

**Carolyn Holmberg Preserve
at Rock Creek Farm
Management Plan 2020 Update**



JANUARY 5, 2021

Boulder County Parks & Open Space

Carolyn Holmberg Preserve at Rock Creek Farm Management Plan Update

January 5, 2021

This amendment provides guidance to Boulder County Parks & Open Space for the management plan update to the Carolyn Holmberg Preserve at Rock Creek Farm open space.

Staff presented this plan update to POSAC on November 19, 2020. POSAC recommended approval. The Boulder County Board of County Commissioners approved the plan update on January 5, 2021.

For questions about this document, contact Boulder County Parks & Open Space, 5201 St. Vrain Road, Longmont, CO 80503; phone (303) 678-6200; or email POSinfo@bouldercounty.org

Boulder County Parks & Open Space

Native Land and Cultural Heritage Acknowledgment

In the spirit of healing and education, Boulder County Parks & Open Space acknowledges all the contemporary American Indian tribes with ancestral lineage in the State of Colorado, which includes the Arapaho, Cheyenne, and Ute people, whose traditional homelands included Boulder County at the period when the non-natives invaded and seized their land for their own benefit. We recognize all the indigenous peoples that came before non-natives as the original inhabitants of the land and the attempted erasure of those people and their culture by the government our department represents.

Parks & Open Space appreciates the thriving and diverse indigenous communities in Boulder County today and acknowledges our need to build stronger relationships with local indigenous people and tribal governments in order to promote their legacy of occupation on the lands our department is charged with managing on behalf of the residents of Boulder County.

Vision Statement

Mountain vistas, golden plains, scenic trails, diverse habitats, rich heritage
...a landscape that ensures an exceptional quality of life for all.

Mission Statement

To conserve natural, cultural, and agricultural resources and provide public uses
that reflect sound resource management and community values.

Goals

- To preserve rural land.
- To preserve and restore natural resources for the benefit of the environment and the public.
- To provide public outreach and volunteer opportunities to increase awareness and appreciation of Boulder County's open space.
- To protect, restore, and interpret cultural resources for the education and enjoyment of current and future generations.
- To provide quality recreational experiences while protecting open space resources.
- To promote and provide for sustainable agriculture in Boulder County for the natural, cultural, and economic values it provides.
- To develop human resources potential, employ sustainable and sound business practices, and pursue technological advancements.

TABLE OF CONTENTS

CHAPTER 1 – INTRODUCTION 5

CHAPTER 2 – PROPERTY UPDATE..... 12

 Cultural and Paleontological Resources 13

 Soil and Water Resources 16

 Natural Resources..... 19

 Agricultural Operations..... 32

 Recreation..... 36

 Birds of Prey Foundation 38

CHAPTER 3 – MANAGEMENT DIRECTION 39

 1. Designation and Use of 40-acre Burrowing Owl Preserve and Field 65 41

 2. Grassland Restoration 43

 3. Prairie Dog Management..... 47

 4. Riparian Health 48

 5. Wildlife Closures of the Regional Trail..... 49

 6. Recreation, Visitor Access, and Accessibility 52

 7. Cultural and Paleontological Resources 56

 8. Agricultural Operation Use of Historic Buildings and Structures..... 57

 9. Irrigation and Water Resource Improvements 58

 10. Buffalo Gulch 60

 11. Invasive Weed Management 61

 12. Birds of Prey Foundation Operations..... 62

 13. Standard Operating Procedures 62

CHAPTER 4 – PUBLIC ENGAGEMENT 69

CHAPTER 5 – GLOSSARY..... 75

APPENDICES..... 76

MAPS

[Planning Area](#).....7

[Historic Resources](#).....15

[Significant Agricultural Land](#).....17

[Vegetation Alliances](#).....20

[Riparian, Wetland and Natural Communities](#).....22

[Prairie Dogs](#).....26

[Critical Wildlife Habitat](#).....28

[Oil and Gas Interest](#).....30

[Agricultural Field Types](#).....33

[Regulated Floodplain](#).....35

[Existing Facilities](#).....37

[Recommended Trails, Trailheads and Bald Eagles](#).....50

[Recommended Trails and Trailheads](#).....54

APPENDICES

- APPENDIX A – Initial Topic Summary Descriptions
- APPENDIX B – 2002 Management Plan for Carolyn Holmberg Preserve at Rock Creek Farm
- APPENDIX C – BCPOS Relevant Policies and Goals
- APPENDIX D – BCCP Relevant Goals
- APPENDIX E – Intergovernmental Agreement with City and County of Broomfield
- APPENDIX F – Initial Public Comments
- APPENDIX G – Public Comments submitted on draft plan
- APPENDIX H – Q & A from October 27, 2020 public meeting
- APPENDIX I – Comments on draft plan from Broomfield Open Space and Trails Advisory Committee

CHAPTER 1 – INTRODUCTION

1.1 Introduction

In 1980, Boulder County Parks & Open Space (BCPOS) initiated the acquisition of Rock Creek Farm to provide an open space buffer between surrounding communities and to preserve the property's cultural resources and agriculturally significant lands. At the time, the property was one of only a few the department owned and managed. As the department's staff and capabilities grew, Rock Creek Farm became the focus of several initiatives while retaining the importance of its agricultural heritage and its geographic significance as a community buffer. Some initiatives, such as its use as a tree nursery for the department has since faded away. However, the establishment of recreational infrastructure has had a lasting impact on the property and has helped it become one of the most visited parks in the entire BCPOS system. The department continues to successfully manage the property in a manner that supports and integrates the many values the community depends on open space for: agriculture, wildlife, cultural resources, community shaping, scenic vistas, and recreation, to name the most prominent.

In 1998, Rock Creek Farm was dedicated to the late Parks & Open Space Director Carolyn Holmberg and renamed in her honor to become what is now known as the Carolyn Holmberg Preserve at Rock Creek Farm (CHP/RCF). The farm was the first open space acquisition that Director Holmberg promoted, and it became a property that incorporated many of the things she believed open space embodied: a place where visitors and community members could connect, a place where farmers and producers could lease agricultural land, a place where important grassland resources and their associated wildlife would be protected, and a place that would preserve its cultural resources. Over the past 30 years, while much of the surrounding land has continued to develop and urbanize, CHP/RCF remains an oasis in the midst of urban life and offers a tranquil setting for both humans and wildlife.

Located in the southeast part of Boulder County, CHP/RCF forms the core of a narrow regional open space corridor that extends for six miles along Rock Creek from U.S. Highway 36 to Baseline Road. Although much of this corridor includes portions of the Rock Creek riparian area, along with adjacent grasslands, CHP/RCF is distinctive in its expanse of agriculturally important flood plain soils, available irrigation water, and an extent of grasslands that have remained unplowed. These same qualities provide features and habitat sought by people and wildlife alike, at places such as Stearns Lake. The historic agricultural site, located off U.S. Highway 287, consists of a collection of historically significant buildings and structures that remain in use by an active agricultural operation to this day. Although agriculture has remained a cornerstone of the management program at CHP/RCF, the property has also provided a refuge for a variety of wildlife, including several sensitive species, such as burrowing owls and bald eagles.

In sum, the property is a hallmark of the BCPOS program and has provided for a wide array of open space uses while preserving community values and adapting to the needs of a growing region. Although the trails on CHP/RCF were completed prior to the 2002 update of the property management plan, connecting those segments to the adjacent Rock Creek Regional Trail system occurred in subsequent years. With recent changes to the Brainard Drive/Flatirons Circle intersection and Flatirons Park-n-Ride at U.S. Highway 36, regional trail users can easily connect from the U.S. Highway 36 bikeway all the way to Lafayette, Louisville, and Erie. Regional trail opportunities and regional population growth have combined to greatly increase visitation of the property since 2002. Annual visitation to CHP/RCF has more than doubled in the past 20 years, from an estimated 35,000 visits in 2000 to 75,000 visits now. The numbers do not include visitors to the Rock Creek Farm Fall U-Pick-Em pumpkin patch and corn maze.

Like so many other places in the northern Front Range, much has changed in and around CHP/RCF since 2002, when the last management plan update was adopted. Consequently, management of the property has become increasingly complex. After several years of managing through resource conflicts and a growing internal

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discussion around needed changes to the property and its management, the department initiated this management plan update process to determine if overall changes to the property's management can provide long-term direction to resolve these challenges.

This updated management intends to: 1) successfully balance the multiple uses of this property, as identified by staff, stakeholders, and the public; 2) provide staff with a direction and a common vision of what CHP/RCF will look like in the future; and 3) provide management direction to achieve those identified uses and values. This update to the management plan concentrates on identifying options to address issues and ensure that future management will continue to achieve the established goals for the property.

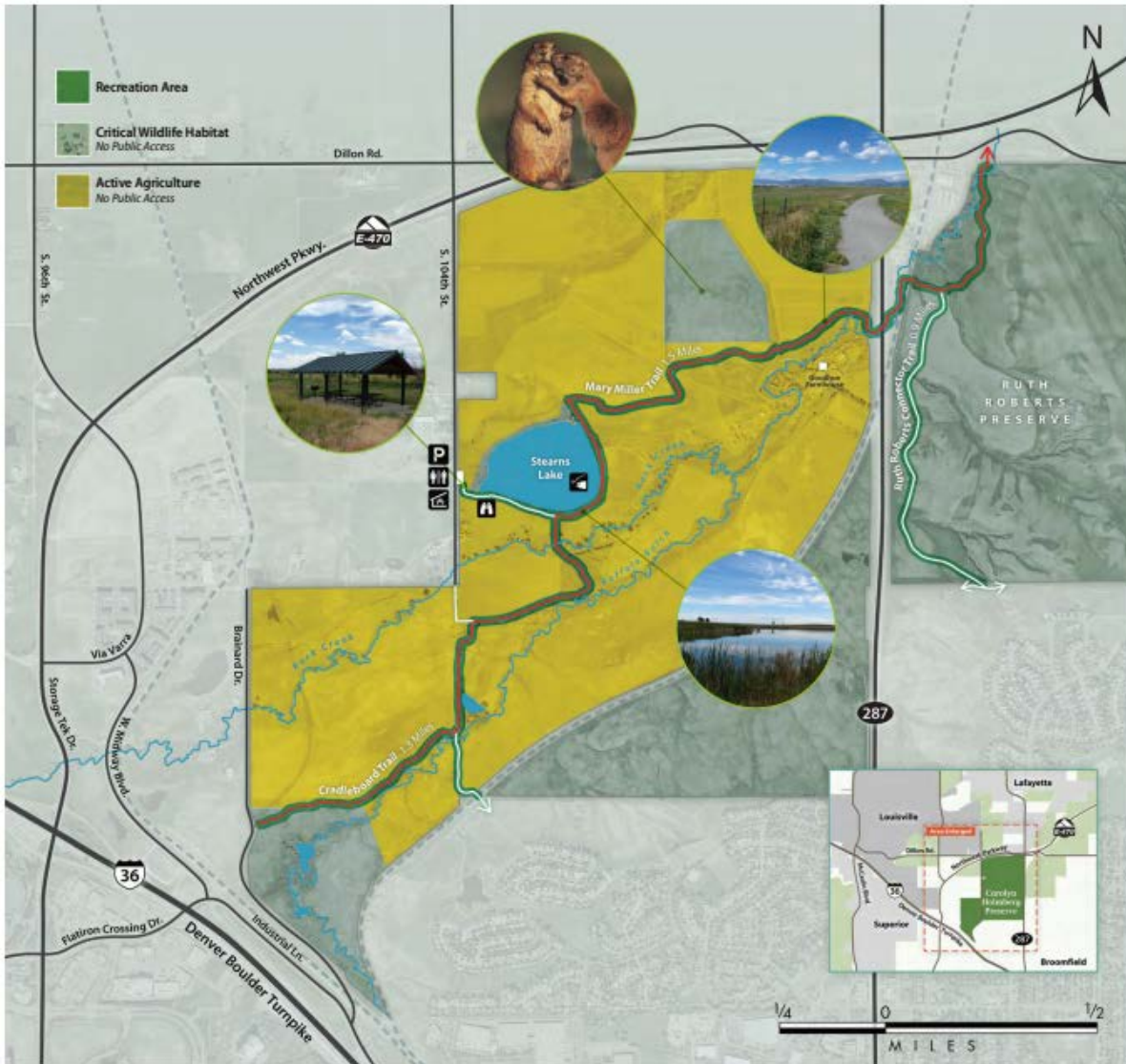
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1.2 Description of the Planning Area

CHP/RCF is in southeast Boulder County, along U.S. Highway 287 and Dillon Road, and encompasses 1,124 acres. The property borders the City and County of Broomfield, the City of Louisville, and the City of Lafayette.

Carolyn Holmberg Preserve at Rock Creek Farm

LEGEND		LOCATION	
Restrooms	Fishing	Multi-use Trail (pedestrian, equestrian, bikes)	Located north of Broomfield at the junction of South 104th St and Dillon Road
Trailhead Parking	Wildlife Viewing	Paved Road	
Picnic Shelter		Rock Creek Regional Trail	
		Railroad	



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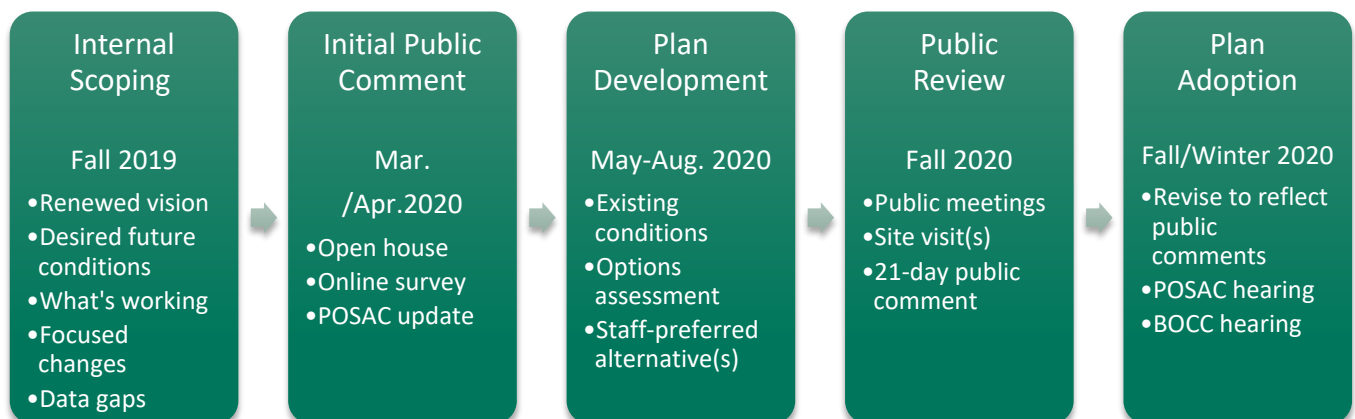
1.3 Planning Timeline

The initial scoping process for the management plan update began in fall 2019. A BCPOS interdisciplinary (POS ID) team was assembled to discuss existing resources and current management conditions and to identify situations:

1. where resource values have significantly changed,
2. where plan guidance from the 2002 update no longer properly addresses issues, and
3. where new departmental policies and procedures may conflict with property management.

As the team reviewed these changes to, and impacts on, management, it identified opportunities and constraints and considered how to resolve any conflicts. The proposed framework and schedule for the plan update was shared for input at a public meeting in March 2020, and the Parks & Open Space Advisory Committee (POSAC) provided input in April 2020. Additionally, an online form offered community stakeholders the opportunity to provide comments throughout the spring and summer. The team met throughout the summer to discuss options for addressing issues.

The draft CHP-Plan was released for public input on October 19 for a 21-day public comment period. It will be considered by POSAC as a public matter for action on November 19. The Board of County Commissioners (BOCC) will convene a public hearing to consider adoption of the CHP-Plan on December 15, 2020. Staff will incorporate public input received during the review of the draft plan, along with any approved refinements, and finalize the adopted plan by early 2021.



1.4 Scoping and Planning Issues

The POS ID team identified topics to focus on in the update. These topics were presented for initial public comment as part of the scoping. Appendix A provides information about each topic, including areas of concern, opportunities to explore, and constraints to weigh as the team began to set the management direction for the updated plan. After gathering public feedback, the POS ID team refined the list of topics into planning issues for consideration in the plan. The team focused on these issues, and it is the development of recommendations to address them that form the core of this plan and the proposed updated management directions at CHP/RCF.

Carolyn Holmberg Preserve at Rock Creek Farm Management Plan • 2020 Update

Planning Issues

- | | | | |
|---|--|----|---|
| 1 | Designation and use of 40-acre burrowing owl preserve and field 65 | 8 | Agricultural use of historic buildings and structures |
| 2 | Grassland health and restoration | 9 | Irrigation/water resources improvements |
| 3 | Prairie dog management | 10 | Buffalo Gulch |
| 4 | Riparian habitat health | 11 | Invasive weed management |
| 5 | Seasonal wildlife closures of regional trail | 12 | Birds of Prey Foundation facilities |
| 6 | Recreation and visitor access | 13 | Standard operating procedures |
| 7 | Cultural and paleontological resources | | |

1.5 Planning Principles

As the department updates the management plan through the review and approval process, it will use these overarching principles to direct its work:

- Consider all open space resources, including agricultural, cultural, natural, and recreational resources
- Identify opportunities for enhancement to balance and optimize multiple resource priorities
- Provide for sustainable use and stewardship in the long term
- Incorporate input from public stakeholders, including agency partners
- Review the most up-to-date information available about the property, its resources, and users to develop alternatives for managing the resources
- Inform future budget allocations and annual funding requests

1.6 Relationship to Previous Planning Efforts

The first management plan for CHP/RCF was written and adopted in 1981. It gave detailed descriptions of the physical, biological, and cultural resource environment, complete with natural and agricultural resource inventories and maps. In 1987, an amendment to the plan focused on improving the coordination of agricultural, visitor, and wildlife uses of the property. The last management plan update was adopted in 2002 and aimed to balance the multiple uses of the property while providing staff with direction and a common vision of what CHP/RCF would look like in the future. The 2002 plan acknowledged that it would be a complicated endeavor requiring the time and attention of diverse stakeholders. A summary, highlighting changes to existing conditions since the 2002 plan and the challenges for future management direction, are included in Chapter 2 – Property Update. The resource descriptions of CHP/RCF Open Space are well documented in the 2002 Management Plan Update. The 2002 update is incorporated by reference, specifically for its description of the affected environment, as Appendix B.

Upon review of the 2002 plan, the POS ID team determined that the established goals in the previous management plans remain as relevant today as when the property was purchased. Reflecting on those goals, the team developed an updated vision statement that provides a high-level summary of the property and an overall management direction.

Carolyn Holmberg Preserve at Rock Creek Farm Management Plan • 2020 Update

Vision Statement

Carolyn Holmberg Preserve at Rock Creek Farm is a working landscape of farming, ranching, irrigation features, and reservoirs, intertwined with critical wildlife, wetland, riparian, and grassland habitats, that preserves its distinct history and provides regional trail connectivity and recreational amenities for current and future generations.

Plan Goals

The aim of this update to the management plan is to preserve and enhance each of the open space values present on the property.

1. Critical wildlife habitats
2. Unique stands of shortgrass prairie
3. Wetlands and riparian areas
4. Cultural and paleontological resources
5. Agricultural production and associated water rights
6. Compatible recreational use

Boulder County Comprehensive Plan (BCCP) Goals and BCPOS Policies

As staff considers management actions and alternatives for a particular portion of the property, staff ensures the action is consistent with the applicable goals of departmental policies and the BCCP.

Although management plans outline the land uses that will occur on specific parts of a property, the department's policies govern the manner in which those uses are conducted. Along with the numerous management plans the county has adopted, there are seven policies that explain how the department manages resources across the entire system. Four policies have important applicability at CHP/RCF: Water, Cropland, Noxious Weeds, and the Prairie Dog Habitat Element of the Grassland and Shrubland Policy. Additionally, each of these policies is important in guiding the development of the management plan itself, along with helping define and explain why a use is important in a particular setting on the site. Relevant and applicable goals from these four policies are included in Appendix C. Countywide and regionally, the BCCP sets forth policies and goals for land use. These, too, have been used to guide the development of this site-specific management plan. The relevant and applicable goals from the BCCP are included in Appendix D.

1.7 Collaboration

Development of the CHP/RCF management plan has a direct impact upon several key stakeholders. First and foremost, the plan's outcome will affect the agricultural operation of the tenants. Including them in the discussions about the plan and understanding the changes they recommend are important for the plan's implementation in the future. The current tenants have leased the property for more than 20 years, predating the previous management plan update. They have managed their operations through some of the most significant changes affecting the property in its entire history. Their feedback is important to the long-term management success of the property.

Similarly, the Birds of Prey Foundation has forged a long-term relationship with the department at this property, and its continued use of two small sections of the open space represents important constraints and opportunities to the department. One of Colorado's most important raptor rehabilitation programs, the Birds of Prey Foundation has an intensive care unit and associated residence lease for the site on the west side of the property, south of the Stearns Lake Trailhead. The facility's flight cages are located between the historic agricultural site and Rock Creek, on the east side of the property. Because all these cages, like much of the

Carolyn Holmberg Preserve at Rock Creek Farm Management Plan • 2020 Update

historic agricultural site, are within the regulatory floodway of Rock Creek, there is limited opportunity to make improvements to these facilities. As the Birds of Prey Foundation contemplates its future, its input into the development of the management plan has been important.

Finally, 1) CHP/RCF directly borders neighborhoods and open space in the City and County of Broomfield; 2) an intergovernmental agreement (IGA) between Boulder County and Broomfield applies to CHP/RCF; and 3) many of the property's visitors are from Broomfield. Consequently, BCPOS staff has met with Broomfield Open Space staff and Open Space and Trails Advisory Committee to listen to their concerns and recommendations. They, too, are a critical component of collaboration in the drafting of this plan. Specific provisions from the IGA are summarized in Appendix E and generally apply to land use restrictions or the approval of future land uses.

CHAPTER 2 – PROPERTY UPDATE

2.1 Introduction

As noted in Chapter 1, BCPOS has been managing portions of CHP/RCF for 40 years—since 1980—a mere five years after the department’s founding. The property was one of the first acquired by the county for open space, and it has remained an important plains property because of its size, irrigable farmland, important grasslands, connection to riparian areas along Rock Creek, recreational activities available at Stearns Lake, cultural resources, wildlife habitat, and public recreational access. As the county continued to purchase plains lands for community shaping, agricultural values, and wildlife habitat, many of these eastern county properties were leased in their entirety for agricultural production, and public access remained either limited or not allowed at all. CHP/RCF gives visitors a chance to see a working farm and witness the importance of irrigation water as it is used by the tenant using new center-pivot sprinkler systems, as well as laterals and furrow rows, to water a field in much the same way pioneers did 100 years ago. BCPOS leases large sections of the property to agricultural tenants who manage those areas as part of their farming and ranching operations. Public recreational uses are sited in the property to provide opportunities at Stearns Lake for fishing and wildlife viewing, along with an accompanying picnic shelter, trailhead, and parking lot off of 104th Street. Access to a system of trails, including the regional Rock Creek Trail, is managed to minimize impacts to both the agricultural operation and wildlife. Although much of the property is managed for agriculture, significant wildlife habitat values also exist within the property.

The county has partnered with the Mile High Flood Control District (MHFD), formerly known as the Urban Drainage and Flood Control District, to make restoration improvements to the Rock Creek channel to slow erosion and improve the riparian corridor. In the past, the department has improved habitat and water quality along Buffalo Gulch, a Rock Creek tributary. Along with the improvements for natural streams, the property also includes native grassland resources and the vegetation associated with irrigation infrastructure. Those diverse sources supply the vegetation, including wetlands, that provide the basis for wildlife habitat resources. The property is used by many animal species through the seasons, including bald eagles, burrowing owls, northern leopard frogs, and coyotes.

Prairie dog management has been and continues to be a complex issue. The property is effectively surrounded by intensive development and some of the largest and busiest roadways in the county (U.S. Highway 36 corridor, Northwest Parkway, Dillon Road, and U.S. Highway 287). This increased fragmentation of the surrounding landscape has led to further boundedness of the existing prairie dog colonies and has limited their ability to migrate and disperse as they would in a more natural setting. They are an important species for attracting burrowing owls, bald eagles, and other raptors to the area.

Additionally, the open space contains native mid-grass and short-grass prairie, two designated Critical Wildlife Habitat areas, a Habitat Conservation Area, and a 40-acre Burrowing Owl Preserve. Today, the grasslands have lost the majority of the perennial plant community, and the native grasslands are in poor condition.

