

# Bringing People to the Water:

## Clear Creek Canyon Park's Big Easy Recreation Area

## Presentation Team:

- **Scot Grossman**  
Projects Team Supervisor  
Jefferson County Open Space  
Jefferson County, Colorado
- **Moneka Worah**  
Principal and Biologist  
ERO Resources  
Lakewood, Colorado
- **Paul Thomas**  
Principal and Landscape Architect  
Stream Landscape Architecture and Planning  
Denver, Colorado

## Project Team:

- Jefferson County Open Space
- CEI Construction
- Muller Engineering
- Yeh and Associates
- ERO Resources
- Stream Landscape Architecture
- 105 West Survey
- Zozo Public Relations
- Summit Engineering

# Presentation Agenda

1. The Big Picture:  
The Big Easy and the P2P Trail Project
2. Moving a Highway
3. Prebles! Working Through a T&E  
Species Finding
4. Designing to Bring People to the Water



# Peaks to Plains Trail

Denver to Loveland Pass



# Peaks to Plains Trail



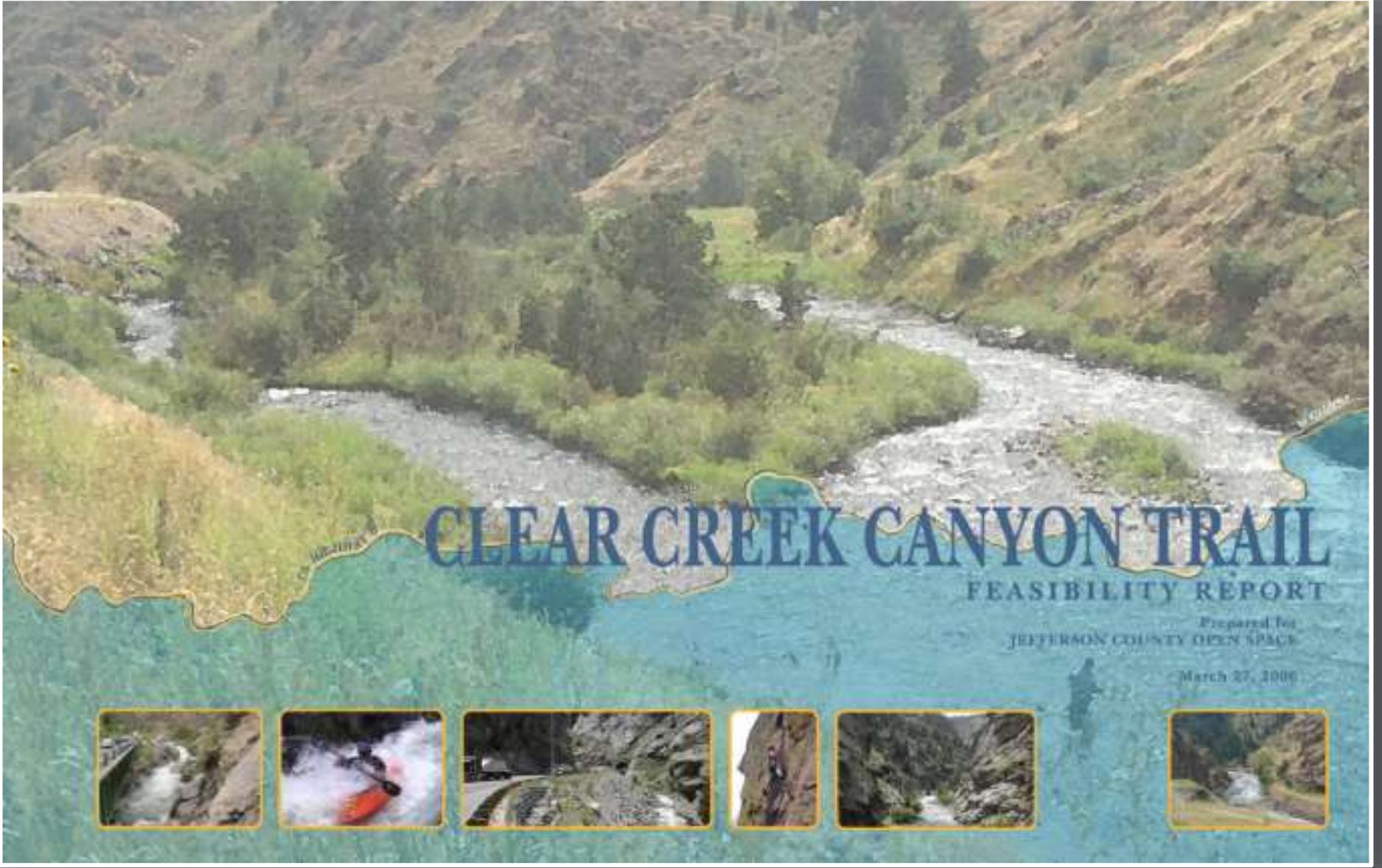
Trails of Statewide Significance



# Peaks to Plains Trail

Denver to Loveland Pass



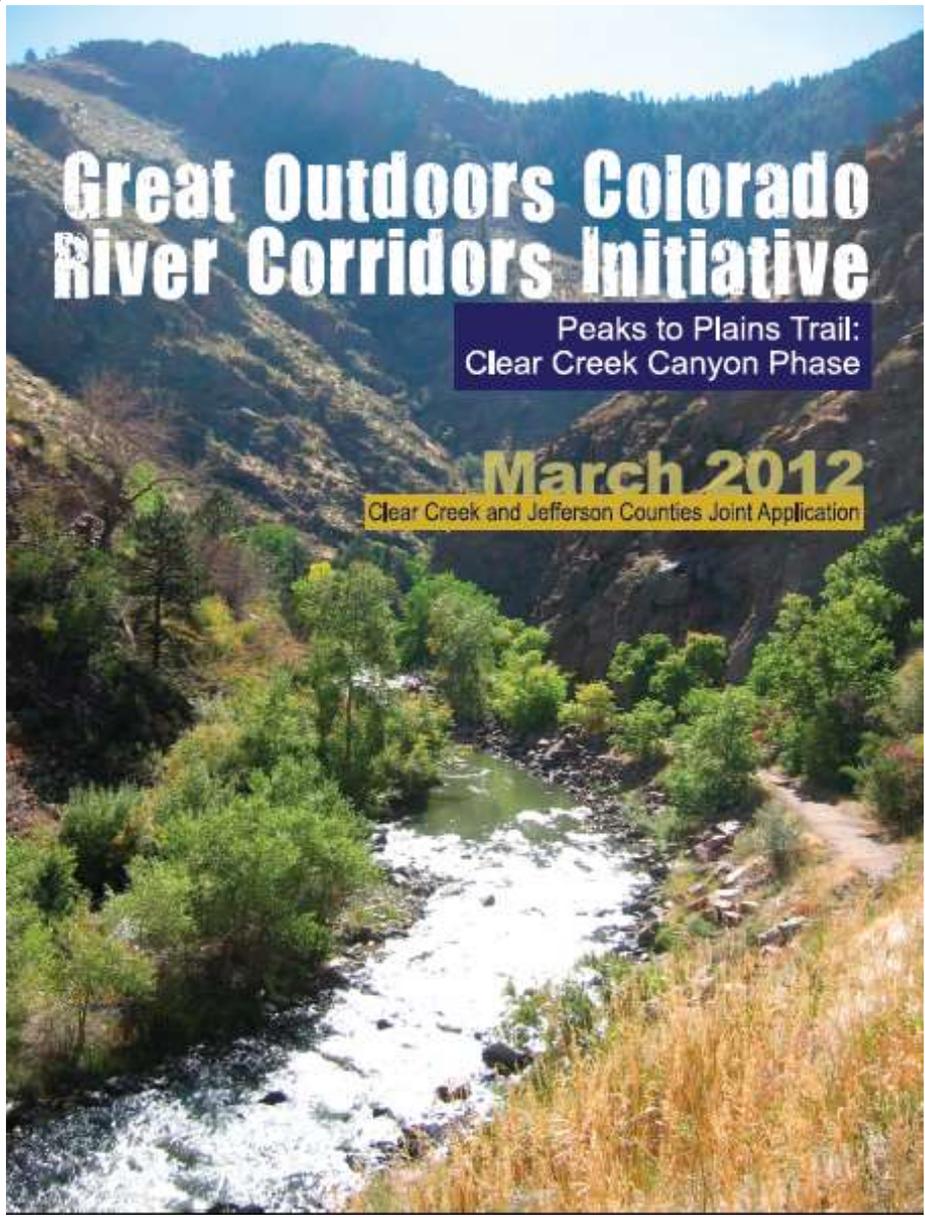


**CLEAR CREEK CANYON TRAIL**  
FEASIBILITY REPORT

Prepared for  
JEFFERSON COUNTY OPEN SPACE

March 27, 2006





# Great Outdoors Colorado River Corridors Initiative

Peaks to Plains Trail:  
Clear Creek Canyon Phase

**March 2012**

Clear Creek and Jefferson Counties Joint Application

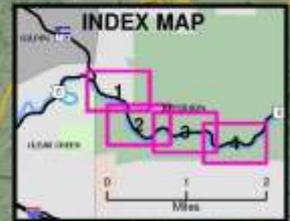
# JEFFERSON COUNTY 4-MILE CLEAR CREEK CANYON TRAIL



**Legend**

Existing Grade	Mile Marker
Filled Bench	Proposed Bridge
Natural Bench	Raft Put-In
Proposed Pedestrian Only Trail	Raft Take-Out
Road Embankment - Retained Bench	County Open Space
Jefferson County Open Space Trails	Conservation Easement
Trail Through Existing Culvert	Existing Parking/Restroom
	Proposed Parking Improvement/Proposed Restroom

