</li> </ol>	<ol style="list-style-type: none"> <li>1) Ongoing administrative cost</li> <li>2) Ongoing administrative/operations cost</li> <li>3) Ongoing administrative/operations cost</li> <li>4) Ongoing administrative/operations cost</li> <li>5) Ongoing administrative/operations cost</li> <li>6) Ongoing administrative/operations cost</li> <li>7) Ongoing administrative/operations cost</li> <li>8) Ongoing administrative/operations cost</li> <li>9) Ongoing administrative/operations cost</li> </ol>	<ol style="list-style-type: none"> <li>1)SHORT TERM</li> <li>2)SHORT TERM</li> <li>3)SHORT TERM</li> <li>4)SHORT TERM</li> <li>5)SHORT TERM</li> <li>6)SHORT TERM</li> <li>7)SHORT TERM</li> <li>8)SHORT TERM</li> <li>9)SHORT TERM</li> </ol>

*~ This page intentionally blank ~*

---

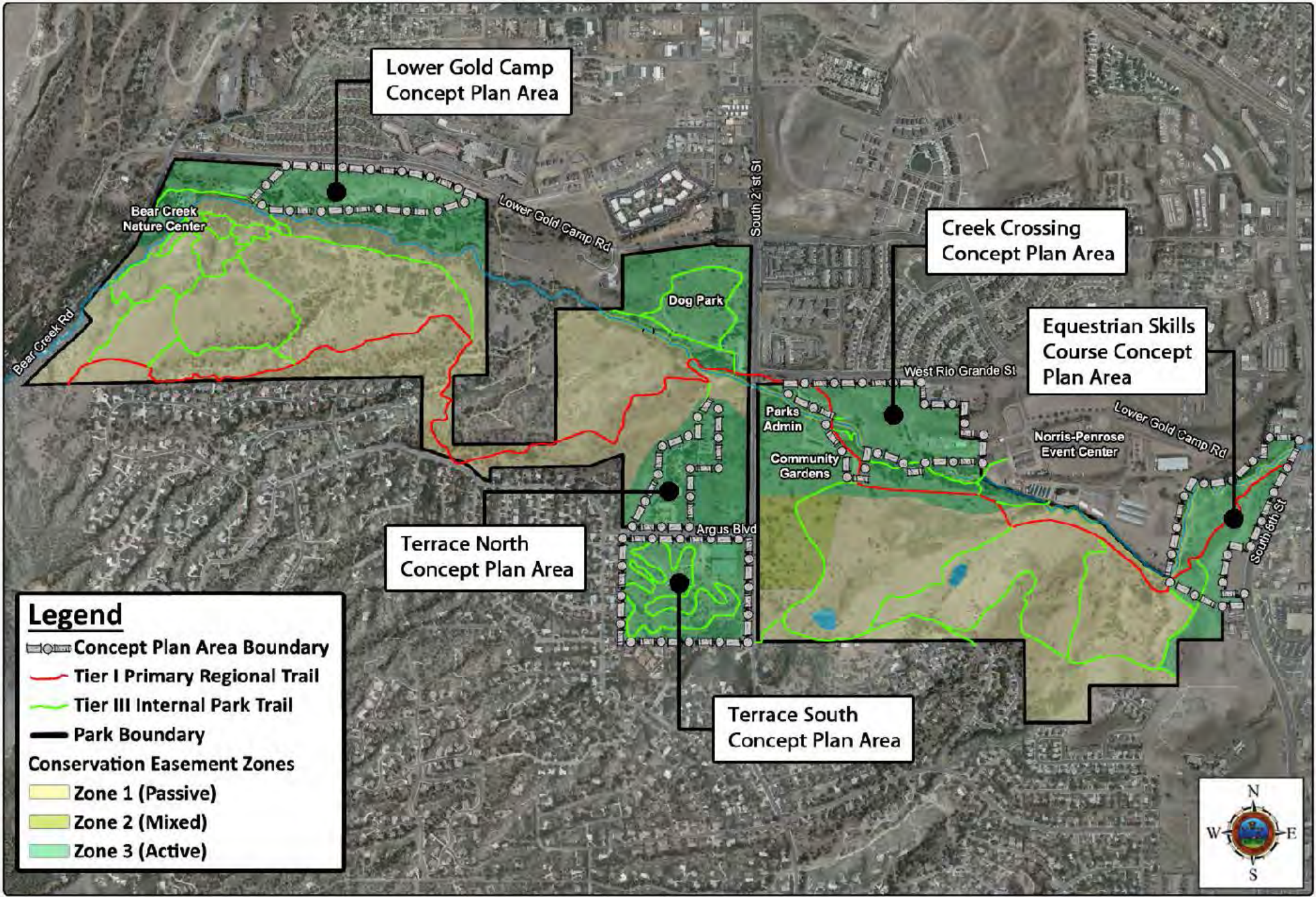
## BIBLIOGRAPHY

- 1) The Social History of Bear Creek Canyon: A guide to Local Resources, Jill Silos and Sydney Caddel
- 2) Bear Creek Regional Park Conservation Easement Baseline Report, Blue Mountain Environmental Consulting, Inc./Matt Tobler, 2014
- 3) El Paso County Parks Bear Creek Regional Park Master Plan, 2008
- 4) El Paso County Parks Master Plan, 2013
- 5) Forest Health and Ecology Guide, El Paso County Community Services Department, Environmental Division, 2014
- 6) El Paso County Common Noxious Weeds and Control Methods, El Paso County Community Services Department, Environmental Division, 2014
- 7) SWReGAP Land-cover Legend Description Database:  
<http://earth.gis.usu.edu/swgap/legenddataquery.php>
- 8) State Wildlife Action Plan (SWAP); <http://www.landscape.org/colorado/priorities/swap/>
- 9) National Wetlands Inventory (<http://www.fws.gov/wetlands/Data/Wetland-Codes.html>).



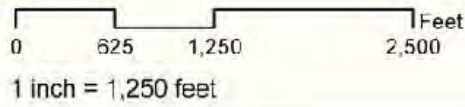
*This page intentionally blank*





**Legend**

- Concept Plan Area Boundary
- Tier I Primary Regional Trail
- Tier III Internal Park Trail
- Park Boundary
- Conservation Easement Zones**
- Zone 1 (Passive)
- Zone 2 (Mixed)
- Zone 3 (Active)



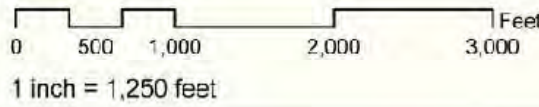
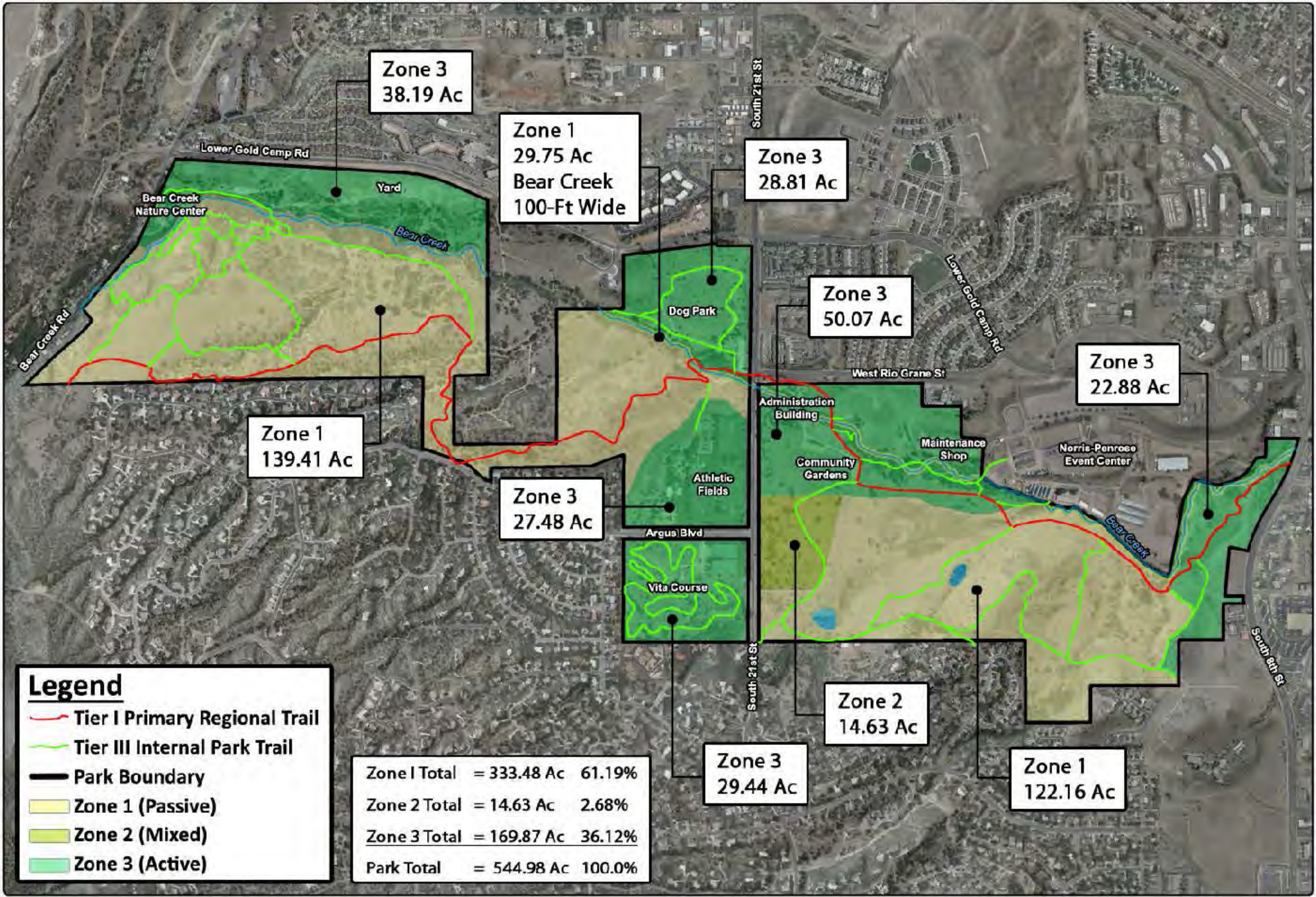
**General Reference Map**  
**Bear Creek Regional Park Master Plan**  
 December 2014





*This page intentionally blank*





## Conservation Easement Zones Bear Creek Regional Park Master Plan



© 2018 El Paso County Parks Department. All rights reserved. This map is a representation of the current status of the park and is not intended to be a legal document. The information on this map is for informational purposes only and should not be used for any other purpose. The information on this map is subject to change without notice.



*This page intentionally blank*





**Pavilions**  
- Expand and Pave Parking Area

**Trails**  
- Neighborhood Connection

**Screens**  
- Extend Natural Berms  
- Plant Vegetation

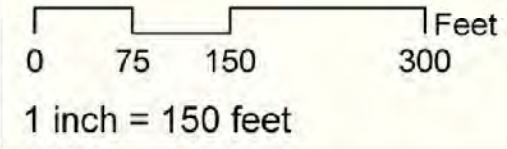
**Storage Yard**  
- Materials Storage  
- Retaining Walls  
- Drainage Improvements

**Trailheads**  
- Enlarge and Pave Parking Areas  
- Picnic Tables  
- Fencing  
- Trail Connections  
- Enhance Signage

**Creekside**  
- Single-Track Loop Trail  
- Pedestrian Bridge  
- Creekbank Improvements  
- Enlarge Garden Parking

**Gardens**  
- Pave Parking Area

**Shop**  
- Added Equipment Storage  
- Added Covered Storage  
- Drainage Improvements



**Creek Crossing Concept Plan**  
**Bear Creek Regional Park Master Plan**





*This page intentionally blank*

- ### Trailhead
- Install Bollards
  - Parking Lot Striping
  - Drainage Improvements
  - Update Landscaping
  - Update Field Signage

- ### Pavilions
- Update Basketball Court
  - Update Playground
  - ADA Improvements
  - Update Landscaping
  - Drainage Improvements
  - Update Pavilion Signage

- ### Entrance
- Update Landscaping
  - Parking Lot Paving
  - ADA Connection
  - Update Field Signage



Argus Blvd

South 21st St

0 87.5 175  
1 inch = 175 feet

350 Feet  
Terrace North Concept Plan  
Bear Creek Regional Park Master Plan



*This page intentionally blank*





**Terrace South Concept Plan**  
**Bear Creek Regional Park Master Plan**



*This page intentionally blank*





**Stream Crossing Area**

- Constructed In Phases
- Phase I Loop W/ Two Crossings
- Phase II to 8th St. W/ Two Crossings

**Hills & Narrows Area**

- Ditches, Ravines, Hills
- Varying Grades
- Easy, Medium, Hard

**Bridge Area**

- Timber Structures
- Varying Widths, Heights
- Easy, Medium, Hard

**Pond Area**

- Logs, Timber, Ramps
- Varying Entrance Grades
- Easy, Medium, Hard

**Steps Area**

- Logs, Timber, Earthen
- Varying Grades, Step Height
- Easy, Medium, Hard

**Pavilion**

- Western Theme
- Access to Regional Trail
- Views of Cheyenne Mtn.



**Tree Trail Obstacle Area**

- Natural Log / Stone Obstacles
- Trail Routing Through Trees
- All Obstacles Have Bypass

**Level Training Area**

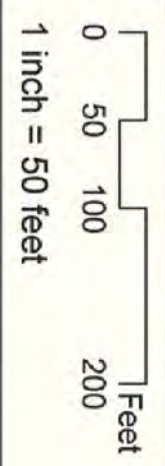
- Rocks, Logs, Gates, Fences
- Loop Trail W/ Turnouts
- Easy, Medium, Hard

**Switchback Area**

- Widths, Turns, Grades
- Easy, Medium, Hard
- Connects to Level Area

**Trailhead**

- 9 Trailer Spaces
- 11 Standard Spaces
- 2 Picnic Tables
- Retaining Wall
- Relocated Gate
- Restroom
- Explore Property Acquisition



**Equestrian Skills Course Concept Plan**  
**Bear Creek Regional Park Master Plan**





*This page intentionally blank*



**Creekbed**  
 - Runs Through Entire Site  
 - Transitional from Dry to Wet  
 - Captures Runoff, Supplemented  
 - CSU / Ftn. Creek Partnership

**Lower Gold Camp Rd**  
 - Bike Lane  
 - Curb and Gutter Improvements  
 - Trails and Landscaping  
 - Landscape Buffers and Screens

**Equestrian Uses**  
 - Stable  
 - Corral  
 - Parking  
 - Roundpen

**Community Garden**  
 - Formalized Garden  
 - Education

**Parking**  
 - Screening  
 - Paved, Natural

**Active Use**  
 - Gathering Areas  
 - Native Landscaping

**Parking**  
 - Screening  
 - Paved, Natural

**Play Area**  
 - Playgrounds

**Sensory Garden**  
 - Therapeutic  
 - Sight, Sound, Smell

**Plaza**  
 - Pavilion  
 - Restrooms  
 - ADA Parking

**Active Use**  
 - Gathering  
 - Informal Play

**Amphitheater**  
 - Event and Non-Event Use  
 - Natural and Structured Seating  
 - Shade Areas

**Demonstration Garden**  
 - Waterwise  
 - Native Plantings

**Natural Playground**  
 - Access to BCNC

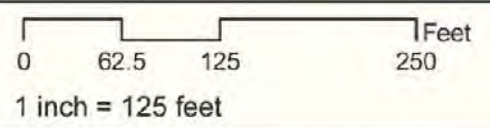
**Turf Area**  
 - Lawn Games  
 - Informal Fields

**Water Play**  
 - Water Feature  
 - Education

**Trails**  
 - Connection to Bear Creek Nature Center

**Trails**  
 - Measured Circuits  
 - Connects All Areas Together  
 - Lookouts / Viewsheds

**Trails**  
 - Connection to Bear Creek Regional Trail



**Lower Gold Camp Concept Plan**  
**Bear Creek Regional Park Master Plan**





***This page intentionally blank***





**Bear Creek Regional Park  
Master Plan Update Survey  
2014**

Provided by Peak Surveys  
15907 Longmeadow Lane  
Colorado Springs, CO 80921  
719-510-5682  
[www.peaksurveys.com](http://www.peaksurveys.com)

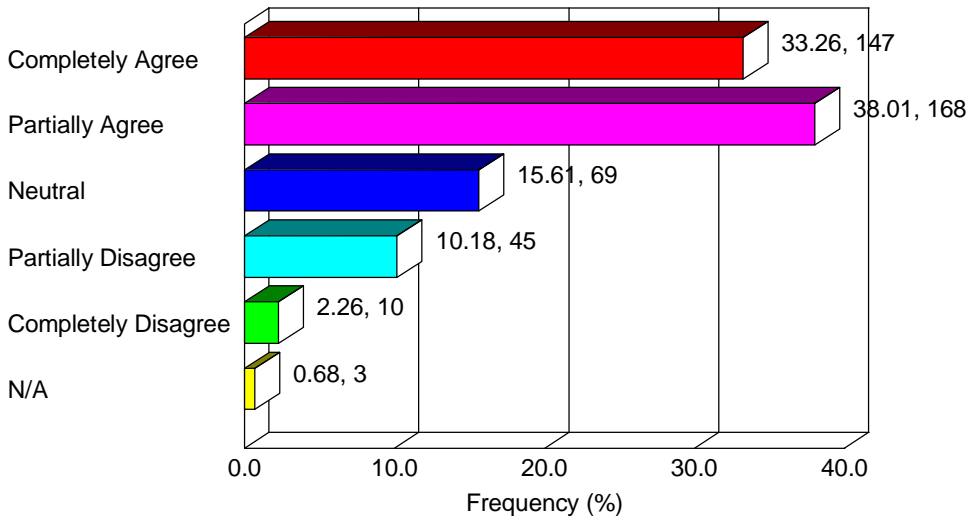
## Two Most Favorite Existing Facilities

Two most favorite existing facilities at Bear Creek Regional Park				
	Counts	Percents	Percents	
			0	100
Trail System	328	73.5%		
Open Space / Natural Areas	205	46.0%		
Dog Park	111	24.9%		
Nature Center	79	17.7%		
Multi-use Fields	34	7.6%		
Pavilions	28	6.3%		
Playgrounds	26	5.8%		
Tennis Courts	19	4.3%		
Archery Range	15	3.4%		
Community Garden	14	3.1%		
Vita Course	2	0.4%		
Other	8	1.8%		
Totals	*	*		

\* Note: Multiple answer percentage-count totals not meaningful.

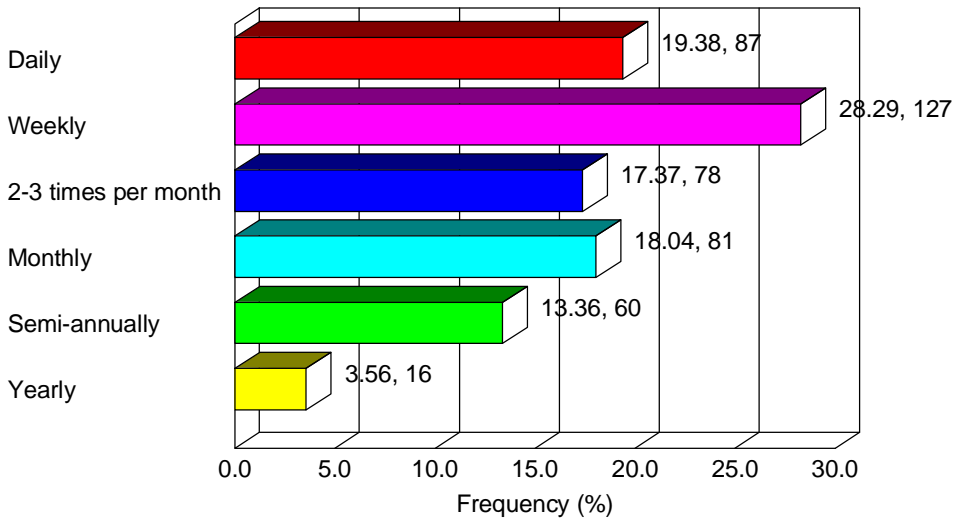
## Maintenance Level at Bear Creek Regional Park

The level of maintenance at Bear Creek Regional Park is acceptable.



