

#### Parks & Open Space

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#### PARKS & OPEN SPACE ADVISORY COMMITTEE MEETING

Time/Date of Meeting: 6:30 p.m., Thursday, Oct. 26, 2023 Location: Boulder County Courthouse 1325 Pearl Street, Third Floor, Boulder

TO: Parks & Open Space Advisory Committee

FROM/PRESENTER: Heidi Wagner, Resource Planning Manager

Jeff Moline, Senior Planner Whitney May Taylor, Planner II

AGENDA ITEM: Draft East Boulder Creek Site Plan

**ACTION REQUESTED:** Feedback Requested

#### Introduction

Boulder County Parks & Open Space has released a draft management plan for the East Boulder Creek Site. The department crafted the plan after receiving extensive public feedback during the first phases of the planning process. At the meeting, staff will present the document, highlight its development, and explain the management actions. Once the plan is adopted through a final set of public meetings, it will serve as the guide for the department's land management actions at the 1377-acre site. The department anticipates that design and permitting work for implementing the plan will begin next year, and the department aims to have some of the site open to the public in 2025 to coincide the 25th Anniversary of Boulder County Parks & Open Space.

#### Draft Management Plan

The plan embodies the department's multifaceted mission of conservation and public use that reflects the community's values. With respect to conservation and stewardship components, the plan includes the protection of wildlife habitat, the continuation of sustainable agriculture, and the restoration of wetlands and stream corridors associated with both Boulder and Coal Creeks. Addressing community requests for access and recreation, the department's plan proposes a variety of recreational opportunities while also respecting the important natural features of the site. Highlights of the public facilities include water access, an accessible trail to Boulder Creek, two trailheads with restrooms and parking lots, and over five miles of trails that will connect to the existing network in Erie including the Coal Creek Regional Trail and the proposed Boulder to Erie Regional Trail (BERT).

The department organized the plan around the goals of Parks featuring high interest content presented in a very accessible and readable format. It highlights the baseline conditions of the site, the vision for the future, and the management actions needed achieve the vision. The plan has two appendices, one of which contains the background information available for the site including its current conditions and the status of resources. Another appendix holds the summaries and data of the two online surveys.

#### **Site Management Planning Process**

The department entered this project by modifying and updating some parts of the planning process. Most critically, the department wanted to find ways to increase the inclusivity of the management planning process. The department pursued a variety of outreach strategies including the creation of videos and online surveys posted to the project webpage. Additionally, department staff employed "transcreation" to outreach materials and then distributed those bilingual materials at many local events. While previous management planning projects have not tracked public outreach, new methodology allows staff to obtain a variety of metrics for gauging involvement in the process. The numbers illustrate good exposure for the project, the website had 4,916 views, 60 views of the Spanish page. Respondents for the surveys totaled 1041 for Phase I and 446 for Phase II surveys. In-person outreach netted a total of 187 attendees for both on-site open houses and 1097 contacts at markets and events. While staff feel positive about the overall public involvement, the department continues to acknowledge the need for improving outreach with the Spanish-speaking community.

Another process update was getting more people on the ground of the site. This effort brought the public, volunteers, the entire department staff, appointed committee members, and elected officials to the property. The department received widespread positive feedback from all of those people able to attend a site visit. the department is committed to having both staff and the public continue to meet on the site as much as possible in order to keep the landscape itself front and center in any discussions and deliberations about its management.

#### Conclusion

The department is excited to reach this stage of the management planning process. Staff has appreciated the involvement of partners, stakeholders, and the community in the process of creating the site management plan and hopes that the document reflects the mission of the department and input from the community. Staff is eager to hear and incorporate feedback from POSAC into the plan before it is presented in November for recommendation to the BOCC.

#### **POSAC Action Requested**

Staff is looking forward to the committee's feedback on the draft plan.

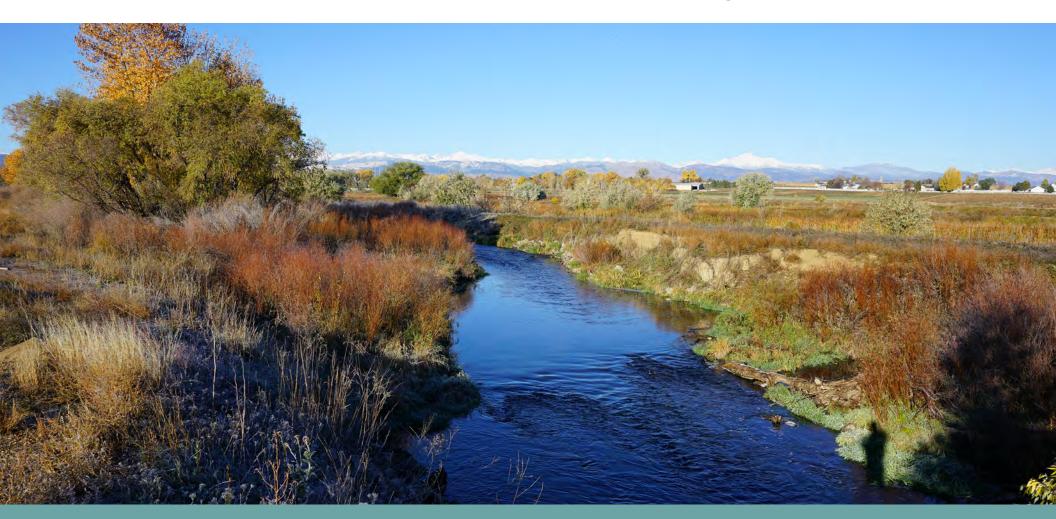
#### Attachments:

1. Draft East Boulder Creek Site Management Plan



### Boulder County Parks & Open Space

# Draft East Boulder Creek Site Management Plan



Version 1.0 | Prepared for Public Review



**Photo Credits:** Photos provided by Jeff Moline, Whitney May Taylor, Nik Brockman, and Mike Lohr.

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# Acknowledgments

Boulder County Parks & Open Space would like to thank the Board of County Commissioners, the Parks & Open Space Advisory Committee, and the numerous community members who shared their voice and shaped this plan.

#### Boulder County Parks and Open Space would also like to thank the following contributors to this plan:

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Andy Tyler, Trails Supervisor

Heidi Wagner, Project Manager and Resource Planning Division Manager

**Janis Whisman,** Real Estate Division Manager

Christopher White, Park Ranger

The department appreciates the stewardship of the EBC site by the current tenants Keith Bateman, the Lindows, Jim Roberts, and the Wheeler family.

Boulder County Parks & Open Space would also like to recognize the Town of Erie's Parks and Recreation Department for their collaboration in the development of this plan.

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# Boulder County Parks & Open Space

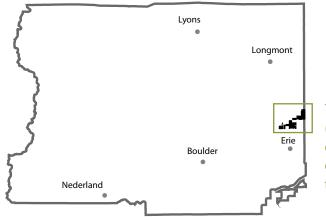


## Introduction

#### A New Park for the Community

This plan embodies the vision that the Boulder County community shares for a new 1,377-acre open space on the eastern plains of the county. The East Boulder Creek (EBC) area, heavily affected by past mining, is in the process of recovery. As a result, Boulder County Parks & Open Space (the Department) has a unique opportunity to restore natural ecosystem diversity while welcoming the community to explore a special place. This plan details the management actions the Department will implement over the next several years to continue restoration and open the park.

Water, including the two major creeks, Boulder and Coal, along with 13 additional open water bodies, has defined and shaped the East Boulder Creek area. This plan's management actions will maintain the site's relationship to water by protecting riparian areas while restoring eroded stream beds and narrow, unsustainable creek channels. The stream restoration projects will involve reestablishing native vegetation and



The East Boulder Creek (EBC) site is located on the east side of the county, adjacent to the town of Erie, Colorado.

stabilizing creek banks that currently erode agricultural land of Statewide Importance.

This plan addresses the other water bodies on the property, including wetlands from naturally occurring flood processes and ponds leftover

from past gravel mining. The Department will restore wetlands that are impaired but repairable, especially where they serve vital ecosystem functions and provide wildlife habitat. The Department will enhance some ponds created by past mining to potentially support fishing and other water activities as appropriate.

The Department will provide public access and supporting infrastructure in locations that do not negatively impact wildlife. The Department will be constructing visitor amenities that you, the community, expressed desire for during the community surveys released in the winter of 2022 and the summer of 2023. These include trailhead



Kenosha Pond is an on-site example of a previous gravel mine that was restored and now provides such valuable habitat that it's designated as Critical Wildlife Habitat in the Boulder County Comprehensive Plan.

#### Introduction

parking, accessible trails to the restored Boulder Creek corridor, angler access, resting spots, shade, and a nature play area.

A crucial part of this management plan is protecting wildlife habitat and important ecosystem values. The Department will implement restrictions on public access in sensitive areas and critical wildlife habitats, such as Kenosha Pond, the heronry (a nesting colony of herons), and segments of Boulder and Coal Creeks. In addition to the public access restrictions aimed at protecting wildlife habitat, sustainable agriculture will only persist on the site where it aligns with environmental values and resources. The Department will manage agricultural impacts in sensitive areas, such as safeguarding riparian corridors with fencing, while upholding leases that support the local agricultural and producer communities.

If Native and Indigenous communities are interested, the Department will collaborate with them in devising approaches to narrate the history and potential future of the EBC site. This site and plan offer the Department an opportunity to engage with Indigenous People, Native Americans, and tribal members to create methods for understanding this place, how to



Creating an accessible trail near water was the highest priority expressed by those who participated in the public engagement activities and surveys.