0 0.1 0.2 Miles





















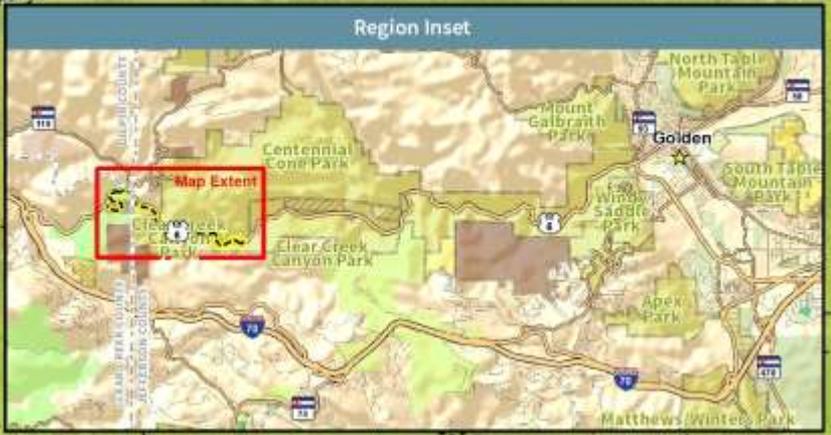




# Peaks to Plains Trail



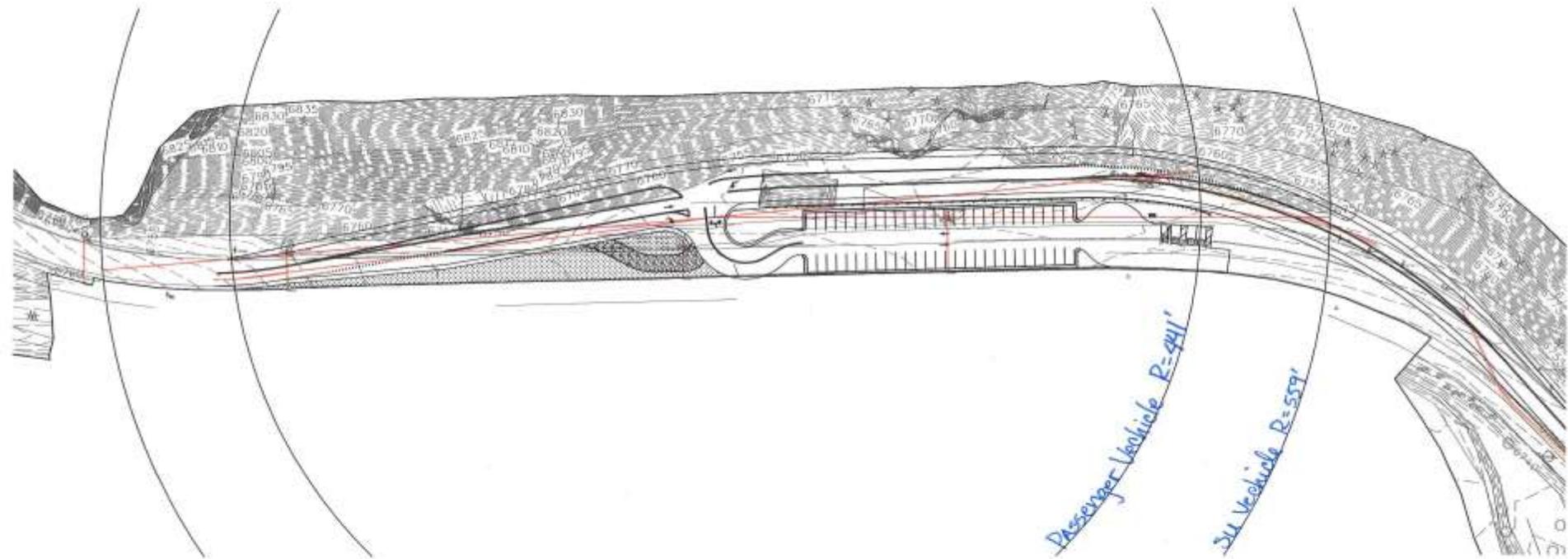
Clear Creek Canyon



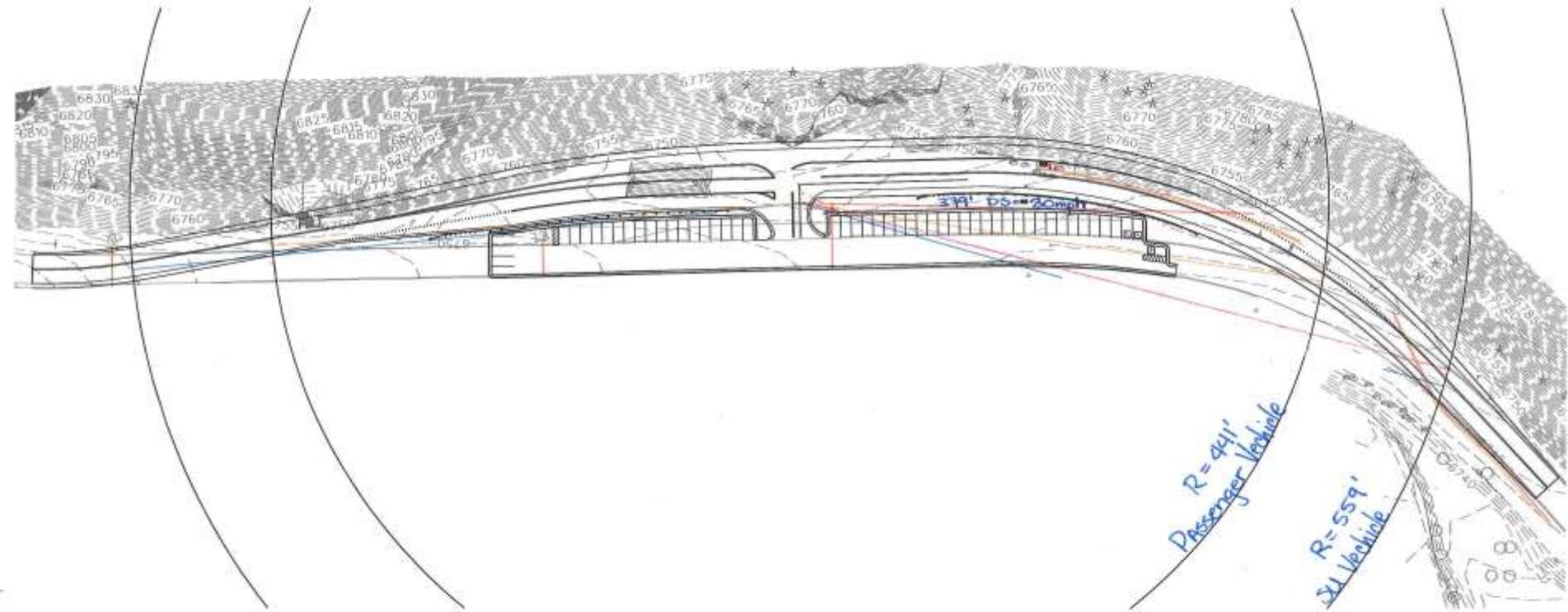


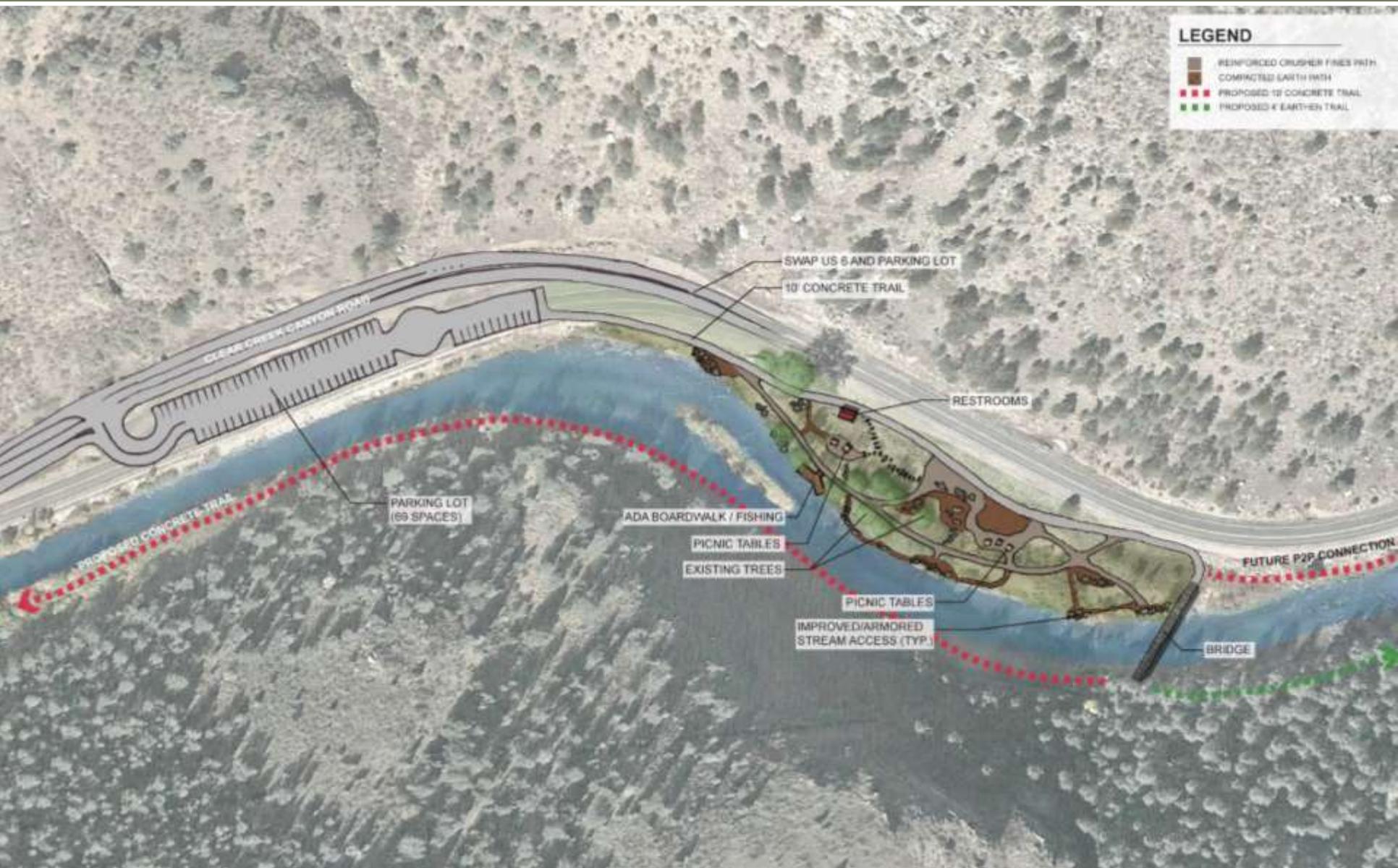


# Option #1



# Option #2





**LEGEND**

- REINFORCED CRUSHER FINES WITH COMPACTED EARTH PATH
- PROPOSED 10' CONCRETE TRAIL
- PROPOSED 4' EARTH TRAIL













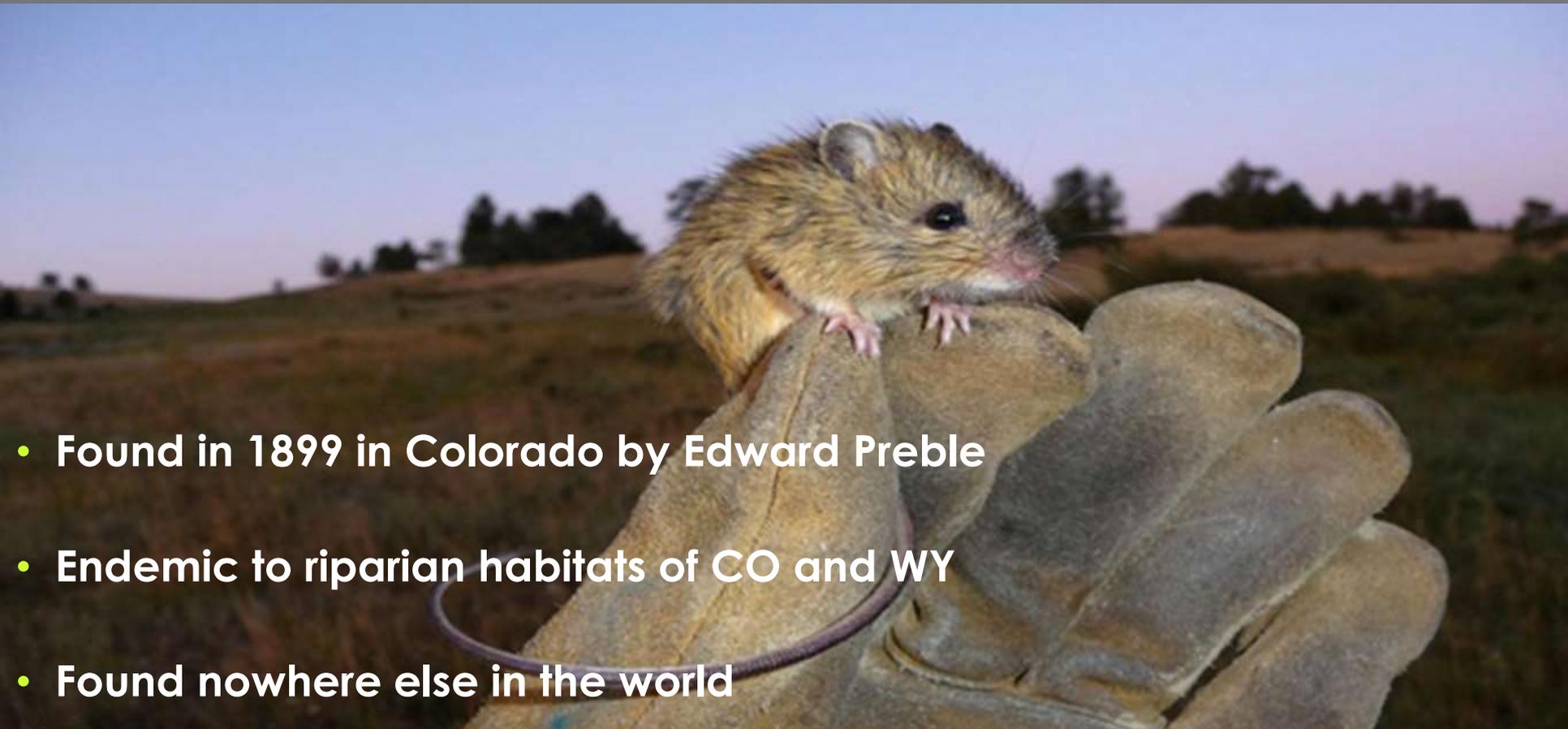
## Balancing Recreation with the Environment



## Environmental Permitting

- Clean Water Act Section 404 Permit
- Colorado Department of Transportation Access Permit
- Biological Assessment/Biological Opinion

## What is a Preble's Jumping Mouse?



- Found in 1899 in Colorado by Edward Preble
- Endemic to riparian habitats of CO and WY
- Found nowhere else in the world

## Preble's Preferred Habitats

- **Riparian areas** with upland grasslands adjacent
- Dense, **herbaceous or woody vegetation** near ground level
- **Foraging and hibernation** areas
- **Open water** during the active season
- Refugia from flooding