## Frequency of Visit

Please indicate how often you visit Bear Creek Regional Park.



## Favorite Amenity, Activity or Feature at Bear Creek Regional Park Rescaled into Major Categories

Please list your favorite amenity / activity / feature at Bear Creek Regional Park.

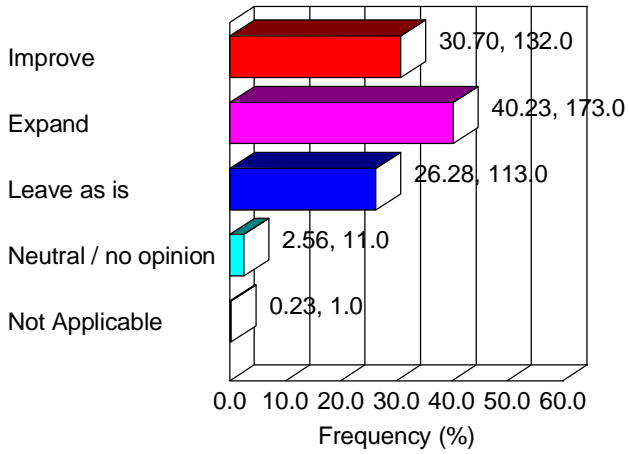
- 47; 13.3% Walking / Hiking Trails
- 43; 12.1% Trails
- 33; 9.3% Dog Park / Walking Dog / Dog Agility
- 29; 8.2% Bike Trails / Mountain Bike Trails
- 21; 5.9% Nature Center
- 13; 3.7% Open Space
- 6; 1.7% Birding / Watching Birds
- 5; 1.4% Equestrian / Horse Trails
- 5; 1.4% Pavillions
- 4; 1.1% Bear Creek Nature Center
- 4; 1.1% Mountain bike trails
- 4; 1.1% Jazz / Music
- 3; 0.8% Tennis
- 2; 0.6% I love the size of the open spaces and trails. These things make Colorado Springs very special.
- 2; 0.6% multi-use trails
- 2; 0.6% open space and trails
- 2; 0.6% outdoor concerts
- 2; 0.6% restroom
- 2; 0.6% Trail running
- 2; 0.6% Wildlife
- 127; 35.9% Other