Seed collection volunteer events are one of the many ways the public can actively participate in site restoration.

engage with it, and how to practice stewardship in a manner that respects Indigenous traditions.

The Department recognizes the importance of being a good neighbor to the adjacent landowners and nearby communities. Through the EBC site, the Department will establish connections with the communities, providing a secure space to enhance physical and mental well-being, generating recreational possibilities for children and families, and offering volunteers an opportunity to actively participate in the site's restoration. Everyone will have the ability to learn about this site, this region, and the people that have lived here.



The heronry on EBC will remain protected and closed to public access.

#### This Plan is Aligned with the Goals of Boulder County Parks & Open Space



## Goal 1: To preserve rural lands and buffers.

The county will continue to conserve the lands of EBC in a manner that is consistent with the rural context of this region, in accordance with the purposes for which they were purchased, and in a way that provides a transitional buffer between adjacent agricultural lands and areas with existing or future municipal development.



# Goal 2: To preserve and restore natural resources for the benefit of the environment and the public.

A cornerstone of this management plan for EBC is conducting land stewardship so that environmental resources and natural processes continue to function in a manner that contributes to the landscape health of the community.



# Goal 3: To provide public outreach, partnerships, and volunteer experiences to increase awareness and appreciation of Boulder County Parks & Open Space.

The EBC site creates opportunities for the Department to connect the community to the natural and cultural features that make the area unique.



# Goal 4: To protect, restore, and interpret cultural resources for the benefit and enjoyment of current and future generations.

At this time, the Department does not have a complete understanding of the cultural resources at EBC and will conduct additional work to understand their extent at the site.











# Goal 5: To provide quality recreational experiences while protecting open space resources.

This management plan offers some new places for visitor amenities that are not typically found in other open spaces and could attract a more diverse group of visitors. Recreational experiences will be placed where they do not have negative environmental impacts.





# Goal 6: To promote and provide for sustainable agriculture in Boulder County for the natural, cultural, and economic values it provides.

Maintaining agriculture in Boulder County remains one of the principal purposes of the open space program.

Agricultural tenants have stewarded the properties of EBC since the county acquired them and this plan proposes continuing this partnership.





# Goal 7: Develop human resources potential, employ sustainable and sound business practices, and pursue technological advancements.

The Department actively pursues this goal in all its efforts related to the development and execution of the EBC site management plan. Since this goal is not exclusively relevant to this plan, it will not be discussed further in the document.



#### **How to Read this Plan**

This plan is organized in the order of these goals to provide a high-level, readable summary of the site today, a vision for tomorrow, and management actions that explain how that future will be realized. Appendix A contains the more technical and detailed information that the Department utilized to develop the management actions for the site.

## Relationship to Other Plans and Policies

Existing Department plans and policies guide and complement the land management detailed within this plan and include:

- The Boulder County Comprehensive Plan (BCCP) Agricultural, Cultural Resources, Environmental Resources, and Open Space Flements
- The Cropland Policy, Water Policy, The Prairie Dog Habitat Element of the Grassland and Shrubland Policy, and the Noxious Weed Policy
- The Cultural Responsiveness & Inclusion Strategic Plan (CRISP)
- Note, although this place incorporates some of the same concepts, this plan replaces the 1998 Lower Boulder and Coal Creek Open Space Master Plan.

See Appendix A for more detail

## Site Overview

#### A Recovering Landscape

As you stand in the water of Boulder Creek and gaze upstream to the west, where the Indian Peaks mark the continental divide, the entire county unfolds before you, with plains, foothills, and mountains that send water eastward until it flows right past your feet. This watershed sustains the streamside plants and riparian-adapted animals of East Boulder Creek, and it also provides for the people who reside here. This area, situated just east of landmarks like White Rocks and Valmont Butte, holds profound significance for Indigenous People and Native Americans. It is the same stream, along with its tributaries, that yielded the gold that forever altered this region in 1859. Moreover, it is the stream that supported early irrigated agriculture in the Boulder Valley. The EBC site possesses the lifeblood of Boulder County flowing through its banks.

This lifegiving water forms the main artery of the Lower Boulder Creek valley between Boulder and Longmont. East of Boulder, the valley widens and encompasses a mix of agricultural lands, natural features, and rural

development It is a region where cottonwood trees, wildlife like white-tailed deer, and birds

such as yellow warblers, along with plains residents, have established their habitats and homesteads alongside the creek fed by melting snow. This fertile area has been a desirable place for people to live and to make a living. Furthermore, beyond the importance of the place itself, the site holds regional significance for its riparian



Aerial view of the gravel pit that the county reclaimed as Kenosha Pond Critical Wildlife Habitat.

connectivity, its safeguarding of floodplain functions, and its protective role for the fertile agricultural lands extending northward.

Spanning a total of 1,377 acres, the East Boulder Creek site endured significant impacts from aggregate mining during the latter half of the 20th century. Prior to the county's acquisition of the properties within the EBC site, most gravel pit operators and owners conducted minimal reclamation efforts. Instead, the open pits naturally filled with groundwater, and non-native grasses and weeds overtook the disturbed upland areas. In certain areas, mine owners and operators channeled Boulder Creek into a straightened course.



Restored section of Boulder Creek looking west toward Indian Peaks

### **EBC Site Overview Map**

### **Southwest Map**

#### MAP LEGEND:

Active Raptor Nests (2022 - 2023)

Active Heronry

Critical Wildlife Habitat (BCCP)

Previously Restored Areas

Town of Erie Green Space

**Agricultural Production** 

Areas Disturbed by Mining
Activity (approx.)

Producing Wells

Boulder Area Trails (BAT)

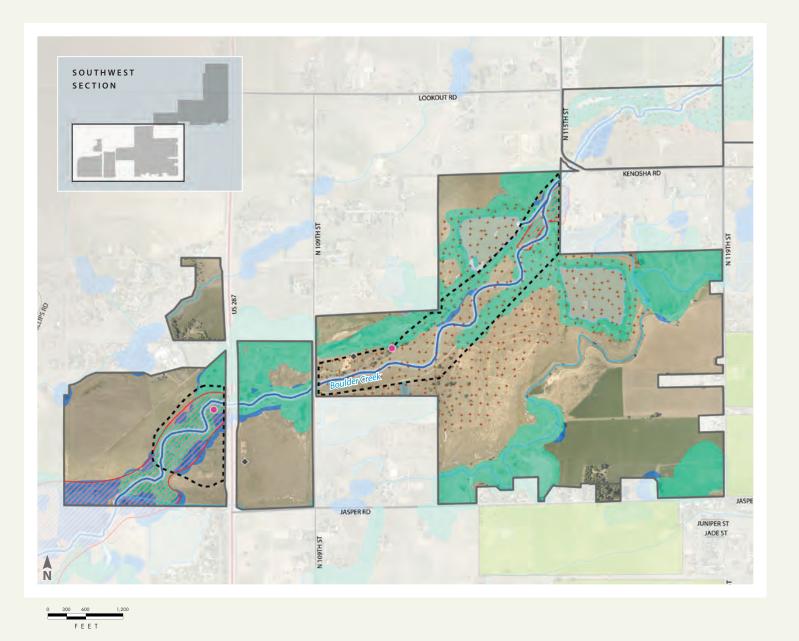
N Perennial Stream

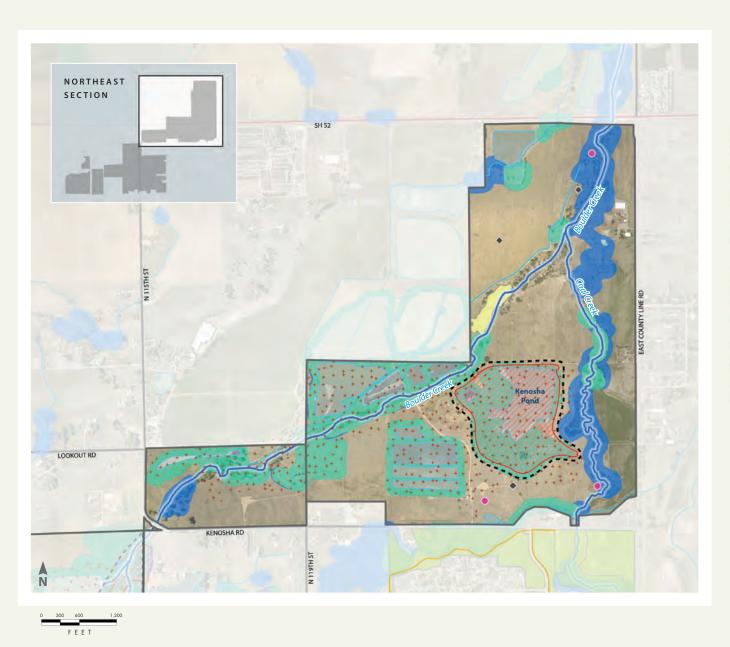
Main Ditch

Wetlands

Riparian

Lake or Reservoir





#### **Northeast Map**

#### MAP LEGEND:

Active Raptor Nests (2022 - 2023)

Active Heronry

Critical Wildlife Habitat (BCCP)

**Previously Restored Areas** 

**Town of Erie Green Space** 

**Agricultural Production** 

Areas Disturbed by Mining

Activity (approx.)

**Producing Wells** 

Boulder Area Trails (BAT)

Nerennial Stream

**Main Ditch** 

Wetlands

Riparian

Lake or Reservoir

#### **Site Overview**

The Department has managed these former mining pits through various approaches. Some were left as open water bodies to serve as wildlife habitats, while others underwent efforts to create wetlands with distinct plant communities. Remarkably, one of these ponds has rebounded so effectively that it has earned designation as one of the county's Critical Wildlife Habitats—Kenosha Ponds.