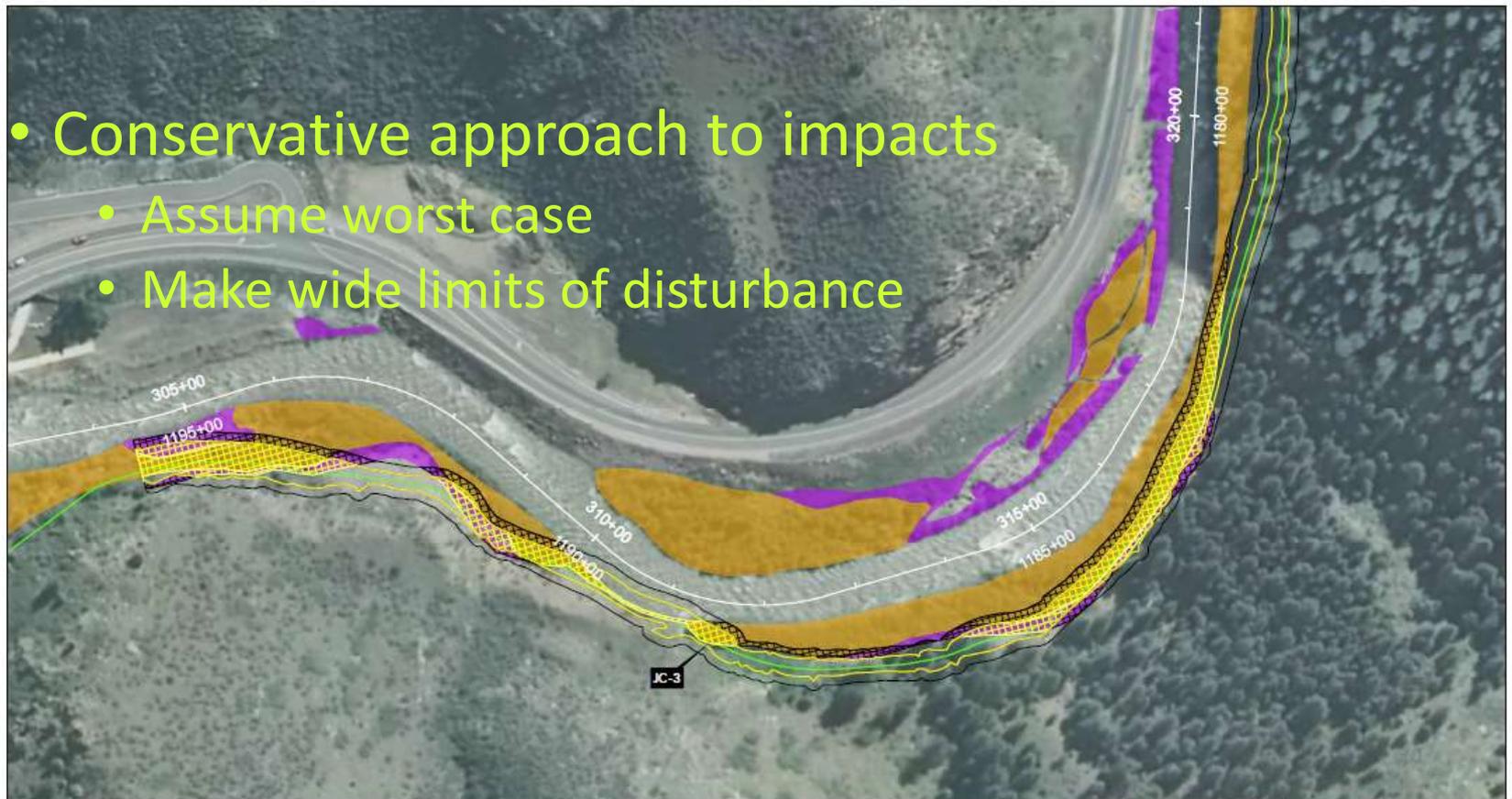


## Permitting Process



## Estimating Impacts

- Conservative approach to impacts
  - Assume worst case
  - Make wide limits of disturbance



Peaks to Plains Clear Creek Canyon Trail - Jefferson County Segment 3

- |                                      |                               |
|--------------------------------------|-------------------------------|
| Proposed Permanent Trail Facility    | Preble's All-around Habitat   |
| Proposed Temporary Disturbance       | Preble's Connectivity Habitat |
| Permanent Impact on Preble's Habitat | Proposed Trail Alignment      |
| Temporary Impact on Preble's Habitat |                               |

Image Source: Landisarc®, August 2011



Figure 9  
Proposed Impact on  
Preble's Habitat

Prepared for: Muller Engineering  
File: 5519-JC-3-FRM-impact-figures.mxd (NW)  
December 14, 2015



## Proposed Mitigation

- Proposed combination of on-site and off-site habitat
  - On-site limited to canyon setting
  - Coal Creek and Ralston Creek reviewed for off-site mitigation