Section 2.2 provides an overview of the resources on the property, and changes since 2002 are outlined for the following:

- Cultural and paleontological resources
- Soil and water resources
- Natural resources
- Oil and gas resources

Section 2.3 details the resource uses currently sharing the property:

- Agricultural operations
- Recreation and visitor access
- Bird of Prey Foundation

2.2 Resources

CULTURAL AND PALEONTOLOGICAL RESOURCES

Context

CHP/RCF is a historic vernacular landscape, a type of cultural landscape that evolved over time by the social and cultural behaviors of the individuals, groups, and families who have been using the property since approximately 6,200 Before Present (BP). Today, the property's landscape reflects the physical, biological, and cultural character of the everyday lives of those people through the prehistoric sites, buildings, structures, roads, bridges, railroads, irrigation features, agricultural fields, and the historic coal mine present on the property.

Boulder County is the ancestral homeland to many different indigenous peoples, who over the past 10,000+ years used its bountiful natural resources to survive and visited it as a site for trade, a place of gathering, and a place of healing. The land that makes up Boulder County is most associated with the contemporary tribes, which include the Ute, Arapaho, and Cheyenne, present at the time of the discovery of gold along Boulder Creek in January 1859. With the subsequent establishment of the Boulder City Town Company the following month and the creation of the Colorado Territory on February 28, 1861, the Arapaho and Cheyenne living in Boulder County and along the Front Range were forced to surrender the vast majority of their more than 44 million acres of land, established under the 1851 Treaty of Fort Laramie, for about four million acres along the Arkansas River in southeastern Colorado according to the terms of the 1861 Treaty of Fort Wise. A significant number of Cheyenne opposed the treaty because only a minority of the Cheyenne chiefs, six chiefs of the Southern Cheyenne and four chiefs of the Southern Arapaho entered into the treaty, and they did so without the consent or approval of the rest of the tribal members. The treaty became a source of conflict between whites and the tribes that set the foundation for the Colorado War of 1864 and the Sand Creek Massacre. In order to bring peace to the area, a series of treaties from 1865-1867 between the United States and the Arapaho and Cheyenne resulted in the tribes' relocation to reservations and hastened the end of thousands of years of indigenous peoples' occupation on their homeland.

As whites began to arrive in larger numbers on Arapaho and Cheyenne land in the early to mid-1860s, one of the transportation routes used by whites was the Overland Trail. This stagecoach and wagon road ran from Atchison, Kansas, to Fort Bridger, Wyoming, with a detour south into Colorado before turning north and reaching Wyoming.

In 1863, Thomas Lindsey operated the Rock Creek House, a swing station and stage stop on the Overland Trail that crossed through present day CHP/RCF. Lindsey operated the Rock Creek House until he sold the operation to James B. Foote in 1866. Foote became the first recorded, non-indigenous land patent holder of the 80-acre property on February 25, 1870.

Agricultural activities on the property occurred under Foote's ownership when he began selling locally grown produce and apple pies made from the property's apple orchard to travelers on the Overland Trail. Foote sold the property to his sister and her husband, Mary and Lafayette Miller, in 1870. The Millers renamed the Rock Creek House to Miller Tavern Ranch. They raised livestock and chickens, cut wild hay in the surrounding fields, and planted a large garden to feed the hungry travelers that stopped at their ranch.

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Shortly after the Millers purchased the property, travel along the Overland Trail declined because of the completion of the transcontinental railroad in 1869. As a result, the Millers sold the property to Abner Goodhue and Joseph Bates in 1871. In 1873, Goodhue and his neighbors hand dug the South Boulder and Rock Creek ditches and completed a 10-acre water reservoir to expand crop cultivation on the arid property. Goodhue produced a successful farming operation with the purchase of more land and the construction of numerous farm buildings, corrals, a blacksmith shop, and the 1912 Craftsman-style bungalow that remains on the property today.

In 1900, a large coal deposit was discovered on the western part of the property, and Goodhue sold the location of the coal deposit to the Trustees of Local Union No. 1388, United Mine Workers of America. The coal mine, named Sunnyside, featured two coal seams, 210 feet and 339 feet below the surface, making it one of the deepest coal mines in the area. Between 30 to 50 miners produced about 300,000 tons of coal during the mine's operation from 1900-1921. On the surface, Sunnyside contained mine buildings and a small number of rudimentary houses for the miners and their families. The Big Six Coal Company first operated the mine, followed by the Vesuvius Coal Company of Denver. All the surface features were removed after the coal mine closed in 1921.

After Goodhue's death in 1912, his widow, Clara, and their sons, Hugh, Paul, and Burt, incorporated the farm to become the Goodhue Farms Company in 1916. They adopted new scientific methods and technologies to increase agricultural production for commercial markets. By 1924, because of falling crop prices and drought, the farm, then owned by Abner and Clara's youngest son, Paul, was foreclosed upon by a Lafayette banker.

In 1932, the Stearns Dairy Company purchased the bankrupt Goodhue farm operation in order to raise Holstein and Guernsey dairy cattle to produce milk for their newly constructed dairy plant operation in Denver. The Stearns Dairy Company turned the former family-operated farm into a commercial powerhouse operation, renamed the property Stearns Dairy No. 2, and used it as a showcase dairy farm, with the construction of a milk barn, milk house, new outbuildings, and more irrigation ditches. The company announced its presence with the construction of the large, lighted curved sandstone walls that flank the entrance driveway along U.S. Highway 287.

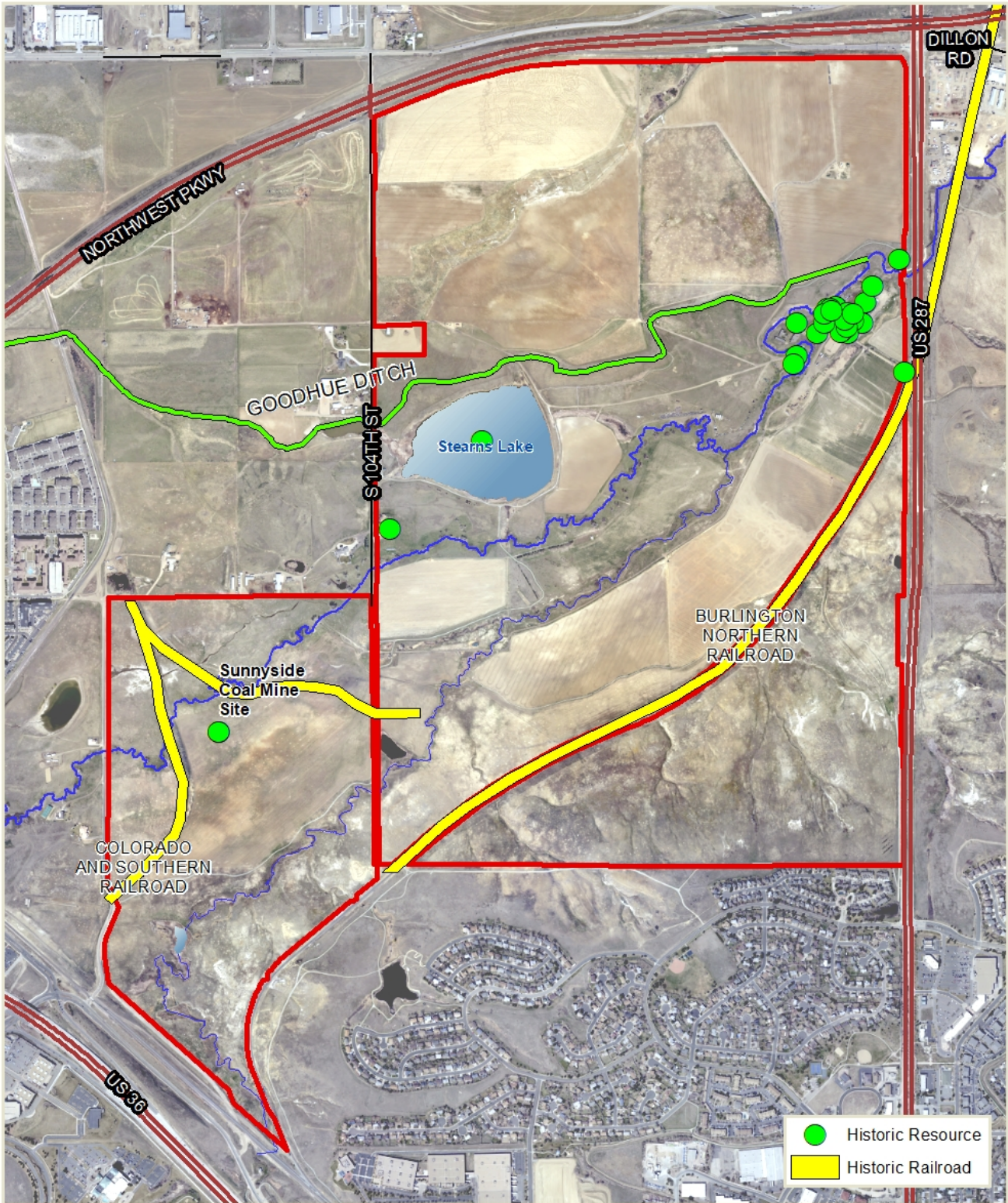
Stearns Dairy No. 2 operated for the next 16 years and shipped all its dairy products to the main Stearns dairy plant in Denver for processing. The dairy farm, which had 70 dairy cows, had approximately 400 acres under cultivation and used the remaining land for pasture. In 1934, the company enlarged the Goodhue reservoir and renamed it Stearns Lake. In 1949, Hiram C. McKelvie, a Lincoln, Nebraska, dairyman, purchased Stearns Dairy No. 2. He increased the irrigated land to grow more alfalfa and corn and raised the dairy herd to 125. Even with the new ownership, McKelvie still shipped his products to the Stearns Dairy plant in Denver for processing. In 1954, Bal F. Swan purchased the property and renamed it Swan's Hereford Ranch, thus ending the property's long dairy history. Swan's Herford Ranch operated until 1966, when the developers, William D. Hewitt, T.W. Anderson, and Robert P. Davidson, purchased the property.

Existing Conditions

To date, only 39% of the property (385 acres) has been surveyed for cultural resources. As a result, only a portion of the possible total number of cultural resources have been identified and its historic significance assessed. Of the areas that have been surveyed for cultural resources, there are seven prehistoric sites (three open camps and four isolated finds), as well as 18 historic resources, including the Rock Creek Farm/Stearns Dairy, Goodhue Ditch segments, Burlington Northern Railroad segments, Sunnyside coal mine, and several historic isolated finds.

A paleontological survey has not been completed on the property but is warranted because three dinosaur fossil fragments have been found on the property.

CHP @ RCF Management Plan: Historic Resources



2020	Planning Area	State	Minor		<small>The user agrees to all Terms of Use set forth by Boulder County For Terms of Use, please visit: www.bouldercounty.org/imapdatacenter FILE: V:\gpa\mgn\plans\CHP\RCF\Map\CHP@RCF_11_HistoricResources_MgmtPlanMap_85x11_port.mxd</small>
	Lakes and Reservoirs	Major	Waterway		

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In 1998, the BOCC designated the entire CHP/RCF property a local historic landmark, and in 1990, the State Historic Preservation Office (Office of Archaeology and Historic Preservation) determined the property officially eligible for the National Register of Historic Places (NRHP).

The historic buildings and structures are a highly visible resource on the property, an integral component of the CHP/RCF history, and are still being used by the current agricultural operation. The buildings and structures at the Rock Creek Farm/Stearns Dairy not only required large-scale rehabilitation projects in the past but require ongoing major repairs and continuous maintenance today.

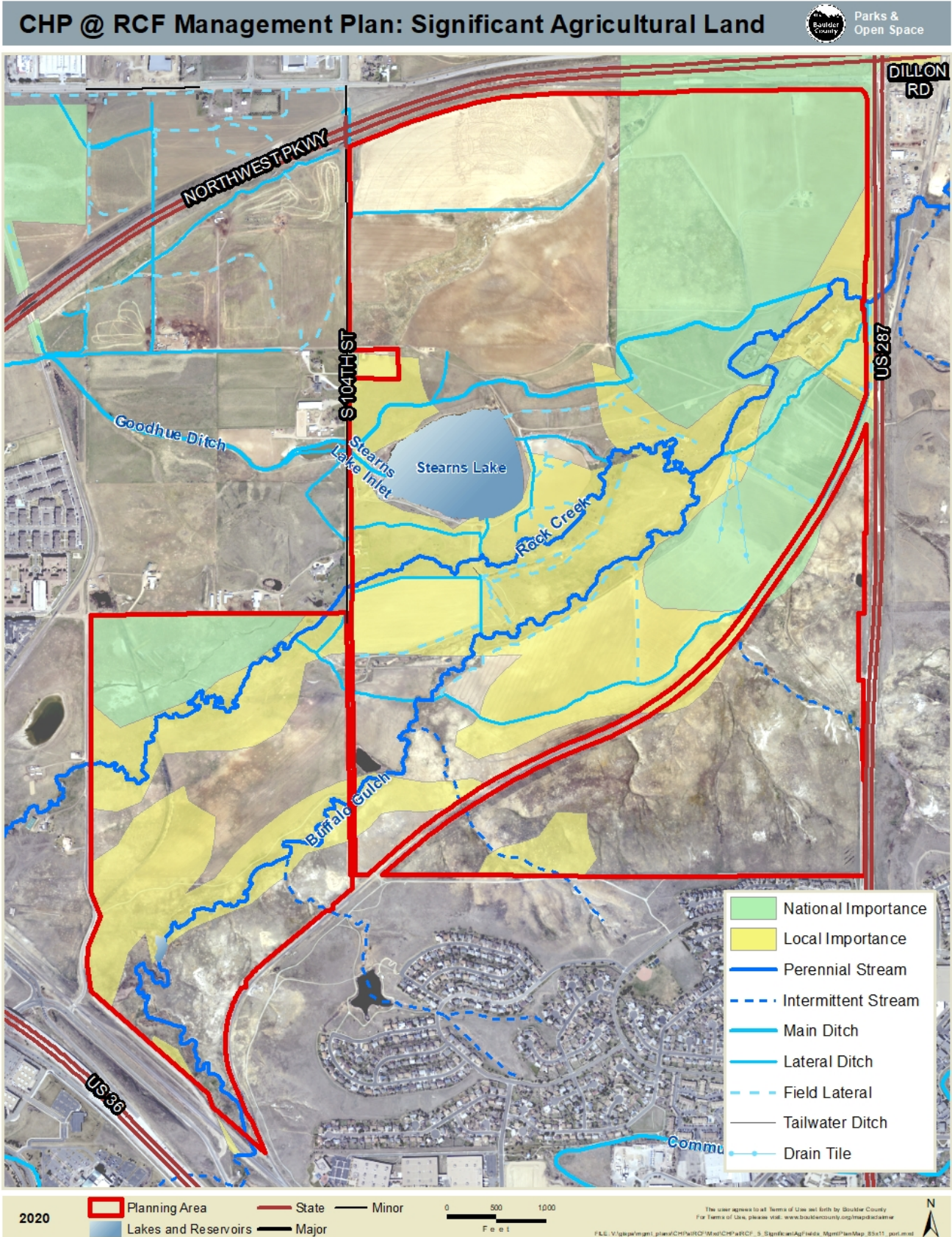
Since the 2002 management plan, BCPOS completed the Goodhue Farmhouse rehabilitation with its adaptive reuse as a meeting venue, completed the restoration of the lighted curved sandstone walls that flank the entrance driveway along U.S. Highway 287, planted more trees along the length of the driveway, stabilized the section of stream bank below the Rock Creek Site (5BL2712), as part of the BCPOS Plant Ecology, led Urban Drainage and Flood Control District project in 2005 and completed numerous large agricultural building repairs, exterior painting projects, and ongoing maintenance at Rock Creek Farm/Stearns Dairy.

SOIL AND WATER RESOURCES

Context

The soil and water resources at CHP/RCF lay the foundation for the presence of other natural resources and the capacity for various land uses. CHP/RCF contains both locally and nationally important agricultural land, a recognition of both suitable soils and adequate irrigation water. The U.S. Department of Agriculture (USDA) established definitions and criteria to identify the extent and location of important farmlands that can be used for production of the nation's food supply. Nationally important agricultural land includes prime farmland the USDA defines as "land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas. The soil quality, growing season, and moisture supply are those needed for the soil to economically produce sustained high yields of crops when proper management, including water management, and acceptable farming methods are applied."

Although soils in the southeast part of Boulder County (Nunn-Heldt association) are similar to other parts of the eastern county, water resources in the southeast part of the county are distinct. The watersheds of this area of the county include streams that don't reach the mountains of the continental divide. In the case of Rock Creek, its headwaters don't even reach the foothills. The Rock Creek watershed, which the CHP/RCF property lies entirely within, begins on Rocky Flats. Water diverted from South Boulder Creek through the Goodhue Ditch and Community Ditch was the engine that turned this into a productive farming area and continues to be the key resource supporting the existence of agriculture, enhanced ecosystems, and recreation today. This includes providing water for irrigated agriculture, open water habitats, and recreation opportunities at the water storage reservoirs and additional ribbons of riparian vegetation where water is conveyed throughout the property. These diversions have been the critical factor to the area's continued agricultural use, enhanced habitat values, and unique recreational offerings. What had been a more natural landscape, dependent upon an intermittent stream, became an agricultural landscape that received critical water during the growing season from South Boulder Creek. Since 2002, increased runoff from surrounding developments, sedimentation, flooding events, and aging infrastructure have had a negative impact on the water resources at CHP/RCF. Because of these external factors, proper management of the property's soil and water resources is an ongoing challenge and remains a high priority.



Existing Conditions

The most notable surface water features on the property are Stearns Lake, Rock Creek, and Buffalo Gulch. The two natural drainages, Rock Creek and Buffalo Gulch, were intermittent in the past but are now perennial water courses because of a variety of factors, including surrounding development that contributes increased runoff from impervious surfaces. In the case of Rock Creek, the stream also contains irrigation water conveyance and the outfall water from the Town of Superior's wastewater treatment plant. Both streams run through the property and, together, comprise nearly six miles of stream corridors that benefit and support riparian wildlife, plant communities, hydrologic function, and agricultural production at CHP/RCF. Although increased flows have had benefits, there have been costs as well. Stormwater drainage has had a negative impact on the streams' ability to function, causing erosion along stream banks, incised channels that are disconnected from the floodplain, and sedimentation in ponds. Additionally, water diversion structures along the stream channels have been damaged or plugged over the years, ultimately reducing water flow and the function of these structures.

Stearns Lake, or Goodhue Reservoir No. 1 as it is legally known, is a vital, reliable source of irrigation water for agricultural use that also provides opportunities for recreational fishing and creates important habitat for wildlife and plant communities. The county is sole owner and operator of the facility and is responsible for the maintenance and upkeep of the dam and its safety. Since 2002, the county has added fill to the top of the dam in order to enhance its stability. However, water does seep through the dam in a minimal but uncontrolled fashion because of the lack of formalized drain infrastructure that facilitates the natural movement of water through the dam embankment. The water seepage has contributed to standing water along trail corridors and trail surface impacts, such as minor erosion and muddy conditions that create additional maintenance needs in order to minimize concerns for recreational users. Sedimentation from inflows has also reduced the capacity of the lake and has an impact on storage operations at the reservoir. In order to counteract this reduced storage capacity, the tenants have made modifications to the dam's spillway to increase water storage for agricultural operations. Formalized modifications to the embankment and dredging of the reservoir are needed to adequately restore functionality and protect public safety while staying in compliance with dam safety regulations.

The southernmost portion of the property, referred to as the "parrot's beak" because of its curved boundary shape, is in the intermittent drainage of Buffalo Gulch. This tributary drainage to Rock Creek has seen its drainage area dramatically change with development in Broomfield. In 1998, the county constructed a pond and modified a pre-existing one to provide critical wetland and riparian habitat for wildlife and plant communities. Over time, these ponds have experienced sedimentation and are now mostly filled in. Water flow is severely constricted between ponds, and trash from the U.S. Highway 36 corridor and adjacent neighborhoods has accumulated in the drainage areas. These ponds have no decreed water rights and are required to pass all runoff within the legally allowed timeframe. Thus, all the outlets at the ponds have been fully opened, and no active management of the structures is taking place.

Irrigation

The source of irrigation water for the property comes from the Goodhue Ditch and the Farmers Reservoir & Irrigation Company (FRICO). FRICO irrigation water is stored in Hodgson-Harris Reservoir, located two miles west of CHP/RCF, and is released into Rock Creek for use at CPH/RCF. Goodhue Ditch irrigation water is directly applied on the property and is stored in Stearns Lake. Several irrigation inefficiencies exist on the property, including outdated infrastructure. In particular, equipment for water use accounting, such as ditch flumes, flow meters, and flow recording devices, are old and have lost some ability to accurately measure water because of changing site conditions and aging infrastructure. The State Engineer's Office is increasing water accounting requirements statewide, as water supplies diminish in the face of climate change, and water availability becomes increasingly uncertain. The county must meet the legal requirements of the state to accurately determine how much water is coming into and is diverted onto the property.

Water Quality

The entirety of Rock Creek, from its headwaters to its confluence with Coal Creek in Lafayette, is on the state's list of Section 303(d) Clean Water Act waterways as impaired for selenium and is also listed on Colorado's Monitoring and Evaluation List for E.coli. Inclusion on Colorado's Monitoring and Evaluation List means the state has reason to suspect water quality problems for this parameter but more sampling and analysis needs to take place to fully understand the issue, reduce uncertainty regarding one or more factors, and identify the cause of impairment. Section 303(d) of the federal Clean Water Act requires states to submit to the U.S. Environmental Protection Agency a list of those waters for which technology-based effluent limitations and other required controls are not stringent enough to implement water quality standards.

The roughly 2.5 miles of Rock Creek running through CHP/RCF lies in the middle of this 15-mile long impaired segment. To date, Boulder County has completed minimal water quality sampling in this reach. In 2017, two samples were collected on CHP/RCF: one upstream and another downstream where Rock Creek leaves the property at U.S. Highway 287. The samples were consistent with the state's listing of the creek on its Monitoring and Evaluation List for E. coli, as values for the parameter were very high at both upstream and downstream locations.

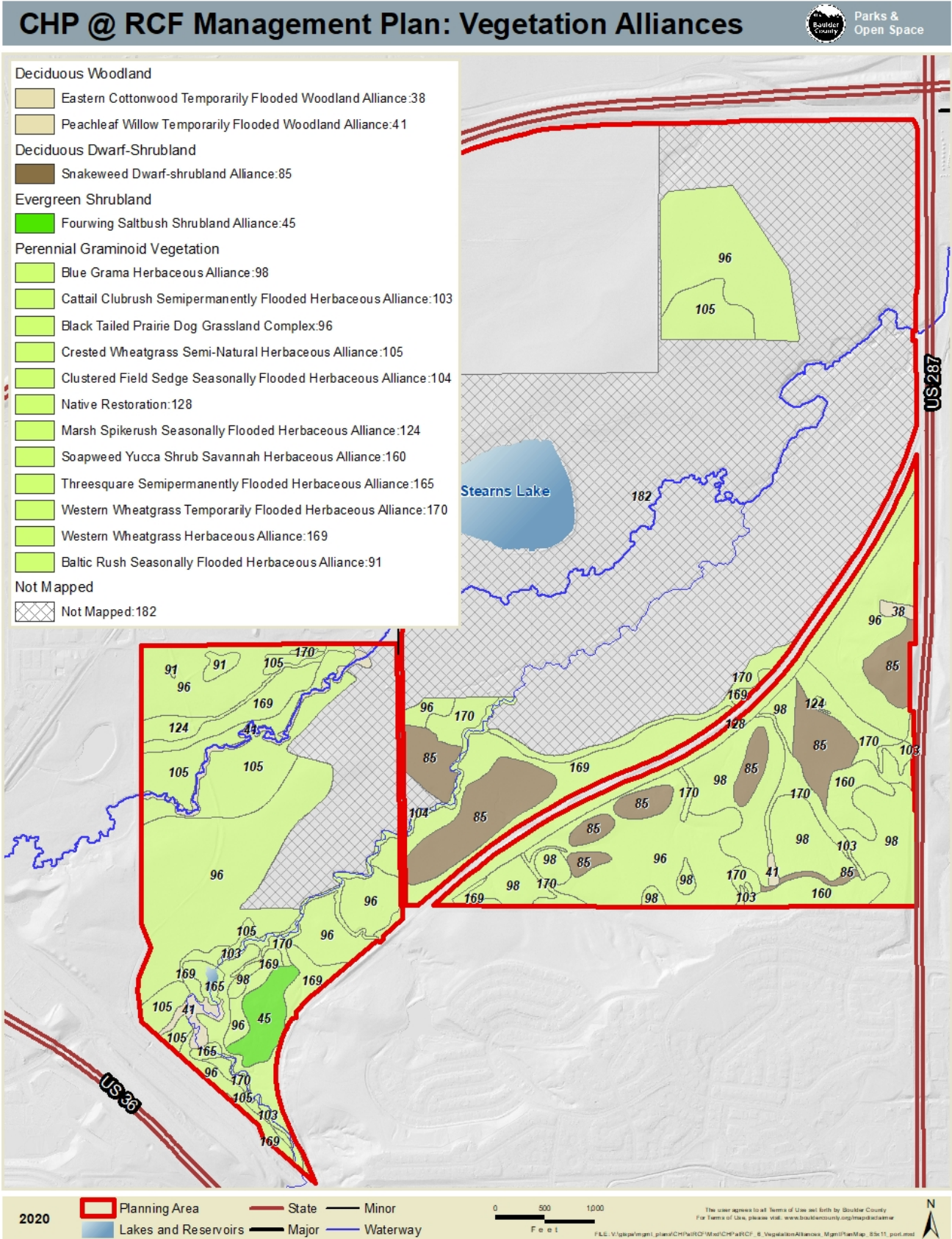
NATURAL RESOURCES

Since the 2002 management plan update, the county updated its Environmental Resource Element of the BCCP. As a large property with grasslands, a perennial creek, a reservoir, and other natural resources, the property contains a variety of significant environmental resources that were identified in the 2014 BCCP update. CHP/RCF includes two designated Critical Wildlife Habitat areas: the 40-acre burrowing owl preserve and the stream corridors of Rock Creek and Buffalo Gulch, especially for their habitat value to the Northern Leopard Frog. The two stream corridors are also noted for their riparian and wetland plant communities and related habitats. As of the last management plan, there were nearly 30 acres of mapped wetlands throughout the property, including at Stearns Lake, the south end of the property along Buffalo Gulch, and other riparian areas, as well as alkali wetlands in the northern part of the property. Despite the mapping of some new additional wetlands since 2002, the overall acreage of these resources is less than 20 acres currently because of changes in hydrology and other factors. As of 2003, there were 64 acres of significant natural plant communities, including native blue grama grasslands and riparian cottonwood/willow stands.