Nearly all of the EBC site falls within the regulatory 100-year floodplains of Boulder and Coal Creeks. The September 2013 flood had a significant

impact on much of the site. Since then, the county and partner organizations have undertaken restoration efforts on portions of the site. In 2016, the county collaborated with the U.S. Army Corps of Engineers to complete an extensive restoration project for Lower Boulder Creek. This project involved altering the corridor by removing the old, straightened stream channel and expanding the floodplain's capacity. The outcome was the creation of 6,000 linear feet of "re-meandered" waterway, accompanied by the planting of thousands of riparian and wetland species.



The water of Boulder Creek flows through the re-meandered waterway for the first time in 2016 (above); 7 years later, the vegetation has reestablished (right).



In other parts of the site the Department has worked to reestablish native grasslands through integrated weed management and seeding native grasses. The susceptibility of the area to flooding, combined with the disturbances from past mining, has given rise to soil and water issues in many parts of the site. Consequently, the Department's agricultural

tenants primarily lease their lands for livestock grazing, reserving only a few of the least affected acres

for irrigated crops and pasture. Although this region poses challenges for agriculture, these tenants are highly valued as partners due to their stewardship of the county's open space. Their on-the-ground management, in turn, contributes to the site's ecological

values, rebuilds soil health, and strengthens its connection to the agricultural community.

Before the county acquired the site, previous owners granted permission to oil and gas companies

to establish wells and infrastructure there. These companies retain the right to continue their extraction activities on these lands. Additionally, there are several easements for electric transmission lines running across the site. The department has been and will continue to manage these lands while respecting these property rights and encumbrances. The features for visitors detailed in this plan accommodate these pre-existing land uses.



Some oil and gas operations will remain active on the EBC site

# Public Engagement Summary

#### A New Approach to Engage a Diverse Community

During this management plan process, the Department updated the public engagement approach, reaching many more people than in previous efforts. This engagement occurred in two phases, and the Department made efforts to incorporate many of the objectives outlined in the Cultural Responsiveness & Inclusion Strategic Plan (CRISP) to promote engagement with the Latinx community and other underserved populations. All printed materials, the EBC website, and videos were transcreated into Spanish to ensure accessibility and inclusivity.

Outreach began with a dynamic website featuring high-interest content, including aerial drone videos of the site conducted by the Department. Recognizing that Spanish-speaking individuals had not been adequately included in prior management planning endeavors, the project team ensured that multiple avenues for providing feedback on this plan were available to the community including surveys, in person feedback, and an interactive bulletin board to share preferences.

To gather feedback, the Department carried out various outreach activities, including sending emails to stakeholders, utilizing social media, issuing press releases, sending postcards to neighbors, involving the public and volunteers at Education & Outreach events, and conducting tabling at trailheads. Additionally, new outreach initiatives were introduced, such as participating in Longmont Farmers Markets and Pridefest, as well as organizing two public on-site visits to enable people to visit the site in person.

Where public feedback from this outreach has led to a new, updated or shaped a management action, this plan symbolizes that with to reflect the voice of the community. For a comprehensive overview of community engagement reports, please refer to Appendix B.



Public outreach materials distributed to encourage public participation in the EBC planning process.



Poster from one of the public engagement events on-site at EBC



The community enjoyed tacos at the July 2023 EBC site visit.

#### By the Numbers

#### 4,916

Website views

#### 60

Views of the Spanish page

#### 1041

Phase I surveys

#### 446

Phase II surveys

#### 543

In-person responses

#### 187

Total attendees for both on-site open houses

#### 1097

In-person contacts at markets and events

#### **Words from the Public**

"As our local populations continue to rise and more and more land is being developed for housing, these riparian areas are going to be increasingly more important conservation areas and critical wildlife habitat."



"Restoration of the land does not mean people must stay out of it completely, but it does mean that activities should be ones that lead to appreciation of the natural landscape, vegetation, and wildlife."



"I'd like to see some of the area farmed as it has been for the last few decades and protect the heron rookery"



"Please hire Native American consultants to offer information about how their peoples have used this area historically, also their plant and ecological knowledge. It would be wonderful to hear the Arapaho language spoken and see interpretive signs that share Indigenous knowledge, history, and language."



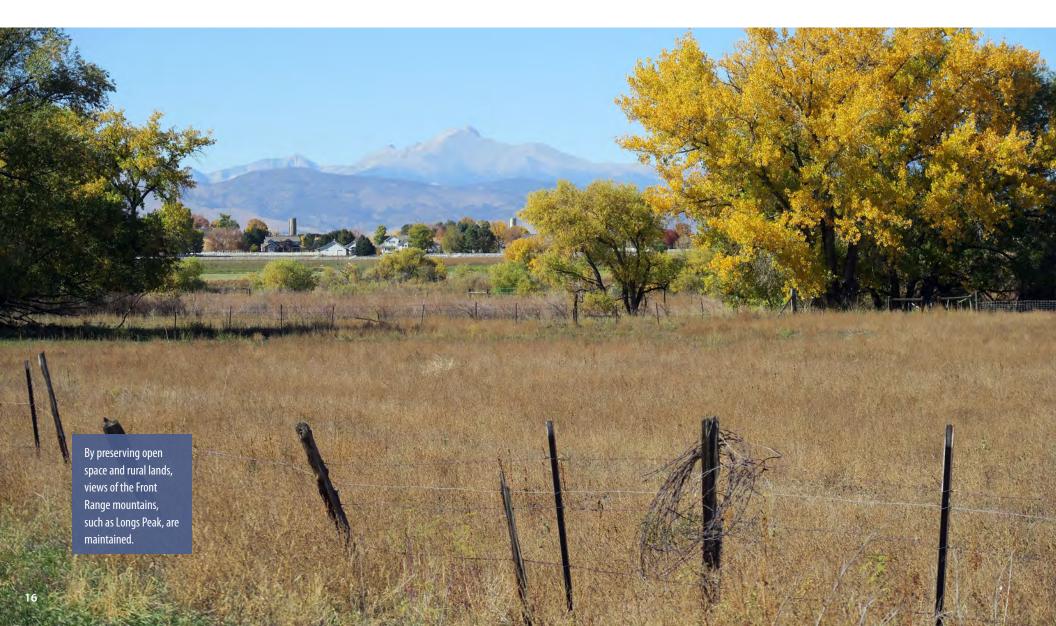
"I have children now. I want it to be a good place to take my kids. Trails that are set back from the water. Places to enter the water safely."





# Goal 1

## To preserve rural lands and buffers



#### **East Boulder Creek: Overview**

In the late 1990s, Boulder County wanted to protect lands in the lower Boulder and Coal Creek valleys These lands were recognized for their dual significance, both in terms of agricultural value and environmental resources. Simultaneously, the nearby Town of Erie was experiencing growth and expansion, particularly to the north and west of its original townsite. To achieve its conservation objectives, the county employed various land use and planning mechanisms, such as intergovernmental agreements (IGAs), conservation easements, and the acquisition of open space through purchase. These measures aimed to preserve the creek corridors and create a protective buffer for the Nationally Important Agricultural land located to the west and north, specifically in the Gunbarrel and Standley Hills areas. The goal was to shield these rural lands from the encroachment of development pressures originating from the south and east. Within the East Boulder Creek site, public open

space funding was invested to ensure the permanent protection and preservation of these rural lands. This approach allowed agricultural producers and land managers to continue their stewardship of this landscape in a manner that sustains natural processes and environmental features.

#### **East Boulder Creek: The Vision**

The Department will continue to manage the EBC site consistent with open space and rural uses ensuring that it remains a space of undeveloped lands where nearby residents and visitors can engage with agricultural and natural areas. This management plan prescribes actions that will significantly improve the natural ecosystem while inviting the public onto the space.



Expansive views of the Indian Peaks from EBC.



# Goal 2

To preserve and restore natural resources for the benefit of the environment and the public.



#### **East Boulder Creek: Overview**

Upon acquisition of East Boulder Creek, the county inherited the management of a site that had been disturbed by gravel mining and affected by previous agricultural practices. These alterations to the landscape introduced non-native pasture grasses and other invasive weeds, resulting in changes to the plant and animal composition and the deterioration of ecosystem functions.

Since taking on the responsibility of managing the site, the Department has worked to enhance ecological function and increase native plant diversity. This has been achieved through treatments to control noxious weeds, the improvement of grasslands through seeding, and the restoration of lower Boulder Creek in the southwestern part of the site. Additionally, small patches of native plants and wetlands, as well as riparian (creekside) habitat, are still present throughout the site. Despite the prevalence of non-native vegetation, significant wildlife populations inhabit areas with intact habitat.

In 2021, a comprehensive mapping effort was conducted to identify and assess the wetlands on EBC for their ecological function and integrity. The assessment found that all the wetlands are in fair condition. However, they have critical characteristics of soils and water which would allow the wetlands to improve in their function if restored further.

Boulder Creek and Coal Creek provide important riparian habitat and wildlife migration corridors. The 2016 restoration of Boulder Creek in the southwestern part of the site involved restoring the natural features of the creek, including meanders, riffles, pools, and connections to the floodplain. Native species of grasses, wildflowers, shrubs, and trees were planted along this stretch of the creek, enhancing diversity and complexity. While the restoration project repaired over a mile of the stream, many other segments of Boulder and Coal Creeks within the site remain in degraded condition.