## Big Easy Habitat



## Habitat Protection



## Habitat Enhancement



## Habitat Creation



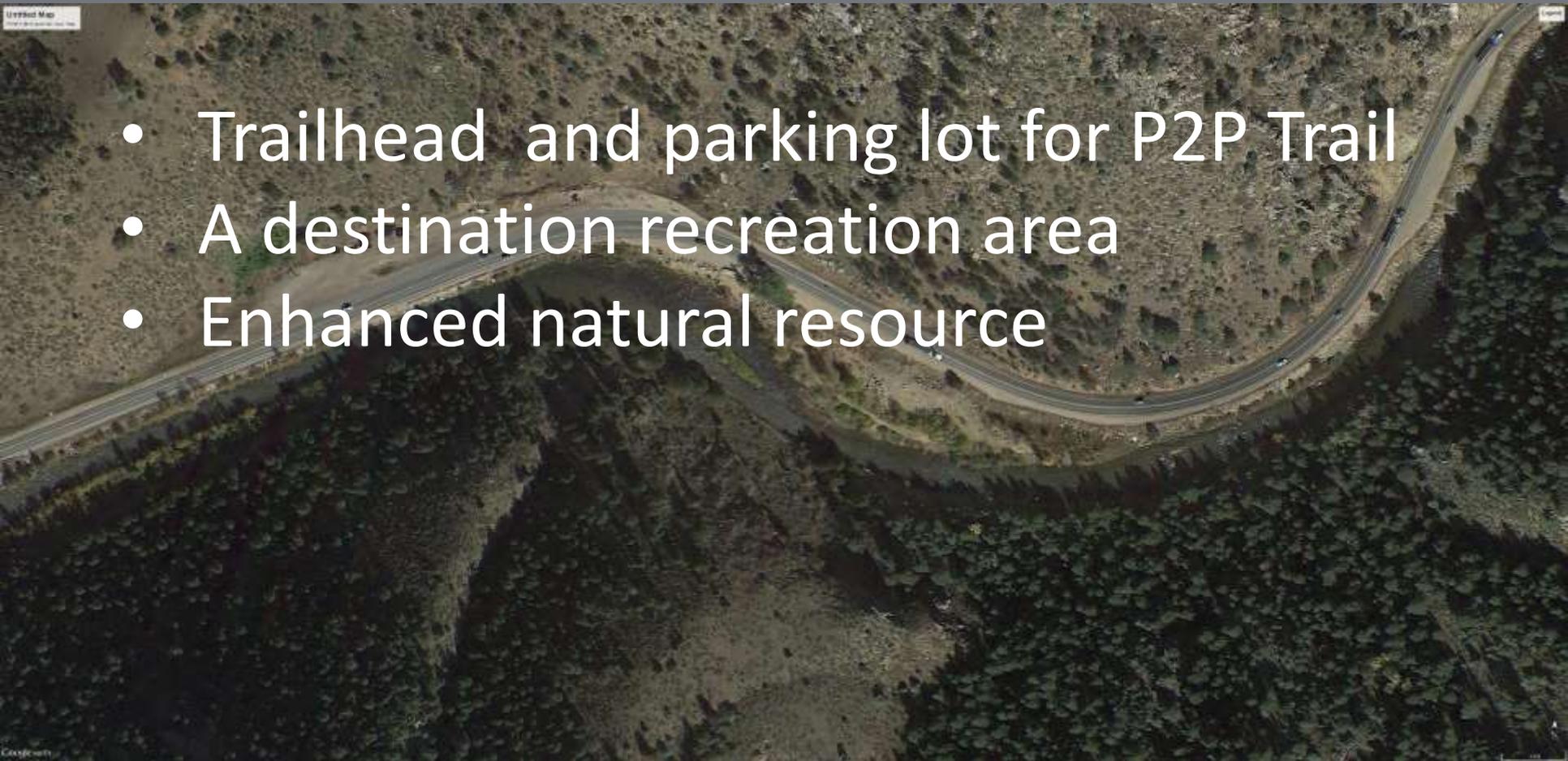
# Environmental Constraints and Opportunities

## Protect, Enhance, Create



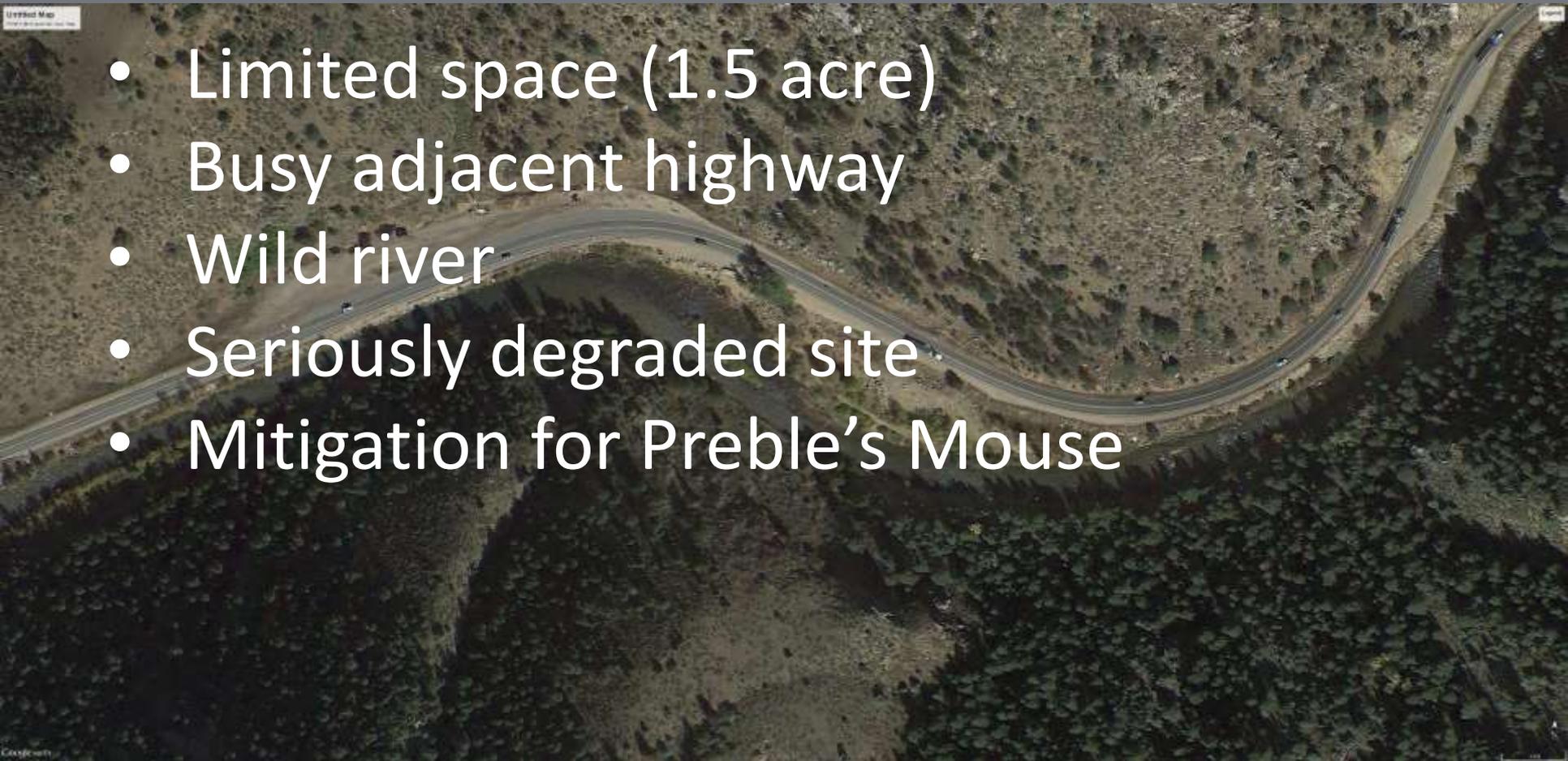
## Project Objectives

- Trailhead and parking lot for P2P Trail
- A destination recreation area
- Enhanced natural resource