Plant Ecology

History

Prior to European-American settlement, the area encompassed by present-day CHP/RCF was a plains grassland ecosystem dominated by perennial grasses interspersed with patches of shrubs and woody vegetation that occurred along intermittent streams. Over time, settlers changed the property's landscape to accommodate agricultural production, a process in which many of the native plant communities were lost. Native grasslands, riparian areas, and wetlands were converted to croplands, rangelands, and pasture for livestock. Several restoration projects have occurred on the property to reestablish native plant communities and improve riparian areas and wetlands. Since CHP/RCF is a multi-use property, vegetation management is a challenge for BCPOS staff and tenants for reasons related to agricultural production and surrounding developments. Other challenges, such as dense prairie dog populations and weed infestations, have negatively affected vegetative communities on the property.



Grasslands

The dominant native grassland community at CHP/RCF is a western wheatgrass-blue grama-buffalo grass community. Other native grassland plants on the property are broom snakeweed, rabbitbrush, yucca, prickly pear, sandberg bluegrass, green needlegrass, scarlet globemallow, and fourwing saltbush. At CHP/RCF, remaining grasslands exist in the Habitat Conservation Area (HCA) south of the railroad tracks and in small patches within Multi-Objective Area (MOA) lands. The HCA is composed of native grasslands that have never been plowed and, although in marginal health, may have the resilience to rebound given the opportunity. The majority of MOA lands have been farmed for agricultural production in the past and consist of non-native pasture grasses, cover crops, weedy non-native plants, and bare ground, as well as a few remnant native stands of grass.

Riparian Corridors

Approximately 5.7 miles of riparian corridors exist on the property along Rock Creek and Buffalo Gulch. These important plant communities play an outsize role in providing wildlife habitat on the property, as well as a valuable aesthetic component for park users. Woody vegetation located along the creeks includes plains cottonwoods, peachleaf willows, hawthorn, leadplant, coyote willow, wild plum, snowberry, and chokecherry. Non-native Russian olives have been removed from most of the property but still grow sporadically. Much of the native herbaceous vegetation has been largely replaced with non-native species, such as redtop, meadow fescue, crested wheatgrass, smooth brome, quackgrass, and reed canarygrass, while some native wetland species, such as three square bulrush, clustered field sedge, cattail, and spikerush, still persist sporadically on the property.

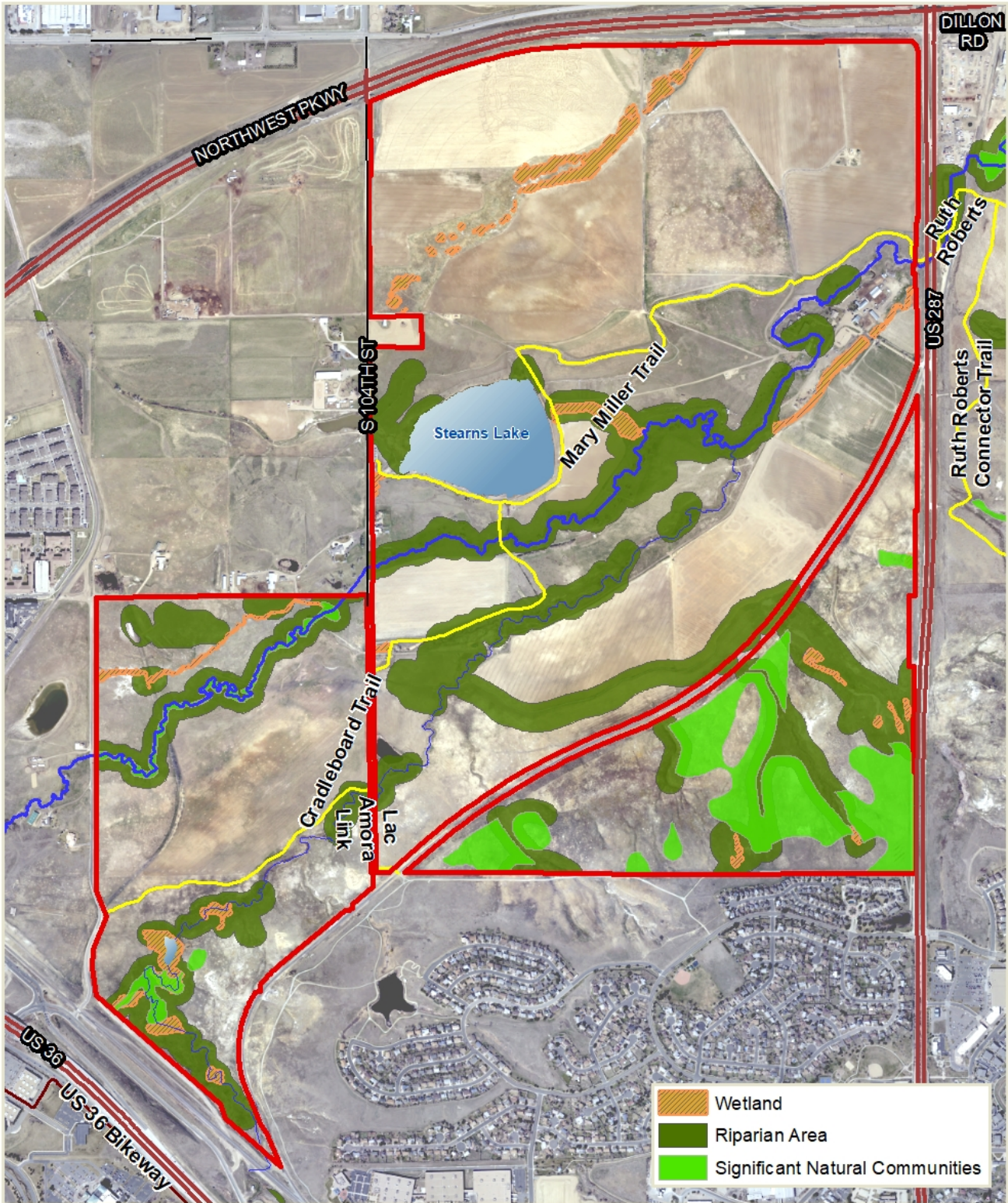
Over the past decade, there has been a noticeable die-off of plains cottonwood trees throughout the property. The mortality is not limited to old trees but affects trees of all age classes, which raises concern that the die-off might be related to a water quality issue. Other potential causes might be heavy clay soils, salts, or a disconnected floodplain because of creek incision, all of which might limit the ability of the species to reach its normal lifespan. The incised channel, disconnected floodplain, and grazing pressure certainly limit natural recruitment of new cottonwoods throughout the corridors.

Between 1998 and 2011, the department invested substantial time and money toward four stream restoration projects, two wetland projects, culvert replacements, and seeding riparian buffers. BCPOS hired a consultant was hired to assess the property's stream channels, hydrology, and areas to be restored. This report resulted in the creation of a Restoration Plan, which outlined specific actions that could be taken. Three major stream restoration projects were completed on Rock Creek between 2005 and 2008 in partnership with Mile High Flood District (formerly Urban Drainage and Flood Control District). The first and largest project, in 2005, constructed six concrete drop structures, in locations spanning from west of 104th Street downstream and eastward to U.S. Highway 287, that serve as grade control to prevent further downcutting of the stream channel. This project also re-aligned the stream and stabilized the banks around the Birds of Prey flight cage facility near the historic farm building complex.

In 2005, a small restoration project west of 104th Street on Rock Creek was completed that created better access to the floodplain for the creek itself in a series of small overflow depressions. In 2008, another phase of restoration was completed east of Stearns Lake by realigning a previously straightened stretch of Rock Creek, constructing boulder grade controls along with extensive planting and seeding work. In 2004, numerous cottonwoods and willows were planted along Buffalo Gulch to create new riparian corridor habitat and stabilize stream banks.

Additional work included a small project in 2004 to plant numerous cottonwoods and willows along Buffalo Gulch. In 2007, the corrugated metal pipe culverts at the crossings of 104th Street of both Rock Creek and Buffalo Gulch were replaced with concrete structures to increase capacity and reduce damage to the road and

CHP @ RCF Management Plan: Riparian, Wetland, and Natural Communities



2020	Planning Area	State	Minor	0 500 1000	The user agrees to all Terms of Use set forth by Boulder County For Terms of Use, please visit: www.bouldercounty.org/transportation FILE: V:\gpa\mgmt_plans\CHP\RCF\West\CHP\RCF_2_RiparianWetlandNaturalCommunities_MgmtPlanMap_85x11_post.mxd	N
	Lakes and Reservoirs	Major	Waterway	Feet		

Carolyn Holmberg Preserve at Rock Creek Farm Management Plan • 2020 Update

stream banks from flooding events. Riparian buffers were expanded by realigning the farm road along Buffalo Gulch and increasing the setback to actively tilled farmland along Rock Creek just east of 104th Street. Both areas were reseeded with native grasses to reduce sedimentation and improve water quality. As part of the implementation of the 2002 management plan, trails were constructed outside of protective buffers for riparian areas based on nearby wildlife, erosion considerations, and water quality.

Wetlands

Various types of wetlands exist on CHP/RCF, including riparian woodlands, emergent marsh, wet meadows, and saline depressions. Intermittent wetlands form during the wet/rainy seasons in the spring and summer months. Some are naturally occurring, and some are associated with irrigation activities. More permanent wetland areas exist along Stearns Lake and the riparian corridors of Rock Creek and Buffalo Gulch, where more water is available to recharge these areas.

Extensive alkali wetlands, an uncommon community type on BCPOS properties, exist in field 72 in the northeast portion of the property. Implementing the 2002 update required taking that area out of crop production (which had very marginal agricultural value because of the high salt content in the soil) and protecting it from grazing by fencing approximately 24 acres. However, the extent of those wetlands has diminished in size because of changes in hydrology related to the construction of the Northwest Parkway, as well as possible groundwater depletion, as evidenced by the lack of water from the neighboring well that once fed the upper end of the wetland. Native seeding following past tillage and the installation of a center pivot sprinkler have changed the species composition, and, although wetland vegetation is less abundant, the area still provides important wildlife habitat as a grassland refuge amid agricultural crops.

Invasive Weeds

CHP/RCF is subject to unusually higher levels of weed pressure than is typical of many BCPOS properties because of several factors related to its proximity to urban influence on all sides. Housing and commercial development, two major highways, multiple secondary roadways, and a railroad right-of-way that bisects the southern end of the farm are significant factors in subjecting the property to the movement of weedy plant propagules to the farm. Irrigation water is conveyed from reservoirs and streams and open surface ditches that collect heavy loads of weed seed as they wind their way through many miles of urban development. The constant movement of weed seed to the farm will require an ongoing effort to reduce weeds and their impacts to a level that still allows realizing all the values of the property.

Invasive weed species found on the property include cheatgrass, bindweed, alyssum, myrtle spurge, various thistle species, perennial pepperweed, kochia, Russian thistle, and other common agricultural weeds. Dominant invasive species along the riparian corridors include teasel, crack willow, and Russian olive. While no State of Colorado List A Noxious Weed species have been observed on the property, a number of List B and List C species are present. The county and tenants manage these weeds in compliance with the county's Noxious Weed Management Plan.

Permanent monitoring plots have been established at Rock Creek Farm as part of the Agricultural Division's Rangeland Monitoring Program. More specific information on plant cover and species composition can be found in the report by Miller and Mohr (1999).

Wildlife

Context

The area that is now CHP/RCF was historically dominated by grassland communities of the western Great Plains prairie with intermittent wetland and riparian corridors crossing an expansive grassland. These plant communities supported a variety of native wildlife species, including white-tailed jackrabbit, pronghorn, and American badger.

As Boulder County began to urbanize, wildlife species were extirpated or displaced from their historic home ranges, as once-large expanses of habitat were split into many smaller, discontinuous parcels of land. Although the property is home to numerous wildlife species today, it no longer supports the diversity of wildlife that once inhabited the area.

Existing Conditions

The last remaining acres of native shortgrass prairie at CHP/RCF are present on the southern portion of the property. Much of these grasslands are in degraded or marginal condition. However, CHP/RCF has retained a patchwork of habitat types, despite being surrounded by human-dominated land uses. Agriculture dominates the northern portion of the property, while wetlands, riparian corridors, and a mix of native and altered grasslands remain in the southern portion. Although both grassland and riparian ecosystems have been incrementally reduced in quality and function, a few sensitive wildlife species have persisted in habitat that is now occupied by a suite of human-adapted species. The remaining habitat provides marginal support for declining populations of burrowing owls, northern leopard frogs, and a diverse array of raptors and migratory birds and waterfowl listed as Boulder County Species of Special Concern. Seasonal and permanent wildlife closures have all been used to protect these species from agricultural and recreational disturbances.

CHP/RCF provides an ample food supply, mainly prairie dogs and other small mammals, for several raptor species. Burrowing owls and bald eagles should continue to be present on the property and surrounding areas if the integrity of suitable habitat and adequate food resources are protected, restored, and maintained.

Bald Eagles

Bald eagles are listed as a State Species of Concern and a Tier 2 Species of Greatest Conservation Need in the Colorado State Action Plan. They are protected federally under the Bald and Golden Eagle Protection Act. They are also a Boulder County Species of Special Concern. Bald eagles established a territory and have been actively nesting and foraging in the vicinity of CHP/RCF since 2012. Their primary nest for nine years was located on private property directly adjacent to BCPOS open space. Expansion of surrounding housing developments and subsequent disturbance, changes in land use and prey availability near the primary nest site, and repeated structural failure of the nest tree or nest itself might have caused the bald eagles to shift nesting to alternate sites on CHP-RCF. BCPOS has provided mitigations to disturbance for this pair of eagles by enacting temporary trail closures and providing interpretive information on-site.

Burrowing Owls

Burrowing owls are listed as State Threatened and a Tier One Species of Greatest Conservation Need in the Colorado State Wildlife Action Plan. They are also listed as a prioritized Boulder County Species of Special Concern. Suitable nesting and foraging habitat for burrowing owls has become a rarity as habitat loss and fragmentation, land conversion, and elimination of prairie dog colonies have continued in Boulder County.

Burrowing owls exhibit high nest site fidelity and generational use of suitable breeding grounds. The presence of nesting burrowing owls on CHP/RCF predates the county purchase, and the species was noted as a regular nester in early plans. Overall, though nesting remains generally rare, the property has one of the highest

frequencies of nesting and produces the most young of the few remaining breeding locations on county-owned land.

Although many burrowing owl nest sites, over time, have been located in areas away from recreational or regional trail use, there have been four instances since 2002 when a temporary trail closure was enacted to mitigate nest disturbance. BCPOS will continue to mitigate disturbances to burrowing owl nests if and when they return to areas near human or agricultural uses.

Prairie Dogs

Native to Boulder County, the black-tailed prairie dog is listed as a Tier Two Species of Concern in the Colorado State Wildlife Action Plan. It is also listed as a Boulder County Species of Special Concern. This species is colonial, with a complex social and communication structure. Ecologically, this species is a keystone of the prairie ecosystem, and its presence is vital to the survival of many other wildlife species such as ferruginous hawks, burrowing owls, and black-footed ferrets. Active colonies on CHP/RCF support many species via prey availability, including bald eagles, Swainson's hawks, red-tailed hawks, coyotes, and foxes. Their burrows also provide critical shelter to other small mammals, invertebrates, and reptiles.

The BCPOS [Prairie Dog Habitat Element](#) of the Grassland and Shrubland Policy (Prairie Dog Policy) addresses the values of a broad cross-section of county residents and serves as a decision-making guide for property-specific management plans. As such, management decisions at CHP/RCF are guided by this overarching policy.

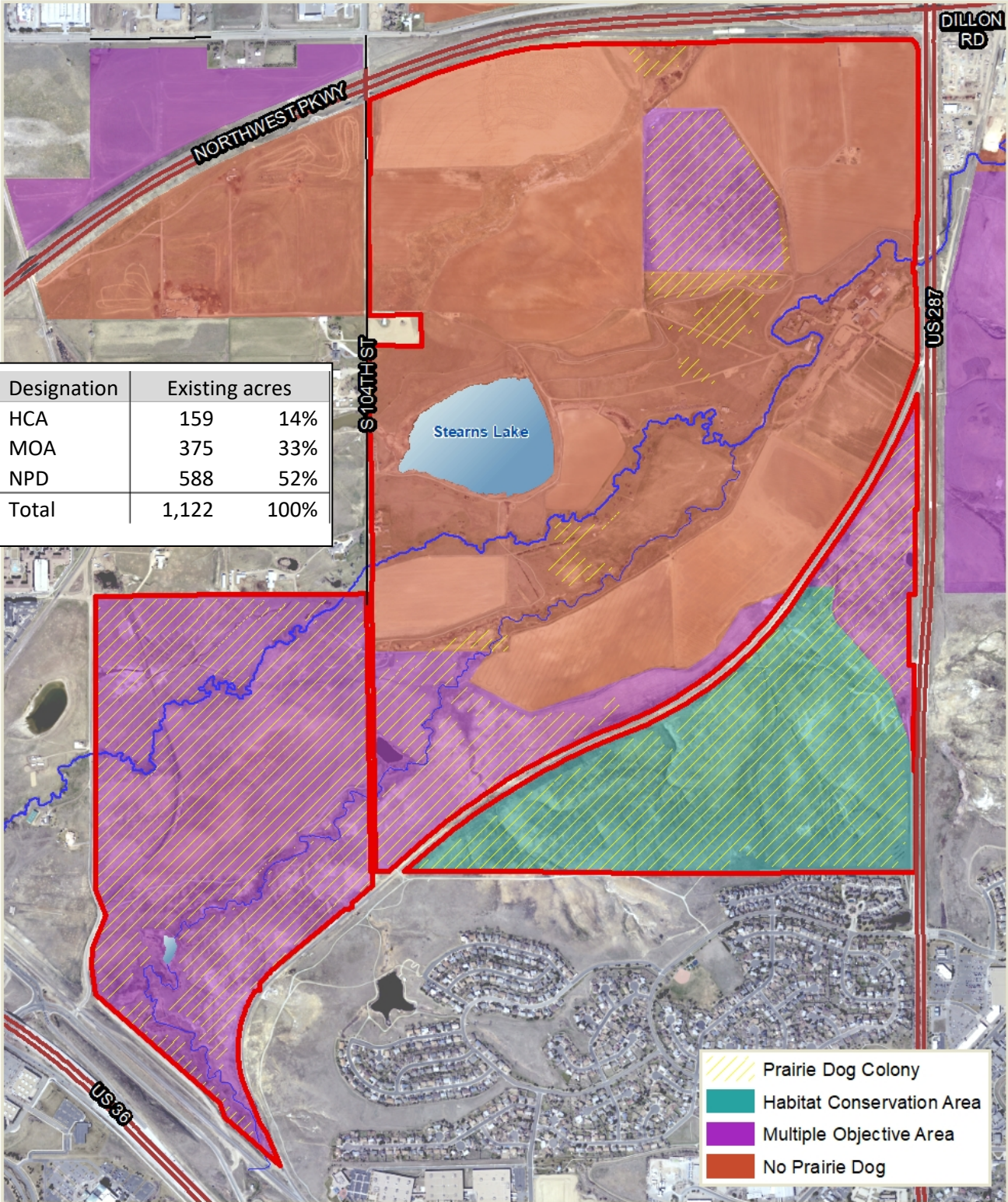
As outlined in the Prairie Dog Policy, BCPOS-owned lands within suitable habitat areas are classified into three designations.

1. **Habitat Conservation Areas (HCA)** are places of sufficient size that are highly suitable and have the right habitat for prairie dogs. Most HCAs can be found in areas of large, contiguous grassland habitat, where prairie dogs can thrive, and the habitat can sustain populations of prairie dogs over the long term. The objective of HCA sites is to maintain prairie dog populations with little or no control. These colonies have high wildlife value for raptors, mammalian predators, and burrowing owls. Population management may be used in situations when an HCA is overly affected by prairie dogs and must be restored.
2. **Multiple Objective Areas (MOA)** are sites where prairie dog populations co-exist with other uses, and their habitat management must be balanced with other land use activities. This category is more complex and involves staff judgment on best management practices to achieve a balance for multiple land uses.
3. **No Prairie Dog Areas (NPD)** are not appropriate as prairie dog habitat because of unique ecological conditions or existing agricultural uses. State law permits landowners to control animals, including prairie dogs, that pose a threat to agricultural resources and products. The goal is to discourage colonization and remove prairie dogs from these properties through multiple strategies.

Prairie dogs at CHP/RCF inhabit the designated HCA, portions of the designated MOA, and portions of the NPD areas. In the BCPOS Cropland Policy (2012), agricultural tenants are given the ability to control prairie dogs on their leased NPD lands. The current tenants at Rock Creek Farm implement control methods on NPDs.

As human development continuously occurs in the larger landscape surrounding CHP/RCF, prairie dog colonies have experienced increased boundedness and fragmentation of their habitat. Additionally, connectivity to adjacent colonies has been affected by both fragmentation and by the removal of active colonies when development has occurred.

CHP @ RCF Management Plan: Prairie Dogs



Designation	Existing acres	
HCA	159	14%
MOA	375	33%
NPD	588	52%
Total	1,122	100%

- Prairie Dog Colony
- Habitat Conservation Area
- Multiple Objective Area
- No Prairie Dog

2020

- Planning Area
- State
- Minor
-
- Lakes and Reservoirs
- Major
- Waterway

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40-Acre Burrowing Owl/Prairie Dog Preserve

Following the 1987 revision of the management plan, the BOCC set aside 40 acres of non-irrigated dryland cropland that was no longer in production in the northern end of the property as a prairie dog/burrowing owl preserve. Prairie dog colonies historically occupied up to 550 acres on the property (CDOW 1984 data). This area included the existing 40-acre preserve and approximately 60 acres of the surrounding area. Pastures in the south and southwest part of the property had prairie dogs on approximately 200 of the 240 acres. The native grassland on the 158 acres of what is now designated as HCA had been 100 percent occupied with prairie dogs by 1984, prior to a major plague epizootic. This area was considered for a prairie dog preserve in 1995, but a major plague epizootic occurred that year, and no decision was made. The 40-acre preserve was repopulated with prairie dogs received from Lafayette in 1998, following a sudden die-off of the resident colony in late 1997.

Northern Leopard Frogs

Although the northern leopard frog was historically abundant across most of its range, the species is significantly declining in Boulder County and across its entire range. It is listed as a Tier One Species of Greatest Conservation Need in the Colorado State Wildlife Action Plan, and is a prioritized Species of Special Concern in Boulder County. In an effort to protect the suitable habitat on CHP/RCF, CWH #78 was designated in 2014, noted below.

Boulder County's remaining northern leopard frogs are further threatened by development and land conversion, habitat degradation, disease and predation, invasive bullfrogs, and the limited resilience of small, isolated populations. Northern leopard frog breeding and migration corridors have been confirmed in the wetland and riparian habitats on the property, but survey results have shown diminished numbers in recent years. These decreased numbers are likely caused by invasive bullfrogs, invasive diseases, weed infestations, and riparian corridor degradation.