## Respondents' Opinions of Existing Facility Improvements and Expansions

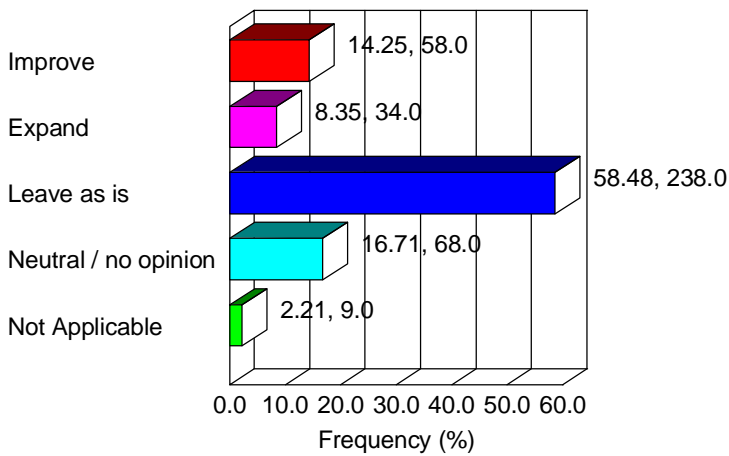
2014 Bear Creek

Trail System



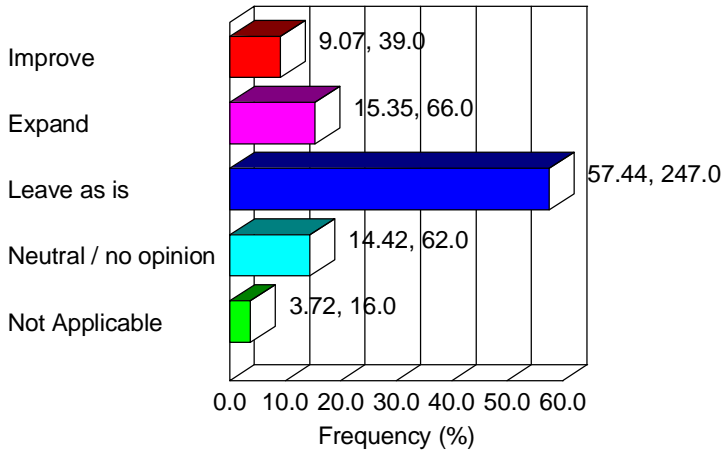
2014 Bear Creek

Pavilions



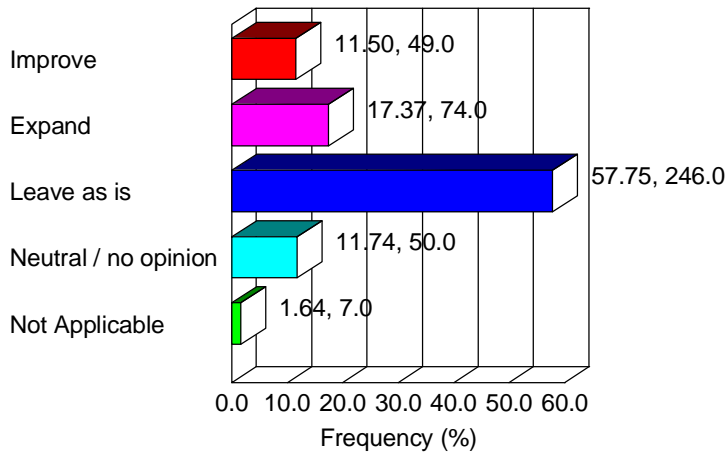
2014 Bear Creek

Dog Park



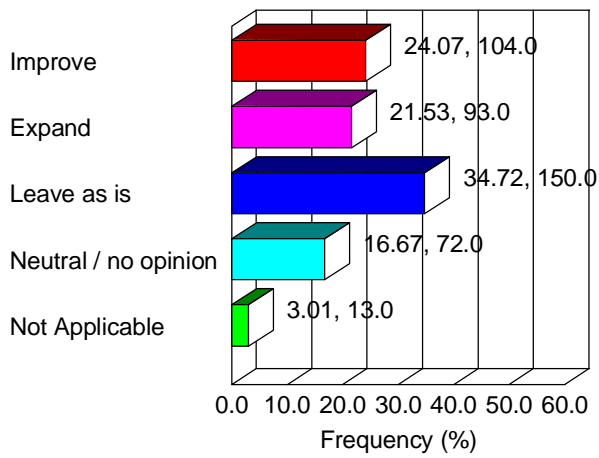
2014 Bear Creek

Parking Lots and/or Roadways



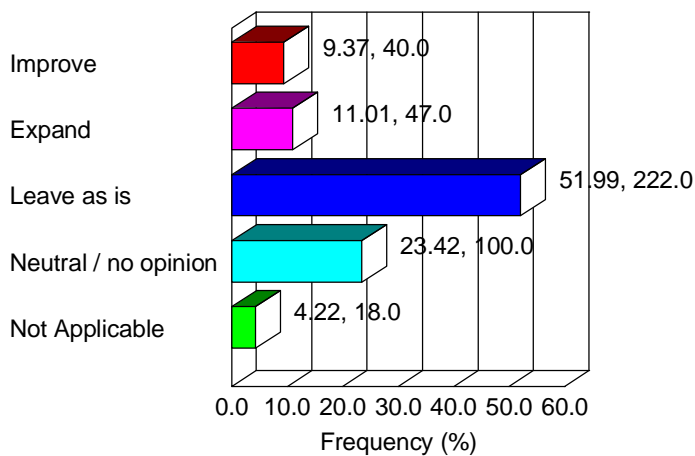
2014 Bear Creek

Restrooms



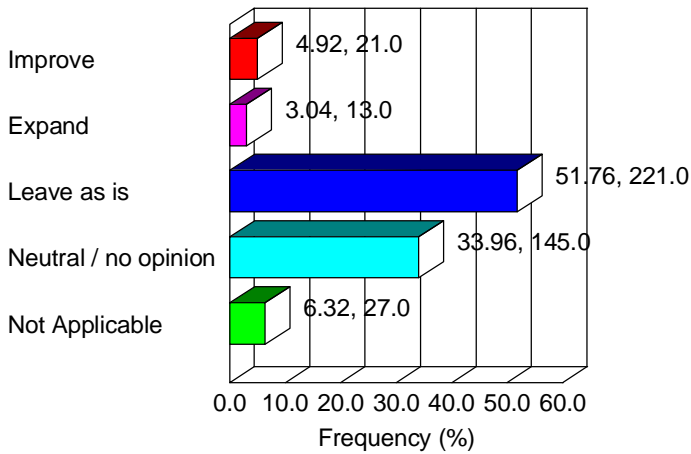
2014 Bear Creek

Playgrounds



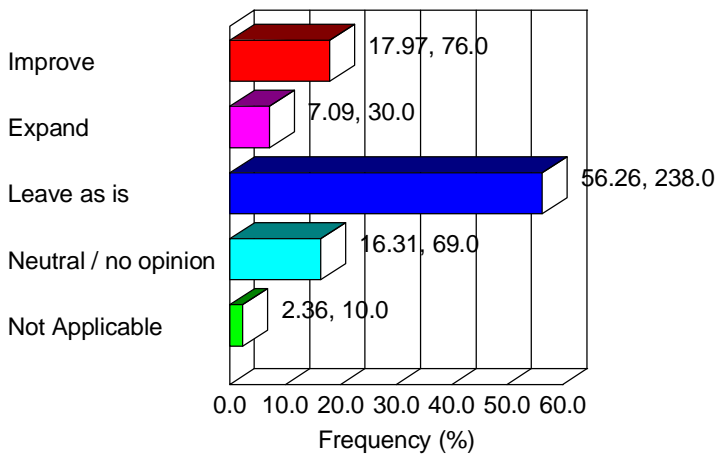
2014 Bear Creek

Volleyball Courts



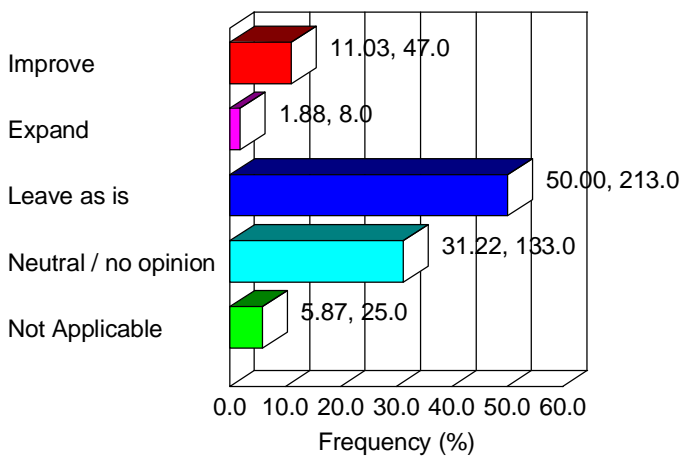
2014 Bear Creek

Landscaping



2014 Bear Creek

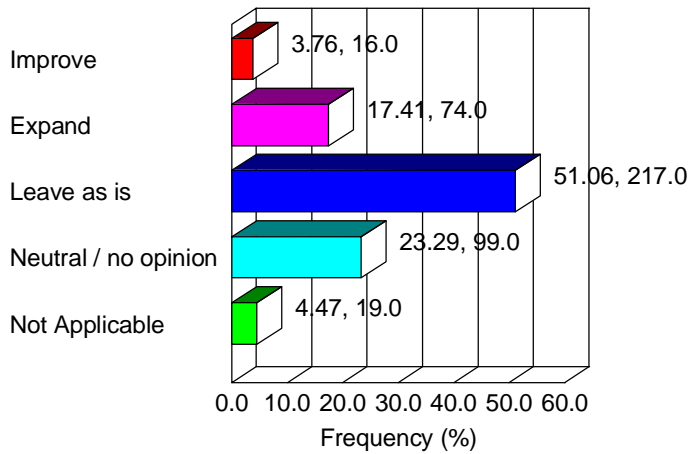
Tennis Courts





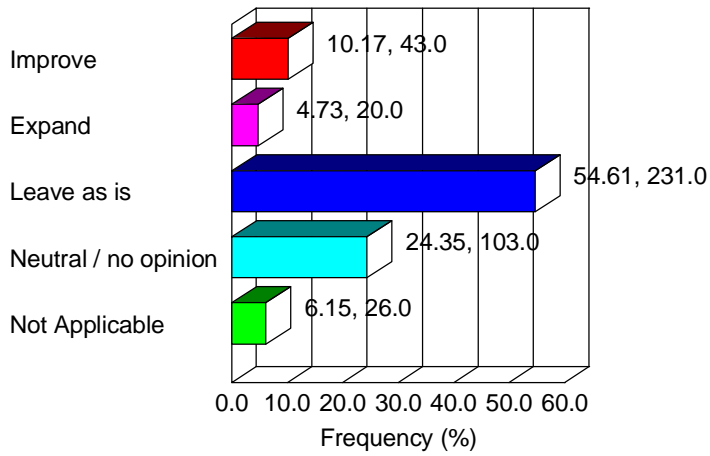
2014 Bear Creek

Community Garden



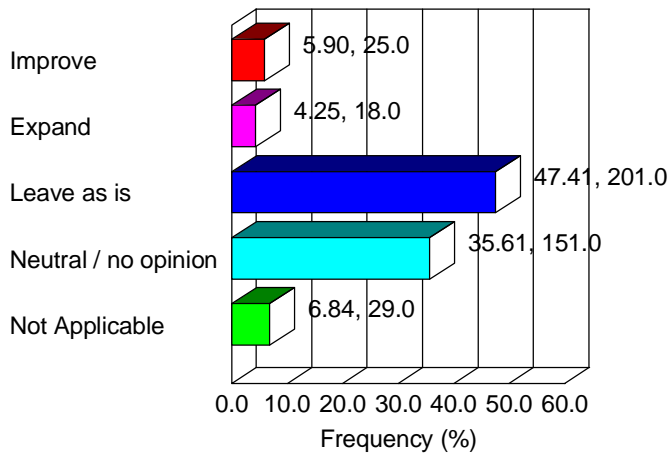
2014 Bear Creek

Multi-use Fields



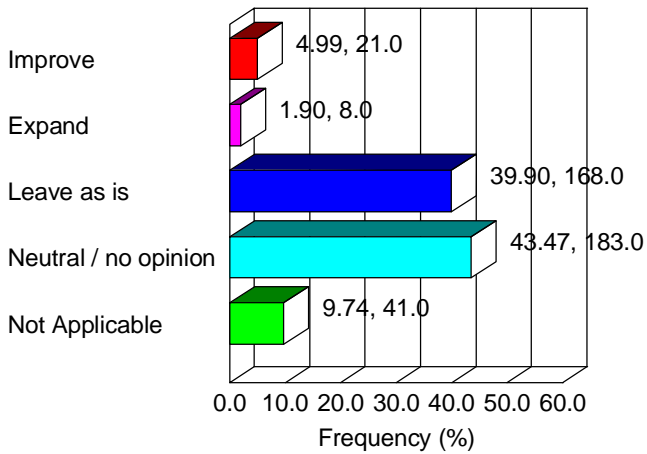
2014 Bear Creek

Archery Range



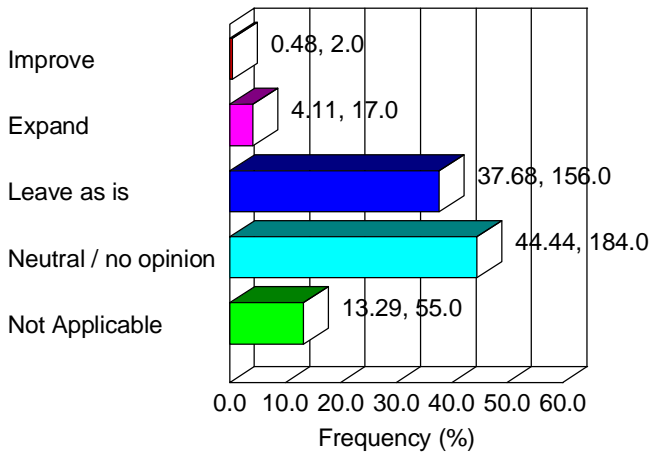
2014 Bear Creek

Vita Course



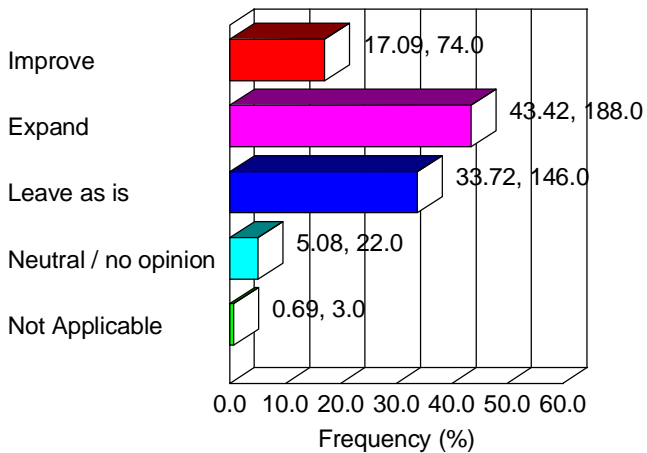
2014 Bear Creek

Pickleball Courts



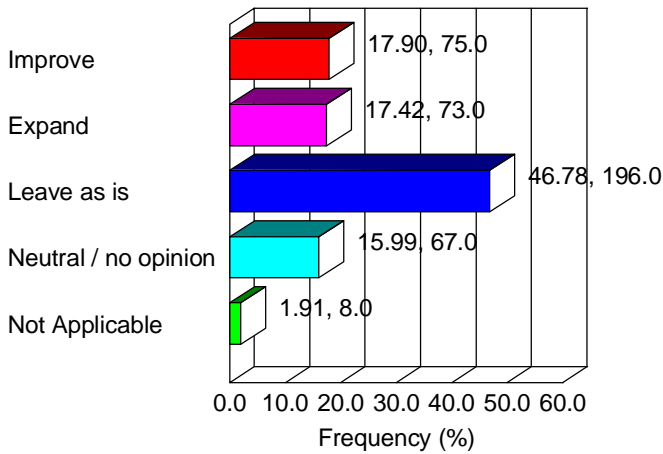
2014 Bear Creek

Open Space / Natural Areas



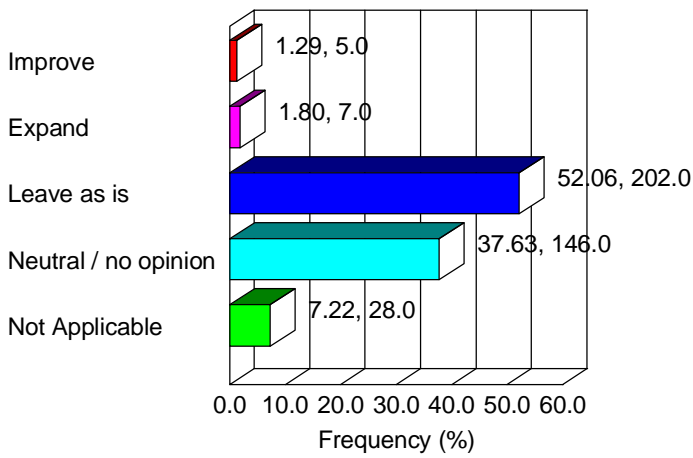
2014 Bear Creek

Nature Center



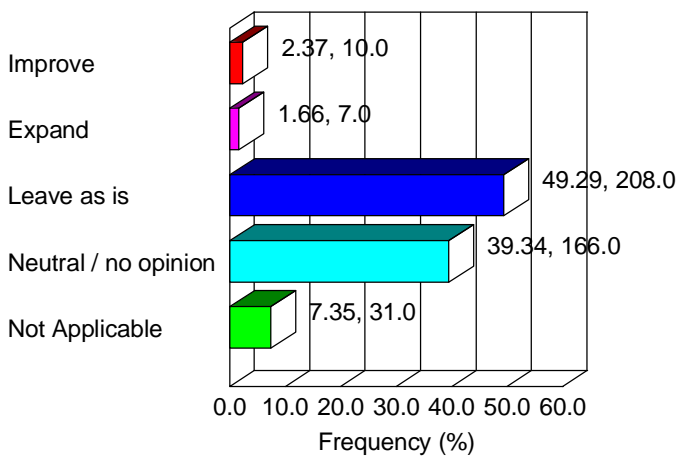
2014 Bear Creek

Horseshoe Pits



2014 Bear Creek

Basketball Courts





### Respondents' Interests in Future Facilities

2014 Agreement New Facilities Bear Creek	Completely Agree	Partially Agree	Neutral	Partially Disagree	Completely Disagree	Not Applicable	Totals	Mean	Mean	
									1	5
Additional Trailheads	132.0 31.1%	131.0 30.9%	96.0 22.6%	23.0 5.4%	35.0 8.3%	7.0 1.7%	424.0 100.0%	3.72		
Sledding Hill	98.0 23.3%	142.0 33.7%	106.0 25.2%	20.0 4.8%	45.0 10.7%	10.0 2.4%	421.0 100.0%	3.55		
Natural Playground	90.0 21.6%	128.0 30.8%	125.0 30.0%	30.0 7.2%	32.0 7.7%	11.0 2.6%	416.0 100.0%	3.53		
Interpretive Signs	97.0 23.1%	99.0 23.6%	150.0 35.7%	22.0 5.2%	36.0 8.6%	16.0 3.8%	420.0 100.0%	3.49		
Mountain Bike Course	121.0 28.3%	79.0 18.5%	96.0 22.4%	41.0 9.6%	82.0 19.2%	9.0 2.1%	428.0 100.0%	3.28		
Geocaching	44.0 10.4%	70.0 16.6%	192.0 45.5%	33.0 7.8%	56.0 13.3%	27.0 6.4%	422.0 100.0%	3.03		
Amphitheater	70.0 17.1%	98.0 23.9%	97.0 23.7%	37.0 9.0%	99.0 24.1%	9.0 2.2%	410.0 100.0%	3.01		
Disc Golf Course	61.0 14.5%	81.0 19.3%	126.0 30.0%	32.0 7.6%	107.0 25.5%	13.0 3.1%	420.0 100.0%	2.89		
Fishing Areas	46.0 10.9%	71.0 16.9%	129.0 30.6%	62.0 14.7%	99.0 23.5%	14.0 3.3%	421.0 100.0%	2.76		
Bocce Ball	27.0 6.5%	60.0 14.4%	186.0 44.7%	35.0 8.4%	87.0 20.9%	21.0 5.0%	416.0 100.0%	2.76		
Expanded Equestrian Opportunities	65.0 15.2%	36.0 8.4%	134.0 31.2%	60.0 14.0%	119.0 27.7%	15.0 3.5%	429.0 100.0%	2.68		
Basketball Court	7.0 1.8%	39.0 10.2%	187.0 49.0%	48.0 12.6%	86.0 22.5%	15.0 3.9%	382.0 100.0%	2.54		
Swimming Pool / Splash Park.	56.0 13.1%	73.0 17.1%	78.0 18.3%	40.0 9.4%	167.0 39.1%	13.0 3.0%	427.0 100.0%	2.54		
Baseball / Softball	19.0 4.7%	42.0 10.4%	150.0 37.3%	62.0 15.4%	118.0 29.4%	11.0 2.7%	402.0 100.0%	2.44		
Skateboard / In-line Hockey Facility	15.0 3.6%	33.0 7.9%	131.0 31.3%	70.0 16.7%	157.0 37.5%	13.0 3.1%	419.0 100.0%	2.21		

Please provide your zip code:		
North	13.1%	58
South	31.7%	140
East	6.8%	30
West	48.4%	214
Totals	100.0%	442

Please provide your zip code:		
80106	0.9%	4
80132	0.7%	3
80808	0.7%	3
80817	0.9%	4
80819	0.4%	2
80829	3.3%	15
80831	1.1%	5
80863	0.7%	3
80903	3.3%	15
80904	11.1%	50
80905	18.5%	83
80906	28.5%	128
80907	7.3%	33
80908	2.2%	10
80909	1.3%	6
80910	0.7%	3
80911	0.9%	4
80915	0.4%	2
80916	0.7%	3
80917	0.7%	3
80918	3.3%	15
80919	3.8%	17
80920	3.1%	14
80921	0.9%	4
80923	0.9%	4
80925	0.7%	3
Other	2.9%	13
Totals	100.0%	449

*This page intentionally blank*





# EL PASO COUNTY

COMMISSIONERS  
**DENNIS HISEY, CHAIR**  
**AMY LATHEN, VICE CHAIR**

**SALLIE CLARK**  
**DARRYL GLENN**  
**PEGGY LITTLETON**

## COMMUNITY SERVICES DEPARTMENT

PARK OPERATIONS ~ PLANNING ~ RECREATION/CULTURAL SERVICES  
 ENVIRONMENTAL SERVICES ~ VETERANS SERVICES ~ CSU EXTENSION

### Bear Creek Regional Park Master Plan 2014 Update

### Public Open House Meeting Summary

June 12, 2014 6:00 to 8:00 pm

- **Welcome and Opening Comments:** Elaine Kleckner opened the meeting with comments regarding the objectives of the BCRP Master Plan Update.
- **Introductions:** Tasha Brackin acknowledged the attendance by the following designated members of the Bear Creek Regional Park Master Plan Update Advisory Committee, as well as members of the EL Paso County Parks staff:

<u>Name</u>	<u>Organization</u>
Bill Koerner	Trails and Open Space Coalition
Risë Foster-Bruder	Friends of El Paso County Nature Centers
Tammy Horner	Friends of Bear Creek Regional Park Committee
Sandra Matthews	Friends of Bear Creek Regional Park Committee
Wilson Reynolds	Adjacent Neighbor
Debbie Bibb	Equestrian

Staff In Attendance:

Elaine Kleckner	El Paso County Parks, Planning Division
Jason Meyer	El Paso County Parks, Planning Division
Brad Bixler	El Paso County Parks, Operations Division
Todd Marts	El Paso County Parks, Recreation and Cultural Services Division
Dana Nordstrom	El Paso County Parks, Community Outreach Division
Tasha Brackin	El Paso County Parks, Planning Division

Additional attendees denoted by the sign-in sheet:

Charles Coury	Dan Ingald
Paulette Coury	Becky Schooff
Greg Brents	Bill Dagendesh
John Bruder	Cindy Kulp
Catherine Gilsey	Christina Bassett
Reggie Vandriest	Larry R. Killam
Ruth Caldwell	Ron Buchanon
Steve Stiltner	Catherine Taylor
Mark Bibb	Andre' Brackin

- **Background:** T. Brackin provided a summary of the factors which caused the need to update the Bear Creek Regional Park master plan, including the recently updated Parks Master Plan, which contains goals for the El Paso County park system; endorsement by the County Commissioners of a Conservation Easement for the park and the establishment of land use zones; and a desire to check in with the community to ensure the park is meeting their needs.
- **Master Plan Process:** T. Brackin noted the timeline diagram printed on the back side of the meeting agenda, and described key elements of the process such as opportunities for public input, work of the advisory committee, and the process for obtaining approval of the plan.
- **Meeting Objectives:** T. Brackin addressed the following three objectives for the meeting:
  - Hear what the public would like to see done at the park;
  - Supplement feedback received from the survey and committee process; and
  - Provide opportunities for public input and discussion.
- **Open House**  
 T. Brackin explained the various opportunities for providing input, and for learning about existing conditions within the park. She noted the multiple maps posted around the room and the purpose for each, as well as three stations where staff is available to discuss and record comments. Each station included a poster-size sheet for recording the attendees’ responses to the following three questions:
  1. What recreation activities and programs should be emphasized in the next 5-10 years?
  2. What should the priorities be for Bear Creek Regional Park improvements and management for the next 5-10 years?
  3. What activities should occur within the Conservation Easement zones?

She also noted the availability of three star stickers per attendee, which should be used by attendees to vote for their top three priority actions of those listed in the two survey tables (regarding improvements to/expansion of certain park facilities, and/or the addition of new park amenities).

At this point, meeting attendees were asked to visit the stations, discuss comments with staff, and vote for their top three activities.

Responses to the three questions shown above appear below.

<b>Question #1</b>
Expanded natural habitat areas
Birdwatching/hiking/nature trails
Equestrian Skills Park
Expand Nature Center
Update Nature Center Exhibits
Education on preserving nature/wildlife

<b>Question #2</b>
Protect Wildlife
Empower and fund Brad
Maintain as is
Label Parking Areas
Equestrian Skills Park
Access from 8th Street
Expand Trail Network
Allow (off-leash)dogs with electronic collars
Signs to direct parking
Maintain and improve existing trails
more trash bins
dog poop bag dispensers
address parking problems by north field
better maintain existing trails
acquire land off 8th street for parking/trailhead
more patrol for dog leash law and waste
remove illegal camping
improve trailhead parking for horse trailers

<b>Question #3</b>
History of Park
Hiking/nature walks
Equestrian Safety and Etiquette course
Update Vita Course
Fire Mitigation
Keep park as it
Bus-accessible picnic area/playground off of 8th street
preserve natural beauty
no disc golf

The ranking of the priority voting for items included in the tables from the community survey appears on the following page:



EXISTING AMENITIES – CHANGES OR IMPROVEMENTS	
ITEM	VOTES
Trail system	6
Pavilions	0
Dog park	1
Parking and/or roadways	0
Restrooms	1
Playgrounds	1
Volleyball	0
Landscaping	0
Tennis courts	0
Community garden	0
Multi-use fields	1
Archery range	1
Vita course	0
Nature center	15
Open space / natural areas	12
Basketball court	0
Pickleball courts	0

POTENTIAL NEW AMENITIES	
ITEM	VOTES
Amphitheater	0
Baseball/softball	0
Mountain Bike Course	0
Disc golf course	0
Fishing areas	0
Natural Playground	2
Additional Trailhead	7
Geocaching	1
Skateboard/in-line hockey facility	0
Bocce Ball	4
Expanded Equestrian Opportunities	18
Sledding hill	1
Interpretive Signs	1
Swimming pool/splash park	0
Other	

The meeting ended by 8:00 pm.



COMMISSIONERS  
DENNIS HISEY, CHAIR  
AMY LATHEN, VICE CHAIR

SALLIE CLARK  
DARRYL GLENN  
PEGGY LITTLETON

**COMMUNITY SERVICES DEPARTMENT**  
PARK OPERATIONS ~ PLANNING ~ RECREATION/CULTURAL SERVICES  
ENVIRONMENTAL SERVICES ~ VETERANS SERVICES ~ CSU EXTENSION

## Bear Creek Regional Park Master Plan 2014 Update Public Meeting Summary September 30, 2014 6:00 to 8:00 pm

- **Welcome and Opening Comments:** Tasha Brackin thanked the attendees for coming to the meeting, and acknowledged the attendance by several members of the Bear Creek Regional Park Master Plan Update Advisory Committee, as well as members of the El Paso County Parks staff. Ms. Brackin explained the format of the meeting, asked attendees to spend time viewing the exhibits throughout the room for the next 25 minutes, and requested that everyone re-convene at approximately 6:30 for the formal presentation and discussion.
- **Background:** T. Brackin provided a summary of planning process to date, and pointed out the timeline diagram displayed on an easel, which illustrates the process, the public input opportunities provided, and the timeline and future meeting dates for approval of the plan.
- **Meeting Objectives:** T. Brackin addressed the following three objectives for the meeting:
  - Hear public input about concerns or desires for next 6-10 years at the park;
  - Provide opportunities for questions and discussion.
  - Request citizens to vote for their most desired elements from the list of action items posted at several locations around the room.
- **Open House**  
T. Brackin explained the diagrams posted around the meeting room, which included a number of maps and illustrations. Maps on display included a site analysis map; conservation easement zone map; general reference map showing areas addressed within concept plans. She then described the main objectives of each concept plan posted around the room.

Ms. Brackin then responded to numerous questions regarding the process as well as the proposed action items. She provided a handout summarizing the maintenance costs for annual activities undertaken at the park to address maintenance of the many facilities and recreation areas at the park. She also distributed one-page questionnaires for completion by attendees, asking for thoughts on the following three elements of the master plan update process:

- Proposed Vision Statement, Goals, and Objectives
- Proposed Improvements to Existing Facilities and/or Proposed New Facilities
- Action Items/Implementation Plan:

Attendees were asked to indicate their level of satisfaction with responses including a range from completely satisfied to completely unsatisfied.

None of the forms returned indicated any “completely unsatisfied” comments; and three out of over fifty-one forms received contained “partially unsatisfied” responses. The three that did have concerns included the following remarks:

- Need more security and lighting
- Work on revegetation
- Promote the ecosystem/ecological reclamation
- Study invasive species and habitat quality
- Need signs with phone numbers to call to report vandalism

In addition, numerous comments on the questionnaires were positive and complimentary, including statements such as:

- Good job; dedicated staff
- Thanks for the chance to give input
- Lots of really great ideas
- Great plan, but now you have to fund and implement
- Love the idea of a multiple-user park

Responses to the proposed action items is listed below, and the list of attendees appears at the end of this summary.

The meeting ended at 8:00 pm.

<p><b>GOAL I: Maintain and enhance existing facilities to improve functionality, protect infrastructure and enhance user experience</b></p> <p><b>OBJECTIVE A: Provide general improvements park-wide as appropriate</b></p> <p><b>ACTION ITEMS</b></p> <ol style="list-style-type: none"> <li>1) Explore security enhancements in parking lots</li> <li>2) Install more interpretive signs and ID plaques for plants</li> <li>3) Install directional signs from neighborhoods for connectivity</li> <li>4) Provide additional directional signs within park for wayfinding</li> <li>5) Consider signs that contain trail system mapping</li> <li>6) Label parking lots and provide identification signs</li> <li>7) Install barriers to keep vehicles from driving on grass</li> <li>8) Provide additional parking spaces at established parking lots</li> <li>9) Provide additional benches and bicycle racks in park</li> <li>10) Provide additional pavilions in parks, shelters along trails</li> <li>11) Evaluate existing receptacles and provide appropriate trash receptacles, pet waste stations, and recycling receptacles</li> <li>12) Provide additional sources of drinking water for park users, i.e. water bottle filling stations</li> <li>13) Consider mountain bike wash station</li> <li>14) Install ADA-compliant curbs and ramps at intersections</li> <li>15) Update pavilion roofs as appropriate</li> </ol>	<p><b>VOTES</b></p> <p>Objective A: 10</p> <ol style="list-style-type: none"> <li>1) 4 (1 M, 3 L)</li> <li>2) 1 H</li> <li>3) 1 M</li> <li>4) -</li> <li>5) -</li> <li>6) 1 L</li> <li>7) 3 (1H, 2M)</li> <li>8) 3 (1H, 2M)</li> <li>9) -</li> <li>10)-</li> <li>11)2 L</li> <li>12) 2 (1 H, 1 L)</li> <li>13) -</li> <li>14) 2 (1H, 1M)</li> <li>15) -</li> </ol>
--	--



16) Install landscaping around pavilions 17) Consider converting playing fields to synthetic turf 18) Address erosion on existing trails and provide resurfacing 19) Improve drainage and stormwater systems 20) Explore opportunities for adding single-track /mountain bike trails 21) Evaluate trail alignments and realign for sustainability where needed.	16) - 17)- 18)1 M 19)1M 20)1H 21)1L
<b>OBJECTIVE B: Enhance enforcement of park rules</b> <b>ACTION ITEMS</b> 1) Provide funding for security equipment and staff to monitor security cameras for illegal activities 2) Increase patrol of park by security officer and/or other staff 3) Provide education to public including additional signage 4) Address overnight parking violators 5) Enhance enforcement of leash rules and animal waste removal 6) Coordinate with community groups for courtesy patrol 7) Encourage increased funding for additional personnel	<b>VOTES:</b> Objective B: 1 1) 4 (1M, 3L) 2) 2 (1M, 1L) 3) - 4) 1 L 5) 13 (2H, 9M, 2L)* 6) 1 7)-
<b>OBJECTIVE C: Enhance maintenance of facilities at the park</b> <b>ACTION ITEMS</b> 1) Ensure playing fields are properly irrigated 2) Encourage additional funding to address irrigation deficiencies 3) Provide funding for equipment needed to maintain trails 4) Address drainage and erosion problems 5) Convert areas to native grass where practical 6) Pave parking areas when funding is available 7) Address building deficiencies on a regular basis. 8) Address social trails by installing blockades 9) Address cracked pavement at pavilions 10) Engage volunteers for assistance when possible 11) Encourage increased funding for additional maintenance staff	<b>VOTES:</b> Objective C: 21 1) - 2) - 3) 1 L 4) 2 (1H, 1L) 5) 3 (1H, 1M, 1L) 6) - 7) 2 (1H, 1L) 8) 1L 9) 1L 10)1L 11) 3 (1H, 2L)
<b>GOAL II: Enhance Existing Facilities at Active Use Areas Consistent with Conservation Easement Restrictions</b> <b>OBJECTIVE A: Enhance Community Garden / Maintenance Shop Area</b> <b>ACTION ITEMS:</b> 1) Pave parking area serving playground and Pavilions #4 and #5 2) Pave parking area and access drive serving community garden 3) Pave trailhead parking areas north side of creek 4) Install barriers to prevent vehicle parking on grass 5) Highlight existing connection to Norris-Penrose Event Center, and install directional signage and rules signs where appropriate 6) Enhance/formalize single-track trail near creek 7) Install interpretive signs at headquarters to describe park history, poor farm, paupers cemetery, etc. 8) Address facility deficiencies at Park Administration building. 9) Provide trail markers for 5K course to facilitate special events 10) Address drainage problems at maintenance shop yard 11) Consolidate existing material storage at yard	<b>VOTES:</b> 1)- 2) - 3) - 4) 1 M 5) 1M 6) - 7)8 (1 H, 3 M, 4 L) 8) - 9) 3 (1 M, 2 L) 10)1 H 11)2H
<b>OBJECTIVE B: Enhance Bear Creek Terrace North Area</b> <b>ACTION ITEMS:</b> 1) Pave and re-stripe parking areas 2) Install additional landscaping along driveway at park entrance	<b>VOTES:</b> Objective B: 5 1) - 2) -