## Key Challenges

- Limited space (1.5 acre)
- Busy adjacent highway
- Wild river
- Seriously degraded site
- Mitigation for Preble's Mouse



## Design Objectives

- Enhance the resource—mitigate previous impacts



## Placer Mining

## Design Approaches

- Enhance the resource—mitigate previous impacts



## Design Approaches

- Enhance the resource—mitigate previous impacts



# Bringing People to the Water

## Design Approaches

- Enhance the resource—minimize new impacts



Water Access Points



Social Trails

# Bringing People to the Water

## Design Approaches

- Enhance the resource by protecting valuable habitat



# Bringing People to the Water

## Design Approaches

- Siting the P2P Trail



# Bringing People to the Water

## Design Approaches

- Siting the P2P Trail



# Bringing People to the Water

## Design Approaches

- Siting the P2P Trail



# Bringing People to the Water

## Design Approaches

- Siting the P2P Trail



# Bringing People to the Water



# Bringing People to the Water

## Design Approaches

- Siting the P2P Trail



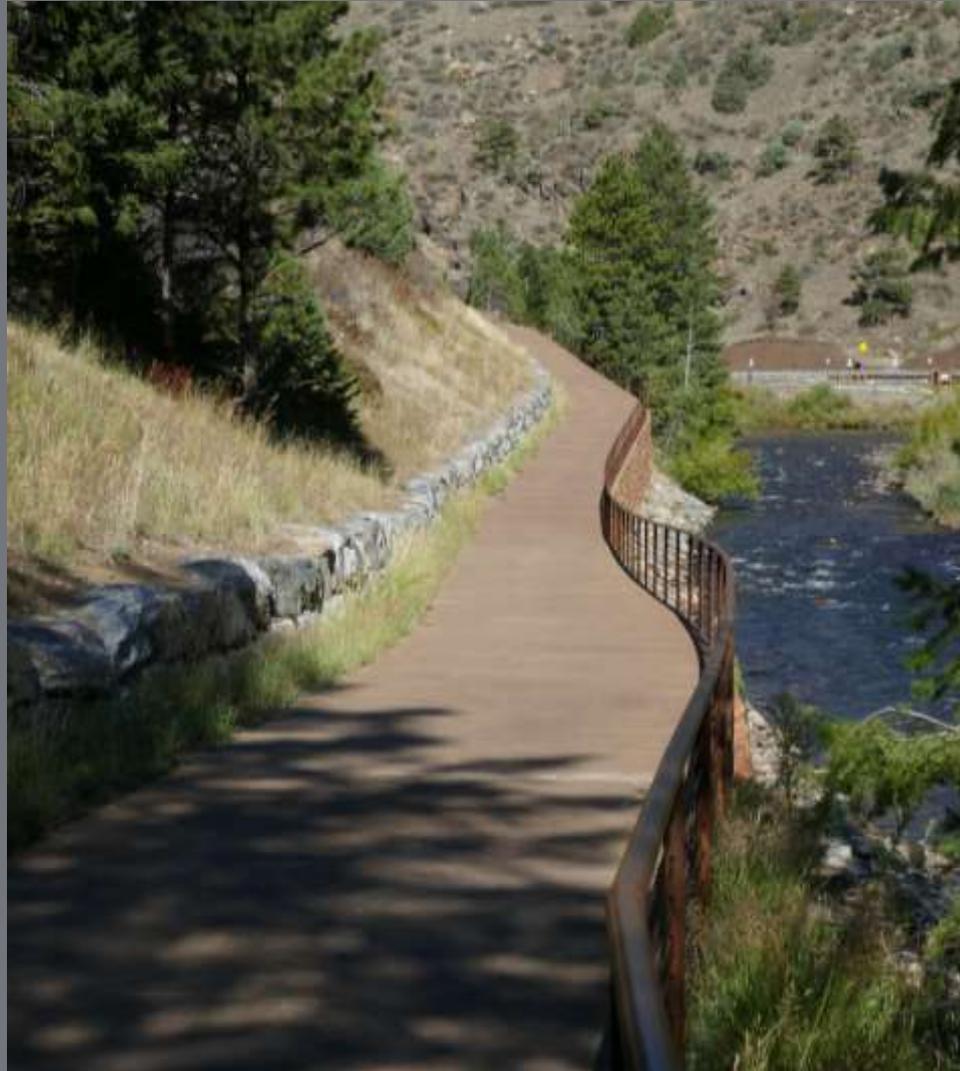
# Bringing People to the Water



# Bringing People to the Water

## Design Approaches

- Siting the P2P Trail



# Bringing People to the Water

## Design Approaches

- Siting the P2P Trail



# Bringing People to the Water

## Design Approaches

- Creating a destination recreation area



# Bringing People to the Water

## Design Approaches

- Trails, boardwalks and overlooks



# Bringing People to the Water

## Design Approaches



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## Design Approaches

- Trails, boardwalks and overlooks



# Bringing People to the Water

## Design Approaches

- Water access



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# Bringing People to the Water