Preble's Meadow Jumping Mouse

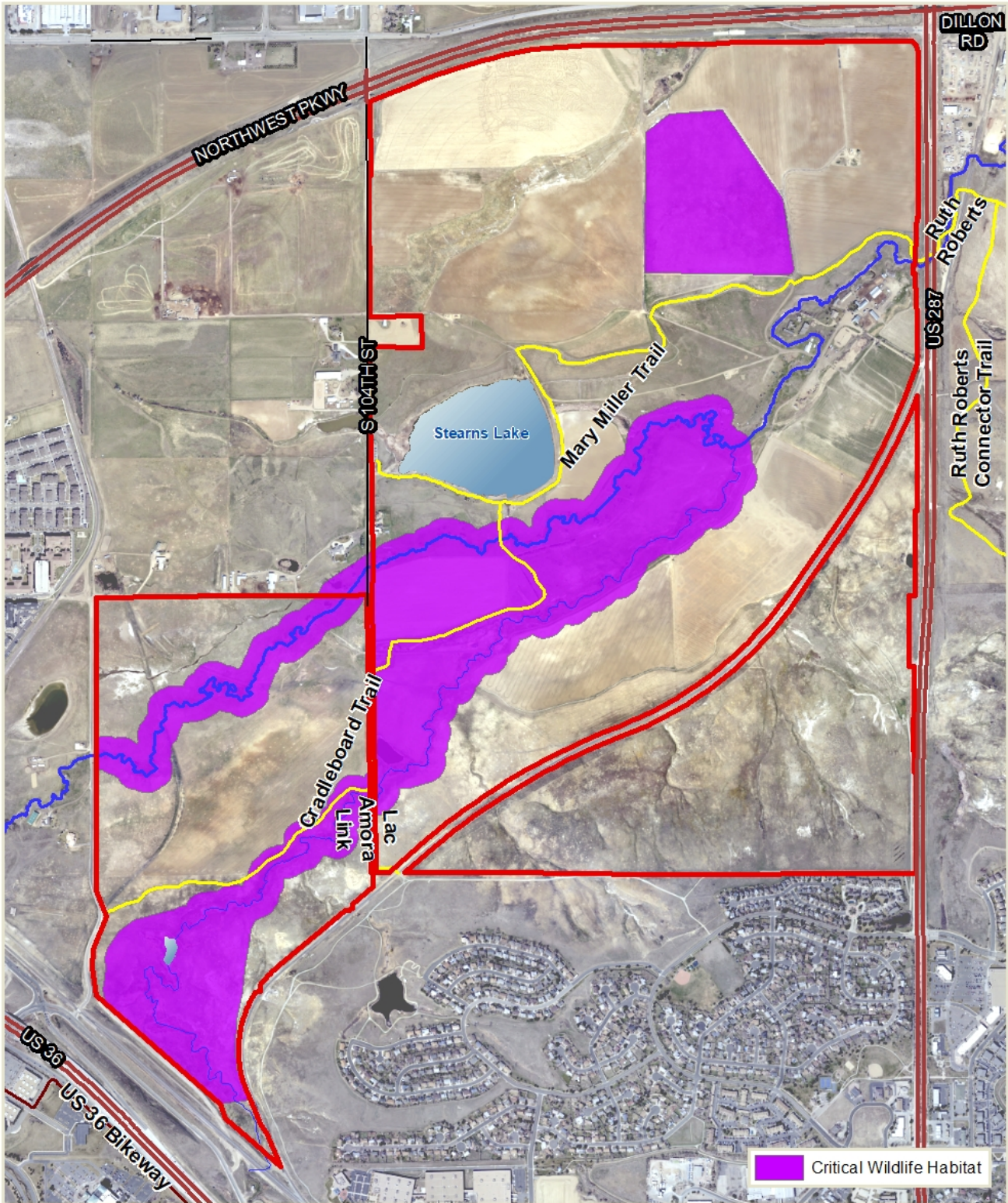
In the 2002 plan, areas along Rock Creek and Buffalo Gulch were designated "potential restoration habitat" for Preble's Meadow Jumping Mouse, a federally threatened species, as listed in the Endangered Species Act. In the latest BCCP ERE update, that designation has been removed from these creek segments in CHP/RCF. This change is caused by the results of multiple survey efforts across Boulder County to continuously understand population status of this species. It has been determined that overall habitat loss in eastern Boulder County and the subsequent loss of connectivity to known active populations make CHP/RCF unsuitable for restoration effort on behalf of this species.

Migratory Birds

During recurring breeding bird surveys, BCPOS biologists have determined that the highest diversity of bird species occurs along the riparian corridors of Rock Creek and Buffalo Gulch. The presence of unique species, such as northern harrier, Brewer's sparrow, nesting Swainson's hawks, prairie falcon, and loggerhead shrike, have been documented. Suitable habitat at CHP/RCF is especially important because of the increasing development pressure of the surrounding landscape.

Stearns Lake and the surrounding wetland communities provide crucial habitat for several wildlife species at CHP/RCF. The northwestern shoreline is designated as permanently closed for wildlife. Species using this area include cattail-wetland-associated birds. Additionally, Stearns Lake is a critical winter resource for waterfowl that need open water for safety and resting. It is also an important migratory stopover for many species.

CHP @ RCF Management Plan: Critical Wildlife Habitat



2020	Planning Area	State	Minor	0 500 1000	The user agrees to all Terms of Use set forth by Boulder County For Terms of Use, please visit: www.bouldercounty.org/rep/boiact.htm	N
	Lakes and Reservoirs	Major	Waterway	Feet		

Critical Wildlife Habitat

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Critical Wildlife Habitats

Areas designated as Critical Wildlife Habitat (CWH) in the BCCP are considered rare, irreplaceable or difficult to replace, and are essential to the conservation and preservation of wildlife in Boulder County. Two areas at CHP/RCF have this designation: the CHP/RCF CWH #36 and CWH #78 Buffalo Gulch and Rock Creek.

CWH #36 is a discrete, 40-acre exclusion set aside for black-tailed prairie dogs and nesting burrowing owls, with confirmed presence of Ord's kangaroo rat. This 40-acre site was established by the BOCC. It was designated as CWH in 1983 and had been farmed in the past. The 2002 plan envisioned that CWH #36 could be successfully managed given that the surrounding land use is designated for agricultural operations. However, changes in farming operations have intensified the use to include installation of pivot irrigation, increased visitation as part of the Fall U-Pick-Em pumpkin agritourism, an overhead utility line, and increased herbivory by a dense and confined prairie dog colony. These changes have reduced the suitability of the habitat to support nesting burrowing owls.

CWH #78 Buffalo Gulch and Rock Creek designates the historically ephemeral creeks and adjacent riparian habitat, containing low emergent vegetation and shrubs, and the grassland areas around the creeks. This CWH was designated in the 2014 update to the BCCP ERE. This designation was enacted to protect known northern leopard frog breeding areas as well as the multiple species that utilize riparian corridors for breeding or migratory movements.

Over time, and more recently, these important habitats have become increasingly affected, degraded, or altered by the multiple uses on and surrounding CHP-RCF. The intermittent nature of water flowing through the property is now perennial with erosive flows, and the adjacent riparian habitat is subject to changes in structure and composition from grazing and weed infestation.

Oil and Gas Resources

Context

Property ownership at CHP/RCF includes rights to the overlying surface and a portion of the underlying subsurface mineral rights. When Boulder County purchased the properties that comprise CHP/RCF, some of the mineral rights were already owned by various third parties.

Existing Conditions

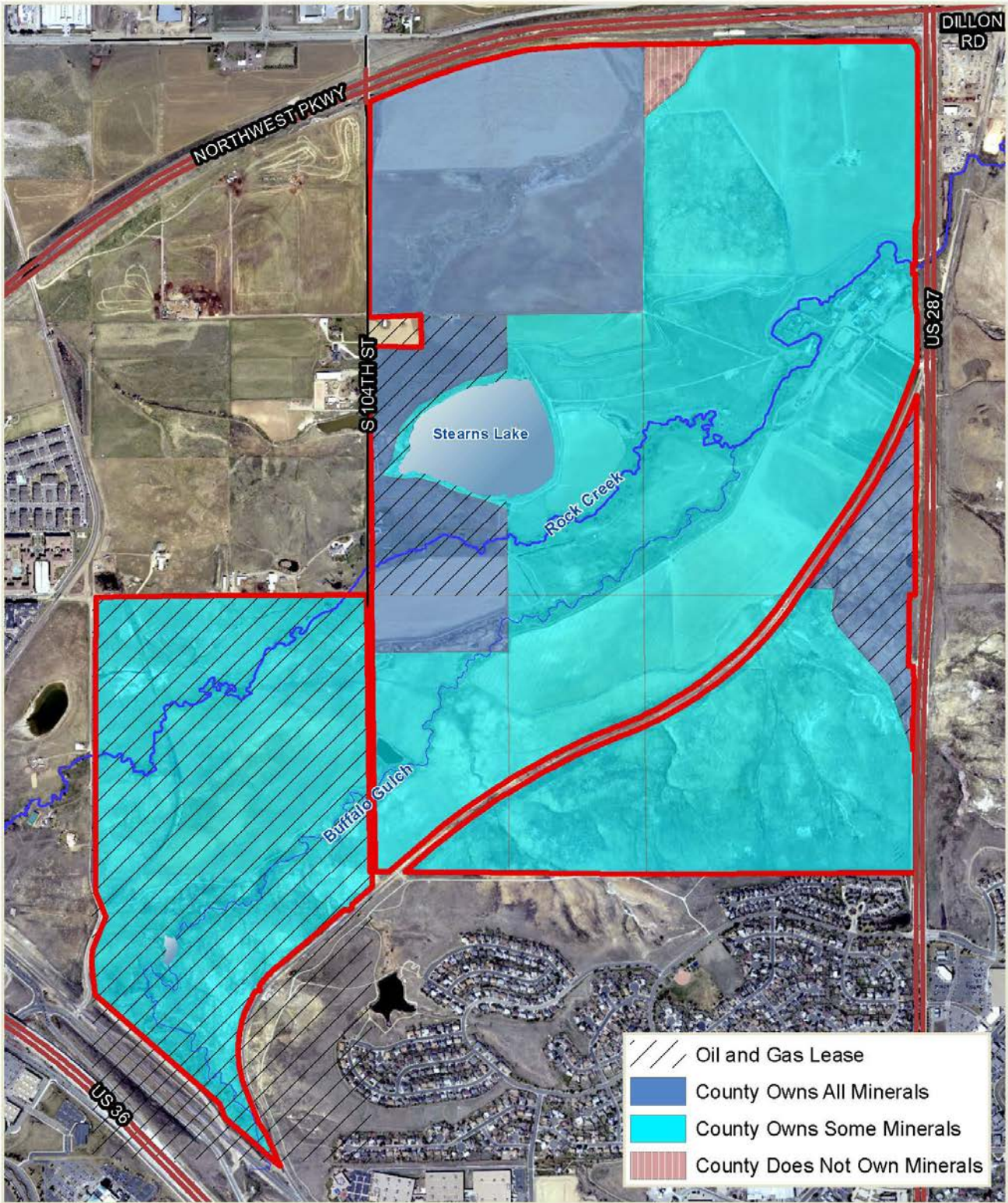
There are 10 existing oil and gas well sites on CHP/RCF. Three are producing wells (PR); five are abandoned locations (AL); and two are plugged and abandoned (PA) sites. Only the three producing wells are active. The remaining seven well sites are no longer active. BCPOS works with the County Attorney's office and Community Planning & Permitting (CP&P) to identify when certain active wells become inactive and/or non-producing/shut-in for extended periods of time or when any other terms of leases are violated. If a lessee/operator fails to meet its lease obligations, the county takes whatever actions are necessary to address the failure. These actions can include a lease terminated by agreement or court order.

Mineral Rights Ownership and Oil and Gas Leases

The county owns some of the minerals under approximately 1,118 acres of the total 1,124 acres at RCF/CHP. The map on the next page displays the Boulder County mineral rights ownership and oil and gas leases affecting the CHP/RCF open space.

The lessee/operator for all of the wells at CHP/RCF is Extraction Oil & Gas, Inc. There are multiple oil and gas leases currently active on the property. The mineral rights were already leased out for oil and gas development

CHP @ RCF Management Plan: Oil and Gas Interest Parks & Open Space



	Oil and Gas Lease
	County Owns All Minerals
	County Owns Some Minerals
	County Does Not Own Minerals

2020	Planning Area	State	Minor	0 500 1000	The user agrees to all Terms of Use set forth by Boulder County. For Terms of Use, please visit: www.bouldercounty.org/imapdisclaimer
	Lakes and Reservoirs	Major	Waterway	Feet	

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Carolyn Holmberg Preserve at Rock Creek Farm Management Plan • 2020 Update

before Boulder County acquired them, so the county had to accept the land subject to those pre-existing leases. Boulder County doesn't have a decision-making role in the management or extraction of resources.

Currently, BCPOS staff does not know of any plans for new or refined production of mineral rights on the CHP/RCF open space property. However, it is difficult to predict if/when an operator may propose an oil and gas development on any property in unincorporated Boulder County, including open space property. Because of the split between mineral and surface estates, there can potentially be multiple mineral estate owners, and they cannot be prohibited from exercising their mineral rights.

Any proposals for oil and gas development in unincorporated Boulder County require both state and county approval. Additionally, proposals for new drilling would be subject to the county's Article 12 Special Use Review, and staff would be notified of any proposals within one-half mile of the property.

Roadway Access

Mineral rights ownership includes a right to enter upon land and extract the minerals. An access easement exists so the lessee/operator can travel to and from well sites. The primary access to well sites at CHP/RCF is via 104th Street. From there, dirt lease-access roads are used. The lessee/operator is entitled to construct, maintain, and use access roads under their respective oil and gas leases.

Public Health & Safety

The Colorado Oil and Gas Conservation Commission (COGCC) regulates the development and production of the natural resources of oil and gas in the State of Colorado in a manner that protects public health, safety, welfare, the environment, and wildlife resources.

Boulder County is very active in addressing the impacts from existing and new oil and gas development, including impacts to air quality and public health. The county is committed to undertaking a series of legislative, legal, environmental, and public health approaches to help minimize the impacts of oil and gas development to people and the environment as part of its multi-pronged approach, which includes assuring a strong public health role, seeking legislative and rulemaking improvements to the state law, promoting more sustainable practices for homes and businesses, and monitoring legal decisions and strategizing potential future approaches. Boulder County supports appropriate, tighter restrictions and increased local control to mitigate the impacts of oil and gas development.

2.3 Resource Uses

AGRICULTURAL OPERATIONS

Context

Since 1980, CHP/RCF has provided a large urban buffer of productive agricultural land between the growing communities in southeastern Boulder County. The property is still used to raise 400 acres of irrigated and dryland crops and livestock on 490 acres of rangeland. The property includes agricultural lands of local, state, and national significance. BCPOS leases the property to Miller Farms, which has farmed the property for 20 years under the guidance of the department’s Cropland Policy and staff. Agricultural properties with recreational, natural, and cultural resource values create complex land management situations. Tenant operators consider the proximity of public trails and environmental resources when performing activities, including, for example, the application of pesticides. These constraints can potentially limit the types of crops tenants can raise and lead to other consequences for their operation.

Existing Conditions

Agricultural fields are numbered and classified by use. The 2002 plan delineated approximately 35 acres of MOA-designated land west of 104th Street as dryland cropland. These acres comprise a portion of what is identified today as field 65. The recent management intent has been to cultivate these fields with a cover crop to manage weeds and prepare the soil for reseeding as grassland. Over the years, the area cultivated for cover crop has expanded to approximately 63 acres.

Use	Existing	
Irrigated	415	37%
Out of production	111	10%
Dryland cropland	63	6%
Rangeland	428	38%
Riparian	72	6%
Wetland	29	3%
	1,118	100%

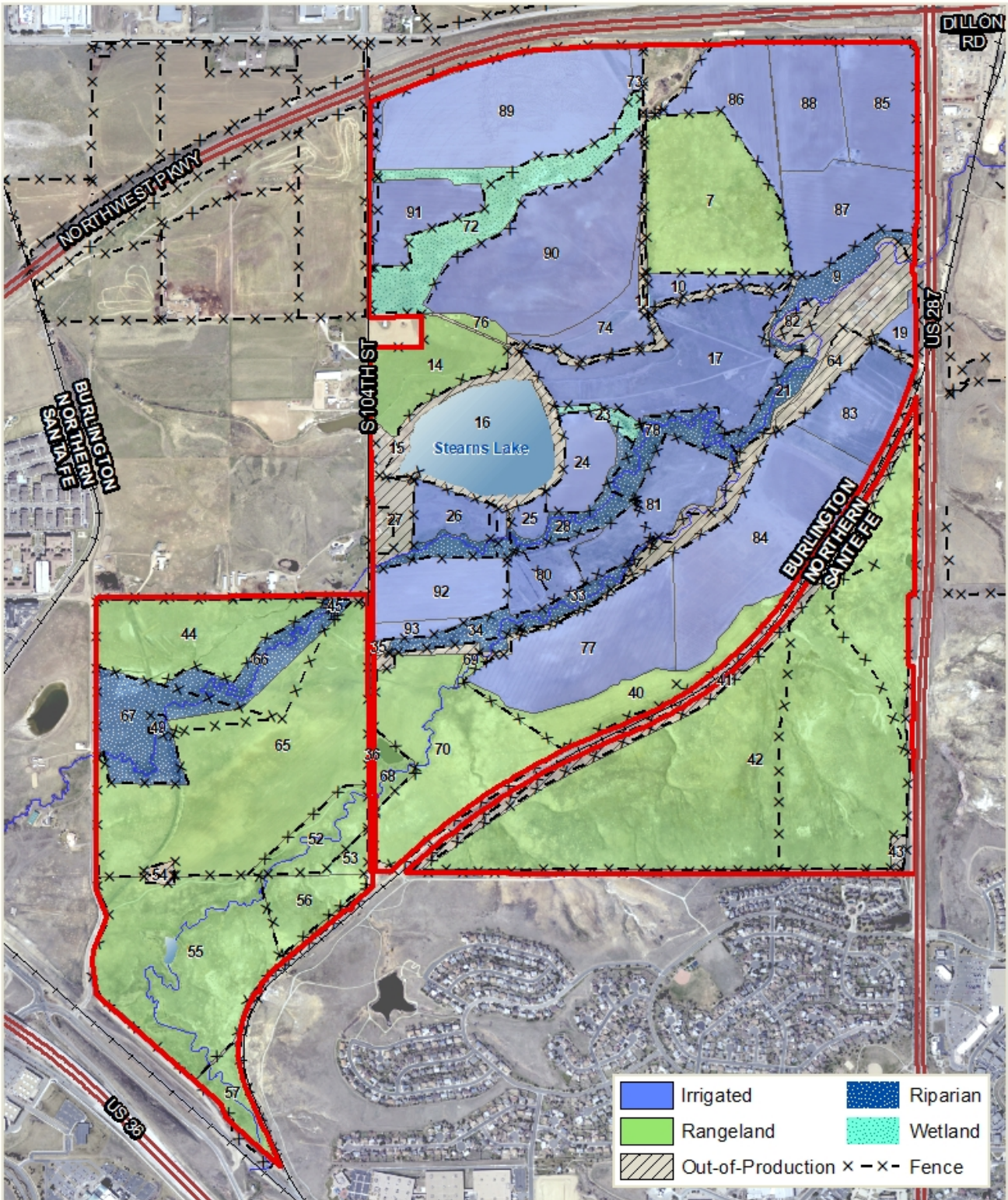
The primary crops raised at CHP/RCF have been pumpkins, gourds, Indian corn, corn (for both grain and silage), wheat, triticale, alfalfa hay, and grass for hay and pasture. Other crops, such as sorghum-sudangrass, oats, barley, and milo, have also been grown. Irrigation methods on the property include a center pivot sprinkler, gated pipe, hose reel sprinklers, and flood irrigation by siphoned tubes and furrow. The source of irrigation water for the property comes from the Goodhue Ditch and the Farmers Reservoir & Irrigation Company. Irrigation water is stored in Hodgson-Harris Reservoir, located two miles west of CHP/RCF, and at Stearns Lake.

CHP/RCF offers tenants the opportunity to raise livestock on-site, which is important to diversification of their agricultural operations. Irrigated pasture supports livestock, along with dryland pasture and crop aftermath, such as pumpkin vines, corn, and grain and hay stubble. Adequate perennial grass pasture is especially critical, and good grazing management is an important component to the health of grasslands. Currently, the opportunity for livestock grazing on much of the grasslands is limited. The property has experienced poor forage production on grasslands, in part because of the effects of long-term prairie dog occupation.

The remaining available land for livestock grazing is situated within or adjacent to riparian corridors along Buffalo Gulch and Rock Creek. An important aspect of livestock management on the property is to manage grazing in riparian areas and wetlands to protect their intrinsic values, such as wildlife, native plant communities, hydrologic function, and water quality. After the 2002 management plan, high tensile electric fencing was installed along some riparian areas to break up fields and better manage cattle grazing. This style of fencing was not effective at containing livestock and became a constant maintenance challenge for the tenant. Some of these fences have been completely removed or are in poor condition.

Agritourism, short for farm-based tourism, provides an additional source of income for tenants at CHP/RCF. The property features a U-Pick-Em pumpkin patch, corn maze, and other activities during the fall months, which

CHP @ RCF Management Plan: Agricultural Field Types



	Irrigated		Riparian
	Rangeland		Wetland
	Out-of-Production		Fence

2020		Planning Area		State		Minor	0	500	1000
		Lakes and Reservoirs		Major		Waterway	F = 1		

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attract visitors from across the Denver-metro area. Over the years, pumpkins have been the most profitable crop raised at CHP/RCF, with the majority of the pumpkins being sold in the lead-up to Halloween.

Buildings, Structures, Farm Infrastructure, and Livestock-Related Facilities

Activities associated with current agricultural operations are centered around the buildings and facilities in the historic agricultural site. As determined in updated mapping, nearly all of this site is within the regulatory floodplain for Rock Creek. Although that location does not disqualify the existing use, it does complicate any desired modifications to the building and structures. In addition, the existing design and layout of the historic buildings and structures do not accommodate all modern farm equipment, operations, and operational needs or allow them to reach their highest utility. The buildings and structures do provide storage for small equipment, tools, and seed, but are not large enough to accommodate tractors, trucks, or other large machinery or equipment. The size limit has resulted in the storage of machinery and equipment outside, which has led to a concern that they have a negative effect on the scenic aesthetics at CHP/RCF.

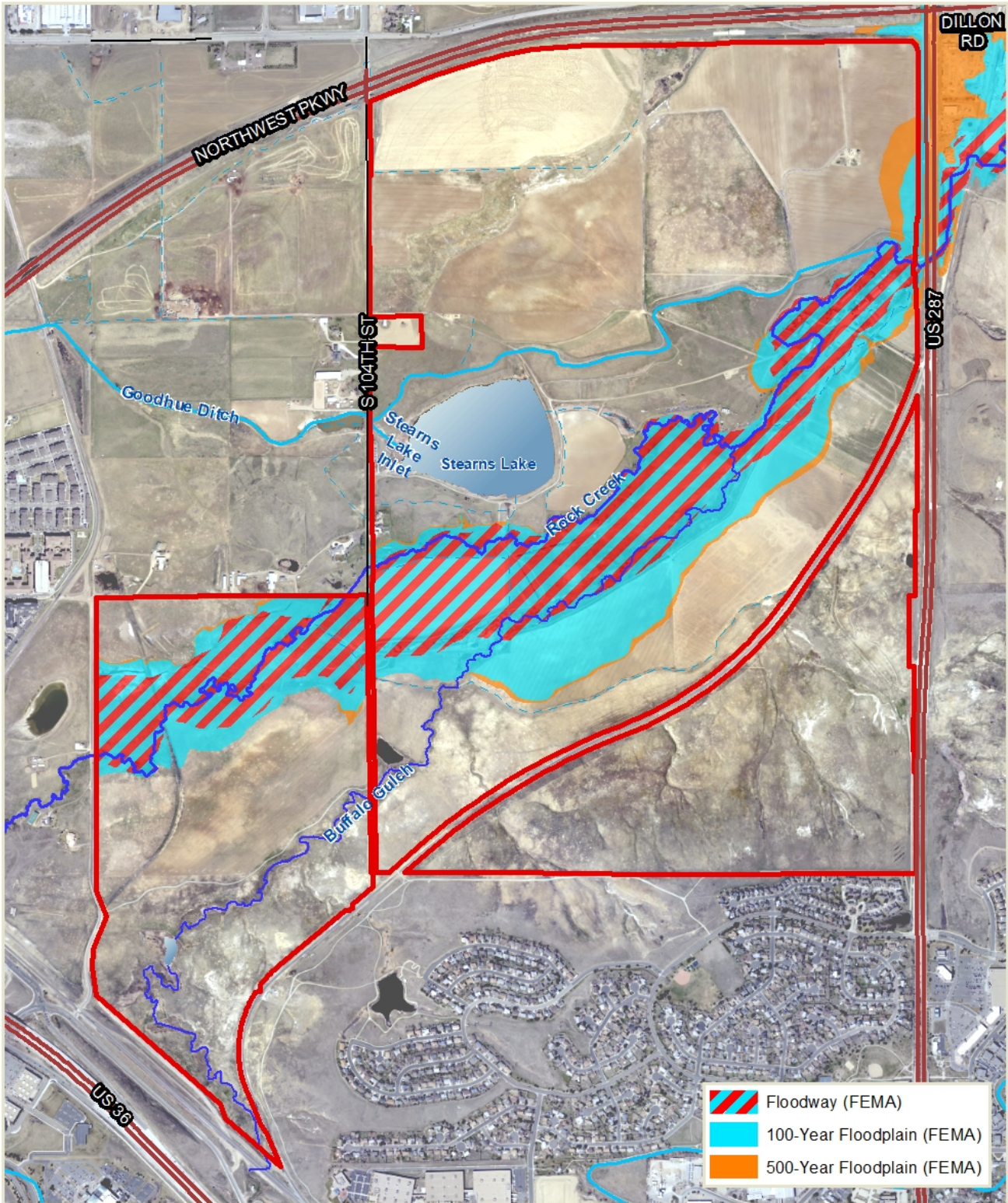
Recent improvements to livestock-related facilities included new fencing and gates in pens and corrals at the CHP/RCF farm headquarters. The vast majority of perimeter fencing has been replaced to contain and manage livestock on the property. Interior high-tensile fencing along trail corridors was also installed, though its effectiveness has been marginal. Other irrigation and water improvements made since 2002 include the development of off-stream livestock watering alternatives, reworking an irrigation well to increase productivity, and the installation of two automatic waterers.