In 2023, the Department conducted an inventory and mapping of the extent of noxious weed infestations on the site. During this mapping

effort, staff identified 31 noxious weed species. The Colorado Department of Agriculture mandates the elimination of 10 of these noxious weed species as per the Noxious Weed Act. The Department has been actively treating the site for noxious weeds since assuming ownership. These treatments follow integrated pest management (IPM) principles and have involved methods such as herbicide applications, mowing, and revegetation. Efforts by the Department, such as native grass seedings and treatments to control noxious weeds, have and will continue to improve the overall vegetative structure in specific areas.

During field surveys conducted by staff and volunteers, a total of 149 different species of birds and mammals have been documented. This documentation includes observations during spring and fall migration, the summer breeding season, and the winter months. Among these species, 20 are designated as species of Special Concern for Boulder County. In response to these findings, the county has designated three locations on EBC as Critical Wildlife Habitats in the updated Environmental Element of the Boulder County Comprehensive Plan (see Critical Wildlife Habitat areas mapped on pages 22 and 23).

Despite the heavy impacts resulting from past human use and alterations to the natural environment over time, numerous areas within the East Boulder Creek site continue to provide habitat for wildlife. The Department's management strategies, which aimed to mitigate the impacts of mining, achieve habitat improvements, and limit access, have contributed to the creation of isolated and tranquil spaces that support a variety of bird, mammal, and aquatic wildlife species.

#### **Land Management Priorities and Management Actions**

## PRIORITY: PRESERVE AND RESTORE WETLANDS

#### **ACTION: Restore wetlands**

**DETAILS:** The Department will increase native plant diversity and enhance plant and wildlife habitat by restoring wetlands identified as high priorities in the wetlands baseline inventory.

**BENEFIT:** Wetlands offer essential ecosystem services and valuable habitat for plants and wildlife. Restoring and enhancing wetlands holds significant potential for sequestering carbon, which is crucial for climate resilience efforts





#### **ACTION: Improve wetland plant diversity**

**DETAILS:** As part of the restoration work following aggregate mining and other earth disturbance activities, the Department will perform ongoing adaptive management. This entails removing non-native trees and adding more native plants or seeds to maintain the success of the initial efforts.

**BENEFIT:** Ongoing maintenance and adaptive management are essential for the success of ecological restoration once it's completed, especially during the first 3-5 years. Restoration represents a significant investment undertaken by the county, and maintenance through adaptive management protects the initial investment in earthwork, soil amendments, plant materials, and staff time.



#### PRIORITY: IMPROVE RIPARIAN HABITAT

#### **ACTION: Maintain riparian plant diversity**

**DETAILS:** The Department restored 6,000 feet of Lower Boulder Creek in 2017. We will continue adaptive management near the stream by removing non-native trees and adding additional native plantings. We will also install fencing to support controlled cattle grazing when it benefits riparian health.

**BENEFIT:** Ecological restoration is an ongoing process that can take many years to achieve maturity and stability. Continued adaptive management not only protects our previous investment in this restoration area but also promotes long-term improvement in ecosystems and habitats.









#### **ACTION: Increase riparian plant diversity**

**DETAILS:** The Department will enhance riparian health by planting additional native species and installing fencing to facilitate controlled cattle grazing

**BENEFIT:** Planting additional native specials will support the riparian corridor. Fencing is necessary because unrestricted cattle grazing in riparian areas can result in significant vegetation loss and erosion issues. Robust riparian zones function as crucial wildlife pathways, substantial carbon storage areas, and pleasant recreational spots for people.



## ACTION: Restore perennial streams

**DETAILS:** A 2,200 foot section of East Boulder Creek and a 5,000 foot section of Coal Creek will be restored. Both creeks are currently heavily incised and restoration will reconnected the streams with their floodplains. Native plants and trees will be installed and each restoration will connect to other restorations already underway by the Department and the Town of Erie.

**BENEFIT:** Creek restoration offers many ecological uplifts while also safeguarding public infrastructure. By reconnecting the creek to a floodplain water slows down and drops sediment, posing less of a threat to human life and infrastructure downstream. This floodplain reconnection also provides opportunity for planting native trees, shrubs and herbaceous vegetation. Once mature, this vegetation creates wildlife habitat and bolsters migration corridors facilitating plant and animal movement throughout the landscape.





#### **ACTION:** Improve riparian tree diversity

**DETAILS:** In 2023-2024, the Department will remove non-native Russian Olives from a section of the Coal Creek riparian corridor. Once removed, the Department will plant native Plains Cottonwood and install fencing to exclude cattle. Cattle will be allowed to graze the corridor at times appropriate for the benefit of riparian health

**BENEFIT:** The removal of Russian Olives will significantly improve the function and structure of this stretch of creek. Replacing Russian Olives with native Cottonwoods will ultimately restore the canopy structure, which is crucial for various wildlife species and overall stream health. Installing fencing in the riparian corridor will contribute to the establishment of Cottonwoods and long-term riparian health.



## PRIORITY: PRESERVE WILDLIFE HABITAT

#### **ACTION: Protect sensitive wildlife areas**

**DETAILS:** The Department will restrict public access to sensitive wildlife areas and critical wildlife habitat.

**BENEFIT:** Kenosha Pond is a unique habitat and one of the few Critical Wildlife Habitats on the plains of Boulder County. Limitations on public access along Lower Boulder Creek result from agreements with the Army Corps, and further enhancements could enhance riparian habitat for wildlife in the future. Research supports the growing concern among resource managers about the negative effects of recreation on wildlife. Reducing human impact on this high-quality, distinctive habitat will safeguard seasonal migratory bird habitat and the native wildlife in the area.





#### **ACTION: Monitor wildlife**

**DETAILS:** Staff will conduct site-wide surveys to fill gaps in the current baseline data and update existing datasets. They will also determine which proposed actions for the site might affect habitat and wildlife resources, and then choose or refine survey methods to efficiently collect data before, during, or after these actions. Additionally, they will define targets or indicators to detect changes in the trajectory or trends of wildlife species

**BENEFIT:** Some of the proposed actions will probably have both positive and negative effects on wildlife habitat, but measuring or interpreting these impacts can be challenging without data collection method. The Department will work to minimize impacts as much as possible and continuously monitor the effects of changes and impacts over time to ensure that special resources are minimally degraded.



#### PRIORITY: IMPROVE GRASSLANDS

#### **ACTION: Restore and maintain grasslands**

**DETAILS:** After mining, the Department has been actively restoring grasslands. The Department will continue to seed and maintain the disturbed areas as needed to continue restoration.

BENEFIT: Grasslands are an endangered ecosystem nationally and world-wide. In Boulder County, most native grasslands were lost to European settlement and ongoing development. Healthy grassland ecosystems support numerous species of plants and animals, some which are endangered or considered rare. They also play important roles in mitigating impacts of climate change as they are known to sequester large amounts of carbon from the atmosphere as well as facilitate species movement and survival in changing climatic patterns. Returning to native grasslands is an ecological improvement and a better experience for visitors.





Where public feedback from this outreach has led to a new, updated or shaped a management action, this plan symbolizes that with this symbol to reflect the voice of the community.



Management action will be implemented at the location identified on the EBC Conceptual Trails and Infrastructure Maps (next page).



#### **EBC Preservation and Restoration Map**

#### **Southwest Map**

#### MAP KEY:

- 1. Wildlife habitat & agriculture preservation area: closed to public uses
- **2.** Protect Critical Wildlife Habitat: closed to public uses
- 3. Increase riparian plant diversity
- **4.** Restore wetlands
- 5. Increase riparian plant diversity
- **6.** Restore wetlands
- **7.** Wildlife habitat & agriculture preservation area: closed to public uses
- 8. Maintain riparian plant diversity
- **9.** Protect Critical Wildlife Habitat: closed to public uses
- **10.** Improve grasslands and soil health (see Goal 6 for details)

#### MAP LEGEND:

Active Raptor Nests (2022 - 2023)



Critical Wildlife Habitat (BCCP)