## Design Approaches

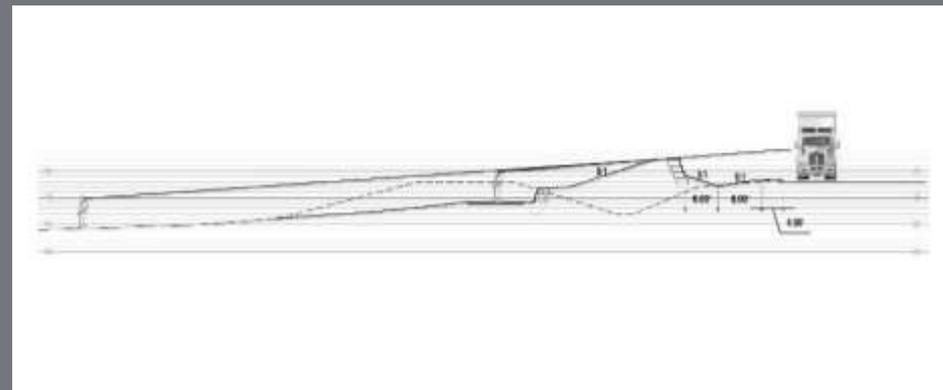
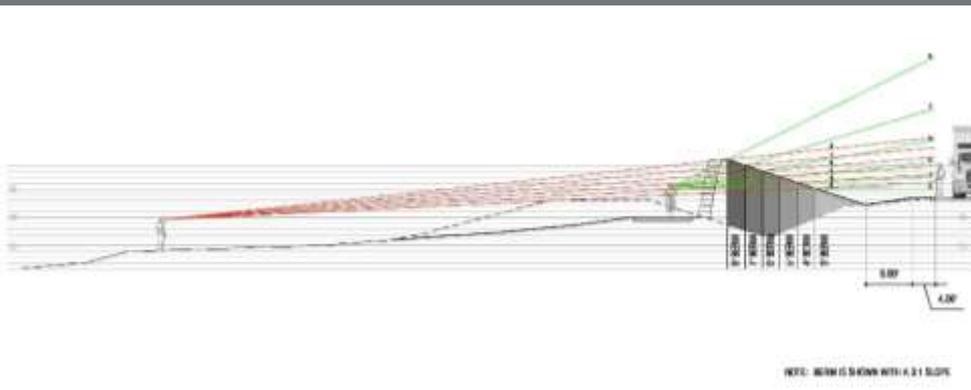
- Water access



# Bringing People to the Water

## Design Approaches

- Mitigate highway



## Design Approaches

- Mitigate highway



# Bringing People to the Water



## Design Approaches

- Amenities--Shelters

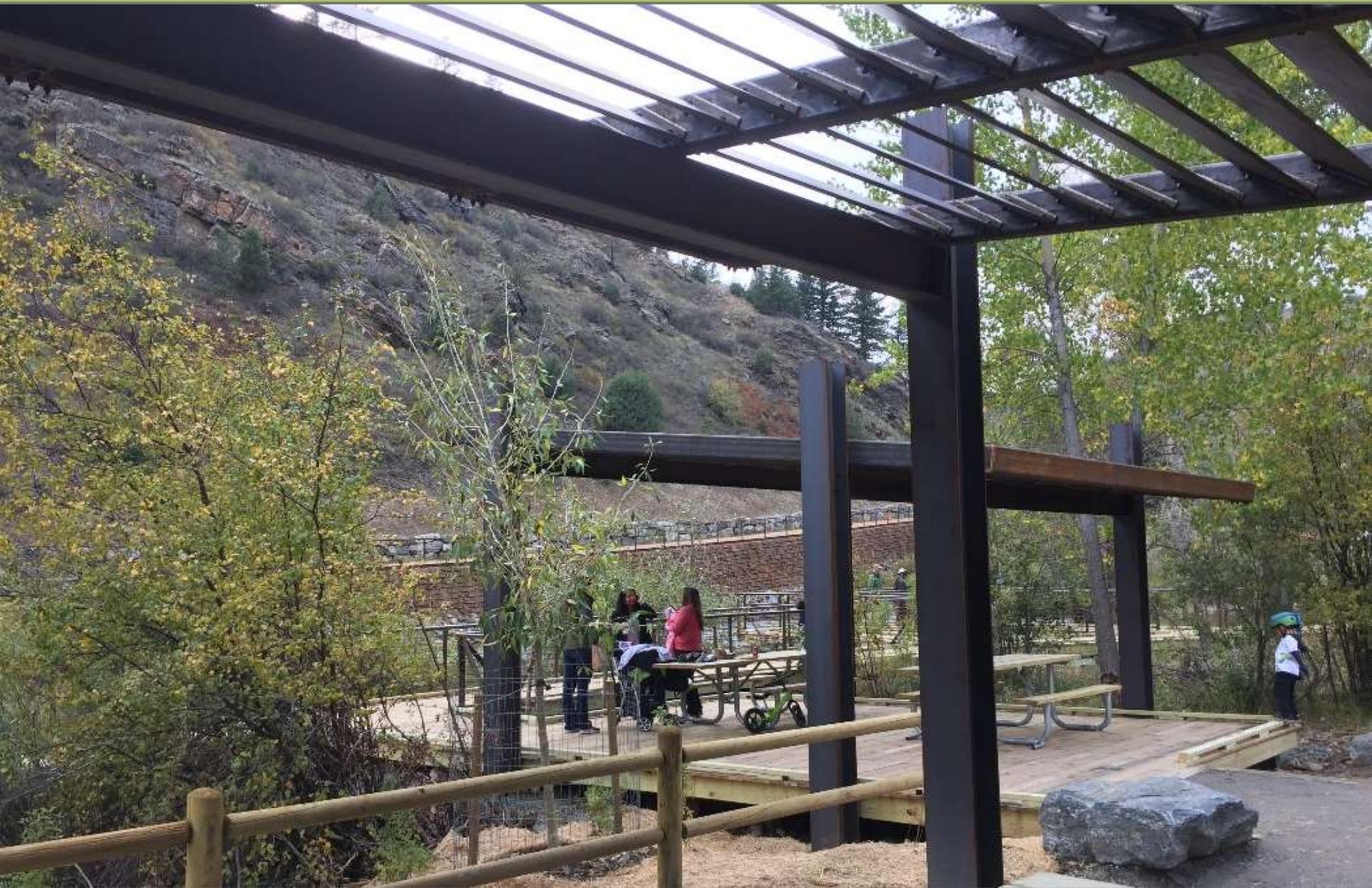


## Design Approaches

- Amenities--Shelters



# Bringing People to the Water



## Design Approaches

- ADA Accessibility



## Design Approaches

- Amenities—Geology Garden



## Design Approaches

- Amenities—Geology Garden



## Design Approaches

- Amenities—Geology Garden



# Bringing People to the Water

## Multi-Purpose Recreation Area



Bringing People to the Water

# Multi-Purpose Recreation Area



# Bringing People to the Water

## Multi-Purpose Recreation Area



Bringing People to the Water

# Multi-Purpose Recreation Area



Bringing People to the Water

# Multi-Purpose Recreation Area



# Bringing People to the Water

## Multi-Purpose Recreation Area



# Bringing People to the Water

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**Thank you.**