The diversity of irrigation infrastructure on the property allows for continued agricultural production, despite dry/wet year fluctuations, to accommodate an array of crops to be raised. The ability of the tenant to maintain a diverse crop rotation is necessary to sustain agronomic productivity and economic viability.

Since the 2002 management plan, fields 32 and 33 have been leveled to accommodate flood irrigation, which has improved the efficiency of water use and reduced the labor to irrigate. Field drains have been installed in field 32 to facilitate drainage. Permanent grass filter strips adjacent to cropland have been installed in fields 32, 33, and 35 to eliminate sedimentation, improve water quality, and provide riparian buffers. The farm road adjacent to Buffalo Gulch was relocated as part of 2002 plan implementation as well.

Significant improvements have been made to the irrigation infrastructure at CHP/RCF. Existing concrete-lined ditches and control structures, including Goodhue Ditch segments, have improved water conveyance systems. In addition to gated irrigation pipe and hose reel sprinklers, the installation of a center pivot irrigation system was completed in the area of fields 89, 90, and 91. This improvement has increased the efficiency of irrigation, reduced the amount of labor for the tenants, and improved crop yields. Other water-delivery improvements, such as measuring flumes and data recorders, have been installed at Rock Creek and the Goodhue Ditch to measure all water coming into the property.

CHP @ RCF Management Plan: Regulated Floodplain 



-  Floodway (FEMA)
-  100-Year Floodplain (FEMA)
-  500-Year Floodplain (FEMA)

2020

 Planning Area	 State	 Minor	 Main Ditch
 Lakes and Reservoirs	 Major	 Waterway	 Lateral Ditch



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RECREATION

The CHP/RCF open space offers year-round opportunities for visitors to enjoy. The relatively flat terrain makes it a great place for families with young children to explore. Park visitors hike and ride trails, fish at Stearns Lake, and watch the seasonal changes of the working farm. The Goodhue Farmhouse provides a meeting place, along with a formalized parking lot, for local governmental agencies and nonprofits that partner with Boulder County.

Most visitors to CHP/RCF come for the recreational opportunities and to enjoy the tranquil natural setting in the midst of urban life. The property offers various visitor opportunities, such as trail experiences, wildlife viewing, and cultural history interpretation. Primary activities include biking, hiking, running, walking, fishing, and holding family gatherings. Additionally, the current agricultural tenant at CHP/RCF operates a U-Pick-Em pumpkin patch and corn maze during the fall months. This agritourism provides visitors with a unique opportunity to experience the agricultural operations at CHP/RCF.

Visitation

In 2019, more than 75,000 recreationalists visited CHP/RCF, making it one of the busiest open spaces in the BCPOS system. Compared to other Boulder County open spaces, CHP/RCF ranks among the top for percentage of visitors who fish, bike, recreate alone, and enjoy family gatherings. On average, visitors rated CHP/RCF 8.4 out of 10.0, based on the aesthetic beauty, scenery, and views, as well as well-maintained and clean facilities. The busiest days of the week are Sunday, followed by Saturday, and the highest visitation takes place during the summer and early fall months. The 2015 Five Year Visitation study reported visitors to the property are most likely to come from Broomfield (28%), Lafayette (21%), or Louisville (15%). CHP/RCF is open for day use only, from sunrise to sunset. BCPOS rangers patrol the property and manage visitor safety. Biking takes place on designated trails only, and pets must be kept on-leash at all times. The Rock Creek Regional Trail is open 24 hours a day for commuting.

Public Facilities, Signage, and Parking

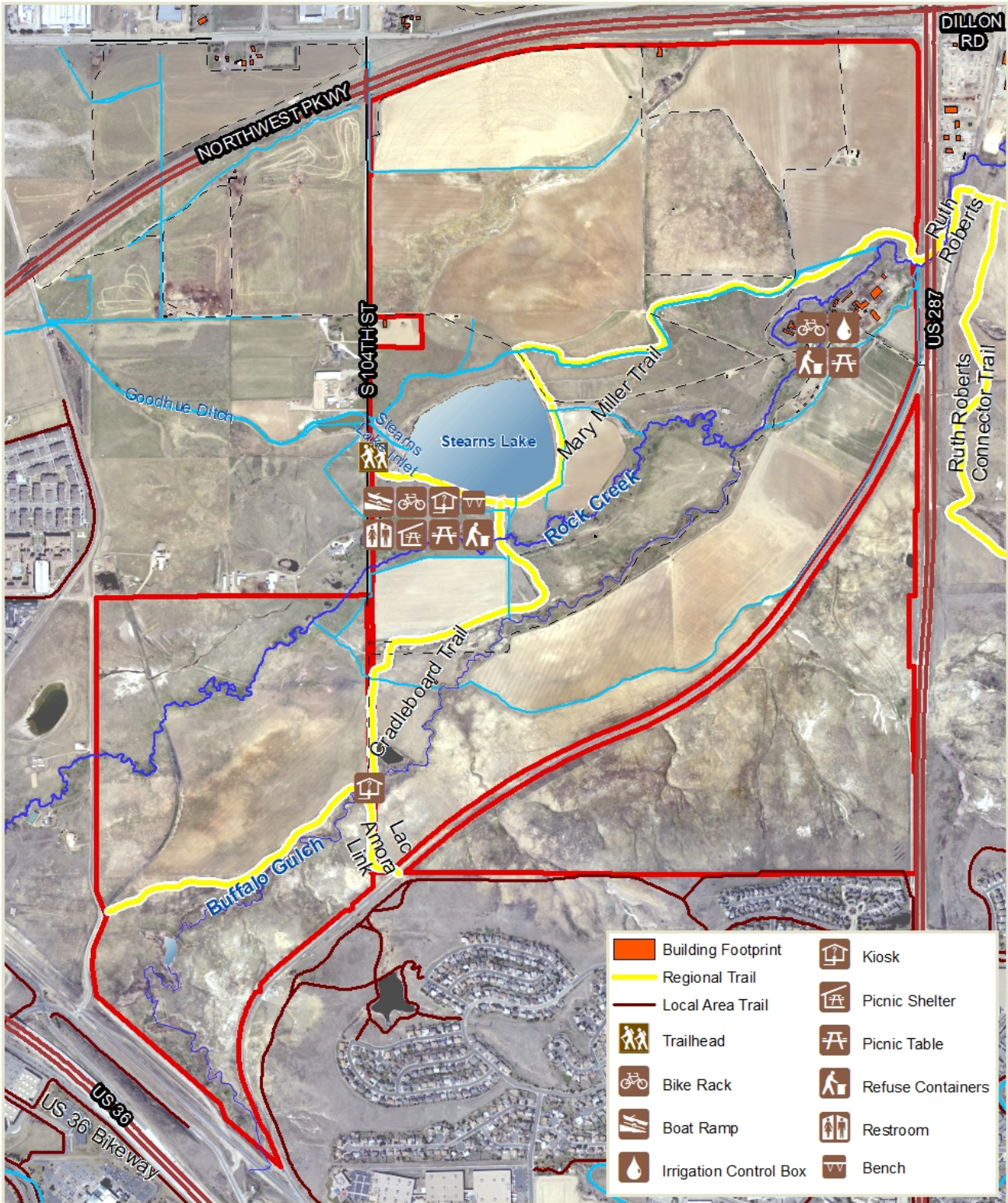
Several trailhead amenities and facilities exist on the property. There is a single restroom facility on-site at the Stearns Lake Trailhead along with a group shelter with a grill and picnic tables. Signage and kiosks provide user-friendly navigation of the property for visitors, along with the department's brochures. However, there is potential for better signage, updated kiosks, and wayfinding signs to better delineate and distinguish trail access from farm roads. Limited benches and seating areas are available along trail corridors. Visitors have requested more benches, shade, and fishing access, along with improved trail signage.

The primary access to CHP/RCF is via Stearns Lake Trailhead at 104th Street. The trailhead includes 13 car parking spots and one American Disabilities Act (ADA) van-accessible parking spot. There are two informal and unmarked spaces along the west fence of the lot where equestrian visitors park horse trailers.

Secondary access is along the west side of the property at Brainard Drive. Although no formal parking lot exists, visitors often use park at this area to access the western terminus of the Cradleboard Trail. During peak times and the peak season, parking demand can exceed supply at the Stearns Lake Trailhead, resulting in occasional illegal parking in the area. When parking capacity is exceeded, visitors often park along 104th Street near the Stearns Lake Trailhead—a legal, but not desirable, parking alternative if the vehicle is not impeding traffic.

Five interpretative signs are installed along the trail system on CHP/RCF. Each highlights a topic on the various open space resources found at CHP/RCF, including water features, wildlife habitat, and agricultural heritage. A map of the trail system, information on recreational activities, and regulations for use are posted on a sign kiosk at the Stearns Lake Trailhead. Some junctions and other access points to the trail system on CHP-RCF also are posted with a map of the trail system and visitor use regulations.

CHP @ RCF Management Plan: Existing Facilities



- | | |
|------------------------|-------------------|
| Building Footprint | Kiosk |
| Regional Trail | Picnic Shelter |
| Local Area Trail | Picnic Table |
| Trailhead | Refuse Containers |
| Bike Rack | Restroom |
| Boat Ramp | Bench |
| Irrigation Control Box | |

2020 Planning Area State Minor 0 500 1000 Feet

Lakes and Reservoirs Major Waterway

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Trails

The trails of CHP/RCF are part of a larger system of regional trails and are primarily used for biking, hiking, running, and walking. The Mary Miller Trail and Cradleboard Trail are part of the Rock Creek Regional Trail that extends from the Coalton Trail in Superior to U.S. 36. A gap in the Rock Creek Regional Trail exists in Broomfield County between U.S. 36 and Brainard Drive. At CHP/RCF, the regional trail resumes and continues through the property, ultimately connecting with the Coal Creek Trail in Lafayette and to the Town of Erie. Another popular way to reach CHP/RCF from Broomfield to the south is via a connecting trail that links Lac Amora Open Space to the Cradleboard Trail by crossing the railroad tracks there and Buffalo Gulch. New culverts have been installed at the Rock Creek and Buffalo Gulch crossings to improve trail, agricultural, and riparian values.

According to the 2019 annual visitation report for CHP/RCF, the Stearns Lake Trailhead received the most visits, with 35,691 visitors recorded, followed by the Mary Miller Trail (15,877 visits), the Lac Amora Link (15,425 visits), and the Cradleboard Trail (8,960 visits). Trail corridors are fenced off to separate visitor use from agricultural operations and sensitive wildlife areas. Seasonal trail closures may occur to minimize disturbance to nesting raptors in accordance with Colorado Parks and Wildlife (CPW), U.S. Fish and Wildlife Services, and staff recommendations. In these instances, a temporary detour is installed and later removed. When trail closures affect regional connectivity, trail users are informed through signage, web updates, and social media. Stormwater runoff and agricultural water damage occasionally necessitate trail repair. Overall, the trails on the property are in good condition, and maintenance takes place when visitor safety is a concern. The property shared the distinction with Walden Ponds of having the highest percentage (74%) of visitors who indicate the property has the right number of trails.

Fishing

Stearns Lake provides visitors with fishing opportunities at CHP/RCF. The 2015 Visitation Report found that fishing was the second most popular visitor use (20% of all visits) on the property. Known fish species found in Stearns Lake include bluegill, black crappie, channel catfish, common carp, tiger muskie, and largemouth bass. CPW works collaboratively with BCPOS in managing the Stearns Lake fishery. Management actions include periodic sampling for species composition and stocking. Angler reports are also of importance in managing the fishery.

The entire northwest shoreline of Stearns Lake is closed to visitor access for the protection of wildlife habitat and cattail wetlands. Use of boats, kayaks, canoes, float tubes, and wading apparatus are not permitted at Stearns Lake.

BIRDS OF PREY FOUNDATION

The Birds of Prey Foundation is a nonprofit wildlife rehabilitation organization that has operated on portions of the CHP/RCF since the early 1980s. Under a lease agreement with BCPOS, these operations include the intake, rehabilitation, and release of injured birds of prey and captive propagation of species. The Foundation operates flight cages on the east side of the property and an intensive care unit facility on the west side along 104th Street.

CHAPTER 3 – MANAGEMENT DIRECTION

3.1 Development of Management Direction

The POS ID team used the list of planning issues to develop a matrix of management options. Those were then assessed with the goal of defining what is desirable and achievable for the management of any given resource while considering the impacts on other resources. This framework is intended to ensure each resource of the property is provided for and maintained through balanced, sound, informed, and sustainable land management practices.

The team determined several issues needed an assessment of several options to identify a preferred alternative as a staff recommendation for guiding future land management. These issues generally involve an intersection of resource uses. Therefore, some degree of compromise is needed to reduce conflict and still ensure the vision and goals of the property can be sustainably achieved. They include:

1. **Designation and use of 40-acre burrowing owl preserve and field 65** – Subsequent to the 1987 revision of the management plan, the BOCC set aside 40 acres of non-irrigated dryland cropland that was no longer in production in the northern end of the property as a prairie dog/burrowing owl preserve. This area was set aside because of the prevalence of nesting burrowing owls in this area. Since 2002, BCPOS staff and the agricultural tenant have spent considerable time and effort to manage prairie dogs that migrate off the 40-acre preserve into the adjacent cultivated fields designated as NPD, as well as installing and maintaining barrier fencing materials.
2. **Grassland health and restoration** – Grassland restoration at CHP/RCF is challenging. The various resource uses of the property complicate how plant communities are managed and what plant communities exist. Prairie dogs, coupled with livestock grazing, have negatively affected the remaining native grasslands. Re-establishing grasslands in the presence of prairie dogs, even at low population densities, is difficult, time consuming, and expensive. BCPOS has tried on numerous occasions on multiple properties with little long-term success.
3. **Prairie dog management** – BCPOS has been unable to achieve the prairie dog management goals outlined in the Prairie Dog Policy and 2002 updated management plan. Increased fragmentation of the landscape surrounding CHP/RCF has led to significant boundedness and lack of connectivity for the existing prairie dog colonies. Their limited ability to migrate and disperse, as they would in a more natural setting, has increased population density. The increased demand for forage by both prairie dogs and livestock has significantly affected the health of grasslands. Additionally, prairie dog encroachment onto agricultural fields has resulted in crop loss and overall difficulty for the tenants to manage agriculture in those areas.
4. **Riparian habitat health** – Riparian area grazing prescriptions and exclosures instituted in response to the 2002 plan update have not been successfully implemented, and this issue has affected existing woody riparian vegetation, limited recruitment of new vegetation, and hampered the success of past restoration projects.
5. **Wildlife closures of the regional trail**– Temporary closures of the Rock Creek Regional Trail have occurred along two sections to mitigate disturbance to nesting raptor species of concern. Detour routes have not met trail design standards.

Another set of issues was identified for refinement because of a need to improve stewardship, address aging infrastructure, and adapt to increasing demand for services. These issues include the following:

6. **Recreation and visitor access** – As the Denver-metro area experiences increased human population growth, BCPOS will continue to receive an influx of visitors. At CHP/RCF, surrounding developments have increased visitation over the past two decades, presenting challenges for BCPOS staff about how to better accommodate more people on the property and provide a high-quality user experience.

7. **Cultural and paleontological resources** - In total, only 39% of the entire property (385 acres) has been previously surveyed for cultural resources, and the need for a paleontological survey has not been addressed. In addition, the cultural resource information that has been collected is now considered obsolete because of its age. A strategic plan regarding how to best manage the cultural and paleontological resources at CHP/RCF is not possible without comprehensive surveys for both resources, in order to identify the resources and determine their historic significance.
8. **Agricultural operations' use of historic buildings and structures** – The current agricultural tenant at CHP/RCF uses some historic buildings and structures. Although the preservation of the property's historic building and structures is important, the buildings' utility is not adequate or suitable for today's agricultural operations and equipment.
9. **Irrigation/water resources improvements** – Currently, there exists a backlog of maintenance and improvements to aging storage and conveyance infrastructure. Improvements need to be made to ensure water resources are managed to balance other resources' needs while complying with state water law and decreed uses of water rights. Without these improvements, it is difficult to maximize the use of our water rights and the benefits of the natural waterways that flow through this property.
10. **Buffalo Gulch wetlands** – Wetlands created in Buffalo Gulch have evolved from primarily open water to cattail marsh over the past 22 years because of sedimentation from stormwater runoff. These conditions have restricted water flow through the existing culverts and created more frequent overtopping into the overflow bypass channels. The near monoculture of cattails has reduced the benefits of this wetland to wildlife, plant communities, and hydrologic function.
11. **Invasive weeds management** – Invasive weeds affect the irrigated cropland portions of the farm, riparian areas, and wetlands to varying degrees. The grasslands where perennial plant communities are in poor condition or have been lost entirely are particularly affected. Weed management will be integral to all aspects of planning and management activity as the department endeavors to restore the grasslands and other affected habitats.
12. **Birds of Prey Foundation** – The Birds of Prey Foundation's flight cages are located within the floodway on the east side of the property. The foundation is interested in relocating the flight cages to the west side of the property as part of a phased expansion for its operations on the Dwight Nelson farm on 104th Street.
13. **Standard operating procedures** – Coordination and communication among BCPOS divisions, CHP/RCF tenants, and agency partners need improvement. Recently there has been confusion around notification of seasonal wildlife closures, appropriate locations for equipment storage, and the care and maintenance responsibility of buildings and structures. In addition, there is a concern over the potential to adversely affect cultural and paleontological resources during ground disturbance activities.

3.2 Management Direction

The following section details the 13 planning issues listed above that need resolution to improve land management at CHP/RCF. This section provides a summary of each planning issue and includes a set of objectives, background information, opportunities and options considered, as well as the proposed recommendations for management direction.

1. DESIGNATION AND USE OF 40-ACRE BURROWING OWL PRESERVE AND FIELD 65

Objectives

- Emphasize contiguous wildlife habitat in the southern portion of the property
- Encourage more efficient use of agricultural lands of statewide and local importance
- Consolidate cropland management
- Minimize challenges of managing prairie dogs in surrounding agricultural/NPD areas

Background

The BOCC set aside field 7 as a burrowing owl preserve subsequent to a management plan amendment completed for CHP/RCF in the late 1980s. Located in the northern end of the property, field 7 had been non-irrigated dryland that was no longer in active agricultural production. Field 65, located west of 104th Street and north of the existing Cradleboard Trail, is designated as a Multiple Objective Area with active prairie dog colonies and includes rangeland and dryland cropland.

The preserve on field 7 is surrounded by active irrigated cropland, which is designated as NPD. A handful of burrowing owl nests were observed on the preserve between 2001 and 2012, when the last nesting occurred. It is speculated that changed conditions, including the installation of a center pivot and visitor use activities associated with the U-Pick-Em pumpkin fest, have affected the potential for successful nesting activities. The size of this fragmented habitat patch may be contributing to unsuccessful nesting activities. Prairie dogs often encroach onto surrounding NPD cropland. Management activities to contain the prairie dog colony requires ongoing levels of high maintenance and funding.

Recommendation

The designation of the current 40-acre preserve (field 7) will be changed to support active agricultural operations. Although it might remain rangeland in the short term, it most likely would ultimately be transferred to irrigated cropland (it was non-irrigated dryland cropland before). There is the potential to relocate a future center pivot sprinkler. An existing overhead power line would need to be relocated underground to do so. Field 65 will be reclaimed to perennial grassland to support contiguous wildlife habitat area and grasslands west of South 104th Street. Grassland restoration will require an initial cover crop to be planted. Livestock grazing will be used to remove cover crop and manage weeds as part of restoration efforts. Once reseeding of perennial grasses occurs, a respite from grazing is anticipated for two to five years to allow successful establishment.

By consolidating agricultural acreage and emphasizing prairie dogs and grassland restoration in the southern and western parts of the property, BCPOS will be able to more realistically manage areas suitable for burrowing owl nesting. These contiguous acres provide areas relatively undisturbed by recreational or agricultural activities.

Prairie dog Designation	Existing acres		Proposed acres	
MOA	375	33%	335	30%
HCA	159	14%	159	14%
NPD	588	52%	628	56%
Total	1122	100%	1122	100%

*Shaded lines reflect designations with changes in acres
Total acreage 0.4% error*

Agricultural Use	Existing acres		Proposed acres	
Irrigated	415	37%	455	41%
Dryland cropland	63	6%	0	0%
Out of production	111	10%	111	10%
Rangeland	428	44%	451	40%
Riparian	72	6%	72	6%
Wetland	29	3%	29	3%
	1,118	100%	1,118	100%

*Shaded lines reflect designations with changes in acres
Total acreage 0.4% error*

Field 7

1. Change designation and use to NPD irrigated cropland in support of active agricultural operation
2. Place existing overhead power line underground in order to irrigate this field with a center pivot or lateral sprinkler
3. Relocate prairie dogs to suitable areas within BCPOS lands using the guidelines and relocation criteria defined in the Prairie Dog Policy

Field 65

1. Discontinue crop production as part of the agricultural operation
2. Temporarily defer livestock grazing until the plant community recovers
3. Following grassland restoration and after an estimated two- to five-year respite, continue livestock grazing as an allowable use through a prescriptive grazing plan, as described in the grassland restoration recommendations (below), in consideration of goals for sustaining prairie dog habitat

2. GRASSLAND RESTORATION

Objectives

- Improve health and ecosystem function of grasslands
- Reestablish native vegetation communities across as much of the grassland as possible
- Sustain prairie dog populations
- Use a variety of techniques and methods in support of managing the grasslands

Background

A valuable and limited resource at CHP/RCF is intact native grassland that has never been plowed. This grassland exists on field 42, which is designated as a Habitat Conservation Area. Native grass remnants also exist within field 55, southeast of Buffalo Gulch. Although other fields contain grasslands in fair condition, their overall health at CHP/RCF is inherently related to impacts on the land from the population of prairie dogs. Livestock grazing also has an impact but to a lesser extent. Much of the rangeland has extensive bare ground, lacks perennial grass cover, and is experiencing loss of soil. The density of prairie dogs has reached a critical threshold and threatens the sustainability of the grasslands. If populations remain dense, the grasslands will continue to decline. Furthermore, the CHP/RCF grasslands are designated rangelands that serve as forage for livestock operations.

The POS ID team identified a range of options to explore in considering how to address grassland conditions, from continuing the status quo for prairie dog and livestock grazing to considering complete removal of prairie dogs and cessation of livestock grazing. With respect to prairie dog management, staff have identified two alternatives: reducing population density and conducting rolling removals of prairie dogs. Each option has varying potential degrees of success for grassland restoration and trade-offs to consider with implementation. Introducing a prescriptive grazing plan approach intended to accomplish specific vegetation management goals is another option that could be implemented by itself or in tandem with the others.