<ul style="list-style-type: none"> <li>3) Refresh existing landscaping near pavilions</li> <li>4) Update field signage and provide roof over bulletin board(s)</li> <li>5) Install additional drinking fountains/water bottle filling stations</li> <li>6) Install ADA-compliant access to Pavilion #4</li> <li>7) Replace pavilion roofs</li> <li>8) Re-stripe basketball court and provide new nets</li> <li>9) Replace broken play equipment at playground.</li> </ul>	<ul style="list-style-type: none"> <li>3) -</li> <li>4) -</li> <li>5) -</li> <li>6) -</li> <li>7) 2M</li> <li>8) -</li> <li>9) 3 (1 M, 2 L)</li> </ul>
<p><b>OBJECTIVE C: Enhance Bear Creek Terrace South / Obstacle Course Area</b></p> <p><b>ACTION ITEMS:</b></p> <ul style="list-style-type: none"> <li>1) Resurface remaining two tennis courts and install new nets</li> <li>2) Consider installing posts and striping for half-size tennis courts</li> <li>3) Rehabilitate archery targets and signage within range</li> <li>4) Install gutters for roof at archery range and update facility access</li> <li>5) Install directional signage in parking area</li> <li>6) Install landscaping along driveway at entrance</li> <li>7) Pave parking lot and address erosion and drainage issues</li> <li>8) Address grade change of paved path near tennis courts</li> <li>9) Refresh landscaping and remove overgrown junipers</li> <li>10) Re-establish lighting for nighttime play at tennis courts</li> <li>11) Install exercise equipment, obstacles, and mile markers at course</li> <li>12) Install restroom near tennis courts.</li> </ul>	<p><b>VOTES:</b></p> <p>Objective C: 3</p> <ul style="list-style-type: none"> <li>1) 3 L</li> <li>2)-</li> <li>3)1 M</li> <li>4)1 L</li> <li>5)-</li> <li>6)-</li> <li>7)1L*</li> <li>8)-</li> <li>9)-</li> <li>10)-</li> <li>11)-</li> <li>12) 1H</li> </ul>
<p><b>OBJECTIVE D: Enhance Bear Creek Nature Center / Gold Camp Road Area</b></p> <p><b>ACTION ITEMS:</b></p> <ul style="list-style-type: none"> <li>1) Update nature center exhibits</li> <li>2) Repair driveway to rear of facility</li> <li>3) Replace birdseed dispensers</li> <li>4) Repair building deficiencies at nature center</li> <li>5) Replace boardwalk along Songbird Trail</li> <li>6) Expand interpretive signage</li> <li>7) Install directional signs on nearby streets to assist new visitors</li> <li>8) Install lighting for overflow parking lot and adjacent trail</li> <li>9) Pave overflow parking area</li> <li>10) Address drainage and stormwater runoff problems</li> <li>11) Clear area of materials stored at Gold Camp Road yard</li> </ul>	<p><b>VOTES:</b></p> <p>Objective D: 20</p> <ul style="list-style-type: none"> <li>1) 7 (4H, 3M)</li> <li>2) -</li> <li>3) -</li> <li>4) 1 M</li> <li>5) -</li> <li>6) 1 M</li> <li>7) -</li> <li>8) -</li> <li>9) -</li> <li>10) 2 (1 H, 1 L)</li> <li>11) 2 (1 H, 1 L)</li> </ul>
<p><b>GOAL III: Provide New Facilities to Meet Current User Needs</b></p> <p><b>OBJECTIVE A: Implement proposed improvements within Community Garden / Maintenance Shop Area as recommended in concept plan</b></p> <p><b>ACTION ITEMS</b></p> <ul style="list-style-type: none"> <li>1) Construct trail from Rio Grande toward creek, at social trail</li> <li>2) Create fenced area uphill from existing yard for materials storage</li> <li>3) Create earthen berm to screen view of storage from Rio Grande</li> <li>4) Expand space for indoor storage at Maintenance Shop Yard</li> <li>5) Expand parking areas north side of creek, and community garden</li> <li>6) Provide additional trails per concept plan</li> <li>7) Install new pedestrian bridge over creek.</li> </ul>	<p><b>VOTES:</b></p> <p>Goal III: 2</p> <ul style="list-style-type: none"> <li>1) 2 (1M, 1L)</li> <li>2) 1M</li> <li>3) -</li> <li>4) 1M</li> <li>5) -</li> <li>6) 4H</li> <li>7) -</li> </ul>
<p><b>OBJECTIVE B: Implement proposed improvements within 8<sup>th</sup> Street Active Use Area as recommended in concept plan</b></p> <p><b>ACTION ITEMS</b></p> <ul style="list-style-type: none"> <li>1) Construct paved access road from 8<sup>th</sup> Street</li> </ul>	<p><b>VOTES:</b></p> <p>Objective B: 63</p> <ul style="list-style-type: none"> <li>1) 25 (11H, 10M, 4L)</li> </ul>

<ul style="list-style-type: none"> <li>2) Provide trailhead parking facility that accommodates horse trailers</li> <li>3) Develop Equestrian Skills Course and fencing improvements</li> <li>4) Add restrooms and picnic pavilion</li> <li>5) Construct secondary trails using sustainability principles to address erosion and soil concerns due to prior mining activities</li> <li>6) Explore property acquisitions to expand area</li> </ul>	<ul style="list-style-type: none"> <li>2) 17 (15H, 1M 1L)</li> <li>3) 17 (11H, 6M)</li> <li>4) 7 (2H, 4M, 1L)</li> <li>5) 11 (7H, 3M 1L)</li> <li>6) 23 (5H, 10M, 8L)</li> </ul>
<p><b>OBJECTIVE C: Implement proposed improvements within Bear Creek Terrace South/Obstacle Course Area as recommended in concept plan</b></p> <p><b>ACTION ITEMS</b></p> <ul style="list-style-type: none"> <li>1) Remove existing obstacles and reclaim area to natural state</li> <li>2) Expand existing trail into exercise loop course per plan, and provide additional fitness course obstacles and mile markers</li> <li>3) Construct bocce ball court along west side of entrance driveway</li> <li>4) Provide restrooms near tennis courts</li> <li>5) Install ADA-compliant path between archery range and Argus pedestrian crossing, including sidewalk alongside parking lot</li> <li>6) Provide picnic pavilion and horseshoe pit near parking area</li> <li>7) Expand parking area and pave new lot</li> <li>8) Provide formalized trail connections at 21<sup>st</sup> Street/Argus intersection, along east side of 21<sup>st</sup> Street</li> <li>9) Enhance neighborhood connections at social trails.</li> </ul>	<p>VOTES:</p> <ul style="list-style-type: none"> <li>1) 1H</li> <li>2) 1M</li> <li>3) 2 (1M, 1L)</li> <li>4) 2 (1M, 1L)</li> <li>5) 1M</li> <li>6) -</li> <li>7) 1M</li> <li>8) 1L</li> <li>9) -</li> </ul>
<p><b>OBJECTIVE D: Implement proposed improvements within Nature Center / Gold Camp Road Area as recommended in concept plan</b></p> <p><b>ACTION ITEMS</b></p> <ul style="list-style-type: none"> <li>1) Relocate existing materials stored on site to expanded maintenance shop storage yard</li> <li>2) Relocate entrance to align with residential care facility on opposite side of Lower Gold Camp Road</li> <li>3) Provide berm along roadway near entrance to screen parking area</li> <li>4) Develop entrance plaza with ADA-compliant non-motorized access</li> <li>5) Develop ornamental demonstration garden with plants identified</li> <li>6) Consider establishing additional urban vegetable garden</li> <li>7) Develop sensory garden for therapeutic and contemplative use</li> <li>8) Evaluate development of demonstration streambed to meander through park and provide water-related education</li> <li>9) Develop natural amphitheater using existing topography</li> <li>10) Construct water feature or splash park per concept plan</li> <li>11) Develop natural playground and provide play structures</li> <li>12) Install restrooms and pavilion at entrance plaza</li> <li>13) Provide irrigated turf areas for low-intensity active uses</li> <li>14) Provide picnic pavilions, shade trees and benches</li> <li>15) Construct bocce ball courts and horseshoe pits</li> <li>16) Provide parking in adequate amounts to serve planned activities</li> <li>17) Provide unpaved parking area at west end for equestrian use</li> <li>18) Provide trail connections to Nature Center and regional trail.</li> </ul>	<p>VOTES:</p> <p><b>Objective D: 3</b></p> <ul style="list-style-type: none"> <li>1) 5 (1H, 2M, 2L)</li> <li>2) -</li> <li>3) 1L</li> <li>4) 1L</li> <li>5) -</li> <li>6) -</li> <li>7) 8 (2H, 4M, 2L)</li> <li>8) -</li> <li>9) 3 (1M, 2L)</li> <li>10) 1M</li> <li>11) -</li> <li>12) 1L</li> <li>13) 2M</li> <li>14) 1M</li> <li>15) 1M</li> <li>16) 5 (2M, 3L)</li> <li>17) 12 (4H, 7M, 1L)</li> <li>18) 6 (1H, 1M, 4L)</li> </ul>
<p><b>GOAL IV: Protect Passive Use Areas and existing natural areas for long-term sustainability</b></p> <p><b>OBJECTIVE A: Implement management recommendations within conservation easement areas, working closely with Palmer Land Trust to monitor activities and conditions.</b></p>	<p>VOTES:</p> <p>Goal IV: 1</p> <p>Objective A: 24</p> <ul style="list-style-type: none"> <li>1) 1M</li> </ul>



<p><b>ACTION ITEMS</b></p> <ol style="list-style-type: none"> <li>1) Provide forest management program for tree health, species diversity and fire mitigation</li> <li>2) Develop plans for using native species and drought-tolerant plant materials to enhance natural ecosystem and reduce water use</li> <li>3) Label and preserve areas with sensitive native plants</li> <li>4) Address eradication of noxious weeds to protect native species</li> <li>5) Expand wetlands and provide educational interpretive signage</li> <li>6) Address erosion concerns related to mining impacts upon soil</li> <li>7) Avoid construction of large buildings and overuse of concrete</li> <li>8) Explore use of permeable pavement for parking areas</li> <li>9) Address user conflicts and/or overuse affecting park resources</li> <li>10) Provide public education on topics such as “Leave no Trace”, respect and responsibility for nature, best practices in land stewardship, sustainability, and environmental ethics</li> <li>11) Maintain and improve water and soil quality for wildlife habitat.</li> </ol>	<ol style="list-style-type: none"> <li>2) 2M</li> <li>3) -</li> <li>4) 2 (1M, 1L)</li> <li>5) 2 (1H, 1M)</li> <li>6) 1L</li> <li>7) 4 (1H, 3M)</li> <li>8) 1L</li> <li>9) -</li> <li>10) 1</li> <li>11) 4 (1H, 2M, 1L)</li> </ol>
<p><b>OBJECTIVE B: Restore, protect, and enhance creek and aquatic habitat</b></p> <p><b>ACTION ITEMS</b></p> <ol style="list-style-type: none"> <li>1) Address creek bank erosion</li> <li>2) Implement bank stabilization infrastructure</li> <li>3) Prepare vegetation management recommendations</li> <li>4) Manage wildlife activities that impact creek health (i.e.: beavers)</li> <li>5) Manage use of park areas by the public to prevent stream impacts</li> <li>6) Coordinate with adjacent property owners to promote sustainable and ecological land use activities and prevent erosion into creek</li> <li>7) Encourage the use of organic and/or non-toxic techniques</li> <li>8) Provide educational / interpretive signs to inform and encourage a connection with the land, creek and wildlife by park users.</li> </ol>	<p><b>VOTES:</b></p> <p>Objective B: 15</p> <ol style="list-style-type: none"> <li>1) 1 L</li> <li>2) 1L</li> <li>3) 1L</li> <li>4) 1L</li> <li>5) -</li> <li>6)1H</li> <li>7)2 (1H, 1L)</li> <li>8) 1L</li> </ol>
<p><b>GOAL V: Provide high quality and safe recreation and educational experiences for users of county park facilities and recreational areas</b></p> <p><b>OBJECTIVE A: Continue to provide successful recreational and educational programs that serve the community and attract visitors</b></p> <p><b>ACTION ITEMS</b></p> <ol style="list-style-type: none"> <li>1) Evaluate program levels of interest on regular basis and identify ways to improve and expand</li> <li>2) Enhance marketing of programs and events</li> <li>3) Provide additional educational programs addressing park ecosystems and sustainable activities</li> <li>4) Document, interpret, and protect cultural and historic resources</li> <li>5) Provide an edible and medicinal plant guide</li> <li>6) Install more interpretive signs and ID plaques for plants</li> <li>7) Encourage additional funding to increase staffing levels.</li> </ol>	<p><b>VOTES:</b></p> <p>Goal V: 1</p> <p>Objective A: 9</p> <ol style="list-style-type: none"> <li>1) 3M</li> <li>2) 1M</li> <li>3) 4 (1M, 3L)</li> <li>4)(2M</li> <li>5) 2 (1M, 1L)</li> <li>6) -</li> <li>7) 4 (1H, 2M, 1L)</li> </ol>
<p><b>OBJECTIVE B: Explore innovative programs to meet needs of current population</b></p> <p><b>ACTION ITEMS</b></p> <ol style="list-style-type: none"> <li>1) Coordinate with public and private partners for special programs</li> <li>2) Work with user groups to manage and enhance use of facilities</li> <li>3) Explore location and facilities to provide farmer’s market</li> <li>4) Enhance geo-caching activities as a recreational program</li> <li>5) Provide family movie nights and events</li> <li>6) Provide family camping programs for overnight educational camps</li> </ol>	<p><b>VOTES:</b></p> <p><b>Objective B: 1</b></p> <ol style="list-style-type: none"> <li>1) 1M</li> <li>2) -</li> <li>3) 1</li> <li>4) -</li> <li>5) -</li> <li>6) 3 (2M, 1L)</li> </ol>

7) Consider educational overnight camping programs	7) -
8) Explore programs to encourage social interactions, health awareness, crafts and hobbies.	8) 1M
9) Coordinate enhanced outreach to youth and seniors	9) 1M
10) Encourage funding increases to expand programs.	10) 1M

**LEGEND:**

**H = Highest Priority**

**M = Medium Priority**

**L = Lowest Priority**

**MEETING ATTENDEES**

Staff, Advisory Committee members, and attendees who signed the attendance sheet are listed below.

Advisory Committee Members In Attendance:

Bill Koerner	Trails and Open Space Coalition
Risë Foster-Bruder	Friends of El Paso County Nature Centers
Tammy Horner	Friends of Bear Creek Regional Park Co-Chair
Sandra Matthews	Friends of Bear Creek Regional Park Co-Chair
Tom Ori	Adjacent Neighbor
Debbie Bibb	Equestrian

Staff In Attendance:

Tim Wolken	Director, El Paso County Community Services Department
Brad Bixler	El Paso County Community Services Department, Park Operations
Todd Marts	Community Services Department, Recreation and Cultural Services
Jason Meyer	El Paso County Community Services Department, Planning Division
Tasha Brackin	El Paso County Community Services Department, Planning Division

**PUBLIC ATTENDEES:**

Robert Hiltbrand	Jeanne Vrobel	Jessie Kraettle
Charles Helmstetler	Suzanne Harris	Chris Sarah
Johns Bruder	Robert Rickgauer	Shiloh Sarah
Steve Horner	Eleanore L. Blacketer	Mattea Miranda
Mickey Althouse	Tim Gazak	Elaine Gagne
Colleen Francis	Sally Manley	Laura Easom
Rick Manley	Steve Getty	Allison DuVal
Linda Moneymaker	Jessie Woodard	Mark Bibb
Dan Yopp	Pam Galchutt	Terry Caldwell
Nancy Reinhardt	jana Preheim	Kathleen Burke
Jim Doughty	Karen Willmus	Bobbie Richine
Ruth Caldwell	Charles Brown	Steve Stiltner
Glenn Pressman	Jessie Manthei	Barbara Watt
Ann Bleiker	Hillary Holmes	Sally DeGennaro
Larry Tobias	Larry Killam	susan Freeman
Gynna Sanders	Meg Evans	Cyndy Kulp
Bonnie Olson	Jim and Gerry Jones	Leon and Peggy Basdekas
	Becky Schooff	

*This page intentionally blank*



## BEAR CREEK REGIONAL PARK MASTER PLAN - SPECIES OCCURRING IN EL PASO COUNTY

### AMPHIBIANS

<b>Scientific Name</b>	<b>Common Name</b>	<b>Found in Park</b>	<b>Found in County</b>	<b>Notes</b>	<b>Sci Family</b>	<b>Common Family</b>
<i>Ambystoma tigrinum</i>	Tiger Salamander	x	x	5/17/95-1a, road kill	Ambystomatidae	Mole Salamanders
<i>Scaphiopus bombifrons</i>	Plains Spadefoot		x		Pelobatidae	Archaic Toads
<i>Bufo woodhousii</i>	Woodhouse's Toad		x		Bufoidea	True Toads
<i>Pseudacris triseriata</i>	Striped Chorus Frog		x		Hylidae	Treefrogs
<i>Rana blairi</i>	Plains Leopard Frog		x		Ranidae	True Frogs
<i>Rana catesbeiana</i>	Bullfrog		x		Ranidae	True Frogs
<i>Rana pipiens</i>	Northern Leopard Frog	x	x	5/12/94-2a, west pond	Ranidae	True Frogs

### BIRDS

<b>Scientific Name</b>	<b>Common Name</b>	<b>Found in Park</b>	<b>Bred in Park</b>	<b>Found in County</b>	<b>Occurance</b>	<b>Abundance</b>
<i>Recurvirostra americana</i>	American Avocet			X	Known to occur	Rare
<i>Botaurus lentiginosus</i>	American Bittern			X	Known to occur	Rare
<i>Fulica americana</i>	American Coot			X	Known to occur	Fairly Common
<i>Corvus brachyrhynchos</i>	American Crow	X		X	Known to occur	Fairly Common
<i>Cinclus mexicanus</i>	American Dipper	X		X	Known to occur	Uncommon
<i>Carduelis tristis</i>	American Goldfinch		X	X	Known to occur	Uncommon
<i>Falco sparverius</i>	American Kestrel		X	X	Known to occur	Fairly Common
<i>Falco peregrinus anatum</i>	American Peregrine Falcon			X	Known to occur	Unknown
<i>Anthus rubescens</i>	American Pipit	X		X	Known to occur	Unknown
<i>Setophaga ruticilla</i>	American Redstart	X		X	Known to occur	Casual/Accidental
<i>Turdus migratorius</i>	American Robin		X	X	Known to occur	Abundant
<i>Spizella arborea</i>	American Tree Sparrow	X		X	Known to occur	Unknown
<i>Pelecanus erythrorhynchos</i>	American White Pelican			X	Known to occur	Unknown
<i>Anas americana</i>	American Wigeon			X	Known to occur	Casual/Accidental
<i>Myiarchus cinerascens</i>	Ash-throated Flycatcher			X	Known to occur	Rare
<i>Calidris bairdii</i>	Baird's Sandpiper	X		X	Known to occur	Unknown
<i>Haliaeetus leucocephalus</i>	Bald Eagle	X		X	Known to occur	Unknown
<i>Icterus galbula</i>	Baltimore Oriole			X	Known to occur	Unknown
<i>Columba fasciata</i>	Band-tailed Pigeon	X		X	Known to occur	Rare
<i>Riparia riparia</i>	Bank Swallow	X		X	Known to occur	Common
<i>Tyto alba</i>	Barn Owl			X	Known to occur	Rare
<i>Hirundo rustica</i>	Barn Swallow	X		X	Known to occur	Abundant
<i>Bucephala islandica</i>	Barrow's Goldeneye			X	Known to occur	Unknown
<i>Vireo bellii</i>	Bell's Vireo			X	Known to occur	Unknown
<i>Ceryle alcyon</i>	Belted Kingfisher	X		X	Known to occur	Uncommon
<i>Thryomanes bewickii</i>	Bewick's Wren			X	Known to occur	Rare
<i>Sayornis nigricans</i>	Black Phoebe			X	Known to occur	Unknown