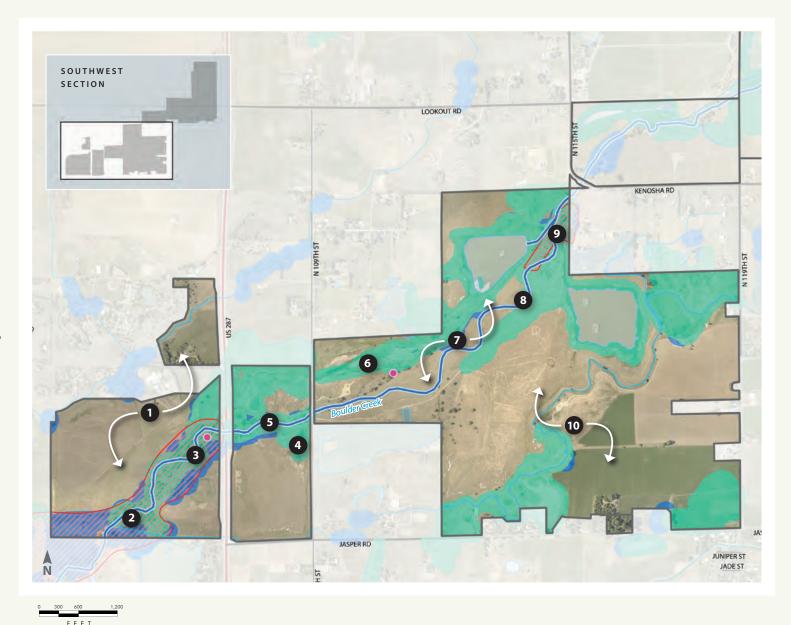


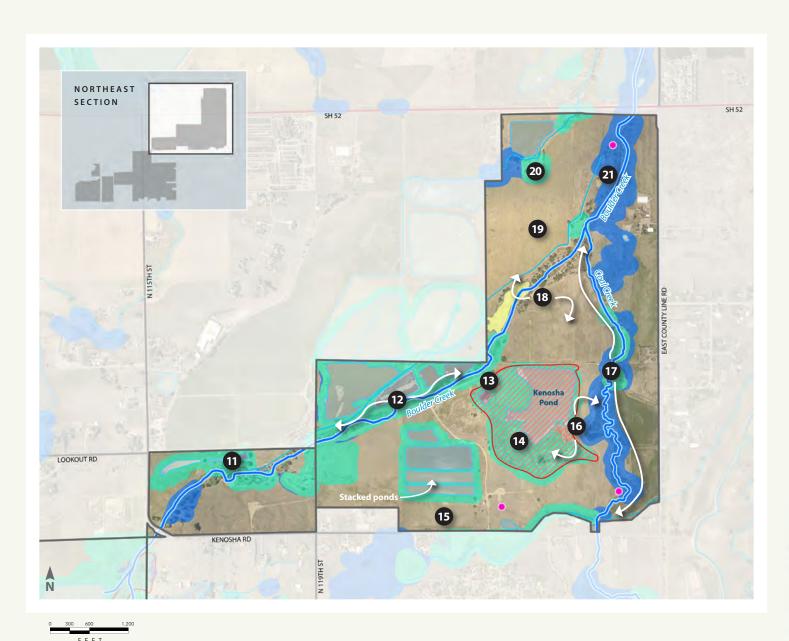
Main Ditch



Riparian

Lake or Reservoir





#### **Northeast Map**

#### MAP KEY:

- 11. Improve wetland plant diversity
- **12.** Restore Boulder Creek
- 13. Improve wetland plant diversity
- **14.** Protect Critical Wildlife Habitat: closed to public uses
- **15.** Restore and maintain grasslands
- **16.** Wildlife habitat preservation area: closed to public uses
- 17. Restore Coal Creek
- **18.** Wildlife habitat & agriculture preservation area: closed to public uses
- **19.** Improve grasslands and soil health (see Goal 6 for details)
- **20.** Improve wetland plant diversity
- **21.** Improve riparian tree diversity

#### MAP LEGEND:

- Active Raptor Nests (2022 2023)
- Active Heronry
- Critical Wildlife Habitat (BCCP)
- Nerennial Stream
  - Main Ditch
- Wetlands
- Riparian
- Lake or Reservoir

#### **East Boulder Creek: The Vision**

By implementing this plan, the Department will undertake the restoration of wetlands, riparian habitat, and native grasslands at the site. These improvements will serve to support ecological functions, enhance resiliency, and promote connectivity, all of which will ultimately benefit wildlife populations and their movement within and through the site. Monitoring of important wildlife populations will facilitate management changes if species start to decline in significant or critical wildlife areas.

Volunteers training to monitor waterfowl at Kenosha Pond in 2014



The restorations will encompass several measures for wetlands, such as the removal of noxious weeds and the planting of native herbaceous and shrubby vegetation. Stream restorations along both Boulder and Coal Creeks will incorporate designs featuring elements that mimic natural habitat, including meanders, riffles, and pools. A diverse array of native plant species including coyote willows, native shrubs, and trees will stabilize the re-meandered streams. Additional ecological management actions for the site encompass the implementation of extensive fencing to safeguard the establishment of native plants and reduce the reintroduction of noxious weeds. Limiting public access to important wildlife areas will reduce the impacts to migratory birds and other sensitive species.

Volunteers installing plant materials into a newly stabilized creek bank.





Department staff planting native vegetation as part of a restoration project.

This plan provides clear guidance to the Department for minimizing the impacts of human disturbances. This, in turn, will facilitate the enhancement, protection, and ongoing maintenance of the regional native biodiversity that relies on these improved habitats. Overall, these improvements will elevate ecological functions, bolster resiliency, and enhance connectivity, thereby better supporting the natural movement of wildlife within the site.



# Goal 3

To provide public outreach, partnerships, and volunteer opportunities to increase awareness and appreciation of Boulder County's open space.



#### **East Boulder Creek: Overview**

With close to 1,400 acres, several miles of multi-use trails planned, and access to water, the East Boulder Creek site will provide opportunities for exercise, relaxation, quiet reflection, and natural places to let kids explore. These features also make this site an excellent location for the Department to offer educational programs, field trips, and guided hikes that share information about the resources in the area. This educational focus encompasses topics such as local wildlife, flora, wetlands, agricultural practices, and the historical significance of the region. Likewise, volunteer partnerships and work projects will give the community opportunities to participate in the ongoing restoration of the landscape. Volunteers will learn about the property and how their work supports the overall management goals of the property.

Similar to other park properties, East Boulder Creek will include informational kiosks at its trailheads. These kiosks will provide brochures, a welcome panel, a property map, and a designated area for flyers that announce special events or conditions at the park. Additionally, a comprehensive recreation page on the website will feature the map, highlights of the site's natural and cultural aspects, permissible uses, an



overview of agriculture, and the property's historical background. Pertinent information for visitors regarding the site, along with details about programs and hikes, will be disseminated through various channels, including the website, email sign-up lists, social media, and on-site at the park. Interpretive signs, presented in both English and Spanish, will be strategically placed along the trails to facilitate connections and enrich the learning experience for visitors.

If Indigenous communities desire, the Department is dedicated to collaborating to understand the Indigenous history and principles associated with East Boulder Creek. This exploration could potentially result in the creation of interpretive materials and stewardship opportunities within the site, developed in conjunction with the community.

Taking advantage of the expansive views of the Front Range and Indian Peak mountains, a peak finder sign will be installed, enabling visitors to gain insights into the distant mountains visible from the trails. Staff members from the Department will make regular visits to the site to engage with visitors and offer educational tabletop displays at trailheads. These displays will create opportunities for visitors who may not participate in formal programs to gain a deeper understanding of the park, its wildlife, and the trail system. While considering the final trail alignment, our team is exploring options for a designated viewing area or the installation of a spotting scope, which will allow for the observation of the heron rookery from a distance that ensures minimal disturbance to the birds.

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In the future, EBC could support school field trips similar to ones that have occurred on other Boulder County Parks & Open Space properties.

#### **People Priorities and Management Actions**







#### PRIORITY: PROVIDE INTERPRETIVE OPPORTUNITIES

#### **ACTION: Install interpretive signage**

**DETAILS:** All interpretive signs will feature bilingual content in Spanish and English. The Department will strategically position these signs in prominent and easily accessible locations such as within the first mile of the trailhead. Signs will focus on pertinent site-related topics and collaborate with resource specialists to ensure the accuracy of the information included.

**BENEFIT:** Interpretive signs offer an opportunity to connect people with their natural and cultural heritage. They also allow the Department to share information about the park's natural resources, history, and management practices. Research indicates that this messaging enhances the public's knowledge, behavior, and support for land management activities.

## **ACTION: Provide community learning opportunities**

**DETAILS:** The Park will have kiosks that include brochure boxes, welcome panels, and space for flyers at each trailhead. Trailhead displays will periodically also be offered on weekends during peak-use hours, offering an opportunity for park visitors to learn about topics such as wildlife and sharing the trail. Educational posters will be posted as needed regarding topics related to visitor safety, trail etiquette, warnings, and regulations.

**BENEFIT:** Brochures and flyers, as well as signs and maps, provide visitors with logistical, safety, regulatory, and interpretive information. Trailhead displays provide an opportunity for visitors that may not participate in formal programs to learn more about the park they are visiting.

## **ACTION: Explore co-creation opportunities with Native American and Indigenous Communities**

**DETAILS:** The Department will reach out to Native American and Indigenous communities in Boulder County to build relationships and understand if there is an interest in co-creating an opportunity on East Boulder Creek. The Department is currently committing to educating staff on Indigenous history and Indigenous principles of being with the land to inform the Department's management decisions and actions in a more holistic way.

BENEFIT: Boulder County's interpretive history portfolio is heavily skewed toward white colonist settlement and occupation and does not currently do justice to elevating and honoring the history of Indigenous Peoples on this land. It is crucial for the Parks & Open Space Department to present an accurate and comprehensive representation of the history of this land and its inhabitants, even if it involves uncomfortable truths. The EBC site offers an excellent opportunity to showcase Indigenous history and culture. This approach also provides an opportunity to shift the perspective away from humans and interpret the land according to Indigenous principles, aligning with the ongoing learning and development within the Department and community.



Where public feedback from this outreach has led to a new, updated or shaped a management action, the plan symbolizes that with this symbol to reflect the voice of the community.

#### PRIORITY: PROVIDE EDUCATIONAL OUTREACH

### **ACTION: Provide educational** amenities

**DETAILS:** The Department will create an opportunity for visitors to safely observe birds in a suitable viewing location. If there is a chance of disturbing the birds, we will also install a bird blind. Additionally, we will install a peak finder for visitors to view mountains in areas visible from the trail.

**BENEFIT:** A spotting scope or bird blind will offer visitors an informal chance to observe and interact with wildlife on the property. The peak finder will identify the prominent peaks visible in the distance from the property.

# ACTION: Update and inform the community about East Boulder Creek

**DETAILS:** The Department will host ribbon cutting ceremonies, one at each trailhead.

**BENEFIT:** Ribbon-cutting ceremonies serve as a great way to inform the community that a new open space is ready to be visited.