CHP/RCF is much more bounded and fragmented than a natural landscape. The option to reduce densities of prairie dogs is a long-term commitment that requires ongoing staff time and funding each year and one that staff has little experience in. Restoring grasslands in the presence of prairie dogs, even at low densities, is challenging and typically ends with failed establishment of the seeded species. Even rolling removals of prairie dogs are no guarantee that others will not migrate into the restored areas from surrounding populations, despite efforts to contain them. The department's experience in other locations has reflected a cycle of removal, restoration, prairie dog reintroduction, and subsequent grassland degradation, at which point the cycle begins again. Removal is an intensive activity that is criticized for eliminating prairie dogs, which are part of the ecosystem and landscape.

A concern with the prescriptive plan for rangeland grazing is competition for forage between livestock and prairie dogs. Since it is easier to manage livestock grazing than prairie dog populations, a temporary reduction in livestock grazing could be a short-term or long-term prospect and potentially lead to a permanent elimination of this activity. However, the livestock enterprise and grazing are important to the agricultural operation at Rock Creek Farm and the success and viability of this open space resource. The option to eliminate grazing raises concern for whether this action would achieve the grassland restoration sought, as prescriptive grazing can be an important part of restoration processes.

The team used the 2020 Agricultural Field ID map (shown on page 33) to discuss grasslands designated as rangeland by field. Factors considered include existing vegetation type, uses on adjacent fields, and natural barriers to help contain prairie dog encroachment.

Recommendations

BCPOS will conduct a pilot program at CHP/RCF to investigate the efficacy of removing prairie dogs in accordance with the Prairie Dog Policy to create a more sustainable and diverse ecosystem on these parcels. The proposed method is a population reduction in both density and numbers of prairie dogs to allow vegetation to recover on the HCA and be established on MOA areas. It will be an adaptive management strategy that requires careful monitoring and continuous assessment to ensure adequate numbers of prairie dogs remain on the landscape and to maintain their complex social structure, which is imperative to their survival. At no time will all of the prairie dogs be removed from HCA or MOA designated lands, as the goal of this effort is to strike a balance between prairie dog presence and recovery of the important vegetation components at CHP/RCF.

Staff will develop a formalized methodology based on current scientific research and knowledge in consultation with local and national experts to determine the appropriate density of prairie dogs that can be sustained by a healthy prairie ecosystem. Vegetation response metrics will then be correlated as a baseline. As population density reduction efforts commence, staff will continuously monitor the area to ensure the maintenance of the critical social structure of the prairie dogs as well as vegetation response to decreased densities. BCPOS will prioritize this consistent effort, and staff will adaptively manage the situation based on results. Staff recognizes this strategy will require significant time commitment and funding and that the effort will be long-term. However, staff deems it worth the investment to determine if this action will lead to a more successful outcome in allowing grassland establishment in combination with maintaining prairie dog populations.

Grassland restoration in some areas will require an initial cover crop to be planted over one or two seasons. Livestock grazing will be used to remove cover crop and manage weeds as part of restoration efforts. Once reseeded to perennial grasses, a respite from grazing is anticipated for two to five years. Grazing could be reintroduced after this initial period, depending on the status of vegetation establishment coupled with continuous monitoring of prairie dog numbers. Livestock can provide benefits to healthy ecosystem function that may not be achieved if the activity is eliminated over the long term. Timing, duration, and intensity of any livestock grazing are the key elements to be managed and monitored during this effort. The execution of a grazing plan and close monitoring of it are essential components of this proposed long-term implementation. Additionally, the emphasis will remain on sustaining prairie dog populations at a level consistent with allowing grasslands to recover and persist.

Restoration implementation will occur within the guidelines of the BCPOS burrowing owl management process. Presence surveys will ensure that no disturbance to nesting burrowing owls will occur because of restoration efforts. This assurance will be achieved by altering timing of restoration phases or by creating a non-disturbance buffer around nest sites.

A focus is to restore and enhance native grasslands that exist within the Habitat Conservation Area (field 42 and areas of field 55). As outlined above, this focus requires more consistent and continuous attention to determine the appropriate number of prairie dogs and the sequencing of livestock grazing activities.

Field 42 – Habitat Conservation Area

Characteristics

- Native grassland, never tilled or plowed, with resilient characteristics
- Railroad tracks may provide a moderate barrier to movement of prairie dogs

Objective

- Give the area an opportunity to regrow and rejuvenate the native plant communities through the deferment of grazing by livestock and a decrease in the grazing and disturbance from prairie dogs

Carolyn Holmberg Preserve at Rock Creek Farm Management Plan • 2020 Update

Actions

1. Reduce prairie dog populations and monitor grassland vegetation response
2. Temporarily defer livestock grazing until the plant community recovers
3. Adaptive management approach with annual coordination to assess results and adjust

Fields 55 (Southeast of Buffalo Gulch), 56, and 57

Characteristics

- Areas with remnants of native grasslands in good condition
- Limited prairie dog colonies
- Functions and provides values similar to native grassland

Objective

Maintain native grassland remnants, and restore suitable areas to native grassland. This area functions and provides values similar to native grassland.

Actions

1. Keep prairie dog densities low, as outlined above
2. Implement an adaptive management approach with annual coordination to assess results and adjust
3. Reestablish mixed native and introduced grass species
4. Meet annually to review agricultural operating plan and establish prescribed grazing plan, after two to five-year respite, in consideration of goal of sustaining the prairie dogs and grassland health

Fields 14, 76, and 40

Characteristics

- Introduced grasses in varying states of health
- Isolated places integral to agricultural cropland operations as pasture for livestock grazing
- Limited potential to reestablish native grasses
- No current prairie dog colonies exist on fields 14 or 76

Objective

- Establish and manage as grassland buffer to active agricultural fields

Actions

1. Reestablish mixed native and introduced grass species
2. Reduce prairie dog population densities on field 40, and monitor to achieve and maintain a carrying capacity of prairie dogs that supports perennial grass stands
3. Incorporate a grazing plan into the agricultural operating plan that supports livestock grazing while still maintaining a healthy grassland

Remaining MOA Fields – Fields 55 (North and West of Buffalo Gulch), 44, 52, 53, 65, 68, and 70

Characteristics

- Restored grasslands of mid-grass species
- Occupied by prairie dog colonies

Objective

- Restore to well-functioning grasslands with perennial grass cover and appropriate species diversity

- Manage with an emphasis on sustaining prairie dog habitat

Actions

1. Reestablish mixed native and introduced grass species
2. Manage for grassland that supports prairie dogs and their habitat
3. Reduce population densities and monitor to establish and maintain a population of prairie dogs supported by a well-functioning grassland
4. Meet annually to review agricultural operating plan and establish a prescribed grazing plan, after a two to five-year respite, in consideration of sustaining prairie dog habitat

3. PRAIRIE DOG MANAGEMENT

Objectives

- Establish a sustainable population density of prairie dogs that can be supported by a well-functioning grassland ecosystem
- Minimize potential for prairie dog encroachment onto adjacent private lands
- Recognize the intrinsic value of prairie dogs on the landscape as a species on which many other species rely

Background

Management of prairie dogs on all BCPOS lands is implemented under the guidelines of the [Prairie Dog Policy](#). CHP/RCF has all three designations as detailed on the [Prairie Dogs map](#). In 2012, as part of the BCPOS Cropland Policy, the tenant control program was introduced, which allows tenants to control prairie dogs within their leased property designated as NPD. Additionally, BCPOS staff have removed prairie dogs from NPD areas and has done some limited removals from MOA areas. The HCAs support prairie dogs as a priority, but, as outlined in this plan, their densities have become detrimental to grassland vigor on parts of RCF/CHP.

Recommendations

1. Maintain the current NPD land designations associated with the agricultural operations, and manage those sections of the property to achieve full removal
2. Maintain the current MOA and HCA designations at RCF/CHP
3. Install barriers to prairie dog dispersal along the field 44 northern boundary west of South 104th Street, in conjunction with the recommended development of a trail between Brainard Drive and South 104th Street
4. Complete deferred maintenance of barrier fencing along field 42 southern boundary adjacent to Lac Amora neighborhoods and open space

4. RIPARIAN HEALTH

Objectives

- Protect important wildlife habitat and plant communities
- Preserve and expand woody riparian vegetation stands, including cottonwoods
- Manage livestock access and impacts to streams
- Identify opportunities for off-stream livestock water
- Address stream bank erosion

Background

Because of the availability of water resources, forage within riparian areas is more productive and dependable, compared to the grassland throughout the property. Forage production on the grasslands has declined, which has prompted the tenant to use the riparian corridors more than is desired or sustainable. Access to water via the creeks also brings livestock into the riparian areas. Attention to active management by the department has waned over the years, and ongoing monitoring is limited. Gates are often left open, some fencing is down or not effective, and there is not an adequate plan in place to assess maintenance and ensure gates are closed to control livestock access within adjacent riparian areas. High-tensile fencing, which was recommended in the 2002 plan, has proven to be ineffective. The subsequent added livestock grazing pressure has caused damage to some plantings and, in some cases, bank erosion in riparian areas. A diverse suite of riparian shrubs is suffering, with little to no new reproduction where grazing is present. Cottonwood trees of all age classes continue to die, and there is minimal to no new natural recruitment to maintain this important habitat feature.

A priority within riparian corridors is preserving wildlife habitat and plant communities. These areas may also provide forage, through managed grazing during certain times of the year, to the extent that riparian habitat health may be preserved. Livestock grazing is an integral component of the agricultural production of the property, but with available forage limited, especially in summer months, this grazing has put undue pressure on plant communities within riparian areas. BCPOS staff and tenants have struggled to find a balance between maintaining riparian habitat health and grazing activity. Finding such a balance requires ongoing monitoring to determine when managed grazing could be supported appropriately. Additionally, fencing must be maintained, and gates must be closed during times when grazing is restricted.

Grazing in riparian areas will be planned and executed to improve and maintain wildlife habitat and native plant communities.

Recommendations

1. Define goals and objectives for maintaining desired riparian habitat
2. Remove grazing from areas of past restoration projects in fields 78 and 66 until willows are above browse height
3. Establish a prescriptive grazing plan that prioritizes riparian habitat and native plant communities
4. Review and update the Agricultural Operations Plan annually to include fencing/gate maintenance needs, responsibilities, access to water for livestock, and grazing management schedule
5. Identify options for livestock water and provide access to waterways or new infrastructure as needed
6. Preserve grassland/wetland habitat in field 72 at current size and continue current dormant season grazing practices
7. Maintain fences and gates along riparian corridors
8. Cost share expenses with tenant to maintain fence/gates
9. Remove and replace high tensile fencing with new barbed wire fencing
10. Protect and expand riparian vegetation stands, including surviving large cottonwood trees
11. Establish new cottonwood plantings and protect from grazing

5. WILDLIFE CLOSURES OF THE REGIONAL TRAIL

Objectives

- Balance recreational opportunities with protection of wildlife species of special concern
- Maintain visitor access of the Rock Creek Regional Trail that conforms with appropriate trail standards and county transportation goals as a regional trail connection between communities

Background

Several species of raptors use RCF/CHP for nesting, roosting, and hunting. Many of these species are protected by state guidelines and/or federal regulations. A pair of bald eagles established a territory within the larger landscape of RCF/CHP and have been actively nesting and foraging in the vicinity since 2012. This federally protected species' use of RCF/CHP has prompted protection measures (trail closures) to limit disturbance to their nesting sites. Additionally, burrowing owls' long-term use of suitable habitat at RCF/CHP has prompted intermittent trail closures to limit disturbance to their nesting areas as well.

Based on CPW guidelines for mitigating disturbance during raptor nesting seasons for bald eagles and burrowing owls, there is potential for Rock Creek regional trail users to be routed on a temporary detour for up to 10 ½ months annually if both species establish nests in a given year. A long-term solution is needed to ensure that a safe alternative route for the regional trail is provided if these potential extended closures of the regional trail are desired.

Cradleboard Trail West of 104th Street to Brainard Drive

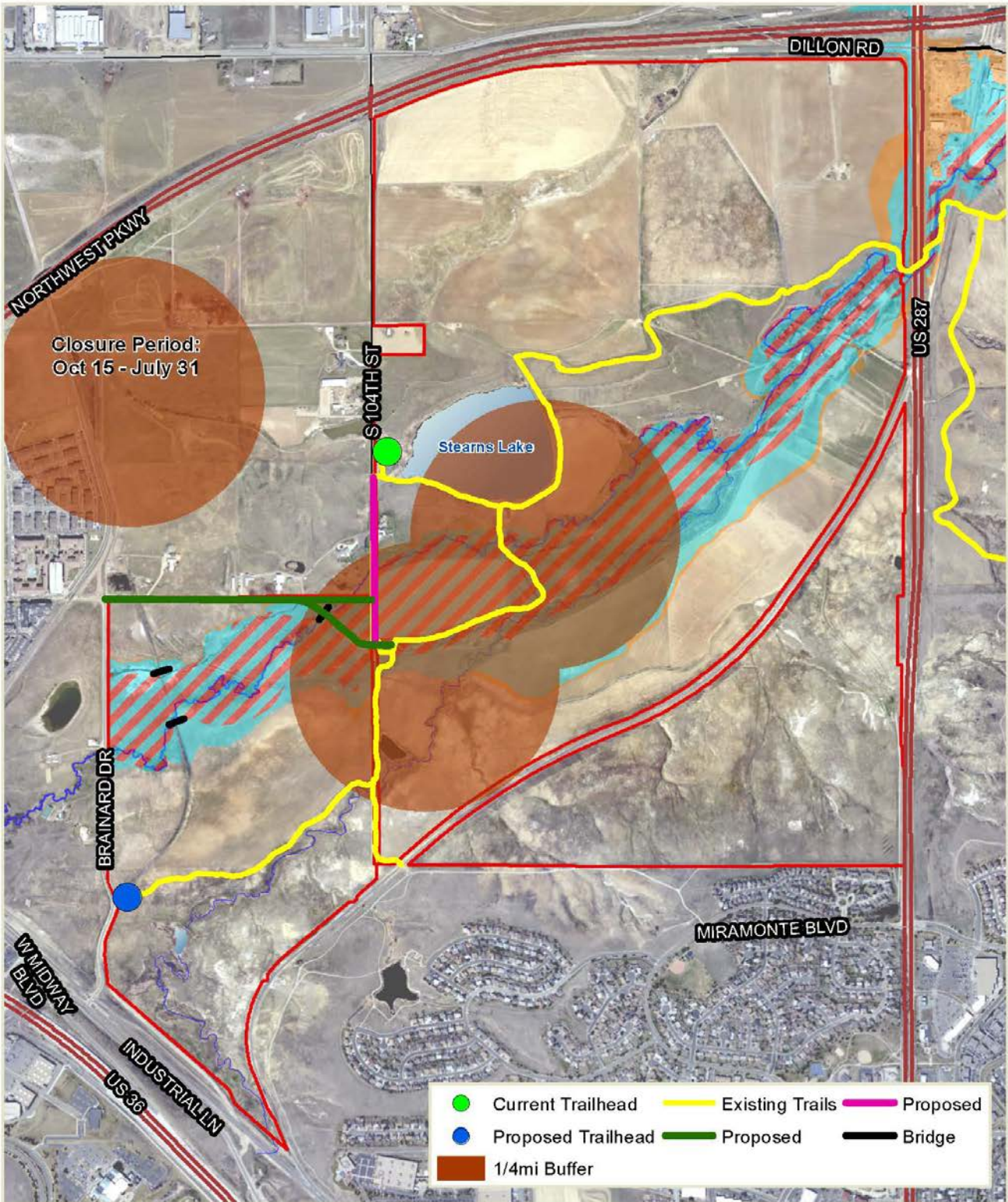
Closures of this section of the Rock Creek regional trail have occurred to mitigate disturbance to burrowing owl nest sites. Closures have been enacted in 2006, 2011, 2018, and 2019 because of the location of these nests. The recent experiences closing the trail in both 2018 and 2019 demonstrate a need to ensure an adequate alternate route is available. An ad hoc detour route established along the north property line could be improved to meet trail standards (Green Trail option) and offer a viable detour. The POS ID team considered a range of options for establishing an alternate route. A starting point was to revisit the development of a trail along Brainard Drive which was recommended in the 2002 management plan update. Although an informal trail was established shortly after the 2002 plan was adopted, it ultimately was abandoned. The topography along Brainard Drive limits the ability to develop a trail adjacent to the roadway. A north-south connection would need to substantially encroach into the CHP/RCF property resulting in significant impact to rangeland grasslands; it is not proposed at this time.

Cradleboard Trail East of 104th Street to Brainard Drive

BCPOS has enacted trail closures to limit disturbance to bald eagle breeding activities. As in all situations involving eagle nesting and potential disturbances, BCPOS staff consults with CPW and USFWS to determine the best protection measures given the specifics of each nest site. BCPOS adheres to all state and federal protection guidelines for raptors and, with local knowledge, may impose stricter protections, as desired.

Cradleboard Trail closures have necessitated a temporary detour of the regional trail to South 104th Street. BCPOS will continue to take actions to protect nesting activities of these bald eagles. Because of uncertainties on which nest locations will become the preferred location in the future, actions outlined in this plan include

CHP @ RCF Management Plan: Recommended Trails, Trailheads & Bald Eagles  Parks & Open Space



considering the potential to re-route the regional trail on a more permanent basis, as opposed to re-routing the public onto 104th Street, which has been the recent practice. Building a new trail segment along 104th Street would serve as an alternative route to avoid nesting bald eagles and provide a more direct route to the planned 104th Street connector trail north of Stearns Lake to the Coal Creek Regional Trail, improve visitor trail experience, and minimize impacts to vehicular traffic and local residents.

Recommendations

BCPOS will consider the protections of wildlife, as recommended by CPW and USFWS, in relation to recreation, agricultural operations, and regional trails. Ensuring raptor protection from human activity and disturbances that may compromise breeding success will positively affect breeding outcomes. Therefore, management action to bolster protection of these sensitive wildlife species will always be considered. At the same time, the county recognizes the importance of the transportation functions of regional trails and will endeavor to provide alternate routes and detours that ensure a safe regional trail connection through the property at all times.

Cradleboard Trail West of 104th Street to Brainard Drive

1. Develop a new trail along the north property boundary to serve as an alternate detour route, as needed.
2. Assess the impact of seasonal or year-round recreational use of this trail on raptors that use the trees in the adjacent drainage.

Cradleboard Trail East of 104th Street

1. If the bald eagle's nest is adjacent to the trail east of 104th Street and a temporary detour route is possible to maintain regional connectivity, the trail will temporarily close to protect nesting activities
2. Explore feasibility of developing a trail along 104th Street from south end of 104th Street to Stearns Lake Trailhead to tie into the planned 104th Street connector trail north of Stearns Lake to the Coal Creek regional trail

6. RECREATION, VISITOR ACCESS, AND ACCESSIBILITY

Objectives

- Provide quality recreational and nature study experiences for visitors
- Better accommodate increasing demand for recreation
- Improve accessibility for all ages and abilities
- Maintain visitor access to the Rock Creek Regional Trail that conforms with appropriate trail standards
- Provide an uninterrupted, continuous regional trail connection through the property
- Minimize impacts of recreational use on resources
- Increase public understanding and appreciation of the unique values at CHP/RCF

Background

One of the primary goals of purchasing CHP/RCF was to provide an open space buffer between surrounding communities. Today, urban development surrounds the property on all sides, and the commensurate increase in visitors is adding pressure on the existing trail system. New development to the west and planned developments to the northeast and southwest continue to increase visitation for recreational and nature study activities.

CHP/RCF is a local destination that attracts visitors from nearby residential and commercial areas, and it is part of a larger regional trail system that serves commuters traveling among Boulder County communities. As detailed in the recommendations above (Wildlife Closures), there is a desire to accommodate seasonal wildlife closures while maintaining regional trail connectivity through CHP/RCF to adjacent communities. Although many visitors come to CHP/RCF on foot or by bike, BCPOS recognizes that additional parking is needed for those who do not live nearby. Additionally, the increased visitation has led to a desire to create a loop trail experience for non-commuters.

Feedback captured in the BCPOS Five-year Visitation Study and initial comment period for this plan update included requests for better wayfinding and trail signage. There also were requests for more benches, shade structures, and improved fishing opportunities at Stearns Lake. Visitors to the Goodhue Farmhouse would like access to the property's trail system. Improved wayfinding signage at the South 104th Street gate access to CHP/RCF is needed, where the trail parallels and crosses multiple internal farm roads.

Within the past five years, precipitation from significant storms have damaged the trail system. Although timely trail repairs have been made, there are many locations where the loose trail material was not compacted to ideal or standard surface conditions. Accessibility, as well as overall user experience, can be improved in these areas if the loose, damaged material can be removed and the trail surface can be top coated with new material and compacted.

One issue, unrelated to trails, is recreational access to Stearns Lake. Currently, the south shoreline of Stearns Lake is an uneven, unimproved surface, which can make travel to the shoreline for fishing and other pursuits very challenging for the disabled and those who use a mobility aid. Providing level rock features would enhance angler experience and accessibility for all.

Facilities Management

Trailheads and Access Points

The CHP/RCF property is bordered on the east and north by very busy transportation corridors. The active railroad line along the southern property boundary, along with the Northwest Parkway, U.S. 36, and S.H. 287, present unique challenges for visitor access. The Stearns Lake Trailhead is accessed by South 104th Street, an unimproved road south of Dillon Road. The road terminates about one-quarter mile south of the Stearns Lake Trailhead where visitors can access the trail system on the CHP/RCF through an access gate. Brainard Drive,

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along the western property boundary, is a local road that dead ends into a private road at the CHP/RCF northern property boundary. Visitors to CHP/RCF often walk or bike on the road to access the Cradleboard Trail from the residential development to the northwest or commercial businesses from the south.

During peak visitation, parking demand can exceed capacity at the Stearns Lake Trailhead, requiring visitors to park along 104th Street near the Stearns Lake Trailhead—a legal, but not desirable, parking alternative. Staff have observed as many as 15 vehicles parked along the road. Although no formal equestrian parking exists at the Stearns Lake Trailhead, there are two informal and unsigned spaces along the west fence of the lot.

Although the Stearns Lake Trailhead is the primary access point into the open space, many visitors also park in unimproved areas along Brainard Drive, where they can access the Cradleboard Trail. Parking in this area can be unsafe at times because of steep shoulders, muddy conditions, and poor sightlines; it is not a developed parking lot. There is an increasing demand for access to the open space from Brainard Drive because of nearby urban development.

The existing Cradleboard Trail access point is sloped below the road shoulder of Brainard Drive in unsurfaced and undrained soil. Vehicles become stuck during muddy conditions. There is potential to develop a new trailhead just north or south of the existing access point, where the topography is flatter and level with the road. A small portion of existing fields used for rangeland grazing could be improved to provide a formal parking lot for 12 to 15 vehicles and a visitor kiosk. Development of a new trailhead access along Brainard Drive could alleviate some congestion taking place in the Stearns Lake Trailhead and help reduce the number of visitors parking along 104th Street because of full parking lots.

Trails

The development of a local trail connection along the CHP/RCF northern property boundary west of 104th Street, shown in green on the trail options map, would include a visitor kiosk and gate at Brainard Drive and could include wayfinding information and emergency access but no parking. A new trail segment along 104th Street, shown in pink, would provide a more direct route to the 104th Street Connector Trail, planned between Stearns Lake and the Coal Creek Regional Trail, and improve visitor experiences by moving pedestrian traffic off the roadway and onto a designated trail. These new trails also would offer flexibility by creating redundancy in the trail system to more effectively address seasonal wildlife closures along the Rock Creek Regional Trail.

Review of irrigation practices and water infrastructure on the property is needed to reduce nuisance water collection along trail corridors and improve trail safety.