<i>Cypseloides niger</i>	Black Swift			X	Known to occur	Unknown
<i>Chlidonias niger</i>	Black Tern			X	Known to occur	Unknown
<i>Coccyzus erythrophthalmus</i>	Black-billed Cuckoo			X	Known to occur	Unknown
<i>Pica pica</i>	Black-billed Magpie		X	X	Known to occur	Common
<i>Poecile atricapillus</i>	Black-capped Chickadee	X		X	Known to occur	Fairly Common
<i>Archilochus alexandri</i>	Black-chinned Hummingbird	X		X	Known to occur	Uncommon
<i>Nycticorax nycticorax</i>	Black-crowned Night-Heron			X	Known to occur	Uncommon
<i>Pheucticus melanocephalus</i>	Black-headed Grosbeak		X	X	Known to occur	Fairly Common
<i>Himantopus mexicanus</i>	Black-necked Stilt			X	Known to occur	Unknown
<i>Dendroica nigrescens</i>	Black-throated Gray Warb	X		X	Known to occur	Unknown
<i>Amphispiza bilineata</i>	Black-throated Sparrow			X	Known to occur	Unknown
<i>Guiraca caerulea</i>	Blue Grosbeak		X	X	Known to occur	Fairly Common
<i>Dendragapus obscurus</i>	Blue Grouse	X		X	Known to occur	Uncommon
<i>Cyanocitta cristata</i>	Blue Jay	X		X	Known to occur	Fairly Common
<i>Polioptila caerulea</i>	Blue-gray Gnatcatcher		X	X	Known to occur	Fairly Common
<i>Anas discors</i>	Blue-winged Teal	X		X	Known to occur	Uncommon
<i>Dolichonyx oryzivorus</i>	Bobolink			X	Known to occur	Unknown
<i>Larus philadelphia</i>	Bonaparte's Gull			X	Likely to occur	No Occurrence
<i>Euphagus cyanocephalus</i>	Brewer's Blackbird	X		X	Known to occur	Fairly Common
<i>Spizella breweri</i>	Brewer's Sparrow	X		X	Known to occur	Unknown
<i>Selasphorus platycercus</i>	Broad-tailed Hummingbird		X	X	Known to occur	Fairly Common
<i>Buteo platypterus</i>	Broad-winged Hawk	X		X	Known to occur	Unknown
<i>Certhia americana</i>	Brown Creeper			X	Known to occur	Uncommon
<i>Toxostoma rufum</i>	Brown Thrasher	X		X	Known to occur	Uncommon
<i>Leucosticte australis</i>	Brown-capped Rosy Finch	X		X	Known to occur	Unknown
<i>Molothrus ater</i>	Brown-headed Cowbird	X		X	Known to occur	Common
<i>Bucephala albeola</i>	Bufflehead			X	Known to occur	Unknown
<i>Icterus bullockii</i>	Bullock's Oriole			X	Known to occur	Common
<i>Psaltiriparus minimus</i>	Bushtit	X		X	Known to occur	Uncommon
<i>Larus californicus</i>	California Gull			X	Known to occur	Unknown
<i>Stellula calliope</i>	Calliope Hummingbird	X		X	Known to occur	Unknown
<i>Branta canadensis</i>	Canada Goose	X		X	Known to occur	Common
<i>Aythya valisineria</i>	Canvasback			X	Known to occur	Casual/Accidental
<i>Pipilo fuscus</i>	Canyon Towhee	X		X	Known to occur	Rare
<i>Catherpes mexicanus</i>	Canyon Wren	X		X	Known to occur	Uncommon
<i>Thryothorus ludovicianus</i>	Carolina Wren			X	Known to occur	Unknown
<i>Carpodacus cassinii</i>	Cassin's Finch	X		X	Known to occur	Uncommon
<i>Tyrannus vociferans</i>	Cassin's Kingbird			X	Known to occur	Rare
<i>Aimophila cassinii</i>	Cassin's Sparrow	X		X	Known to occur	Common
<i>Bombycilla cedrorum</i>	Cedar Waxwing	X		X	Known to occur	Casual/Accidental

<i>Calcarius ornatus</i>	Chestnut-collared Longspur			X	Known to occur	Unknown
<i>Corvus cryptoleucus</i>	Chihuahuan Raven			X	Known to occur	Casual/Accidental
<i>Chaetura pelagica</i>	Chimney Swift			X	Known to occur	Unknown
<i>Spizella passerina</i>	Chipping Sparrow		X	X	Known to occur	Common
<i>Anas cyanoptera</i>	Cinnamon Teal			X	Known to occur	Uncommon
<i>Aechmophorus clarkii</i>	Clark's Grebe			X	Known to occur	Unknown
<i>Nucifraga columbiana</i>	Clark's Nutcracker	X		X	Known to occur	Uncommon
<i>Spizella pallida</i>	Clay-colored Sparrow	X		X	Known to occur	Unknown
<i>Petrochelidon pyrrhonota</i>	Cliff Swallow	X		X	Known to occur	Abundant
<i>Bucephala clangula</i>	Common Goldeneye			X	Known to occur	Unknown
<i>Quiscalus quiscula</i>	Common Grackle	X		X	Known to occur	Common
<i>Gavia immer</i>	Common Loon			X	Known to occur	Unknown
<i>Mergus merganser</i>	Common Merganser			X	Known to occur	Unknown
<i>Chordeiles minor</i>	Common Nighthawk	X		X	Known to occur	Fairly Common
<i>Phalaenoptilus nuttallii</i>	Common Poorwill	X		X	Known to occur	Rare
<i>Corvus corax</i>	Common Raven	X		X	Known to occur	Uncommon
<i>Carduelis flammea</i>	Common Redpoll			X	Likely to occur	No Occurrence
<i>Gallinago gallinago</i>	Common Snipe	X		X	Known to occur	Uncommon
<i>Sterna hirundo</i>	Common Tern			X	Known to occur	Unknown
<i>Geothlypis trichas</i>	Common Yellowthroat		X	X	Known to occur	Fairly Common
<i>Accipiter cooperii</i>	Cooper's Hawk		X	X	Known to occur	Uncommon
<i>Empidonax occidentalis</i>	Cordilleran Flycatcher		X	X	Known to occur	Uncommon
<i>Toxostoma curvirostre</i>	Curve-billed Thrasher			X	Known to occur	Rare
<i>Junco hyemalis</i>	Dark-eyed Junco	X		X	Known to occur	Fairly Common
<i>Spiza americana</i>	Dickcissel			X	Known to occur	Rare
<i>Phalacrocorax auritus</i>	Double-crested Cormorant			X	Known to occur	Unknown
<i>Picoides pubescens</i>	Downy Woodpecker		X	X	Known to occur	Uncommon
<i>Empidonax oberholseri</i>	Dusky Flycatcher		X	X	Known to occur	Uncommon
<i>Podiceps nigricollis</i>	Eared Grebe			X	Known to occur	Unknown
<i>Sialia sialis</i>	Eastern Bluebird	X		X	Known to occur	Casual/Accidental
<i>Tyrannus tyrannus</i>	Eastern Kingbird		X	X	Known to occur	Fairly Common
<i>Sayornis phoebe</i>	Eastern Phoebe			X	Known to occur	Unknown
<i>Sturnus vulgaris</i>	European Starling		X	X	Known to occur	Abundant
<i>Coccothraustes vespertinus</i>	Evening Grosbeak	X		X	Known to occur	Fairly Common
<i>Buteo regalis</i>	Ferruginous Hawk	X		X	Known to occur	Uncommon
<i>Spizella pusilla</i>	Field Sparrow			X	Known to occur	Casual/Accidental
<i>Otus flammeolus</i>	Flammulated Owl	X		X	Known to occur	Rare
<i>Sterna forsteri</i>	Forster's Tern			X	Known to occur	Unknown
<i>Larus pipixcan</i>	Franklin's Gull			X	Likely to occur	No Occurrence
<i>Anas strepera</i>	Gadwall	X		X	Known to occur	Unknown



<i>Aquila chrysaetos</i>	Golden Eagle	X		X	Known to occur	Rare
<i>Regulus satrapa</i>	Golden-crowned Kinglet	X		X	Known to occur	Rare
<i>Dendroica graciae</i>	Grace's Warbler			X	Known to occur	Unknown
<i>Ammodramus savannarum</i>	Grasshopper Sparrow			X	Known to occur	Uncommon
<i>Dumetella carolinensis</i>	Gray Catbird		X	X	Known to occur	Rare
<i>Empidonax wrightii</i>	Gray Flycatcher			X	Known to occur	Unknown
<i>Perisoreus canadensis</i>	Gray Jay			X	Known to occur	Rare
<i>Ardea herodias</i>	Great Blue Heron	X		X	Known to occur	Fairly Common
<i>Myiarchus crinitus</i>	Great Crested Flycatcher			X	Known to occur	Unknown
<i>Bubo virginianus</i>	Great Horned Owl		X	X	Known to occur	Uncommon
<i>Geococcyx californianus</i>	Greater Roadrunner	X		X	Known to occur	Rare
<i>Grus canadensis tabida</i>	Greater Sandhill Crane			X	Known to occur	Unknown
<i>Anser albifrons</i>	Greater White-fronted Goose			X	Likely to occur	No Occurrence
<i>Tringa melanoleuca</i>	Greater Yellowlegs			X	Known to occur	Unknown
<i>Quiscalus mexicanus</i>	Great-tailed Grackle			X	Known to occur	Rare
<i>Butorides virescens</i>	Green Heron	X		X	Known to occur	Unknown
<i>Pipilo chlorurus</i>	Green-tailed Towhee		X	X	Known to occur	Fairly Common
<i>Anas crecca</i>	Green-winged Teal	X		X	Known to occur	Rare
<i>Picoides villosus</i>	Hairy Woodpecker		X	X	Known to occur	Uncommon
<i>Empidonax hammondii</i>	Hammond's Flycatcher			X	Known to occur	Uncommon
<i>Zonotrichia querula</i>	Harris' Sparrow	X		X	Likely to occur	No Occurrence
<i>Catharus guttatus</i>	Hermit Thrush	X		X	Known to occur	Fairly Common
<i>Lophodytes cucullatus</i>	Hooded Merganser			X	Known to occur	Unknown
<i>Podiceps auritus</i>	Horned Grebe			X	Likely to occur	No Occurrence
<i>Eremophila alpestris</i>	Horned Lark			X	Known to occur	Abundant
<i>Carpodacus mexicanus</i>	House Finch	X		X	Known to occur	Uncommon
<i>Passer domesticus</i>	House Sparrow		X	X	Known to occur	Abundant
<i>Troglodytes aedon</i>	House Wren		X	X	Known to occur	Common
<i>Passerina cyanea</i>	Indigo Bunting		X	X	Known to occur	Uncommon
<i>Baeolophus griseus</i>	Juniper Titmouse			X	Known to occur	Rare
<i>Charadrius vociferus</i>	Killdeer		X	X	Known to occur	Common
<i>Picoides scalaris</i>	Ladder-backed Woodpecker	X		X	Known to occur	Rare
<i>Calcarius lapponicus</i>	Lapland Longspur			X	Known to occur	Unknown
<i>Calamospiza melanocorys</i>	Lark Bunting	X		X	Known to occur	Common
<i>Chondestes grammacus</i>	Lark Sparrow	X		X	Known to occur	Common
<i>Passerina amoena</i>	Lazuli Bunting		X	X	Known to occur	Fairly Common
<i>Ixobrychus exilis</i>	Least Bittern			X	Known to occur	Unknown
<i>Calidris minutilla</i>	Least Sandpiper	X		X	Known to occur	Unknown
<i>Sterna antillarum</i>	Least Tern			X	Known to occur	Unknown
<i>Carduelis psaltria</i>	Lesser Goldfinch		X	X	Known to occur	Fairly Common

<i>Tympanuchus pallidicinctus</i>	Lesser Prairie-chicken			X	Known to occur	Uncommon
<i>Aythya affinis</i>	Lesser Scaup			X	Known to occur	Unknown
<i>Tringa flavipes</i>	Lesser Yellowlegs			X	Likely to occur	No Occurrence
<i>Melanerpes lewis</i>	Lewis' Woodpecker	X		X	Known to occur	Rare
<i>Melospiza lincolni</i>	Lincoln's Sparrow	X		X	Known to occur	Uncommon
<i>Egretta caerulea</i>	Little Blue Heron			X	Known to occur	Unknown
<i>Lanius ludovicianus</i>	Loggerhead Shrike	X		X	Known to occur	Uncommon
<i>Numenius americanus</i>	Long-billed Curlew			X	Known to occur	Rare
<i>Limnodromus scolopaceus</i>	Long-billed Dowitcher			X	Likely to occur	No Occurrence
<i>Asio otus</i>	Long-eared Owl	X		X	Known to occur	Unknown
<i>Oporornis tolmiei</i>	MacGillivray's Warbler		X	X	Known to occur	Uncommon
<i>Anas platyrhynchos</i>	Mallard		X	X	Known to occur	Common
<i>Limosa fedoa</i>	Marbled Godwit			X	Likely to occur	No Occurrence
<i>Cistothorus palustris</i>	Marsh Wren	X		X	Known to occur	Unknown
<i>Calcarius mccownii</i>	McCown's Longspur			X	Known to occur	Unknown
<i>Falco columbarius</i>	Merlin	X		X	Known to occur	Unknown
<i>Strix occidentalis lucida</i>	Mexican Spotted Owl			X	Known to occur	Very Rare
<i>Ictinia mississippiensis</i>	Mississippi Kite			X	Known to occur	Unknown
<i>Sialia currucoides</i>	Mountain Bluebird			X	Known to occur	Common
<i>Poecile gambeli</i>	Mountain Chickadee			X	Known to occur	Fairly Common
<i>Charadrius montanus</i>	Mountain Plover			X	Known to occur	Uncommon
<i>Zenaida macroura</i>	Mourning Dove		X	X	Known to occur	Abundant
<i>Vermivora ruficapilla</i>	Nashville Warbler	X		X	Known to occur	Unknown
<i>Cardinalis cardinalis</i>	Northern Cardinal			X	Known to occur	Unknown
<i>Colaptes auratus</i>	Northern Flicker		X	X	Known to occur	Fairly Common
<i>Accipiter gentilis</i>	Northern Goshawk	X		X	Known to occur	Rare
<i>Circus cyaneus</i>	Northern Harrier	X		X	Known to occur	Uncommon
<i>Mimus polyglottos</i>	Northern Mockingbird	X		X	Known to occur	Fairly Common
<i>Anas acuta</i>	Northern Pintail			X	Known to occur	Rare
<i>Glaucidium gnoma</i>	Northern Pygmy-Owl	X		X	Known to occur	Rare
<i>Stelgidopteryx serripennis</i>	Northern Rough-winged S	X		X	Known to occur	Uncommon
<i>Aegolius acadicus</i>	Northern Saw-whet Owl		X	X	Known to occur	Unknown
<i>Anas clypeata</i>	Northern Shoveler			X	Known to occur	Rare
<i>Seiurus noveboracensis</i>	Northern Waterthrush	X		X	Known to occur	Unknown
<i>Contopus cooperi</i>	Olive-sided Flycatcher	X		X	Known to occur	Rare
<i>Vermivora celata</i>	Orange-crowned Warbler	X		X	Known to occur	Unknown
<i>Icterus spurius</i>	Orchard Oriole	X		X	Known to occur	Unknown
<i>Pandion haliaetus</i>	Osprey	X		X	Known to occur	Unknown
<i>Seiurus aurocapillus</i>	Ovenbird			X	Known to occur	Rare
<i>Gavia pacifica</i>	Pacific Loon			X	Likely to occur	No Occurrence

<i>Calidris melanotos</i>	Pectoral Sandpiper			X	Likely to occur	No Occurrence
<i>Falco peregrinus</i>	Peregrine Falcon	X		X	Known to occur	Unknown
<i>Podilymbus podiceps</i>	Pied-billed Grebe			X	Known to occur	Uncommon
<i>Pinicola enucleator</i>	Pine Grosbeak			X	Known to occur	Unknown
<i>Carduelis pinus</i>	Pine Siskin	X		X	Known to occur	Common
<i>Gymnorhinus cyanocephalus</i>	Pinyon Jay	X		X	Known to occur	Uncommon
<i>Charadrius melodus</i>	Piping Plover			X	Known to occur	Unknown
<i>Tympanuchus phasianellus</i>	Plains Sharp-tailed Grouse			X	Known to occur	Casual/Accidental
<i>Vireo plumbeus</i>	Plumbeous Vireo			X	Known to occur	Unknown
<i>Falco mexicanus</i>	Prairie Falcon	X		X	Known to occur	Uncommon
<i>Sitta pygmaea</i>	Pygmy Nuthatch	X		X	Known to occur	Uncommon
<i>Loxia curvirostra</i>	Red Crossbill	X		X	Known to occur	Fairly Common
<i>Melanerpes carolinus</i>	Red-bellied Woodpecker			X	Known to occur	Unknown
<i>Sitta canadensis</i>	Red-breasted Nuthatch		X	X	Known to occur	Uncommon
<i>Vireo olivaceus</i>	Red-eyed Vireo		X	X	Known to occur	Unknown
<i>Aythya americana</i>	Redhead			X	Known to occur	Unknown
<i>Melanerpes erythrocephalus</i>	Red-headed Woodpecker	X		X	Known to occur	Uncommon
<i>Sphyrapicus nuchalis</i>	Red-naped Sapsucker	X		X	Known to occur	Uncommon
<i>Phalaropus lobatus</i>	Red-necked Phalarope			X	Likely to occur	No Occurrence
<i>Buteo jamaicensis</i>	Red-tailed Hawk	X		X	Known to occur	Uncommon
<i>Agelaius phoeniceus</i>	Red-winged Blackbird		X	X	Known to occur	Abundant
<i>Larus delawarensis</i>	Ring-billed Gull	X		X	Known to occur	Unknown
<i>Aythya collaris</i>	Ring-necked Duck			X	Known to occur	Unknown
<i>Phasianus colchicus</i>	Ring-necked Pheasant	X		X	Known to occur	Rare
<i>Columba livia</i>	Rock Dove		X	X	Known to occur	Abundant
<i>Salpinctes obsoletus</i>	Rock Wren	X		X	Known to occur	Uncommon
<i>Pheucticus ludovicianus</i>	Rose-breasted Grosbeak	X		X	Known to occur	Unknown
<i>Buteo lagopus</i>	Rough-legged Hawk	X		X	Known to occur	Unknown
<i>Regulus calendula</i>	Ruby-crowned Kinglet	X		X	Known to occur	Fairly Common
<i>Oxyura jamaicensis</i>	Ruddy Duck			X	Known to occur	Unknown
<i>Selasphorus rufus</i>	Rufous Hummingbird	X		X	Known to occur	Unknown
<i>Amphispiza belli</i>	Sage Sparrow			X	Known to occur	Unknown
<i>Oreoscoptes montanus</i>	Sage Thrasher	X		X	Known to occur	Rare
<i>Grus canadensis</i>	Sandhill Crane	X		X	Known to occur	Unknown
<i>Passerculus sandwichensis</i>	Savannah Sparrow			X	Known to occur	Unknown
<i>Sayornis saya</i>	Say's Phoebe		X	X	Known to occur	Fairly Common
<i>Callipepla squamata</i>	Scaled Quail	X		X	Known to occur	Fairly Common
<i>Icterus parisorum</i>	Scott's Oriole			X	Known to occur	Unknown
<i>Calidris pusilla</i>	Semipalmated Sandpiper			X	Likely to occur	No Occurrence
<i>Accipiter striatus</i>	Sharp-shinned Hawk	X		X	Known to occur	Rare



<i>Tympanuchus phasianellus</i>	Sharp-tailed Grouse			X	Known to occur	Casual/Accidental
<i>Asio flammeus</i>	Short-eared Owl			X	Known to occur	Unknown
<i>Chen caerulescens</i>	Snow Goose	X		X	Likely to occur	No Occurrence
<i>Egretta thula</i>	Snowy Egret			X	Known to occur	Unknown
<i>Charadrius alexandrinus</i>	Snowy Plover			X	Known to occur	Unknown
<i>Tringa solitaria</i>	Solitary Sandpiper	X		X	Known to occur	Unknown
<i>Melospiza melodia</i>	Song Sparrow		X	X	Known to occur	Fairly Common
<i>Porzana carolina</i>	Sora			X	Known to occur	Uncommon
<i>Empidonax traillii extimus</i>	Southwestern Willow Flycatcher			X	Known to occur	Unknown
<i>Strix occidentalis</i>	Spotted Owl			X	Known to occur	Very Rare
<i>Actitis macularia</i>	Spotted Sandpiper	X		X	Known to occur	Uncommon
<i>Pipilo maculatus</i>	Spotted Towhee			X	Known to occur	Fairly Common
<i>Cyanocitta stelleri</i>	Steller's Jay	X		X	Known to occur	Fairly Common
<i>Calidris himantopus</i>	Stilt Sandpiper			X	Likely to occur	No Occurrence
<i>Piranga rubra</i>	Summer Tanager	X		X	Known to occur	Unknown
<i>Buteo swainsoni</i>	Swainson's Hawk	X		X	Known to occur	Fairly Common
<i>Catharus ustulatus</i>	Swainson's Thrush	X		X	Known to occur	Unknown
<i>Melospiza georgiana</i>	Swamp Sparrow			X	Known to occur	Unknown
<i>Picoides tridactylus</i>	Three-toed Woodpecker			X	Known to occur	Rare
<i>Myadestes townsendi</i>	Townsend's Solitaire	X		X	Known to occur	Uncommon
<i>Dendroica townsendi</i>	Townsend's Warbler	X		X	Known to occur	Unknown
<i>Tachycineta bicolor</i>	Tree Swallow		X	X	Known to occur	Uncommon
<i>Cygnus columbianus</i>	Tundra Swan			X	Likely to occur	No Occurrence
<i>Cathartes aura</i>	Turkey Vulture	X		X	Known to occur	Uncommon
<i>Bartramia longicauda</i>	Upland Sandpiper			X	Known to occur	Unknown
<i>Ixoreus naevius</i>	Varied Thrush			X	Likely to occur	No Occurrence
<i>Catharus fuscescens</i>	Veery	X		X	Known to occur	Unknown
<i>Pyrocephalus rubinus</i>	Vermilion Flycatcher			X	Known to occur	Unknown
<i>Pooecetes gramineus</i>	Vesper Sparrow		X	X	Known to occur	Common
<i>Tachycineta thalassina</i>	Violet-green Swallow		X	X	Known to occur	Uncommon
<i>Rallus limicola</i>	Virginia Rail			X	Known to occur	Uncommon
<i>Vermivora virginiae</i>	Virginia's Warbler		X	X	Known to occur	Fairly Common
<i>Vireo gilvus</i>	Warbling Vireo		X	X	Known to occur	Uncommon
<i>Sialia mexicana</i>	Western Bluebird	X		X	Known to occur	Fairly Common
<i>Athene cunicularia</i>	Western Burrowing Owl			X	Known to occur	Uncommon
<i>Aechmophorus occidentalis</i>	Western Grebe			X	Known to occur	Unknown
<i>Tyrannus verticalis</i>	Western Kingbird		X	X	Known to occur	Common
<i>Sturnella neglecta</i>	Western Meadowlark		X	X	Known to occur	Common
<i>Calidris mauri</i>	Western Sandpiper			X	Known to occur	Unknown
<i>Otus kennicottii</i>	Western Screech-Owl	X		X	Known to occur	Uncommon