### **ACTION:** Celebrate the opening of East Boulder Creek

**DETAILS:** The Department will update the website and share social media postings to provide the community a high-level timeline with all management actions. We will update this timeline as management actions are completed and whenever adjustments are made.

**BENEFIT:** Sharing information will increase understanding of the timeframe for East Boulder Creek, which will require several years of preparation before opening to the public.

## **ACTION:** Use EBC as a learning space

**DETAILS:** The Department will offer programs for schools, volunteers, and the community that place a strong emphasis on sharing information about resource management (wildlife, plants, wetlands, etc.), agricultural activities, and history.

**BENEFIT:** The Department presently delivers a range of programs and resources designed to cater to the needs and interests of individuals of all ages, backgrounds, and ability levels throughout the county. Programs are customized to align with the specific interests of the requesting group, covering subjects like local ecosystems, wildlife, plants, and geology.



#### **East Boulder Creek: the Vision**

East Boulder Creek will be used as a center of learning and engagement, and visitors and the community will gain an understanding and appreciation for the natural resources and cultural history found on the site. Staff will build relationships with a wide variety of local community groups, county residents, and park visitors. This will be achieved through a range of activities including programs and hikes, presentations, volunteer opportunities, trailside interpretive panels, print media, social media, and informal conversations. These opportunities will meet the needs and interests of people of all ages, backgrounds, and abilities.



School children learning about mountain lions during an educational program.

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# Goal 4

To protect, restore, and interpret cultural resources for the education and enjoyment of current and future generations.



### **East Boulder Creek: Overview**

Since time immemorial Indigenous people have lived in Colorado with their own unique cultures, relationships, and histories. Eastern Colorado was home to a variety of Indigenous tribes that include the Apache, Arapaho, Cheyenne, Comanche, Crow, Kiowa, Sioux, Pawnee, and Ute. Their presence on the land is known today through Indigenous oral tradition, recorded history, photos, writings and mapping of explorers, non-Native stories, and archaeological investigation.

At the East Boulder Creek management plan area, the record of Indigenous and non-Indigenous presence through the cultural materials left behind is incomplete due to the lack of cultural resource surveys for the entire area or contains areas of heavy disturbance due to the previous gravel mining activities or the cyclical flooding of Boulder Creek. The now out of date previous cultural resource surveys also affects our understanding of the resources in the management plan area. These factors impact the cultural resource record in the plan area and leave it incomplete.

What is known about the cultural resource record for a part of the project area through the results of previous intensive-level surveys is the presence of several historic irrigation ditches.

Adjacent to the management plan area is the Wise Homestead Museum that interprets the 1870 Oliver Wise house and the family's long agricultural history in the Erie area.

# **People Priority and Management Action**

# PRIORITY: IDENTIFY AND ASSESS SIGNIFICANCE OF CULTURAL RESOURCES

#### **ACTION:** Conduct a cultural resource survey

**DETAILS:** Conduct a cultural resource survey on the areas of East Boulder Creek that mining has not disturbed.

BENEFIT: To adequately preserve cultural resources within the EBC planning area, the Department will conduct an intensive-level cultural resource survey for the entire planning area that has not undergone prior mining or reclamation. Surveying the entire EBC area will provide the Department with a comprehensive understanding of the available resources or their absence. The intensive-level cultural resource survey will include a historic context overview for the area that extends from the Indigenous period through European-American migration into the area This information can be valuable for future plan adjustments, changes, and unforeseen projects or disaster recovery initiatives that may arise.



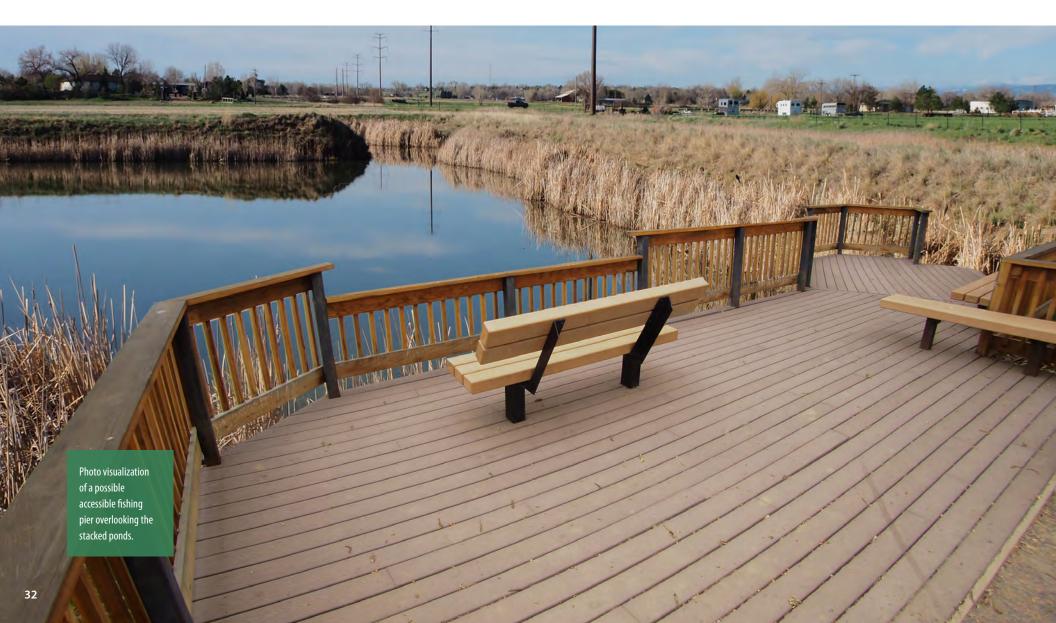
### **East Boulder Creek: The Vision**

Through the identification and recording of cultural resources in the East Boulder Creek management plan area, the Department will have the baseline information to make sound management decisions for any ground disturbance projects in the future and the tools to determine interpretation opportunities that can assist in the connection to the area for visitors.



# Goal 5

To provide quality recreational experiences while protecting open space resources.



### **East Boulder Creek: Overview**

The EBC site holds important environmental, agricultural, and cultural values for the community. This plan is designed to preserve and enhance these values as the site opens to the public for recreation. Within the site, visitors will explore a diverse range of features, including ponds, streams, grazing lands, irrigated pastures, and wetland habitats interwoven with rehabilitated grasslands. Given its location and relatively flat topography, the site affords breathtaking views of the majestic mountains and foothills of western Boulder County.

In response to public feedback and staff recommendations, this plan includes recreational features such as regional trail connections, internal trails, fishing opportunities, and interpretive facilities. The Department has taken great care in selecting the locations for park infrastructure, with the goal of minimizing any negative environmental impacts while highlighting educational opportunities and enjoyment for park users.





Visitors will experience trails of varied surfaces, including concrete, boardwalks, and soft-surface trails.

This plan directs the Department to simultaneously conduct the ecosystem restoration and beneficial land management practices in coordination with the construction of the recreational features. This integrated approach positions the EBC site as a valuable educational center at the eastern gateway to Boulder County that showcases ecological restoration interwoven with appropriate visitor infrastructure. Through this approach, the Department aims to enhance biodiversity, restore the connection between the floodplain and the creek, bolster resilience, and provide public access to the water. It serves as a tangible representation of the county's dedication to preserving its rich environmental and cultural heritage.



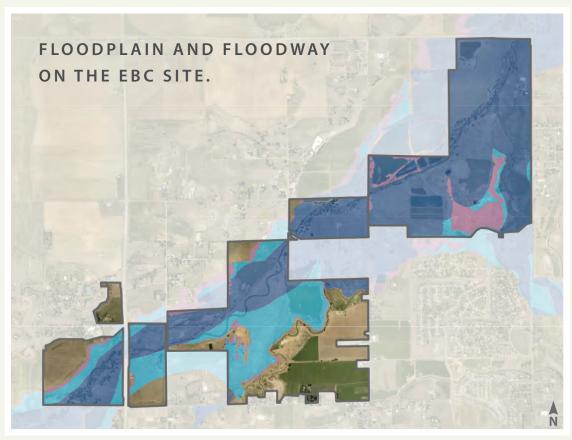
Eroded banks of a section of Coal Creek will be restored, allowing visitors to enjoy views from a nearby trail.

### Goal 5

Given the site conditions at EBC, the Department does face some challenges to implement the management actions in this plan. Two specific constraints, namely floodplain designations and oil and gas facilities, will demand diligent planning, design, and permitting. Nevertheless, by applying comprehensive engineering and design best practices, the Department will effectively work through these restrictions and prioritize public safety and functional infrastructure throughout the process.

Another aspect of protecting resources while allowing public access and recreation at the site is the designation and enforcement of rules and regulations. The Department's standard rules and regulations will apply to EBC, and the park will be open from sunrise to sunset. Park rangers and sign specialists will develop and implement an appropriate signage plan that will add regulatory and safety signs throughout the area that is open and accessible to the public. The Department intends to utilize automatic gates to restrict after hours use at the two trailheads and each will be monitored by live camera streams which can be viewed by the public as well for trip planning purposes.

Park rangers will conduct regular patrols by foot, bike, and motorized vehicles in both open and closed areas of the park. Enforcement will be provided 24/7 in combination with Boulder County Parks & Open Space Park Rangers and the Boulder County Sheriff's Office.



The floodplain and floodway cover most of the EBC site, which dictates where infrastructure can safely be located on the site.