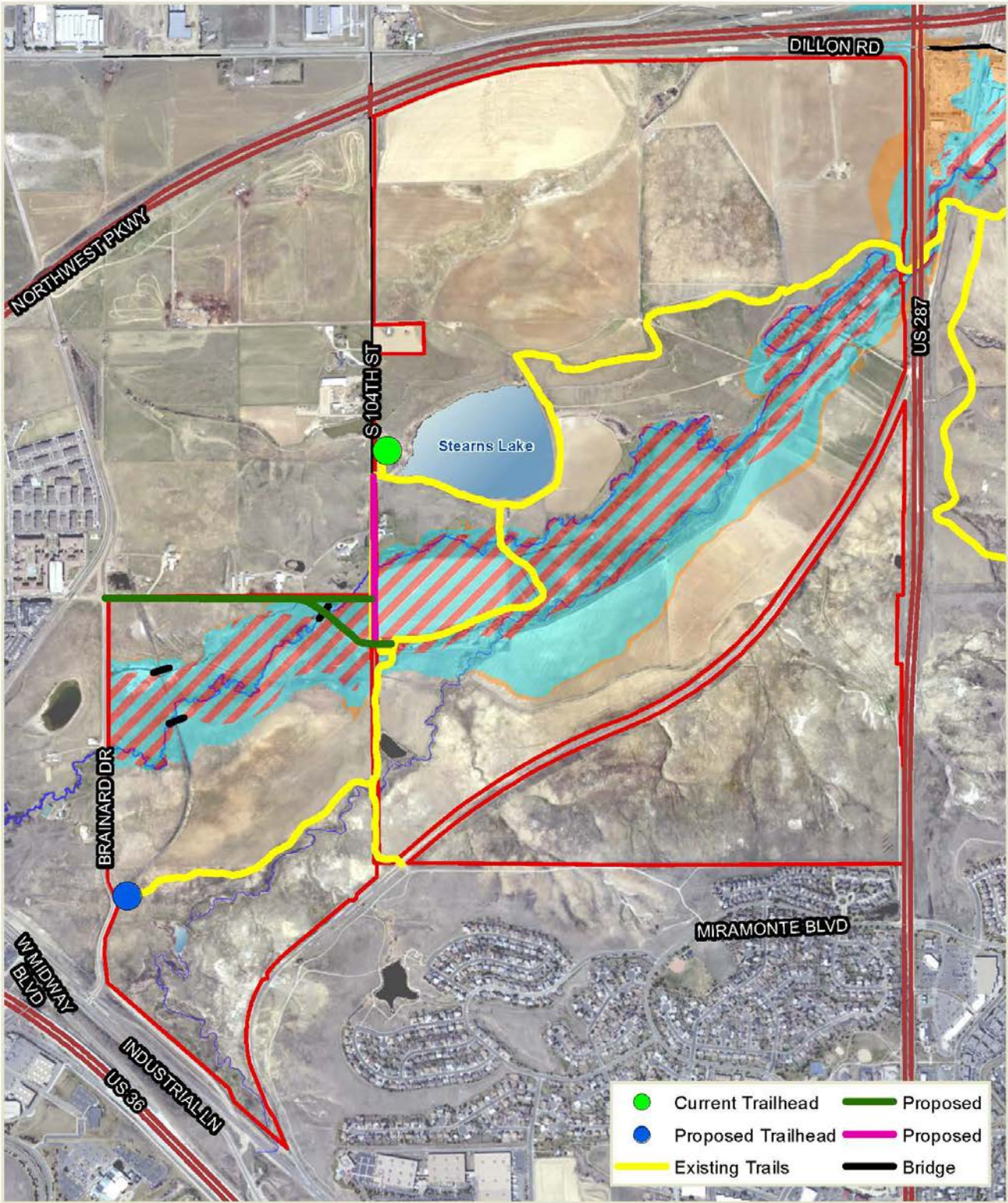
Providing access to the formal trail system of CHP/RCF for users of the Goodhue Farmhouse meeting space is limited by natural features and proximity to the agricultural operations and active farm roads. Because of the steep banks created by the Rock Creek channel behind the farmhouse, it is not practical or within ADA standards to connect this area to the regional trail. Instead, the existing farm roads from the farmhouse to the regional trail could be used, with the installation of wayfinding signs. This use of the farm roads by trail users is anticipated to be nominal and intermittent because it would serve only guests of organizations reserving the Goodhue facility.

Recreation Management

Angler experience at Stearns Lake would be enhanced by increasing and formalizing shoreline access. Regular baseline surveys of fish species composition will continue with an aim toward maintaining and improving the fisheries management plan, including stocking. BCPOS staff will continue to coordinate closely with Colorado Parks and Wildlife on survey efforts, stocking rates, and overall management of species composition and abundance.

Although the western and northern shorelines of Stearns Lake are closed to the public for wildlife habitat value, fishing is allowed from the southern and eastern shorelines. Formalizing access to these areas could include the

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addition of large rocks or other materials to provide level fishing decks. These decks improve angler opportunities by creating level spaces with direct access to the water and provide enhanced wildlife viewing opportunities. Additionally, these structures will help increase ADA accessibility by accommodating the needs of all visitors.

Recommendations

As the bald eagles select their nest site, BCPOS will react accordingly. The department will consider the protection of wildlife, as recommended by CPW and USFWS, in relation to recreation, agricultural operations, and regional trails. Ensuring raptor protection from human activity and disturbances that might compromise reproductive success might positively affect outcomes. Therefore, management action to bolster protection of these sensitive wildlife species will always be considered. At the same time, the county recognizes the importance of the transportation functions of regional trails and will endeavor to provide alternate routes and detours that ensure a safe regional trail connection through the property at all times.

Improved Parking and Access

BCPOS has identified a list of actions to address parking that will be implemented in the following priority order

1. Coordinate with agency partners to explore off-site parking opportunities
2. Expand parking in the vicinity of the existing Stearns Lake Trailhead to provide 10 to 15 additional vehicle spaces and up to four horse trailer spaces if possible
3. Study Brainard Drive in the vicinity of the Cradleboard Trail to assess the feasibility of developing a new trailhead with 10 to 15 vehicle parking spaces and a trailhead kiosk

Trails

1. Along the north property boundary west of South 104th Street, develop a new trail to serve as an alternate detour route and access point, as needed, and assess the impact of seasonal or year-round recreational use of this trail on raptors that use the trees in the adjacent drainage.
2. Along South 104th Street, south of Stearns Lake, develop a regional trail connection and provide a more direct route to the South 104th Street Connector Trail, planned north of the trailhead to the Coal Creek Regional Trail
3. At the end of South 104th Street, reevaluate the existing intersecting farm roads and trails to identify and implement signage and alignment improvements that will ensure visitors can easily identify the trail

Recreational Activities

1. Increase and formalize shoreline access for anglers at Stearns Lake by installing stable rock deck structures
2. Maintain fisheries management at Stearns Lake by identifying species composition and an appropriate stocking schedule
3. Install additional benches and shade structures at Stearns Lake
4. Update and improve visitor signage throughout the open space
5. Improve ADA access in the vicinity of the south side of Stearns Lake and at locations along the trails through the property, where feasible

7. CULTURAL AND PALEONTOLOGICAL RESOURCES

Objectives

- Identify and record cultural and paleontological resources
- Increase tenant stewardship of significant resources
- Raise awareness of cultural and paleontological resource values
- Protect significant cultural and paleontological resources from adverse effects

Background

In total, only 39% of the entire property (385 acres) has been surveyed for cultural resources, and the need for a paleontological survey has not been addressed. Because of the collection of the cultural resource information over time through various individual projects, the information is fragmented into separate reports instead of one comprehensive report. This fragmentation results in inefficient and challenging resource management. In addition, the cultural resource information that has been collected is now considered obsolete by the State Historic Preservation Office (Office of Archaeology and Historic Preservation) because of its age. A strategic plan regarding how to best manage the cultural and paleontological resources at CHP/RCF is not possible without comprehensive surveys to identify all resources and determine their historic significance.

The historic buildings and structures are highly visible and significant resources on the property. Maintaining these resources is labor intensive and costly since they are still being used by the current tenants. Unclear roles and responsibilities by all parties have resulted in deterioration and damages to the resources. Staff is interested in developing educational opportunities at CHP/RCF to enhance user experience and raise visitor awareness about the cultural and paleontological resources of the property.

Recommendations

1. Perform complete intensive level (Class III) cultural resource survey and paleontological resource assessment
2. Complete archaeology assessment for Rock Creek stage station to determine site location and determine extent and significance of the prehistoric Goat Hill site
3. Develop strategic plan for CHP/RCF cultural and paleontological resources based upon the results of the cultural resource survey and paleontological assessment
4. Maintain historic buildings and structures in order to retain their historic physical integrity
5. Nominate property to the National Register of Historic Places to acknowledge its historic significance
6. Increase tenant stewardship of cultural and paleontological resources
7. Develop educational opportunities in partnership with BCPOS Education and Outreach workgroup
8. Strengthen BCPOS relationships and engagement with tribal and indigenous communities

8. AGRICULTURAL OPERATION USE OF HISTORIC BUILDINGS AND STRUCTURES

Objectives

- Improve viability of agricultural operations using the historic buildings and structures
- Build facilities that will adequately support the agricultural operation
- Increase tenant stewardship of cultural and paleontological resources
- Protect and preserve historic buildings and structures

Background

The agricultural operation headquarters at CHP/RCF is on the eastern side of the property and uses many of the historic buildings and structures. The use of these historic resources presents challenges to today's agricultural operation because of the limitations of their original construction, design, and layout as well as the commitment by BCPOS to retain the resources' historic integrity as part of the local historic landmark designation. BCPOS recognizes that providing adequate facilities is critical to maintaining an agricultural operation on the property.

The historic buildings provide some storage for small equipment, tools, and seed, but they are not large enough to accommodate tractors, trucks, or other machinery. The building currently serving as a shop is inadequate. There are no facilities for grain storage. Hay stacking and retrieving equipment will not fit into the low and narrow openings of the historic resources.

The capacity of livestock pens and corrals is limited because of their current configuration. A functional loading chute accessible by semi-tractor trailer trucks is needed.

The 2002 management plan recommended investigating alternative facilities in an area in the north central part of the property that is outside the local historic landmark boundary for the construction of a new shop, equipment storage building, crop storage building, and improved livestock handling facilities. Because of limited funding, the recommendations were not able to be completed.

BCPOS has not clearly discussed, defined, or formalized the tenant's responsibilities and use of the historic buildings and structures as part of their agricultural lease and in their agricultural operating plan. It would be beneficial to clarify BCPOS's expectations regarding tenant use and stewardship of the historic resources as well as better understand the tenant's agricultural practices and how they impact the historic resources, their needs for new equipment storage, and other related needs in the agricultural lease and the agricultural operating plan.

Recommendations

1. Explore options and costs to relocate some agricultural operations outside of the local historic landmark boundary to the north central part of the property
2. Identify tenant's building needs at new agricultural operation location
3. Discuss, define, and formalize tenant's responsibilities and use of the historic resources as part of their agricultural lease and in their agricultural operating plan

9. IRRIGATION AND WATER RESOURCE IMPROVEMENTS

Objectives

- Increase efficiency of water delivery and yield of water rights
- Address deferred maintenance and aging infrastructure
- Improve oversight of diversion structures and water conveyance in creeks
- Assess and address water quality

Background

The water resources of CHP/RCF must be managed in a way that balances all the resource needs associated with the property while complying with state water law and decreed uses of water rights. Agricultural operations use water to raise crops and livestock, and its existence is imperative to the longevity and success of the farming operations at CHP/RCF. Recreational activities, including bird watching and fishing, heavily depend on the property's surface water features. Water resources are also an important factor when considering wildlife and plant communities and their corresponding habitats.

Improvements to Stearns Lake Dam must be considered in order to address its water storage capacity and water seepage issues. It is difficult to address these concerns without knowing the full extent of these issues. Therefore, a preliminary bathymetric survey would need to be completed to assess water depth and storage capacity. Dam reconstruction, dredging, spillway modification, and structural improvements are viable options and are being considered to improve Stearns Lake Dam in the future.

Because of increased runoff and sedimentation within Rock Creek, Buffalo Gulch, and their associated wetlands, water flow and drainage is severely incised in several locations. Drainage needs to be restored in these severely affected areas so water can flow freely through the property and to avoid breaking any water impoundment laws. Overall, management of these perennial streams and their associated infrastructure needs some mitigation to improve the poor condition of these areas.

Remediation of the impaired waterway requires coordination among landowners and jurisdictional agencies both upstream and downstream. Boulder County can take measures to protect water quality on our property through management actions based on additional sampling and analysis. However, unless the segments upstream of CHP/RCF are remedied and protected from inputs, pollutants will continue to exist in the creek as it passes through our property because management of this single property along the 15-mile reach cannot prevent upstream and downstream impairment. BCPOS can work to ensure that it does not further impair the water quality as it passes through the property. Additional analysis is needed to identify sources of contamination and recommended mitigation measures.

Staff desires to better understand the water quality profile and the potential impacts from untreated runoff from surrounding developments, treated wastewater, riparian grazing, and denuded prairie dog areas. Although a water quality program does not exist at BCPOS, we can continue to partner with Boulder County Public Health, the Keep it Clean Partnership, and other outside entities and begin developing a better picture of the health of these waterways and develop management actions to address any identified issues that we can control.

On-farm irrigation infrastructure can be improved to increase efficiency and thereby increase yield of the property's water rights. New installations of water accounting infrastructure would allow BCPOS staff to more closely measure the amount of water flowing into and out of the property. This recording infrastructure would assist with storage capacity efforts and improve use of the property's decreed water rights.

Recommendations

Stearns Lake Dam Resiliency and Infrastructure

1. Retrofit toe drain with French drain
2. Complete reconstruction to replace all outlet pipes and restore storage from sedimentation

Water Quality

1. Understand the water quality impairment of Rock Creek throughout property by conducting sampling and analysis, and compare results with municipal water quality sampling along the creek to better understand BCPOS's influence and any contributions in this reach
2. If impairments are identified due to land management activities at CHP/RCP, BCPOS will collaborate with Boulder County Public Health experts to identify constraints, opportunities, and recommendations for adjusting our management practices accordingly
3. Continue working with the county-led Keep it Clean Partnership to engage its membership, including local municipalities, to address the impaired condition of Rock Creek

Irrigation Infrastructure Improvements

1. Center pivot relocation (104th Street Trail/expand to include field 7 (underground utility)
2. Water use accounting infrastructure
3. Diversion structure maintenance
4. Pipe ditch across Buffalo Gulch to increase irrigation efficiency and retain native flows in stream
5. Address locations along trails with standing water and ponding condition
6. Buffalo Gulch (detailed in the below section)

10. BUFFALO GULCH

Objectives

- Minimize active management of waterway
- Require minimal maintenance
- Improve conveyance of stormwater and ephemeral flows to Rock Creek
- Ensure compliance with water laws
- Improve riparian condition within Critical Wildlife Habitat #78

Background

Buffalo Gulch Creek is historically an intermittent stream that was dry several months of the year but became a perennially flowing waterway as a result of continued growth in surrounding developments and the associated significant increase in both impervious surfaces and landscaping water use. In association with the Denver-Boulder Turnpike development, BCPOS installed infrastructure improvements along the west end of Buffalo Gulch in the southern portion of the property to create two wetland areas to improve waterfowl habitat.

However, since BCPOS does not have decreed water rights within Buffalo Gulch, it must convey flows to the receiving waterway in accordance with state water law. A pipeline and flow control structure exist to regulate the passage of water through the ponds and down the creek corridor. The spillways exist at each pond and are designed to activate in larger storm events.

Over the course of years, because of increased flow and resultant sedimentation, the condition of the habitat has changed. The change in flows and channelization from an outlet pipe have also incised the creek banks, which has degraded the habitat health along the riparian corridor. Adjustment of spillway height and removal of pipelines will improve conveyance of flows, riparian habitat, and habitat connectivity. Currently, the conveyance system requires active management by staff. Modifications are needed to achieve a more passive system.

Restoration of Buffalo Gulch could include adding meanders into the drainage to restore natural sinuosity and riparian habit creation along its length while passing flow as required.

Recommendation

1. Restore the riparian corridor to allow for passive management of flows while retaining habitat values
2. Modify existing spillways to a lower elevation and remove pipelines to create a secondary flow path
3. Enhance creek and riparian areas to address incision and improve connectivity throughout Buffalo Gulch
4. Collaborate with City and County of Broomfield on clean-up event to remove trash from ponds and drainage area

11. INVASIVE WEED MANAGEMENT

Objectives

- Control noxious weeds that threaten the agricultural and natural resources on the property
- Clarify responsibilities for weed control by BCPOS and agricultural tenant
- Provide for weed management of cropland through the lease agreement with the tenant

Background

The agricultural tenant and the department share the responsibility for providing weed management. The agricultural operations lease provides for the tenant to manage the weeds on all cropland, along farm roads, around livestock-handling facilities, and in equipment storage areas. BCPOS is responsible for management along trails and in riparian areas, wetlands, and natural area buffers.

The restoration and management of native and restored grasslands will be directed by the department. Prescribed grazing of these areas will provide forage for the tenant's livestock enterprise and will benefit goals for achieving and maintaining a desirable level of health of the grasslands. Although the tenant will have an important role in the management of the grasslands, the department will guide management of these areas for multiple values. Therefore, the department will have the primary responsibility for weed management of the grassland areas during and after restoration, until grazing is reintroduced.

It's important to note that there may be exceptions to the responsibilities for weed management. For areas where there is overlap in who performs the control, BCPOS and the tenant will coordinate responsibility and outline who will perform various activities.

A consistent effort to manage weeds will use integrated weed management principles and practices. Tools may include the use of herbicides, biological control, tillage, grazing, mowing, and prescribed burns, where appropriate.

Recommendations

1. Coordinate with the agricultural tenant on performing management as outlined in the lease and agricultural operating plan
 - The tenant will continue to manage weeds on all cropland, along farm roads, around livestock-handling facilities, and in equipment storage areas
2. BCPOS is responsible for management along trails and in riparian areas, wetlands, and natural area buffers
3. BCPOS also is responsible for weed management of the grassland areas during and after restoration, until grazing is reintroduced

12. BIRDS OF PREY FOUNDATION OPERATIONS

Objectives

- Support Birds of Prey Foundation operations at CHP/RCF

Background

The Birds of Prey Foundation has been operating under a tenant agreement at CHP/RCF for more than 30 years. Nearly 15,000 birds had been admitted and helped by the foundation since its beginning. Although the ICU is located along 104th Street on the west side of CHP/RCF, the flight cages are adjacent to the historic agricultural site on the east side of the property accessed by Highway 287. The flight cages also are within the regulatory floodplain, which limits the prospect for repairs or restoration. There is potential for BCPOS to provide the Birds of Prey Foundation additional acreage on CHP/RCF at its 104th Street facility, which occupies the Dwight Nelson farm. This acreage would allow the foundation to both expand and consolidate operations at this location, by reconstructing their flight cages there.

Recommendations

1. Continue partnership with Birds of Prey Foundation
2. Collaborate with Birds of Prey Foundation to best use the property in a way that is mutually beneficial and meets the needs of both Boulder County and the foundation

13. STANDARD OPERATING PROCEDURES

Objectives

- Improve agency and stakeholder partnerships through clear communication and coordination
- Clarify expectations and outline protocols and processes

Background

Standard Operating Procedures (SOPs) define the processes carried out in communicating and coordinating a change to regular operations or use. The development and use of SOPs are an integral part of a successful operation, as they provide individuals with the information to perform a job properly and facilitate consistency in the quality and integrity of a product or end result.

Recommendations

Review and refine protocols to establish SOPs for the following:

1. Tenant stewardship of land, buildings, and structures
2. Avoidance of adverse impacts to cultural and paleontological resources during ground disturbance activities
3. Storage of equipment, tractors, trucks, and other machinery
4. Notification procedures for seasonal wildlife closures
5. Responsibilities and protocols for managing access gates/fences restricting use of riparian areas

3.3 Implementation, Monitoring, and Modification of the Management Plan

An outcome of this management plan is a list of implementation activities. These activities range from new capital improvements, such as the construction of trails, to continuing tasks, such as resource monitoring. Some recommendations entail a further period of additional exploration in order to fully consider alternatives. Project objectives are specific action items intended to implement each recommendation, as listed in Chapter 3. For ease in reviewing the property management recommendations and changes, these items are presented in table form, with the rows consisting of project-based actions from each of the plan recommendations, while the columns define several parameters of the actions: lead workgroup, supporting workgroups, timeframe anticipated to initiate the action, estimated cost in dollar ranges, and departmental priority of the initiative.

Timeframe and Funding

Actions will be initiated as funding becomes available. The timeframes outlined coincide with the current Parks & Open Space Improvement Program (POSIP), a rolling five-year program currently addressing fiscal years 2021 – 2026. Although some actions might be fully funded by the POSIP, others will require that county funds leverage state and federal grant funding, particularly for trail and trailhead facilities. To this end, implementation of the proposed management plan and individual actions is dependent on available funding and other department-wide and county-wide priorities.

Priority

Management plan actions are prioritized in a simple hierarchy in Table 1 that includes the following categories:

- **High:** the most important objectives and will take priority over other strategies. High-priority projects might not necessarily be implemented before other projects but will be the primary focus of the BCPOS Department within the planning area.
- **Medium:** projects still considered important but typically less critical. These projects might include project objectives that are necessary but occur on a one-time basis only (e.g., a survey) or could be implemented sometime in the future when more resources are available (e.g., restoration).
- **Low:** these project objectives are important for the long-term management of the property but are not critical. They represent work that is valuable but is not projected to have funding or staffing resources for years into the future, perhaps even to the end of the planning horizon.

The management plan will be reviewed and amended on an as-needed basis to reflect changing conditions, new information, and budgetary realities. This strategy reflects the department’s adaptive management philosophy. Significant changes to the property will be detected through resource monitoring activities. Any major changes or amendments to the management plan would require additional public involvement.

Carolyn Holmberg Preserve at Rock Creek Farm Management Plan • 2020 Update

AG – Agricultural resources	RAF – Recreation and Facilities	CLG – Certified Local Government
CR – Cultural Resources	RM – Resource Management	CPW – Colorado Parks & Wildlife
E/O – Education and Outreach	WR – Water Resources	GOCO – Great Outdoors Colorado
PE – Plant Ecology	WL – Wildlife	FIF – Fishing is Fun
T – Tenant	WM – Weed Management	MHF – Mile High Flood District
		SHF – State Historical Fund
		Steward. – Stewardship
		Sustain. - Sustainability

Cost Estimate	
\$	Under \$25K
\$\$	\$25K to \$50K
\$\$\$	\$51K to \$99K
\$\$\$\$	Over \$100K
Priority	Low, Medium, High

Action	Lead	Support	Timeframe			Cost	Potential Funding	Priority
			Ongoing	2021-2026	2027+			
1. DESIGNATION AND USE OF 40-ACRE BURROWING OWL PRESERVE AND OTHER AG FIELDS								
A. Field 7								
1. Relocate prairie dogs to suitable areas within BCPOS lands	WL	AG PE		√		\$\$\$	Steward.	H
2. Begin conversion from dryland rangeland to cropland	AG	Tenant		√		\$	Steward.	H
3. Place existing overhead power lines underground	AG				√	\$\$\$	AG, Steward.	M
B. Field 65								
1. Discontinue crop production and cultivation	AG	RM, Tenant		√		\$\$\$		H
2. Temporarily defer livestock grazing until the plant community recovers	AG	WL, PE		√		\$		H
3. Annual coordination on ag operations and prescriptive grazing plans			√			N/A		H
2. GRASSLAND RESTORATION								
1. Reduce prairie dog densities on HCA and MOA designated lands	WL	AG, PE	√			\$\$\$\$		H
2. Develop revegetation schedule for mixed native/introduced species	PE/AG	WL		√		N/A		H
3. Commence restoration activities	PE/AG	WL	√	√		\$\$\$\$	Steward., Sustain.	H
4. Monitor and adjust to achieve desired ecosystem function of grasslands	PE	WL, AG			√	\$		M
5. Temporarily defer livestock grazing until the plant community recovers	AG	PE, WL		√		N/A		H
6. Annual coordination on ag operations and prescriptive grazing plans	AG	PE, WL	√			N/A		H

Carolyn Holmberg Preserve at Rock Creek Farm Management Plan • 2020 Update

Action	Lead	Support	Timeframe			Cost	Potential Funding	Priority
			Ongoing	2021-2026	2027+			
3. PRAIRIE DOG MANAGEMENT								
1. Continue management of current No Prairie Dog land designations	AG	WL	√			\$\$	AG, Steward.	H
2. Maintain current MOA and HCA designations at RCF/CHP	WL	AG, PE	√			N/A		H
3. Install barriers to prairie dog dispersal along the field 44 northern boundary west of S. 104th Street in conjunction with proposed new trail	WL	AG, RAF		√		\$		H
4. Complete deferred maintenance of barrier fencing along field 42 southern boundary adjacent to Lac Amora	WL	AG		√		\$		H
4. RIPARIAN HEALTH								
1. Define goals and objectives for maintaining desired riparian habitat	PE	AG, WL	√	√		N/A		H
2. Remove grazing from areas of past restoration projects in fields 78 and 66 until willows are above browse height	AG	PE, WL	√	√		N/A		H
3. Establish prescriptive grazing plan that prioritizes riparian habitat and plant communities	AG	PE, WL		√		N/A		H
4. Review and update Agricultural Operations Plan annually	AG	PE, WL	√	√		N/A		H
5. Identify options for livestock water and access to waterways, as needed	AG	PE, WR		√		\$\$	Steward.	H
6. Preserve grassland/wetland habitat in field 72 at current size and continue current dormant season grazing practices	PE	AG	√					
7. Maintain fence/gates along riparian corridors	PE	AG/ Tenant		√		\$	AG, PE	H
8. Cost share expenses with tenant to maintain fence/gates	AG/PE	Tenant	√	√		\$	AG, PE, Tenant	H
9. Remove/replace high tensile electric fencing with barbed wire fencing	AG	PE		√		\$\$\$	Steward.	H
10. Protect/expand riparian vegetation stands, including large cottonwood trees	PE	WL		√		?		M
11. Establish new cottonwood plantings and protect from grazing	PE	WL		√		\$		M
5. WILDLIFE CLOSURES OF THE REGIONAL TRAIL								
A. Cradleboard Trail west of 104th Street to Brainard Drive								
1. Develop trail along northern boundary west of 104th Street as detour route only	RAF	AG, RM		√		\$\$\$\$	CPW, GOCO	H
2. Assess the impact of seasonal or year-round recreational use of this trail on raptors that use the trees in the adjacent drainage	WL	AG, RM			√	\$		M