<i>Aphelocoma californica</i>	Western Scrub Jay			X	Known to occur	Fairly Common
<i>Charadrius alexandrinus niv</i>	Western Snowy Plover			X	Known to occur	Unknown
<i>Piranga ludoviciana</i>	Western Tanager		X	X	Known to occur	Uncommon
<i>Contopus sordidulus</i>	Western Wood-Pewee		X	X	Known to occur	Fairly Common
<i>Numenius phaeopus</i>	Whimbrel			X	Likely to occur	No Occurrence
<i>Sitta carolinensis</i>	White-breasted Nuthatch		X	X	Known to occur	Fairly Common
<i>Zonotrichia leucophrys</i>	White-crowned Sparrow	X		X	Known to occur	Uncommon
<i>Plegadis chihi</i>	White-faced Ibis	X		X	Known to occur	Unknown
<i>Calidris fuscicollis</i>	White-rumped Sandpiper			X	Likely to occur	No Occurrence
<i>Lagopus leucurus</i>	White-tailed Ptarmigan			X	Known to occur	Rare
<i>Zonotrichia albicollis</i>	White-throated Sparrow	X		X	Known to occur	Unknown
<i>Aeronautes saxatalis</i>	White-throated Swift	X		X	Known to occur	Fairly Common
<i>Loxia leucoptera</i>	White-winged Crossbill			X	Known to occur	Unknown
<i>Grus americana</i>	Whooping Crane			X	Likely to occur	No Occurrence
<i>Meleagris gallopavo</i>	Wild Turkey	X		X	Known to occur	Uncommon
<i>Catoptrophorus semipalmati</i>	Willet			X	Known to occur	Unknown
<i>Sphyrapicus thyroideus</i>	Williamson's Sapsucker	X		X	Known to occur	Uncommon
<i>Empidonax traillii</i>	Willow Flycatcher			X	Known to occur	Unknown
<i>Phalaropus tricolor</i>	Wilson's Phalarope			X	Known to occur	Rare
<i>Wilsonia pusilla</i>	Wilson's Warbler	X		X	Known to occur	Uncommon
<i>Troglodytes troglodytes</i>	Winter Wren			X	Known to occur	Unknown
<i>Aix sponsa</i>	Wood Duck			X	Known to occur	Uncommon
<i>Hylocichla mustelina</i>	Wood Thrush			X	Likely to occur	No Occurrence
<i>Dendroica petechia</i>	Yellow Warbler		X	X	Known to occur	Common
<i>Coccyzus americanus</i>	Yellow-billed Cuckoo	X		X	Known to occur	Rare
<i>Icteria virens</i>	Yellow-breasted Chat	X		X	Known to occur	Uncommon
<i>Nyctanassa violacea</i>	Yellow-crowned Night-Heron			X	Known to occur	Unknown
<i>Xanthocephalus xanthoceph</i>	Yellow-headed Blackbird			X	Known to occur	Common
<i>Dendroica coronata</i>	Yellow-rumped Warbler			X	Known to occur	Fairly Common

**MAMMALS**

<b>Scientific Name</b>	<b>Common Name</b>	<b>Found in Park</b>	<b>Found in County</b>	<b>Notes</b>	<b>Sci Family</b>	<b>Common Family</b>
<i>Sorex cinereus</i>	Masked Shrew	x	x	occasional	Soricidae	Shrews
<i>Sorex merriami</i>	Merriam's Shrew		x		Soricidae	Shrews
<i>Sorex nanus</i>	Dwarf Shrew		x		Soricidae	Shrews
<i>Myotis evotis</i>	Long-eared Myotis		x		Vespertilionidae	Common Bats
<i>Myotis ciliolabrum</i>	Western Small-footed Myotis		x		Vespertilionidae	Common Bats
<i>Myotis lucifugus</i>	Little Brown Bat		x		Vespertilionidae	Common Bats
<i>Myotis thysanodes</i>	Fringed Myotis		x		Vespertilionidae	Common Bats
<i>Myotis volans</i>	Long-legged Myotis		x		Vespertilionidae	Common Bats
<i>Myotis yumanensis</i>	Yuma Myotis		x		Vespertilionidae	Common Bats

<i>Lasionycteris noctivagans</i>	Silver-haired Bat	x	x	found occasionally	Vespertilionidae	Common Bats
<i>Eptesicus fuscus</i>	Big Brown Bat		x		Vespertilionidae	Common Bats
<i>Lasiurus cinereus</i>	Hoary Bat		x		Vespertilionidae	Common Bats
<i>Plecotus townsendii</i>	Townsend's Big-eared Bat		x		Vespertilionidae	Common Bats
<i>Antrozous pallidus</i>	Pallid Bat		x		Vespertilionidae	Common Bats
<i>Nyctinomops macrotis</i>	Big Free-tailed Bat		x		Molossidae	Free-tailed Bats
<i>Ochotona princeps</i>	Pika		x		Ochotonidae	Pikas
<i>Sylvilagus audubonii</i>	Desert Cottontail		x		Leporidae	Rabbits & Hares
<i>Sylvilagus floridanus</i>	Eastern Cottontail		x		Leporidae	Rabbits & Hares
<i>Sylvilagus nuttallii</i>	Nuttall's Cottontail	x	x	2/16/95-tracks	Leporidae	Rabbits & Hares
<i>Lepus californicus</i>	Black-tailed Jackrabbit		x		Leporidae	Rabbits & Hares
<i>Lepus townsendii</i>	White-tailed Jackrabbit		x		Leporidae	Rabbits & Hares
<i>Tamias minimus</i>	Least Chipmunk	x	x		Sciuridae	Squirrels
<i>Tamias quadrivittatus</i>	Colorado Chipmunk	x	x		Sciuridae	Squirrels
<i>Marmota flaviventris</i>	Yellow-bellied Marmot		x		Sciuridae	Squirrels
<i>Spermophilus tridecemlinea</i>	Thirteen-lined Ground Squ	x	x	6/27/1990	Sciuridae	Squirrels
<i>Spermophilus variegatus</i>	Rock Squirrel	x	x	6/27/1990	Sciuridae	Squirrels
<i>Cynomys ludovicianus</i>	Black-tailed Prairie Dog		x		Sciuridae	Squirrels
<i>Sciurus aberti</i>	Abert's Squirrel		x		Sciuridae	Squirrels
<i>Sciurus niger</i>	Fox Squirrel	x	x	6/27/90; 5/12/94	Sciuridae	Squirrels
<i>Tamiasciurus husonicus</i>	Pine Squirrel, Chickeree	x	x	2/22/95-1a;	Sciuridae	Squirrels
<i>Thomomys bottae</i>	Valley Pocket Gopher		x		Geomyidae	Pocket Gophers
<i>Thomomys talpoides</i>	Northern Pocket Gopher	x	x	4/19/94- road-kill	Geomyidae	Pocket Gophers
<i>Geomys bursarius</i>	Plains Pocket Gopher		x		Geomyidae	Pocket Gophers
<i>Cratogeomys castanops</i>	Yellow-faced Pocket Gopher		x		Geomyidae	Pocket Gophers
<i>Perognathus flavescens</i>	Plains Pocket Mouse		x		Heteromyidae	Pocket Mice & Allies
<i>Perognathus flavus</i>	Silky Pocket Mouse		x		Heteromyidae	Pocket Mice & Allies
<i>Chaetodipus hispidus</i>	Hispid Pocket Mouse		x		Heteromyidae	Pocket Mice & Allies
<i>Dipodomys ordii</i>	Ord's Kangaroo Rat		x		Heteromyidae	Pocket Mice & Allies
<i>Castor canadensis</i>	Beaver		x		Castoridae	Beaver
<i>Reithrodontomys megalotis</i>	Western Harvest Mouse		x		Cricetidae	Native Rats & Mice
<i>Peromyscus boylii</i>	Brush Mouse		x		Cricetidae	Native Rats & Mice
<i>Peromyscus leucopus</i>	White-footed Mouse	x	x		Cricetidae	Native Rats & Mice
<i>Peromyscus maniculatus</i>	Deer Mouse	x	x		Cricetidae	Native Rats & Mice
<i>Peromyscus truei</i>	Pinon Mouse		x		Cricetidae	Native Rats & Mice
<i>Onychomys leucogaster</i>	Northern Grasshopper Mouse		x		Cricetidae	Native Rats & Mice
<i>Sigmodon hispidus</i>	Hispid Cotton Rat		x		Cricetidae	Native Rats & Mice
<i>Neotoma cinerea</i>	Bushy-tailed Woodrat		x		Cricetidae	Native Rats & Mice
<i>Neotoma floridana</i>	Eastern Woodrat		x		Cricetidae	Native Rats & Mice
<i>Neotoma mexicana</i>	Mexican Woodrat		x		Cricetidae	Native Rats & Mice



<i>Clethrionomys gapperi</i>	Southern Red-backed Vole			x		Cricetidae	Native Rats & Mice
<i>Phenacomys intermedius</i>	Heather Vole	x		x	2/15/95-1a, area 6	Cricetidae	Native Rats & Mice
<i>Microtus pennsylvanicus</i>	Meadow Vole	x		x	9/14/95-1a, road-kill	Cricetidae	Native Rats & Mice
<i>Ondatra zibethicus</i>	Muskrat			x		Cricetidae	Native Rats & Mice
<i>Mus musculus</i>	House Mouse	x		x	Introduced	Muridae	Old World Rats & Mice
<i>Rattus norvegicus</i>	Norway Rat			x	Introduced	Muridae	Old World Rats & Mice
<i>Zapus princeps</i>	Western Jumping Mouse	x		x		Zapodidae	Jumping Mice
<i>Erethizon dorsatum</i>	Porcupine			x		Erethizontidae	Porcupines
<i>Canis latrans</i>	Coyote	x		x		Carnidae	Dogs & Allies
<i>Vulpes velox</i>	Swift Fox			x		Carnidae	Dogs & Allies
<i>Vulpes vulpes</i>	Red Fox	x		x		Carnidae	Dogs & Allies
<i>Urocyon cinereoargenteus</i>	Gray Fox	x		x	1980'S	Carnidae	Dogs & Allies
<i>Ursus americanus</i>	Black Bear	x		x	Aug-Oct, 1987-1994	Ursidae	Bears
<i>Bassariscus astutus</i>	Ringtail	x		x	winter of 1993-94	Procyonidae	Raccoons & Allies
<i>Procyon lotor</i>	Raccoon	x		x	5/27/1990	Procyonidae	Raccoons & Allies
<i>Mustela erminea</i>	Ermine			x		Mustelidae	Weasels & Allies
<i>Mustela frenata</i>	Long-tailed Weasel	x		x	1994-1995	Mustelidae	Weasels & Allies
<i>Taxidea taxus</i>	Badger			x		Mustelidae	Weasels & Allies
<i>Spilogale putorius</i>	Eastern Spotted Skunk			x		Mustelidae	Weasels & Allies
<i>Mephitis mephitis</i>	Striped Skunk	x		x		Mustelidae	Weasels & Allies
<i>Conepatus mesoleucus</i>	Hog-nosed Skunk			x		Mustelidae	Weasels & Allies
<i>Felis concolor</i>	Mountain Lion	x		x	winter 1991-93;	Felidae	Cats
<i>Felis rufus</i>	Bobcat			x		Felidae	Cats
<i>Cervus elaphus</i>	Wapiti, Elk			x		Cervidae	Deer
<i>Odocoileus hemionus</i>	Mule Deer	x		x	>22, 10/93; 6/27/90	Cervidae	Deer
<i>Odocoileus virginianus</i>	White-tailed Deer	x		x	5/24/1996	Cervidae	Deer
<i>Antilocapra americana</i>	Pronghorn			x		Antilocapridae	Pronghorn
<i>Ovis canadensis</i>	Bighorn Sheep			x		Bovidae	Cattle & Allies

REPTILES

Scientific Name	Common Name	Found in Park	Found in County	Notes	Sci Family	Common Family
<i>Chelydra serpentina</i>	Snapping Turtle		x		Chelydridae	Snapping Turtles
<i>Chrysemys picta</i>	Painted Turtle		x		Emydidae	Pond & Box Turtles
<i>Terrapene ornata</i>	Western Box Turtle		x		Emydidae	Pond & Box Turtles
<i>Holbrookia maculata</i>	Lesser Earless Lizard		x		Iguanidae	Iguanids
<i>Phrynosoma douglassii</i>	Short-horned Lizard		x		Iguanidae	Iguanids
<i>Sceloporus undulatus</i>	Eastern Fence Lizard	x	x	4/13/92-area 2,3;	Iguanidae	Iguanids
<i>Eumeces multivirgatus</i>	Many-lined Skink		x		Scincidae	Skinks
<i>Cnemidophorus sexlineatus</i>	Six-lined Racerunner		x		Teiidae	Whiptails
<i>Coluber constrictor</i>	Racer		x		Colubridae	Colubrids
<i>Heterodon nasicus</i>	Western Hognose Snake		x		Colubridae	Colubrids

<i>Lampropeltis triangulum</i>	Milk Snake		x		Colubridae	Colubrids
<i>Masticophis flagellum</i>	Coachwhip		x		Colubridae	Colubrids
<i>Opheodrys vernalis</i>	Smooth Green Snake		x		Colubridae	Colubrids
<i>Pituophis melanoleucus</i>	Bullsnake	x	x	a couple sightings per	Colubridae	Colubrids
<i>Thamnophis elegans</i>	Western Terrestrial Garter	x	x	5/12/94-area 6-1a;	Colubridae	Colubrids
<i>Thamnophis radix</i>	Plains Garter Snake	x	x	confirm	Colubridae	Colubrids
<i>Crotalus viridis</i>	Western Rattlesnake	x	x		Viperidae	Vipers

## PLANTS

Scientific Name	Common Name	Blooming Dates	Form	Origin	Common Family	Sci Family
<i>Acer glabrum</i>	Rocky Mountain Maple	Early spring	Shrub	Native	Maple	Aceraceae
<i>Negundo aceroides</i>	Box-elder		Tree		Maple	Aceraceae
<i>Yucca glauca</i>	Yucca	June	Herb	Native	Agave	Agavaceae
<i>Sagittaria latifolia</i>	Arrowhead	July, Aug	Herb		Water-plantain	Alismataceae
<i>Allium cernuum</i>	Nodding Onion	June, July, Aug	Herb	Native	Onion	Alliaceae
<i>Allium textile</i>	Wild Onion	May, June	Herb	Native	Onion	Alliaceae
<i>Cerastium strictum</i>	Mouse-ear Chickweed	June, week 1	Herb		Chickweed	Alsiniaceae
<i>Eremogone fenderli</i>	Desert Sandwort	June, week 1	Herb		Chickweed	Alsiniaceae
<i>Stellaria sp.</i>	Chickweed	Midsummer	Herb		Chickweed	Alsiniaceae
<i>Amaranthus arenicola</i>	Pigweed	Aug	Herb	Native	Amaranth	Amaranthaceae
<i>Amaranthus blitoides</i>	Prostrate Pigweed	Aug	Herb	Native	Amaranth	Amaranthaceae
<i>Amaranthus retroflexus</i>	Rough Pigweed	Aug	Herb	Adventive	Amaranth	Amaranthaceae
<i>Froelichia gracilis</i>	Cottonwool	July, week 2	Herb		Amaranth	Amaranthaceae
<i>Rhus aromatica</i>	Skunkbrush	May, June	Shrub	Native	Sumac	Anacardiaceae
<i>Toxicodendron rydbergii</i>	Poison Ivy	May, June	Shrub	Native	Sumac	Anacardiaceae
<i>Anethum graveolens</i>	Dill	Aug	Herb	Adventive	Parsley	Apiaceae
<i>Conium maculatum</i>	Poison Hemlock	July, Aug	Herb	Adventive	Parsley	Apiaceae
<i>Cymopterus montanus</i>	Pink Cymopterus	Early spring	Herb	Native	Parsley	Apiaceae
<i>Heracleum sphondylium</i>	Cow Parsnip	June	Herb	Native	Parsley	Apiaceae
<i>Lomatium orientale</i>	Biscuitroot	April, May	Herb	Native	Parsley	Apiaceae
<i>Pseudocymopterus montanus</i>	Mountain Parsley	June, week 1	Herb	Native	Parsley	Apiaceae
<i>Apocynum androsaemifolium</i>	Spreading Dogbane	June, July	Herb		Dogbane	Apocynaceae
<i>Apocynum cannabinum</i>	Indian Hemp	June	Herb	Native	Dogbane	Apocynaceae
<i>Aralia nudicaulis</i>	Wild Sarsaparilla		Herb	Native	Ginseng	Araliaceae
<i>Asclepias asperula</i>	Creeping Milkweed	June	Herb	Native	Milkweed	Asclepiadaceae
<i>Asclepias pumila</i>	Low Milkweed	July, week 1, 2	Herb	Native	Milkweed	Asclepiadaceae
<i>Asclepias speciosa</i>	Showy Milkweed	July, week 2, 3	Herb	Native	Milkweed	Asclepiadaceae
<i>Asclepias subverticillata</i>	Whorled Milkweed	July	Herb	Native	Milkweed	Asclepiadaceae
<i>Asclepias tuberosa</i>	Butterflyweed, Orange Milkw	July	Herb	Native	Milkweed	Asclepiadaceae
<i>Asclepias uncialis</i>	Dwarf Milkweed	June	Herb	Native	Milkweed	Asclepiadaceae
<i>Asparagus officinalis</i>	Asparagus		Herb	Adventive	Asparagus	Asparagaceae