## **People Priorities and Management Actions**

#### PRIORITY: PROVIDE TRAILS AND CONNECTIVITY

#### **ACTION: Design and construct a multi-use** trail system throughout the property with a connection to the Town of Erie and the planned **Boulder to Erie Regional Trail (BERT)**

**DETAILS:** The Department will build two types of 8-foot wide trails: 4.8 miles of soft surface trail and 0.75 miles of concrete accessible trail. The accessible trail will connect to the eastern trailhead and run adiacent to the restored section of East Boulder Creek and facilitate access for visitors with a range of mobilities. These trails will be designed to enable two connections to the potential Boulder Erie Regional Trail (BERT). When the BERT is constructed, others will be responsible for completing the connection. Additionally, the trail offers the potential to link up with trail systems supported by the Town of Erie, such as the Coal Creek trail.

**BENEFIT:** Multi-use trail systems are the most environmentally friendly trails to construct on conserved land, as they minimize the trail system's footprint. The trails will have sufficient width to accommodate hiking, biking, and equestrian use with minimal conflict between user groups. Additionally, supporting the accessible trail will allow visitors with mobility limitations to enjoy the open space and provide the opportunity to enjoy flowing water, nature viewing, and picnicking. Connectivity of the trail system is important to maximize recreational opportunities throughout the area and to provide alternatives to vehicular travel.











Where public feedback from this outreach has led to a new, updated or shaped a management action, this plan symbolizes that with this symbol to reflect the voice of the community.



Management action will be implemented at the location identified on the EBC Conceptual Trails and Infrastructure Maps (next page).

#### PRIORITY: PROVIDE VISITOR **AMENITIES**

#### **ACTION: Provide visitor amenities**

**DETAILS:** Amenities will be provided that support on-trail passive recreation such as hiking, biking, walking dogs on leash, fishing, and equestrian uses. Opportunities for gathering, respite, and wildlife viewing will also be supported. The Department will construct large and small picnic shelters, benches, restrooms, a nature play area, angler access in East Boulder Creek, bike fix-it stations, provide EV parking, and drinking water for visitors. The west trailhead will support up to 50 parking spots and the eastern trailhead will support up to 65 parking spaces with room for a school bus. Each lot will have ADA parking and trailer parking.

**BENEFIT:** Utilizing sustainable and low impact construction techniques, visitor amenities and trails will support responsible, enjoyable public use of the property. Visitors can explore a diverse range of features, including ponds, perennial reams, grazing lands, irrigated pastures, wetland habitats, rehabilitated grasslands, and breathtaking views of the majestic mountains and foothills of western Boulder County.













#### **ACTION:** Investigate ability to allow for paddleboarding/kayaking and fishing in stacked ponds.

**DETAILS:** The Department will research the water quality and fish stock of the stacked ponds to determine if they can support fishing and non-motorized watercraft use.

**BENEFIT:** Before constructing visitor amenities to access the stacked ponds, the Department will verify the safety of the water for and the sustainability of the fish stock. If testing and research yield positive results, the ponds will accommodate an accessible fishing pier and a ramp for non-motorized craft access.





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#### PRIORITY: ENSURE SAFETY OF **VISITOR**

#### **ACTION:** Fence oil and gas facilities adjacent to public use areas

**DETAILS:** Several oil and gas wells are located on EBC. The Department will install opaque fencing around the facilities that are near public use areas.

**BENEFIT:** Fencing oil and gas wells will ensure visitors remain a safe distance from the facility.



#### **ACTION:** Create and install regulatory signage

**DETAILS:** Regulatory signage will be installed as directed by Park Rangers throughout the site.

**BENEFIT:** It is important to post regulatory signs that give clear quidance to the community on activities that are appropriate and activities that are not permitted in an open space.

#### **ACTION:** Patrol site and respond to emergency conditions. Coordinate response with local emergency agencies as appropriate.

**DETAILS:** Park Rangers will patrol EBC as part of their regular park rotation. Rangers will coordinate with other agencies to ensure any emergency response outside the Department's purview is handled by the appropriate agency.

**BENEFIT:** Park Rangers patrol open spaces to interact with visitors, provide educational opportunities, and ensure the safety of visitors. Coordination with other emergency response agencies ensure a unified, appropriate response to any emergency situation on the site.



# **EBC Conceptual Trails and Infrastructure Map**

### **Southwest Map**

#### MAP KEY:

- 1. Wildlife habitat & agriculture preservation area: closed to public uses
- **2.** Potential future B.E.R.T. connection
- **3.** Trailhead (includes parking area)
- 4. Fishing access
- 5. Bench/rest area
- **6.** Wildlife habitat & agriculture preservation area: closed to public uses
- 7. Bench/rest area
- **8.** Agriculture preservation area: closed to public uses
- **9.** Potential future B.E.R.T. connection
- **10.** Potential future Town of Erie trails connection

#### MAP LEGEND:

Accessible Trail

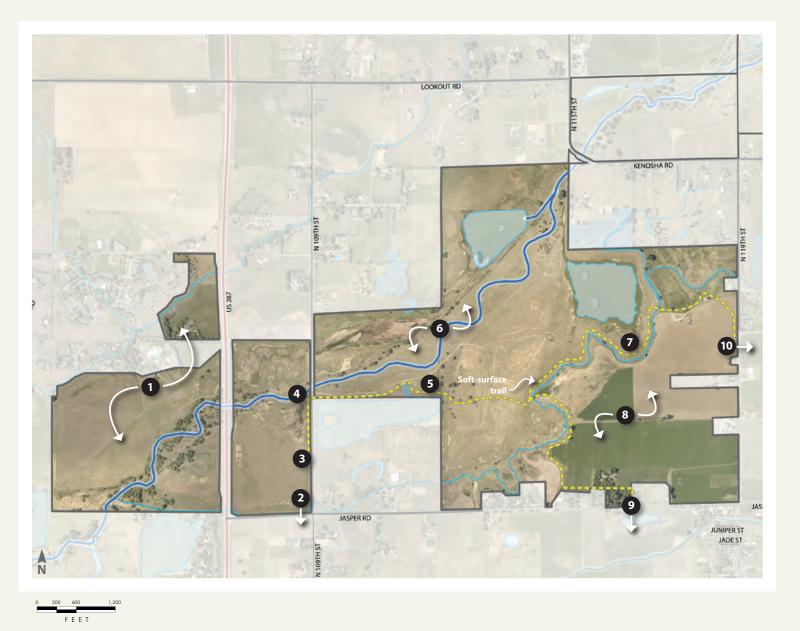
Soft Surface Trail

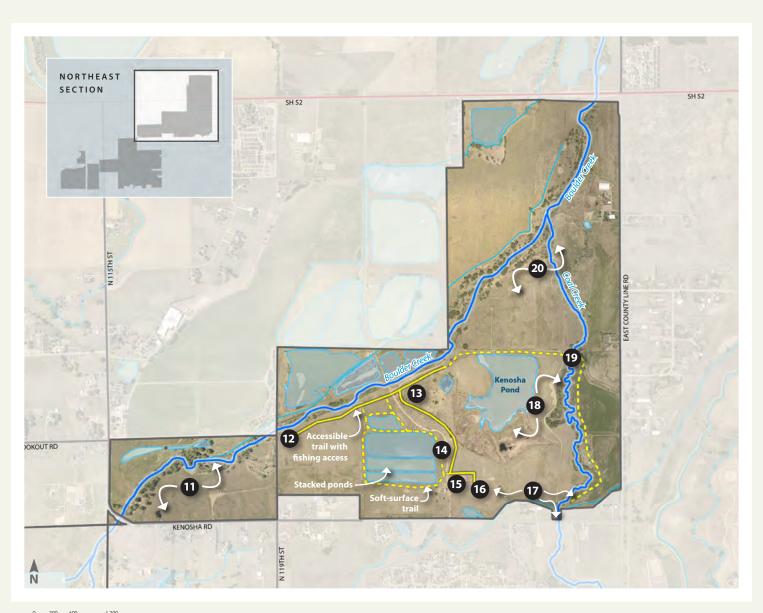


Main Ditch

Wall Ditt

Perennial Lake or Reservoir





### **Northeast Map**

#### MAP KEY:

- **11.** Wildlife habitat & agriculture preservation area: closed to public uses
- **12.** Small shelter
- 13. Large shelter and nature play area
- **14.** Potential fishing pier and watercraft access
- 15. Existing oil & gas well will be fenced
- **16.** Trailhead (includes parking area)
- **17.** Potential future connections to future trailhead and Town of Erie trails
- **18.** Wildlife habitat preservation area: closed to public uses
- 19. Bridge to cross Coal Creek
- **20.** Wildlife habitat & agriculture preservation area: closed to public uses

#### MAP LEGEND:

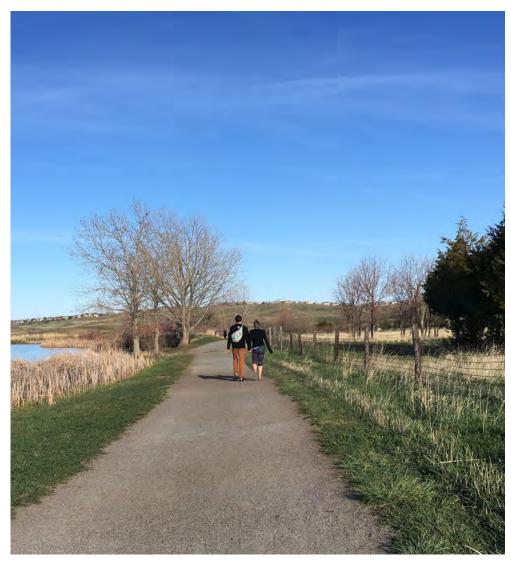
Accessible Trail

Soft Surface Trail

Perennial Stream

Main Ditch

Perennial Lake or Reservoir



Examples of recreational activities the community will be able to enjoy at EBC, including walks by water (above), a nature play area and wildlife viewing for all ages (right).