Carolyn Holmberg Preserve at Rock Creek Farm Management Plan • 2020 Update

Action	Lead	Support	Timeframe			Cost	Potential Funding	Priority
			Ongoing	2021-2026	2027+			
B. Cradleboard Trail east of 104th Street to Stearns Lake								
1. If bald eagles nest near the trail and a detour route is possible to maintain regional connectivity, implement seasonal nesting closure and detour of trail	WL	AG, RAF	√			N/A		H
2. Explore feasibility of new trail to relocate existing trail to 104th Street between end of 104 th Street to Stearns lake Trailhead	RAF	AG, RM		√		\$\$\$		H
6. RECREATION, VISITOR ACCESS AND ACCESSIBILITY								
A. Improved Parking and Access								
1. Coordinate with agency partners to explore off-site parking opportunities	RAF	AG, CR, RM			√	N/A	CPW, GOCO	M
2. Expanding parking in vicinity of existing Stearns Lake Trailhead	RAF	AG, CR, RM			√	\$\$	CPW, GOCO	M
3. Study development of a potential future trailhead along Brainard Drive in the vicinity of the Cradleboard Trail	RAF	AG, CR, RM			√	\$	CPW, GOCO	M
B. Trails								
1. Develop trail along northern boundary west of 104th Street as seasonal detour, we needed, and assess the impact of seasonal or year-round recreational use of this trail on raptors that use the trees in the adjacent drainage.	See 5. A. 1.							
2. Along South 104th Street, south of Stearns Lake, develop a regional trail connection	See 5. B. 2.							
3. At the end of South 104th Street, reevaluate the existing intersecting farm roads and trails to identify and implement signage and alignment improvements	RAF	AG, CR, RM		Design √	Build √	\$\$	CPW, GOCO	H
C. Recreational Activities								
1. Improve fishing access and maintain fisheries management at Stearns Lake	WL	RM, RAF		√		\$	CPW, FIF	M
2. Install additional benches	RAF	E&O		√		\$		M
3. Update and improve visitor signage	E&O	RAF		√		\$\$		M
4. Improve ADA access	RAF			√		\$\$		H
A. CULTURAL AND PALEONTOLOGICAL RESOURCES								
1. Complete intensive level (Class III) cultural resource survey and paleontological resource assessments	CR			√		\$\$\$	SHF	H
2. Complete archaeology assessment to determine site of Rock Creek stage station and extent and significance of the prehistoric Goat Hill site	CR			√		\$\$	SHF	M

Carolyn Holmberg Preserve at Rock Creek Farm Management Plan • 2020 Update

Action	Lead	Support	Timeframe			Cost	Potential Funding	Priority
			Ongoing	2021-2026	2027+			
3. Develop strategic action plan on based upon the results of the survey and assessment	CR				√	N/A		H
4. Maintain historic buildings and structures in order retain their historic physical integrity	CR	AG, RAF	√			\$\$\$	SHF	H
5. Nominate property to the National Register of Historic Places	CR			√		\$	CLG, SHF	M
6. Increase tenant stewardship of cultural and paleontological resources	CR	AG, E&O	√			N/A		H
7. Develop educational opportunities	CR	E&O	√			N/A		M
8. Strengthen relationships and engagement with indigenous and tribal communities.	CR					N/A		H
B. AGRICULTURAL OPERATIONS USE OF HISTORIC BUILDINGS AND STRUCTURES								
1. Explore options and costs to relocate some ag. operations outside of the local historic landmark boundary to the north central part of the property	AG			√		N/A		H
2. Identify tenant’s building needs at new agricultural operation location	AG			√		N/A		H
3. Formalize tenant’s responsibilities and use of the historic resources as part of their agricultural lease and agricultural operating plan	AG	CR		√		N/A		H
C. IRRIGATION AND WATER RESOURCE IMPROVEMENTS								
A. Stearns Lake Dam resiliency & infrastructure								
1. Retrofit toe drain with French drain	WR	RM, RAF		√		\$\$\$		M
2. Reconstruction to replace all outlet pipes and restore storage from sedimentation	WR	RM, RAF		√		\$\$\$\$		M
B. Water Quality								
1. Conduct sampling and analysis and compare with municipal water quality sampling along the creek to better understand influence in this reach.	WR	RM, RAF		√		\$\$		M
2. If impairments are identified due to activities at CHP/RCP, collaborate with BCPH experts to identify constraints and opportunities for addressing these issues	WR	RM, RAF		√		N/A		M
1. Continue collaborating with Keep it Clean Partnership to address impaired condition of Rock Creek	WR	RM, RAF		√		N/A		M
C. Irrigation infrastructure improvements								
1. Relocate center pivot sprinkler for 104th Street Trail and include field 7	AG	RAF, WR		√		\$\$\$\$	Steward.	M
2. Water use accounting infrastructure	WR	AR		√		\$		H

Carolyn Holmberg Preserve at Rock Creek Farm Management Plan • 2020 Update

Action	Lead	Support	Timeframe			Cost	Potential Funding	Priority
			Ongoing	2021-2026	2027+			
3. Diversion structure maintenance	WR	AG	√	√		\$		L
4. Pipe ditch across Buffalo Gulch to increase efficiency, and retain native flows	WR	RM		√		\$		L
5. Address locations along trails with standing water and ponding	RAF	WR		√		\$		M
D. BUFFALO GULCH WETLANDS HEALTH & RIPARIAN HABITAT								
1. Modify existing spillways to a lower elevation, and remove pipelines to create a secondary flow path	WR	RM		√		\$\$\$	Steward.	M
2. Enhance creek and riparian areas to address incision and improve connectivity throughout Buffalo Gulch	RM	WR			√	\$\$\$\$	MHFD	L
3. Collaborate with Broomfield on cleanup event to remove trash	RM	WR		√				
E. INVASIVE WEED MANAGEMENT								
1. Coordinate with agricultural operations tenant on performing management as outlined in lease and agricultural operating plan	AG, WM	Tenant	√			N/A		H
2. Manage weeds along trails, riparian, wetlands, and natural buffer areas	WM, RAF	PE	√			\$		H
3. Manage weeds on grassland areas during restoration, until grazing is reintroduced	AG, PE, WM	Tenant	√			\$		H
F. BIRDS OF PREY FOUNDATION OPERATIONS								
1. Continue partnership with Birds of Prey Foundation	RE	AG, RM		√		N/A		H
2. Collaborate to best use the property in a way that is mutually beneficial and meets the needs of both Boulder County and BOP	RE	AG, CR, RM		√		N/A		H
G. STANDARD OPERATING PROCEDURES								
A. Review and refine protocols to establish standard operating procedures for the following:								
1. Tenant stewardship of land, buildings, and structures	CR	AG		√		N/A		H
2. Avoid impacts to cultural and paleo resources during ground disturbance activities	CR	AG		√		N/A		H
3. Storage of equipment, tractors, trucks, and other machinery	AG	CR, RM		√		N/A		H
4. Notification procedures for seasonal wildlife closures	WL	RAF		√		N/A		H
5. Responsibilities and protocols for managing access gates/fences restricting use of riparian areas	AG	PE		√		N/A		H

CHAPTER 4 – PUBLIC ENGAGEMENT

4.1 Introduction

BCPOS initiated a public engagement process in March 2020 to share information and gather stakeholder input on the management plan update. BCPOS used a project web page and community outreach techniques to publicize upcoming meetings. These events included two open houses along with public meetings to present the plan to the Parks & Open Space Advisory Committee (POSAC), Historic Preservation Advisory Board (HPAB), and BOCC. Stakeholder meetings with tenants and Broomfield also were convened.

4.2 Public Outreach

Project Web Page

In February, BCPOS launched the boco.org/CHPplan web page to provide information during the plan update process. The site included background information, a timeline of the plan update process, upcoming meetings on the plan, and an online comment form. All online comments submitted are visible on the public comments page and were taken into consideration as the management plan moved through the decision process. This web page ensures transparency, shares input among interested stakeholders, and provides instant access of comments to POSAC and BOCC.

Community Outreach

BCPOS collaborated with the City and County of Broomfield to mail notification postcards to property owners within 1,500 feet of CHP/RCF property in either county. Additionally, staff posted fliers at trailheads and access points within the vicinity of CHP/RCF at key engagement times in the plan update process — before the spring open house and in advance of releasing the draft plan for public comment in the fall. BCPOS also issued a press release and made social media posts to publicize the open house, project web page, and online comment form.

Public Meetings

Below is an overview of meetings held to share information and receive input during the plan development process.

Initial Public Comment

Public Open House

Wednesday, March 11, 4:30 – 6:30 p.m.

Poster session with a project presentation, followed by question-and-answer period to browse maps, share concerns and ideas with staff, and submit comments. Twenty-seven community members attended.

POSAC Meeting

Thursday, April 23, 6:30 p.m.

The plan update was an information item with a staff presentation on the proposed plan framework and schedule for POSAC discussion. The meeting was held virtually and provided an opportunity for stakeholder input. Ten community members attended and submitted comments.

Carolyn Holmberg Preserve at Rock Creek Farm Management Plan • 2020 Update

Site Visits

These staff-led tours provided an opportunity to learn about the CHP/RCF plan update.

POSAC and HPAB

Thursday, September 24, 5 – 6:45 p.m.

Seven members from POSAC and from HPAB attended. Two members of the public also attended, though there was not an opportunity for formal public comment.

BOCC

Friday, October 16, 1 – 3 p.m.

All three BOCC members attended.

Draft Plan for Public Input

Virtual Public Meeting

Tuesday, October 27, 4 – 5:30 p.m.

Staff presented an overview of the draft plan update, including the public input and approval process. A question-and-answer session followed.

Plan Adoption Process

HPAB Meeting

Thursday, November 5, 6 p.m.

Information item with staff presentation and board discussion on the draft plan update with an emphasis on cultural resources at CHP/RCF.

POSAC Committee Meeting

Thursday, November 19, 6 p.m.

Action item with a staff presentation, public hearing, and recommendation to the Boulder County Board of Commissioners on the draft CHP/RCF Management Plan Update.

BOCC Meeting

Tuesday, December 15, 1 p.m.

Public Hearing with a staff presentation and board consideration of recommendation.

Stakeholder Meetings

During the initial scoping for the 2020 plan update, BCPOS convened stakeholder meetings with the agricultural operation tenant and the Birds of Prey Foundation tenant to gather their input on what is working well and on areas for improvement. Staff also met with the tenants prior to releasing the draft plan update in the fall. An interagency meeting also was held with representatives from the City and County of Broomfield Open Space Department at key points in the plan development process.

4.3 Initial Public Comments Received on Plan Update Process

In March, BCPOS posted an online comment form, open until September 1, to gather public input on the CHP-Plan update at www.boco.org/CHP-Plan. Public stakeholders submitted 86 comments through online comment form. These comments are provided in Appendix F.

About 20 comments were received soon after the open house in March and before the POSAC meeting in late April. Many of these stakeholders shared feedback related to several of the proposed topic areas. Almost all mentioned a desire for achieving a better balance among uses and particularly among agricultural operations, recreational access, and wildlife, especially prairie dogs. Some shared that they value wildlife as a higher priority than agricultural and recreational uses, while others would like to see better management of prairie dogs to restore native grasslands. Another theme was the desire to keep regional trail access open during wildlife closures as it is a critical regional connector trail.

During the POSAC meeting, which was held virtually and provided an opportunity for stakeholder input, 10 community members submitted comments expressing interest in the protection of the bald eagle nest and prairie dogs on the CHP/RCF property.

Another nine comments, submitted through early June, shared input regarding recreational use at CHP/RCF, including support for trails, and rerouting them as needed for wildlife closures, maintaining soft surface trails rather than improving them to hard surface trails, and providing connectivity to regional trails, such as the U.S. 36 bikeway. Other input mentioned a desire for more benches and shade near Stearns Lake and a request to keep enforcing leash laws.

In July, the City and County of Broomfield submitted a summary of comments staff prepared that were reviewed by the Open Space and Trails Advisory Committee (OSTAC) on July 23 and adjusted to address comments made by OSTAC members at this meeting. This input requested the CHP/RCF plan update provide: 1) alternative trail routes to address seasonal wildlife closures, 2) long-term plans for the Birds of Prey facility, 3) a provision for designated prairie dog areas, 4) mitigation of prairie dogs onto adjacent agricultural properties, 5) improved trailhead parking and access, 6) an evaluation of oil & gas development, 7) continued shared use of the Goodhue House, and 8) coordinated land management. The July 29 email from Kristen Pritz, Broomfield Director of Open Space and Trails is provided in Appendix F.

Most comments were received from June to August and expressed support for preserving habitat and minimizing disturbance to the pair of bald eagles that have been nesting in the vicinity of CHP/RCF since 2012. The majority of these comments cited support for recommendations outlined in a statement prepared by Eagle Environmental Inc (EEI) and submitted by Front Range Nesting Bald Eagle Studies (FRNBES) on July 13. Several stakeholders also submitted comments by email. These comments were shared with the POS ID team for consideration and added to the public record of comments provided in Appendix F.

The statement suggested several management actions be considered as part of the plan update, including:

- Permanently close the segment of the Rock Creek regional trail east of 104th Street to Stearns Lake (detailed in the statement as “cut-off-trail”).
- Install an artificial nest platform.
- Reduce or eliminate management of prairie dogs within buffer zone of newly established nest in Perch D to support prey for bald eagles.
- Develop critical wildlife management plan for bald eagles at CHPRCF.

Staff responses to suggestions outlined in the EEI statement and by additional stakeholders are outlined below except for rerouting the Rock Creek regional trail east of 104th Street to Stearns Lake, which is addressed in the recommendations outlined for Wildlife Closures of the Regional Trail in Chapter 3 of the plan update.

Carolyn Holmberg Preserve at Rock Creek Farm Management Plan • 2020 Update

- Develop specific plans for BCCP-designated Wildlife Species of Special Concern (including burrowing owl, bald eagle, and black-tailed prairie dog, as well as northern leopard frog)

BCPOS has established a Burrowing Owl Action Team (BOAT) that includes staff from our Agriculture, Recreation and Facilities, and Resource Management divisions. The goal is to identify burrowing owl nesting territories, then ensure protections are implemented on an annual basis. More than 30 volunteers monitor every prairie dog colony on county open space for burrowing owls annually. When a potential nest is detected, BCPOS wildlife biologists follow up to confirm the nest. The BOAT then compiles maps and protocols for trails, agriculture and other BCPOS activities to assure nest protection throughout the duration of the nesting season.

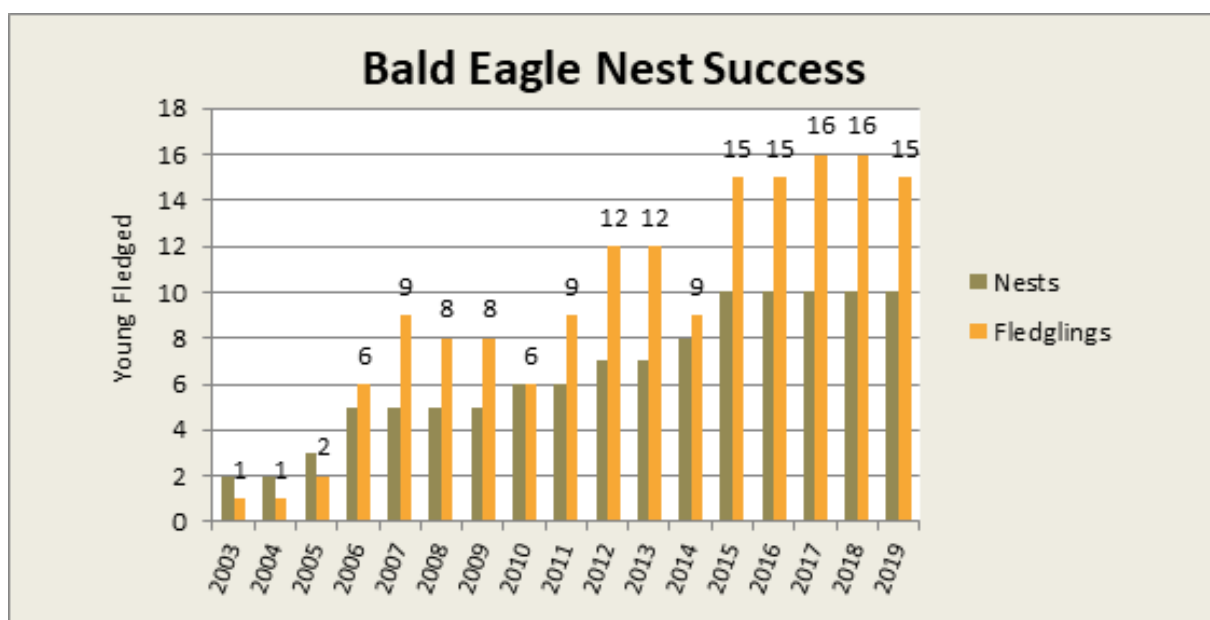
BCPOS began a similar Action Team with clear goals and processes for bald eagle nests across our system. At CHP/RCF, for the past two years when the bald eagles have nested near the open space trails, CPW and USFWS have collaborated to make a plan for protecting the nests, which included closing sections of the trail and placing signs so visitors would be informed to keep moving when in close proximity to the nest. The trail was again be closed on October 15, 2020, to protect the nest.

Regarding northern leopard frogs, staff monitors known habitat, and when frogs are detected, staff works to protect their habitat with fencing and alternative watering sources for cattle. Staff are finalizing the Conservation and Recovery Plan for Northern Leopard Frog for use by both BCPOS staff and the public that may have northern leopard frog habitat on their property. This plan will be completed by the end of 2020.

For prairie dog management, BCPOS continues to use the publicly reviewed and BOCC-approved Prairie Dog Management Plan.

- Reduce or eliminate management of prairie dogs within buffer zone of newly established nest in Perch D to support prey for bald eagles

BCPOS has been implementing its Prairie Dog Management Plan since 1999. That plan designates areas as Habitat Conservation Areas, MOA, and NPD areas. Where irrigated agriculture is the priority on BCPOS property, staff removed prairie dogs from NPD areas. Since 2003, there has been unprecedented growth in bald eagle nests on or adjacent to open space. The following graph depicts this growth.



Carolyn Holmberg Preserve at Rock Creek Farm Management Plan • 2020 Update

Eagles have established because there is sufficient prey in the vicinity of their nests — prairie dogs, small rodents, fish, birds, and scavenge from other raptors. The bald eagle nesting success is a source of pride for BCPOS. Seeing the nesting success with the current land management practices, it is not deemed essential to change the prairie dog management within one half-mile of a nest.

- Installation of an artificial nest platform

BCPOS seriously considered installing an artificial nest as a possibility but does not intend to pursue this action. Raptor use of artificial nest structures is not guaranteed, and installation is costly and potentially dangerous. At CHP/RCF, there are additional large cottonwood trees on the property that can, and could in the future, serve as nesting trees. Additionally, with the planned current and long-term mitigation strategies to limit disturbance to bald eagle nesting locations at CHP/RCF, BCPOS believes that the installation of an alternate nest platform is unnecessary.

4.3 Public Comments Received on Draft CHP-Plan Update

On October 19, BCPOS released the draft management plan update with recommendations for refinements to the management of the CHP/RCF open space. The plan and public comment form were posted on the plan update webpage and remained open until December 15. All comments were published in real time on the webpage. Prior to the POSAC meeting, stakeholders submitted 61 comments using the online form. A majority of stakeholders provided input about prairie dog management. Public comments on the draft plan received are provided in Appendix G.

Staff hosted a virtual public meeting on October 27 to present an overview of the draft plan update, recommendations, and the public input and approval process. A question-and-answer session followed the presentation. Eighteen community stakeholders participated in the public meeting. Staff answered about two-dozen questions, most about prairie dog management. Additional questions answered regarded the agricultural operation, cultural resources, proposed trail and trailheads, and raptors including bald eagles and burrowing owls. A summary of the Q & A session is provided in Appendix H.

In conformance with an intergovernmental agreement (IGA) between Boulder County and Broomfield, BCPOS staff notified Broomfield about the CHP/RCF plan update. At the request of Broomfield staff, BCPOS provided an informational update to the City and County of Broomfield Open Space and Trails Advisory Committee (OSTAC) at its meeting on October 22, shortly after the plan had been released. OSTAC members sought information about refinement of recommendations relating to wildlife, trails and recreation, and the Birds of Prey Foundation. Initial feedback received from OSTAC members at the meeting expressed support for maintaining the Rock Creek regional trail connection to and through CHP/RCF and for retaining the Birds of Prey Foundation facility at the site. Some members shared concern for changing the designation of the 40-acre burrowing owl preserve and reducing the acres of prairie dog habitat. OSTAC submitted formal comments to BCPOS on November 5. BCPOS provided responses on Dec. 8. The comments and responses are provided in Appendix I.

On November 5, staff presented the draft plan as an information item to the Historic Preservation Advisory Board. Staff received input on the historic and cultural resources present on the property and recommendations for refinement. HPAB encouraged the recommendation to fund and conduct a complete cultural survey of the entire property. They also expressed appreciation for the county's awareness and attention to acknowledging the indigenous people on the land.

4.4 List of Staff Participants in the plan preparation

Director's Office

Eric Lane, Director
Vivienne Jannatpour, Public Information & Engagement Manager
Nik Brockman, Web Administrator

Resource Planning

Jeff Moline, Manager
Marni Ratzel Resource Planner
Jameson Reiser, Intern
Carol Beam, Cultural Resources Project Coordinator
Kristi VanDenBosch, GIS Manager
Erik Hinkley, GIS Specialist

Agricultural Resources

Rob Alexander, Senior Resource Specialist
Amy Schwartz, Resource Technician
Trent Kischer, Resource Specialist
Audrey Butler, Water Resource Program Supervisor

Resource Management

Therese Glowacki, Manager
Pascale Fried, Education & Outreach Supervisor
David Hirt, Plant Ecology Supervisor
Steve Sauer, Weeds Supervisor
Susan Spaulding Wildlife Supervisor
Michelle Durant, Wildlife Biologist
Bevin Carithers, Resource Protection Supervisor
Jason Vroman, Lead Park Ranger

Recreation and Facilities

Al Hardy, Manager
Will Towle, Building & Historic Preservation Supervisor
Jeff Cox, Grounds Supervisor
Andy Tyler, Trails Supervisor
Bethani Puzo, Landscape Architect

Real Estate

Janis Whisman, Manager
Sandra Duff, Senior Land Officer
Brandon Pumphrey, Land Officer

CHAPTER 5 – GLOSSARY

Agri-tourism: a commercial business at a working farm, ranch, or agricultural operation for the enjoyment of visitors that generates supplemental income for the owner.

Cultural resources: buildings, sites, structures, objects, or districts evaluated as having significance in prehistory or history.

Cultural resource survey: collection and analysis of information concerning the physical remains that represent our past. The information characterizes both the resources and their location and becomes the basis for evaluation, planning, and management.

Local historic landmark: structure, site, or district which has been designated by the BOCC because of its historic significance and importance to the county. (Article 15 Land Use Code)

Paleontological resources: fossils are the remains, imprints, or traces of once-living organisms preserved in rocks and sediments. These fossils include mineralized, partially mineralized, or unmineralized bones and teeth, soft tissues, shells, wood, leaf impressions, footprints, burrows, and microscopic remains. Fossils are non-renewable natural resources that possess great scientific, educational, and interpretive value.

APPENDICES

APPENDIX A – Initial Topic Summary Descriptions

APPENDIX B – 2002 Management Plan for Carolyn Holmberg Preserve at Rock Creek Farm

APPENDIX C – BCPOS Relevant Policies

APPENDIX D – BCCP Relevant Goals

APPENDIX E – Intergovernmental Agreement with City and County of Broomfield

APPENDIX F – Initial Public Comments

APPENDIX G – Public Comments submitted on draft plan submitted by Dec. 7

APPENDIX H – Q & A from October 27, 2020 public meeting

APPENDIX I – Comments and BCPOS responses on draft plan from Broomfield staff and OSTAC