<i>Achillia lanulosa</i>	Yarrow	June, July	Herb	Native	Sunflower	Asteraceae
<i>Ageratina herbacea</i>	Boneset / Ageratina	July	Herb		Sunflower	Asteraceae
<i>Agoserus glauca</i>	False Dandelion	May -	Herb	Native	Sunflower	Asteraceae
<i>Ambrosia artemisiifolia</i>	Common Ragweed		Herb		Sunflower	Asteraceae
<i>Ambrosia psilostachya</i>	Ragweed	Aug	Herb	Native	Sunflower	Asteraceae
<i>Ambrosia trifida</i>	Giant Ragweed		Herb		Sunflower	Asteraceae
<i>Antennaria parvifolia</i>	Pussytoes	June	Herb	Native	Sunflower	Asteraceae
<i>Antennaria rosea</i>	Pussytoes	May, June	Herb	Native	Sunflower	Asteraceae
<i>Anthemis cotula</i>	Chamommile	June	Herb	Adventive	Sunflower	Asteraceae
<i>Arctium minus</i>	Burdock	Aug, Sept,	Herb	Adventive	Sunflower	Asteraceae
<i>Artemesia ludoviciana</i>	Prairie Sage		Herb	Native	Sunflower	Asteraceae
<i>Artemisia frigida</i>	Silver Sage	Aug, Sept	Herb	Native	Sunflower	Asteraceae
<i>Aster laevis</i>	Blue Aster	Late Summer	Herb	Native	Sunflower	Asteraceae
<i>Bahia dissecta</i>	Ragleaf Bahia	July, Sept,	Herb	Native	Sunflower	Asteraceae
<i>Bidens tenuisecta</i>		June	Herb		Sunflower	Asteraceae
<i>Brickellia eupatorioides</i>	False Boneset	Late summer	Herb		Sunflower	Asteraceae
<i>Brickellia grandiflora</i>	Tasselflower	June, Aug	Herb	Native	Sunflower	Asteraceae
<i>Carduus nutans</i>	Musk Thistle	July, week 2, 3	Herb	Adventive	Sunflower	Asteraceae
<i>Chrysanthemum maximum</i>	Shasta Daisy	July, week 3	Herb	Adventive	Sunflower	Asteraceae
<i>Chrysothamnus nauseosis</i>	Rabbitbrush	Aug, Sept	Shrub	Native	Sunflower	Asteraceae
<i>Cirsium arvense</i>	Canada Thistle	July, Aug, Sept	Herb	Adventive	Sunflower	Asteraceae
<i>Cirsium sp.</i>	White Thistle	June	Herb		Sunflower	Asteraceae
<i>Cirsium undulatum</i>	Wavy-leaved Thistle	June	Herb		Sunflower	Asteraceae
<i>Conyza canadensis</i>	Horseweed	Aug, Sept	Herb	Adventive	Sunflower	Asteraceae
<i>Cyclachaena xanthifolia</i>	Marsh-elder	Aug, Sept	Herb	Native	Sunflower	Asteraceae
<i>Dugaldia hoopesii</i>	Orange Sneezeweed	July	Herb	Native	Sunflower	Asteraceae
<i>Dyssodia papposa</i>	Fetid Marigold	Aug, Sept	Herb	Native	Sunflower	Asteraceae
<i>Erigeron divergens</i>	Spreading Fleabane, Daisy	July, Sept	Herb	Native	Sunflower	Asteraceae
<i>Erigeron flagellaris</i>	Trailing Fleabane	June	Herb	Native	Sunflower	Asteraceae
<i>Erigeron pumilus</i>	Low Daisy	Early Summer	Herb	Native	Sunflower	Asteraceae
<i>Erigeron sp.</i>	Daisy	May, week 2	Herb		Sunflower	Asteraceae
<i>Erigeron speciosa</i>	Showy Daisy		Herb		Sunflower	Asteraceae
<i>Erigeron subtrinervis</i>	Purple Daisy	July, week 1, 2	Herb	Native	Sunflower	Asteraceae
<i>Erigeron vetensis</i>	La Veta Daisy	Spring - Early summ	Herb	Native	Sunflower	Asteraceae
<i>Eupatorium maculatum</i>	Joe Pye Weed		Herb		Sunflower	Asteraceae
<i>Gaillardia aristata</i>	Gaillardia / Blanketflower	June -	Herb	Native	Sunflower	Asteraceae
<i>Grindelia inornata</i>	Gumweed	July, Aug	Herb	Native	Sunflower	Asteraceae
<i>Grindelia squarrosa</i>	Gumweed	June, July, Aug, Sep	Herb	Native	Sunflower	Asteraceae
<i>Gutierrezia sarothrae</i>	Snakeweed	Aug	Herb	Native	Sunflower	Asteraceae
<i>Helenium autumnale</i>	Sneezeweed	Aug	Herb	Native	Sunflower	Asteraceae



<i>Helianthus annuus</i>	Common Sunflower	July, Aug	Herb	Native	Sunflower	Asteraceae
<i>Heliopsis helianthoides</i>	Ox-eye	Aug	Herb		Sunflower	Asteraceae
<i>Heterotheca canescens</i>	Golden Aster	July, Aug	Herb	Native	Sunflower	Asteraceae
<i>Heterotheca villosa</i>	Golden Aster	July, Aug, Sept,	Herb	Native	Sunflower	Asteraceae
<i>Hymenopappus filifolius</i>	Narrow-leaf Hymenopappus		Herb		Sunflower	Asteraceae
<i>Lactuca biennis</i>	Tall Blue Lettuce	June	Herb		Sunflower	Asteraceae
<i>Lactuca serriola</i>	Prickly Lettuce	June, July	Herb	Adventive	Sunflower	Asteraceae
<i>Lactuca tatarica</i>	Wild Lettuce	July	Herb		Sunflower	Asteraceae
<i>Leucanthemum vulgare</i>	Ox-Eye Daisy	July, Aug	Herb	Adventive	Sunflower	Asteraceae
<i>Liatris punctata</i>	Gayfeather	Aug	Herb	Native	Sunflower	Asteraceae
<i>Lygodesmia juncea</i>	Skeletonweed	July	Herb	Native	Sunflower	Asteraceae
<i>Machaeranthera bigelovii</i>	Tansy Aster	July	Herb	Native	Sunflower	Asteraceae
<i>Machaeranthera pattersonii</i>	Tansy Aster, Sticky Aster	Aug, Sept	Herb		Sunflower	Asteraceae
<i>Microseris nutans</i>	False Dandelion	Late April	Herb		Sunflower	Asteraceae
<i>Nothocalais cuspidata</i>	False Dandelion	June	Herb	Native	Sunflower	Asteraceae
<i>Oligosporus campestris</i>	Common Sagewort		Herb	Native	Sunflower	Asteraceae
<i>Oligosporus dracunculus</i>	Wild Tarragon, Wormwood	Aug	Herb		Sunflower	Asteraceae
<i>Pachera fendleri</i>	Groundsel, Golden Ragwort	April, May	Herb	Native	Sunflower	Asteraceae
<i>Picradeniopsis oppositifolia</i>		June	Herb		Sunflower	Asteraceae
<i>Ratibida columnifera</i>	Prairie Coneflower	July, Aug	Herb	Native	Sunflower	Asteraceae
<i>Rudbeckia ampla</i>	Goldenglow	July, Aug	Herb	Native	Sunflower	Asteraceae
<i>Rudbeckia hirta</i>	Black-eyed Susan	July	Herb	Native	Sunflower	Asteraceae
<i>Senecio integerrimus</i>	Common Spring Senecio	June, week 1	Herb	Native	Sunflower	Asteraceae
<i>Senecio sp.</i>	Senecio	May, week 2	Herb		Sunflower	Asteraceae
<i>Senecio spartioides</i>	Groundsel; Golden Ragwort	Aug, Sept	Herb	Native	Sunflower	Asteraceae
<i>Solidago missouriensis</i>	Smooth Goldenrod	June	Herb	Native	Sunflower	Asteraceae
<i>Solidago nana</i>	Low Goldenrod	June	Herb	Native	Sunflower	Asteraceae
<i>Solidago serotinooides</i>	Goldenrod	July, Aug, Sept,	Herb		Sunflower	Asteraceae
<i>Solidago sp.</i>	Goldenrod	Mid-late summer	Herb		Sunflower	Asteraceae
<i>Stenactis strigosus</i>	Daisy Fleabane	June/June	Herb		Sunflower	Asteraceae
<i>Stephanomeria pauciflora</i>	Wire Lettuce	June, July	Herb		Sunflower	Asteraceae
<i>Taraxacum officinale</i>	Common Dandelion	May, June, July, Aug	Herb	Adventive	Sunflower	Asteraceae
<i>Tetraneuris acaulis</i>	Tetraneuris	June, week 1,3	Herb	Native	Sunflower	Asteraceae
<i>Thelesperma filifolium</i>	Greenthread	July	Herb	Native	Sunflower	Asteraceae
<i>Thelesperma megapotamicum</i>	Greenthread; Navajo Tea	July, Aug	Herb		Sunflower	Asteraceae
<i>Townsendia hookeri</i>	Easter Daisy	May	Herb	Native	Sunflower	Asteraceae
<i>Tragopogon dubius</i>	Oysterplant, Salsify	June, July, week 2	Herb	Adventive	Sunflower	Asteraceae
<i>Virgulus ericoides</i>	White Heather Aster	June	Herb		Sunflower	Asteraceae
<i>Virgulus falcatus</i>	Common White Aster	Aug, Sept	Herb		Sunflower	Asteraceae
<i>Ximenesia encelioides</i>	Cowpen Daisy; Crownbeard	July, Aug	Herb	Adventive	Sunflower	Asteraceae

	Daisy sp.	June, week 1	Herb		Sunflower	Asteraceae
<i>Alnus incana</i>	Alder	Early Spring	Shrub	Native	Birch	Betulaceae
<i>Betula fontinalis</i>	River Birch	May, week 2	Shrub	Native	Birch	Betulaceae
<i>Corylus cornuta</i>	Beaked Hazelnut	Early Spring	Shrub	Native	Birch	Betulaceae
<i>Cynoglossum officinale</i>	Houndstoungue	May, June	Herb		Borage	Boraginaceae
<i>Hackelia floribunda</i>	False Forget-Me-Not	Midsummer	Herb	Native	Borage	Boraginaceae
<i>Lappula redowskii</i>	Stickseed	Early spring - mid Ju	Herb		Borage	Boraginaceae
<i>Oreocarya suffruticosa</i>	Silfer-leaved Oreocarya	Early Spring	Herb		Borage	Boraginaceae
<i>Oreocarya virgata</i>	Miner's Candle	July, Aug	Herb	Native	Borage	Boraginaceae
<i>Lithospermum incisum</i>	Narrow-leaved Puccoon	May, June, July	Herb	Native	Borage	Boraginaceae
<i>Lithospermum multiflorum</i>	Many-flowered Puccoon	May, June, July	Herb	Native	Borage	Boraginaceae
<i>Mertensia lanceolata</i>	Narrow-leaved Chimingbells	April, May, June, July	Herb	Native	Borage	Boraginaceae
<i>Camelina microcarpa</i>	False Flax		Herb	Adventive	Mustard	Brassicaceae
<i>Chorispora tenella</i>	Purple Mustard	May	Herb	Adventive	Mustard	Brassicaceae
<i>Descurainia pinnata</i>	Tansy Mustard	May	Herb		Mustard	Brassicaceae
<i>Descurainia sophia</i>	Tansy Mustard	June, July	Herb	Adventive	Mustard	Brassicaceae
<i>Draba sp.</i>	Whitlowort	June, week 1	Herb	Native	Mustard	Brassicaceae
<i>Erysimum asperum</i>	Wallflower	June, July	Herb	Native	Mustard	Brassicaceae
<i>Erysimum capitatum</i>	Western Wallflower	May, June	Herb	Native	Mustard	Brassicaceae
<i>Erysimum wheeleri</i>	Wheeler's Wallflower	June	Herb		Mustard	Brassicaceae
<i>Hesperis matronalis</i>	Dames Rocket	Mau, June, July	Herb	Adventive	Mustard	Brassicaceae
<i>Lepidium perfoliatum</i>	Clasping Pepper-grass	June	Herb	Adventive	Mustard	Brassicaceae
<i>Lepidium virginicum</i>	Peppergrass	May, week 2	Herb	Adventive	Mustard	Brassicaceae
<i>Lesquerella ludoviciana</i>	Silvery Bladderpod	Spring	Herb		Mustard	Brassicaceae
<i>Nasturtium officinale</i>	Watercress	July, week 1, 2, 3	Herb	Adventive	Mustard	Brassicaceae
<i>Noccaea montana</i>	Wild Candytuft		Herb	Native	Mustard	Brassicaceae
<i>Rorippa palustris</i>	Yellowcress	May, week 2	Herb		Mustard	Brassicaceae
<i>Sisymbrium altissimum</i>	Jim Hill Mustard	June	Herb	Adventive?	Mustard	Brassicaceae
<i>Stanleya pinnata</i>	Prince's Plume	June, July	Herb	Native	Mustard	Brassicaceae
<i>Thlaspi arvense</i>	Field Pennycress	May	Herb	Adventive	Mustard	Brassicaceae
	Mustard sp.	June, week 1	Herb		Mustard	Brassicaceae
<i>Coryphantha vivapara</i>	Nipple Cactus	July	Herb	Native	Cactus	Cactaceae
<i>Echinocereus viridiflorus</i>	Hen-and-chickens	June	Herb	Native	Cactus	Cactaceae
<i>Opuntia fragilis</i>	Brittle Cactus	June, week 1	Herb	Native	Cactus	Cactaceae
<i>Opuntia macrorhiza</i>	Prickly-pear	June, July	Herb	Native	Cactus	Cactaceae
<i>Opuntia polyacantha</i>	Prickly-pear	June, July	Herb	Native	Cactus	Cactaceae
<i>Pediocactus simpsonni</i>	Ball Cactus	May, week 3	Herb	Native	Cactus	Cactaceae
<i>Calochortus gunnisonii</i>	Mariposa, Sego Lily	July, Aug	Herb	Native	Mariposa	Calochortaceae
<i>Campanula rapunculoides</i>	Tall Bellflower	July	Herb	Adventive	Bellflower	Campanulaceae
<i>Campanula rotundifolia</i>	Common Harebell	July	Herb	Native	Bellflower	Campanulaceae

<i>Humulus lupulus</i>	Wild Hops	July, Aug	Vine	Native	Hops	Cannabaceae
<i>Cleome serrulata</i>	Rocky Mountain Beeplant	July, Aug	Herb	Native	Caper	Capparaceae
<i>Distegia involucrata</i>	Bush Honeysuckle	Spring, Summer	Shrub	Native	Honeysuckle	Caprifoliaceae
<i>Lonicera tatarica</i>	Tartarian Honeysuckle	May, week 2	Shrub	Adventive	Honeysuckle	Caprifoliaceae
<i>Symphoricarpos albus ?</i>	Snowberry	June, week 1	Shrub		Honeysuckle	Caprifoliaceae
<i>Symphoricarpos occidentalis</i>	Snowberry	July, Aug	Shrub	Native	Honeysuckle	Caprifoliaceae
<i>Dianthus deltooides</i>	Pink; Carnation	June	Herb	Adventive	Pink	Caryophyllaceae
<i>Saponaria officinalis</i>	Bouncing Bet	July, Aug, Sept	Herb	Adventive	Pink	Caryophyllaceae
<i>Bassia sieversiana</i>	Ironweed	Late Summer	Herb		Goosefoot	Chenopodiaceae
<i>Chenopodium sp.</i>	Lamb's Quarters	July, week 3; Sept	Herb		Goosefoot	Chenopodiaceae
<i>Chenopodium sp.</i>		20-Jun	Herb		Goosefoot	Chenopodiaceae
<i>Salsola australis</i>	Russian-thistle	Aug	Herb	Native ?	Goosefoot	Chenopodiaceae
<i>Tradescantia occidentalis</i>	Spiderwort	June, July, Aug	Herb	Native	Spiderwort	Commelinaceae
<i>Maianthemum stellatum</i>	False Solomon's Seal	May, June	Herb	Native	Mayflower	Convallariaceae
<i>Convolvulus arvensis</i>	Creeping Jenny, Bindweed	June, July, Aug, Sep	Herb	Adventive	Morning-glory	Convolvulaceae
<i>Calystegia sp</i>	Hedge Bindweed	Sept	Herb		Morning-glory	Convolvulaceae
<i>Thalictrum fendleri</i>	Meadowrue	June	Herb	Native	Meadowrue	Coptaceae
<i>Swida sericea</i>	Red Osier Dogwood		Shrub	Native	Dogwood	Cornaceae
<i>Amerosedum lanceolatum</i>	Yellow Stonecrop	June, July	Herb	Native	Stonecrop	Crassulaceae
<i>Juniperus communis</i>	Common Juniper		Shrub	Native	Cypress	Cupressaceae
<i>Sabina monosperma</i>	Oneseed Juniper		Shrub	Native	Cypress	Cupressaceae
<i>Sabina scopulorum</i>	Rocky Mountain Juniper		Shrub	Native	Cypress	Cupressaceae
<i>Carex douglasii</i>	Sedge		Other	Native	Sedge	Cyperaceae
<i>Dipsacus sylvestris</i>	Teasel	July, Aug, Sept	Herb	Adventive	Teasel	Dipsacaceae
<i>Elaeagnus angustifolia</i>	Russion-olive		Tree	Adventive	Oleaster	Elaeagnaceae
<i>Shepherdia canadensis</i>	Buffaloberry	Early Spring	Shrub	Native	Oleaster	Elaeagnaceae
<i>Hippochaete variegata</i>	Scouring-rush	July, week 1, 2, 3	O	Native	Horsetail	Equisetaceae
<i>Arctostaphylos uva-ursi</i>	Kinnikinnik	June, week 1	Shrub	Native	Heath	Ericaceae
<i>Chamaesyce serpyllifolia</i>	Thyme-leaved Spurge		Herb	Adventive	Spurge	Euphorbiaceae
<i>Tithymalus montanus</i>	Rocky Mountain Spurge	Early Summer	Herb		Spurge	Euphorbiaceae
<i>Tithymalus myrsinites</i>	Spurge		Herb	Adventive	Spurge	Euphorbiaceae
<i>Astragalus adsurgens</i>	Purple Milk Vetch	May, June	Herb	Native	Pea	Fabaceae
<i>Astragalus drummondii</i>	Tall White Milk Vetch	May, June	Herb	Native	Pea	Fabaceae
<i>Astragalus missouriensis</i>	Purple Milkvetch	May, June	Herb	Native	Pea	Fabaceae
<i>Astragalus shortianus</i>	Milkvetch	Early spring	Herb	Native	Pea	Fabaceae
<i>Dalea candida</i>	White Prairie Clover	July	Herb	Native	Pea	Fabaceae
<i>Dalea purpurea</i>	Purple Prairie Clover	July	Herb	Native	Pea	Fabaceae
<i>Glycyrrhiza lepidota</i>	Wild Licorice	July, Aug	Herb		Pea	Fabaceae
<i>Lathyrus eucosmus</i>	Purple Peavine	June	Herb		Pea	Fabaceae
<i>Lupinus argenteus</i>	Lupine	June, July	Herb	Native	Pea	Fabaceae