#### **East Boulder Creek: the Vision**

The implementation of this plan will result in the creation of healthy and vibrant stream systems along Boulder Creek and Coal Creek. These restorations will reestablish successional river processes and sustainable riparian ecosystems. This leads to the diversification of native plant communities and wildlife habitats throughout the stream corridor and allows for public access and recreation, including fishing amenities, water access, and a nature play area.

This plan will grant the public access to 4.8 miles of soft surface trail, 0.75 miles of accessible trail, public access to water, regional trail connections, diverse viewing experiences of landscapes and wildlife, as well as accessible parking, picnicking, and gathering facilities. Park rangers will ensure the safety of visitors while protecting resources. All these components combine to offer a unique opportunity to experience a diversity of land uses that complement the rural character of the region and promote a healthy, sustainable future for the Boulder Creek system. It will facilitate the restoration of two severely incised reaches of East Boulder Creek and Coal Creek, providing desired public amenities in a section of the county where they have been lacking. The department is committed to creating built environments that encourage visitor interaction, connectivity, and stewardship while integrating ongoing maintenance needs, sustainable materials, and climate considerations.







Park rangers work to engage the public and ensure safety of visitors while protecting the natural resources they steward (above). EBC will provide accessible trail and fishing opportunities for the community (below).









# Goal 6

To promote and provide for sustainable agriculture in Boulder County for the natural, cultural, and economic values it provides.



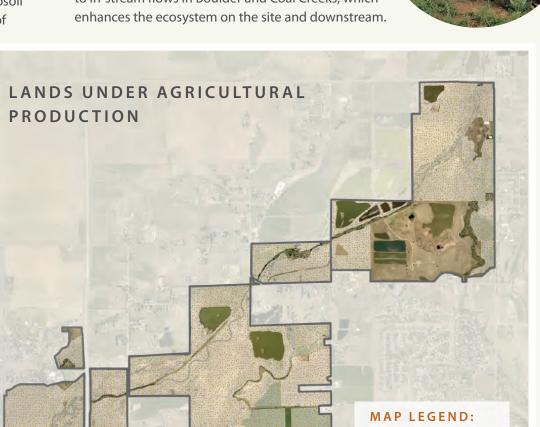
#### **East Boulder Creek: Overview**

Agricultural producers in this area have a long history of caring for the land through sound management decisions and the improvement of farming operational infrastructure. Most of the landscape within the EBC site is leased by agricultural tenants who produce forage for livestock or actively graze it with cattle. Both the Department and tenants face challenges in grassland productivity due to the impacts of past gravel mining and extreme flood events, which altered the vegetation, soils, and water infrastructure. The aftermath of mining left poor-quality topsoil that is shallow and lacks good structure and nutrients. The flood of

2013 had major impacts on all agricultural tenants due to the massive flow of water, changes in stream beds, fluctuation of groundwater levels, and the destruction of valuable infrastructure.

Since those events, agricultural producers have been working to improve soil health and productivity through various management actions. They have reseeded dryland pastures with native and specialty species to enhance forage quality and availability, especially in areas where the old introduced pasture species were no longer productive. Producers also manage cattle movements across the landscape and deliver grazing impacts selectively through rotational grazing, focusing on stocking densities, timing, duration of use, and vegetation regrowth periods. Another example of vegetation improvement is the placement of winter feeding areas in the grassland pastures that were impacted by aggregate mining. This helps increase organic matter, surface cover, water holding capacity, and biological activity in the soil due to the addition of manure and hay residue.

In irrigated portions of EBC, producers and the Department collaborate throughout the year to actively manage the full allocation of water rights across these landscapes. Routine coordination with ditch companies ensures the precise timing of water delivery for optimal plant health and productivity. Additionally, the Department and tenants actively manage water for ecological purposes in Kenosha Pond and wetland areas to benefit wildlife species. The Department also contributes to in-stream flows in Boulder and Coal Creeks, which enhances the ecosystem on the site and downstream.



**Agricultural Production** 

## **Land Management Priorities and Management Actions**

#### PRIORITY: SUPPORT AGRICULTURAL OPERATIONS

#### **ACTION:** Create an agricultural operations plan

**DETAILS:** We will create an agricultural operations plan that examines the site's productivity potential, ecological health, and economics to establish management objectives. We will integrate soil health, accessibility, and navigability into this process.

**BENEFIT:** Agricultural operations plans establish measurable goals that are essential for guiding the changes in operations when the property is open to the public. This plan will ensure both visitor safety and the ability of the agricultural tenant to maintain productivity

#### **ACTION: Protect sensitive water infrastructure**

**DETAILS:** We will protect water infrastructure with security measures.

**BENEFIT:** Unauthorized manipulation of water control and measurement devices could lead to negative impacts on irrigated land, non-compliance with state regulations, expensive equipment repairs, or pose risks to public safety due to swift water currents and confined spaces.

#### **ACTION: Improve soil health**

**DETAILS:** Fields across the site will be enhanced and improved with soil health practices such as compost, biochar, cover crops, and inter-seeding.

**BENEFIT:** With the history of gravel mining in the area, many of the soils are low in organic matter and have shallow topsoil's Improving soil health increases plant diversity and supports ecosystem health.



#### **ACTION: Provide agricultural storage**

**DETAILS:** We will provide an agricultural storage building for the tenants to store equipment vital to their operations.

**BENEFIT:** The existing on-site storage will be removed to develop visitor infrastructure.

# PRIORITY: PROVIDE AGRICULTURAL INFRASTRUCTURE

# **ACTION:** Install and maintain agricultural fencing and watering infrastructure

**DETAILS:** The Department will install new fencing and watering infrastructure following the creation of the agricultural operations plan.

**BENEFIT:** New fences will grant access and enhance property utilization once trails and amenities are installed. Livestock watering infrastructure is required to facilitate cattle operations in fields where existing water access is being eliminated or disrupted due to trail alignments.



Where public feedback from this outreach has led to a new, updated or shaped a management action, this plan symbolizes that with this symbol to reflect the voice of the community.

#### **East Boulder Creek: the Vision**

The Department's producer tenants will continue to steward EBC, sustaining environmental resources and wildlife habitats, while also contributing to the area's agricultural community. This plan will introduce changes to the landscape to accommodate trails and amenities. The Department will carefully plan, design, and install fences to ensure the safety of both the public and the producers and their livestock. To reduce pressure on riparian areas, the Department will install upland livestock water sources, improving cattle operations and movements across the landscape. The trail plan will provide the public with opportunities to observe and learn more about the site's agricultural operations. Together, the Department and tenants will create new agricultural operation plans for each of the leases within the EBC site. These plans will guide active management across each property in conjunction with public access.

Management objectives will aim to enhance the property's productivity potential, ecological health, and overall farm economics. The Department and tenants will continue to enhance the agricultural fields within the site by improving soil health, resulting in more sustainable agricultural operations for the tenant.

With the improved water management infrastructure outlined in the plan, Boulder County and agricultural producers will have greater control over the delivery of irrigation water. This enhanced control will improve the safety of individuals managing water infrastructure and ensure a stable water supply to support riparian and wetland ecosystems.









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# Implementation

The Department will carry out the management actions outlined in this plan over the next 8 to 10 years (from 2024 to 2034) in two phases.

Phase I will concentrate on implementing this plan in the area south of Kenosha Road, with the goal of initially opening this portion of the property to the community.

The public will be able to enjoy serene views such as this in the next 8-10 years at EBC.

Phase II will focus on the area north of Kenosha Road. Due to the complex site conditions, the restoration and infrastructure work will require several years for permitting, engineering, and construction before it is completed. Once finished, the Department will open that section of the park, making the entire site accessible for the community to enjoy.

For updates throughout the implementation process, please visit the Boulder County East Boulder Creek website.

# Conclusion

#### **The Plan Process**

While the Department has incorporated traditional planning methods into this site management plan, staff has updated the process and the document in order to make them both more inclusive. Highlights of this updated effort include having staff: 1) create an interactive project website where the public could submit input and comments through surveys, 2) provide opportunities for the public to visit the land itself during the planning process, and 3) generate outreach and plan materials in both Spanish and English. The result of these changes is a plan that is both responsive to community interests and reflects the goals of the Department.

#### The Result

East Boulder Creek will be a park where the public interacts with nature. Where visitors use five miles of soft-surface trails to enjoy views, watch wildlife, and get exercise. Children will enjoy nature play and picnicking. People with disabilities and health impairments will enjoy visiting Boulder Creek in a restored floodplain on an 0.75-mile accessible trail. Bird watchers will have opportunities to see species in critical wildlife habitats (including a colony of herons) through a looped trail alignment that minimizes direct impacts on critical resources.

It will be an open space where the Department and tenant partners steward the environmental and agricultural resources on the site. Improved livestock management and soil enhancements will enhance the vegetation and soil health of the site. Additionally, portions of the site will remain closed to public access in order to protect wildlife from disturbances from recreation.

This plan provides the vision and guidance to the Department to balance visitor access with ecologically-focused management. These actions will restore a significant portion of Boulder Valley, bolster environmental resources, and increase the resiliency of the landscape. Through intentional introduction of amenities intended to serve people of all abilities and diverse backgrounds, this park will be a welcoming space for the community to connect with nature and each other.

BOULDER COUNTY | East Boulder Creek Site Management Plan | 2023





# Boulder County Parks & Open Space

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