<i>Medicago lupulina</i>	Black Medic	June, July, Aug, Sep	Herb	Adventive	Pea	Fabaceae
<i>Medicago sativa</i>	Alfalfa	June, July, Aug, Sep	Herb	Adventive	Pea	Fabaceae
<i>Mellilotus alba</i>	White Sweet Clover	July, Aug, Sept	Herb	Adventive	Pea	Fabaceae
<i>Mellilotus officinalis</i>	Yellow Sweet Clover	June, July, Aug, Sep	Herb	Adventive	Pea	Fabaceae
<i>Oxytropis lambertii</i>	Colorado Loco Weed	June	Herb	Native	Pea	Fabaceae
<i>Oxytropis sericea</i>	White Locoweed	June	Herb	Native	Pea	Fabaceae
<i>Psoraleidium tenuiflorum</i>	Scurf-pea	July, Aug	Herb	Native	Pea	Fabaceae
<i>Robina neomexicana</i>	New Mexico Locust	June	Tree	Adventive	Pea	Fabaceae
<i>Robinia pseudoacacia</i>	Black Lucust	June, July	Tree	Adventive	Pea	Fabaceae
<i>Thermopsis rhombifolia</i>	Golden Banner	May, June	Herb	Native	Pea	Fabaceae
<i>Trifolium hybridum</i>	Alsike Clover	Sept	Herb	Adventive	Pea	Fabaceae
<i>Trifolium pratense</i>	Red Clover	July, Aug, Sept	Herb	Adventive	Pea	Fabaceae
<i>Trifolium repens</i>	White Dutch Clover	Sept	Herb	Adventive	Pea	Fabaceae
<i>Vexibia nuttalliana</i>	White Loco	June	Herb	Native	Pea	Fabaceae
<i>Vicea americana</i>	Vetch	May, June	Herb	Native	Pea	Fabaceae
<i>Quercus gambelii</i>	Scrub Oak		Tree	Native	Oak	Fagaceae
<i>Corydalis aurea</i>	Golden Smoke	Early Spring	Herb	Native	Fumitory	Fumariaceae
<i>Frasera speciosa</i>	Monument Plant	June	Herb	Native	Gentian	Gentianaceae
<i>Pneumonathe affinis</i>	Bottle Gentian	July, Aug	Herb	Native	Gentian	Gentianaceae
<i>Erodium cicutarium</i>	Crane's Bill, Alfilaria	May, June, July, Aug	Herb		Geranium	Geraniaceae
<i>Geranium caespitosum</i>	Wild Geranium	June, July, Aug	Herb	Native	Geranium	Geraniaceae
<i>Ribes americanum</i>	Currant	May, week 3	Shrub	Native	Currant/Gooseberry	Grossulariaceae
<i>Ribes aureum</i>	Golden Currant	Early Spring	Shrub	Native	Currant/Gooseberry	Grossulariaceae
<i>Ribes cereum</i>	Wax Currant	Early Spring	Shrub	Native	Currant/Gooseberry	Grossulariaceae
<i>Ribes inerme</i>	Common Gooseberry	Early Spring	Shrub		Currant/Gooseberry	Grossulariaceae
<i>Ribes leptanthum</i>	Currant	Early Spring	Shrub	Native	Currant/Gooseberry	Grossulariaceae
<i>Aquilegia chrysantha</i>	Yellow Columbine	June	Herb	Adventive	Hellebore	Helleboraceae
<i>Aquilegia coerulea</i>	Colorado Columbine	June	Herb	Native	Hellebore	Helleboraceae
<i>Delphinium geyeri</i>	Larkspur	June	Herb	Native	Hellebore	Helleboraceae
<i>Delphinium ramosum</i>	Larkspur	June	Herb	Native	Hellebore	Helleboraceae
<i>Scorpionweed</i>	Phacelia heterophylla	July, week 1, 2, 3	Herb	Native	Waterleaf	Hydrophyllaceae
<i>Hypericum perforatum</i>	Klamath Weed	July, week 2	Herb	Adventive	St. Johnswort	Hypericaceae
<i>Iris missouriensis</i>	Wild Iris	May, June	Herb	Native	Iris	Iridaceae
<i>Sisyrinchium montanum</i>	Blue-eyed Grass	May, June	Herb		Iris	Iridaceae
<i>Juncus sp.</i>	Rush	July, week 1, 2	O		Rush	Juncaceae
<i>Dracocephalum parviflorum</i>	Dragonhead		Herb	Native	Mint	Lamiaceae
<i>Marrubium vulgare</i>	Horehound	July	Herb	Adventive	Mint	Lamiaceae
<i>Monarda fistulosa</i>	Horsemint, Bee Balm	July, Aug	Herb	Native	Mint	Lamiaceae
<i>Nepeta cataria</i>	Catnip	July, Aug, Sept	Herb	Adventive	Mint	Lamiaceae
<i>Prunella vulgaris</i>	Self-heal, Heal-all	Late Summer	Herb	Adventive?	Mint	Lamiaceae

<i>Salvia reflexa</i>	Lance-leaved Sage	June, July, Aug	Herb	Adventive	Mint	Lamiaceae
<i>Scutellaria brittoni</i>	Skullcap	May, June	Herb	Native	Mint	Lamiaceae
<i>Teucrium canadense</i>	Germander	July, week 2	Herb	Native	Mint	Lamiaceae
<i>Lemna minor</i>	Duckweed	July, Aug	Herb	Native	Duckweed	Lemnaceae
<i>Leucocrinum montanum</i>	Sand Lily	May	Herb	Native	Lily	Liliaceae
<i>Lilium philadelphicum</i>	Wood Lily	July	Herb	Native	Lily	Liliaceae
<i>Adenolinum lewisii</i>	Wild Blue Flax	June	Herb	Native	Flax	Linaceae
<i>Nuttallia nuda</i>	Evening Star, Blazingstar	July, Aug	Herb	Native	Loasa	Loasaceae
<i>Callirhoe involucrata</i>	Purple Poppymallow	July	Herb		Mallow	Malvaceae
<i>Malva neglecta</i>	Cheeseweed	July, week 1, 2	Herb		Mallow	Malvaceae
<i>Sphaeralcea coccinea</i>	Coppermallow	July	Herb		Mallow	Malvaceae
<i>Abronia fragrans</i>	Sand-Verbena	Early Summer	Herb	Native	Four-O'clock	Nyctaginaceae
<i>Oxybaphus hirsutus</i>	Hairy Umbrella Wort	Aug	Herb	Native	Four-O'clock	Nyctaginaceae
<i>Oxybaphus linearis</i>	Narrow-leaved Umbrellawort	July	Herb		Four-O'clock	Nyctaginaceae
<i>Oxybaphus nyctagineus</i>	Heart-leaved Umbrellawort	July, Aug	Herb		Four-O'clock	Nyctaginaceae
<i>Fraxinus pensylvanica</i>	Green Ash		Tree	Adventive	Olive	Oleaceae
<i>Calypophus serrulatus</i>	Calypophus	July	Herb	Native	Evening-primrose	Onagraceae
<i>Chamerion danielsii</i>	Fireweed	June	Herb	Native	Evening-primrose	Onagraceae
<i>Gaura coccinea</i>	Scarlet Gaura	July, Aug	Herb	Native	Evening-primrose	Onagraceae
<i>Gaura parviflora</i>	Tall Gaura	July, Aug	Herb	Native	Evening-primrose	Onagraceae
<i>Oenothera caespitosa</i>	White Stemless Evening-Prim	May, June	Herb	Native	Evening-primrose	Onagraceae
<i>Oenothera coronopifolia</i>	Cut-leaf Evening-primrose	June, July, Aug	Herb	Native	Evening-primrose	Onagraceae
<i>Oenothera howardii</i>	Yellow Stemless Evening-prim	June	Herb	Native	Evening-primrose	Onagraceae
<i>Oenothera villosa</i>	Tall Yellow Evening-primrose	July, Aug, Sept	Herb	Native	Evening-primrose	Onagraceae
<i>Aphyllon fasciculatum</i>	Broomrape	June	Herb	Native	Broomrape	Orobanchaceae
<i>Argemone polyanthemos</i>	Prickly Poppy	July, Aug	Herb	Native	Poppy	Papaveraceae
<i>Abies Concolor</i>	White Fir		Tree	Native	Pine	Pinaceae
<i>Abies lasiocarpa</i>	Subalpine Fir		Tree	Native	Pine	Pinaceae
<i>Picea engelmannii</i>	Engelmann Spruce		Tree	Native	Pine	Pinaceae
<i>Picea pungens</i>	Colorado Blue Spruce		Tree	Native	Pine	Pinaceae
<i>Pinus aristata</i>	Bristlecone Pine		Tree	Native	Pine	Pinaceae
<i>Pinus edulis</i>	Pinon Pine		Tree	Native	Pine	Pinaceae
<i>Pinus flexilis</i>	Limber Pine		Tree	Native	Pine	Pinaceae
<i>Pinus ponderosa</i>	Ponderosa Pine		Tree	Native	Pine	Pinaceae
<i>Pseudotsuga menziessi</i>	Douglas Fir		Tree	Native	Pine	Pinaceae
<i>Plantago major</i>	Common Plantain	June	Herb	Adventive	Plantain	Plantaginaceae
<i>Plantago patagonica</i>	Wooly Plantain	July	Herb		Plantain	Plantaginaceae
<i>Agropyron sp.</i>	Crested Wheatgrass	June, July	Grass		Grass	Poaceae
<i>Anisantha tectorum</i>	Cheatgrass	June	Grass	Adventive	Grass	Poaceae
<i>Aristida purpurea</i>	Three-awn	July, Aug	Grass	Native	Grass	Poaceae

<i>Bouteloua curtipendula</i>	Sideoats Grama	Sept	Grass	Native	Grass	Poaceae
<i>Bromopsis inermis</i>	Smooth Brome	June, July	Grass	Adventive	Grass	Poaceae
<i>Chondrosom gracile</i>	Blue Grama	Aug	Grass	Native	Grass	Poaceae
<i>Chondrosom hirsuta</i>	Hairy Grama	July, Aug	Grass	Native	Grass	Poaceae
<i>Elumus canadensis</i>	Canada Wild Rye	July, Aug	Grass	Native	Grass	Poaceae
<i>Elymus elymoides</i>	Wild Rye		Grass	Native	Grass	Poaceae
<i>Elymus longifolius</i>	Squirreltail	July, Aug	Grass	Native	Grass	Poaceae
<i>Elymus virginicus</i>	Wild Rye	July, Aug	Grass	Native	Grass	Poaceae
<i>Elytrigia intermedia</i>	Intermediate Wheatgrass	July, Aug	Grass	Adventive	Grass	Poaceae
<i>Elytrigia repens</i>	Quackgrass	July, Aug	Grass	Adventive	Grass	Poaceae
<i>Festuca thurberi</i>	Fescue		Grass	Native	Grass	Poaceae
<i>Hordeum vulgare</i>	Barley	July, Aug	Grass	Adventive	Grass	Poaceae
<i>Leymus triticoides</i>	Wild Rye	July, Aug	Grass	Native	Grass	Poaceae
<i>Muhlenbergia sp</i>	Muhly		Grass		Grass	Poaceae
<i>Phleum pratense</i>	Timothy	July, Aug	Grass	Adventive	Grass	Poaceae
<i>Poa pratensis</i>	Kentucky Bluegrass	June	Grass	Adventive	Grass	Poaceae
<i>Psathyrostachys juncea</i>	Russian Wild Rye	July, Aug	Grass	Adventive	Grass	Poaceae
<i>Stipa comata</i>	Needle-and-thread		Grass	Native	Grass	Poaceae
<i>Stipa lettermanni</i>	Letterman's Needlegrass	July, Aug	Grass	Native	Grass	Poaceae
<i>Stipa robusta</i>	Sleepygrass	July, Aug	Grass	Native	Grass	Poaceae
<i>Triticum aestivum</i>	Wheat		Grass	Adventive	Grass	Poaceae
<i>Ipomopsis aggregata</i>	Scarlet Gilia	July, Aug	Herb	Native	Phlox	Polemoniaceae
<i>Ipomopsis aggregata</i>	Trumpet Gilia	July	Herb	Native	Phlox	Polemoniaceae
<i>Eriogonum jamesii</i>	Wild Buckwheat	July, Aug	Herb	Native	Buckwheat	Polygonaceae
<i>Persicaria maculata</i>	Lady's Thumb	July, week 2, 3	Herb	Adventive	Buckwheat	Polygonaceae
<i>Pterogonum alatum</i>	Winged Buckwheat	Late Summer	Herb	Native	Buckwheat	Polygonaceae
<i>Rumex crispus</i>	Curly Dock	July, week 1, 2, 3	Herb	Adventive	Buckwheat	Polygonaceae
<i>Androsace occidentalis</i>	Rock-jasmine		Herb	Native	Primrose	Primulaceae
<i>Androsace septentrionalis</i>	Rock-jasmine	June	Herb	Native	Primrose	Primulaceae
<i>Lysimachia ciliata</i>	Fringed Loosestrife	July, week 1, 2	Herb	Native	Primrose	Primulaceae
<i>Anemone cylindrica</i>	Thimbleweed	June	Herb	Native	Buttercup	Ranunculaceae
<i>Atragene columbiana</i>	Blue Clematis	April, May, June, July	Herb	Native	Buttercup	Ranunculaceae
<i>Clematis ligusticifolia</i>	Virgin's Bower	July, Aug	Vine	Native	Buttercup	Ranunculaceae
<i>Pulsatilla patens</i>	Pasqueflower	April, May, June	Herb	Native	Buttercup	Ranunculaceae
<i>Hecatonnia scelerata</i> ?	Blister Buttercup	July, week 1, 2	Herb		Buttercup	Ranunculaceae
<i>Ranunculus sp.</i>	Buttercup	July, week 1, 2	Herb		Buttercup	Ranunculaceae
<i>Argentina anserina</i>	Silverweed	June	Herb	Native	Rose	Rosaceae
<i>Cercocarpus montanus</i>	Mountain-mahogany	June, week 1	Srhub	Native	Rose	Rosaceae
<i>Drymocallis fissa</i>	Potentilla	June, week 1	Herb	Native	Rose	Rosaceae
<i>Fragaria vesca</i>	Wild Strawberry	June, week 1	Herb	Native	Rose	Rosaceae



<i>Holodiscus dumosus</i>	Oceanspray		Shrub	Native	Rose	Rosaceae
<i>Oreobatus deliciosus</i>	Boulder Raspberry	June	Shrub	Native	Rose	Rosaceae
<i>Padus virginiana</i>	Chokecherry	May, June	Shrub	Native	Rose	Rosaceae
<i>Pentaphylloides floribunda</i>	Shrubby Cinquefoil	July	Shrub	Native	Rose	Rosaceae
<i>Physocarpus monogunus</i>	Ninebark		Shrub	Native	Rose	Rosaceae
<i>Potentilla hippiana</i>	Wooly Cinquefoil	July, week 1, 2, 3	Herb	Native	Rose	Rosaceae
<i>Prunus americana</i>	Wild Plum	May, week 2	Shrub	Native	Rose	Rosaceae
<i>Pyrus sp.</i>	Apple	April, May	Tree	Adventive	Rose	Rosaceae
<i>Rosa Sayi</i>	Wild Rose	July, week 1, 2, 3	Shrub	Native	Rose	Rosaceae
<i>Rosa woodsii</i>	Wild Rose	June, July, week 1, 2	Shrub	Native	Rose	Rosaceae
<i>Rubacer parviflorum</i>	Thimbleberry	June	Shrub	Native	Rose	Rosaceae
<i>Rubus idaeus</i>	Wild Raspberry		Shrub	Native	Rose	Rosaceae
<i>Galium septentrionale</i>	Northern Bedstraw	June, July, Aug	Herb	Native	Madder	Rubiaceae
<i>Galium spurium</i>	Cleavers, Goosegrass	June	Herb	Adventive	Madder	Rubiaceae
<i>Salix irrorata</i>	Bluestem Willow	Spring	Shrub	Native	Willow	Salacaceae
<i>Populus angustifolia</i>	Narrow-leaved Cottonwood		Tree	Native	Willow	Salicaceae
<i>Populus deltoides</i>	Plains Cottonwood		Tree	Native	Willow	Salicaceae
<i>Populus tremuloides</i>	Quaking Aspen		Tree	Native	Willow	Salicaceae
<i>Populus x acuminata</i>	Hybrid Cottonwood		Tree	Native	Willow	Salicaceae
<i>Salix alba</i>	Golden Osier	May, week 2	Shrub		Willow	Salicaceae
<i>Salix amygdaloides</i>	Peached-leaved Willow		Tree	Native	Willow	Salicaceae
<i>Salix exigua</i>	Sandbar Willow		Shrub	Native	Willow	Salicaceae
<i>Salix ligulifolia</i>	Willow	May, week 2	Shrub		Willow	Salicaceae
<i>Comandra umbellata</i>	Bastard Toad-flax	May	Herb		Sandalwood	Santalaceae
<i>Heuchera hallii</i>	Alumroot	June, week 1	Herb	Native	Saxifrage	Saxifragaceae
<i>Besseyia plantaginea</i>	Kittentail	May, June	Herb	Native	Figwort	Scrophulariaceae
<i>Collinsia parviflora</i>	Blue Eyed Mary	May	Herb		Figwort	Scrophulariaceae
<i>Linaria genistifolia</i>	Dalmation Toadflax	June	Herb	Adventive	Figwort	Scrophulariaceae
<i>Linaria vulgaris</i>	Butter-and-eggs	June, July, Sept	Herb	Adventive	Figwort	Scrophulariaceae
<i>Orthocarpus luteus</i>	Owl-clover	July, week 2	Herb		Figwort	Scrophulariaceae
<i>Penstemon angustifolius</i>	Narrow-leaved Penstemon	May, June	Herb	Native	Figwort	Scrophulariaceae
<i>Penstemon secundiflorus</i>	One-sided Penstemon	May, June	Herb	Native	Figwort	Scrophulariaceae
<i>Penstemon virens</i>	Blue-mist Penstemon	May, June	Herb	Native	Figwort	Scrophulariaceae
<i>Castilleja integra</i>	Paintbrush	May, June, July	Herb	Native	Figwort	Scrophulariaceae
<i>Penstemon virgatus</i>	Beardtongue	June, July	Herb	Native	Figwort	Scrophulariaceae
<i>Verbascum thapsus</i>	Mullein	July, Aug, Sept	Herb	Adventive	Figwort	Scrophulariaceae
<i>Veronica anagallis-aquatica</i>	Water Speedwell	July, week 2	Herb		Figwort	Scrophulariaceae
<i>Pedicularis canadensis</i>	Canada Lousewort	June, July	Herb	Native	Figwort	Scrophulariaceae
<i>Pedicularis procera</i>	Gray's Lousewort	June	Herb	Native	Figwort	Scrophulariaceae
<i>Penstemon gracilis</i>	Slender Penstemon	June, July, Aug	Herb	Native	Figwort	Scrophulariaceae

<i>Smilax lasioneura</i>	Carrionflower	June	Vine	Native	Smilax	Smilacaceae
<i>Physalis fendleri</i>	Fendler's Ground-cherry	Late Summer	Herb		Nightshade	Solanaceae
<i>Physalis heterophylla</i>	Ground-cherry	June, July	Herb	Native	Nightshade	Solanaceae
<i>Physalis virginiana</i>	Ground-cherry (Yellow)	July	Herb	Native	Nightshade	Solanaceae
<i>Quincula lobata</i>	Chinese Lantern	July, Aug	Herb	Native	Nightshade	Solanaceae
<i>Solanum physalifolium</i>	Hairy Nightshade	Sept	Herb	Adventive	Nightshade	Solanaceae
<i>Solanum rostratum</i>	Buffalobur	July, Aug	Herb	Adventive	Nightshade	Solanaceae
<i>Solanum triflorum</i>	Cut-leaved Nightshade		Herb	Adventive	Nightshade	Solanaceae
<i>Typha angustifolia</i>	Narrow-leaved Cattail	July, week 1, 2	O	Native	Cattail	Typhaceae
<i>Typha latifolia</i>	Broad-leaved Cattail	July, week 2, 3	O	Native	Cattail	Typhaceae
<i>Ulmus pumila</i>	Chinese Elm		Tree	Adventive	Elm	Ulmaceae
<i>Verbena bracteata</i>	Vervain	June	Herb	Adventive	Vervain	Verbenaceae
<i>Viola scopulorum</i>	Violet	June	Herb	Native	Violet	Violaceae
<i>Arceuthobium vaginatum</i>	Dwarf Mistletoe		Other	Native	Mistletoe	Viscaceae
<i>Parthenocissus inserta</i>	Creeper	July	Vine	Native	Grape	Vitaceae
<i>Woodsia oregana</i>	Fern		Fern	Native	Woodsia	Woodsiaceae

<b>Bear Creek Regional Park Maintenance Operations Budget</b>		
<b><u>Personnel</u></b>		
Full-Time Staff		
Supervisory	\$ 45,000	
Maintenance	\$ 82,500	
Benefits	\$ 31,875	
Sub-Total	\$ 159,375	
Seasonal Staff	\$ 20,000	
<b>Total Personnel</b>		<b>\$ 197,500</b>
<b>Materials / Supplies</b>		<b>\$ 10,000</b>
<b><u>Utilities</u></b>		
Water / Waste Water	\$ 43,000	
Gas	\$ 5,000	
Electrical	\$ 12,000	
<b>Total Utilities</b>		<b>\$ 60,000</b>
<b>Fleet Expenses</b>		<b>\$ 12,000</b>
<b>Professional Services / Repairs</b>		<b>\$ 5,000</b>
<b>Total Budget</b>		<b>\$ 279,528</b>



*This page intentionally blank*