ADAMS COUNTY
CLEAR CREEK CORRIDOR
MASTER PLAN
PLANNING & IMPLEMENTATION TEAM

Adams County Parks and Open Space Project Management Team:

Shannon McDowell, Open Space Program Manager
Nathan Mosley, Director

Adams County Clear Creek Corridor Planning Team

Wenk Associates, Inc. - Landscape Architecture and Planning
Nicole Horst, PLA, ASLA
William Wenk, PLA, FASLA
Megan Jones Shiotani, ASLA

Zoeller Consulting LLC - Public Outreach
Lisa M. Zoeller
Rosa Snyder

CORVUS LLC - Environmental Consulting
Mary L. Powell

Merrick & Company - River Engineering
Richard E. McLaughlin, PE
Adams County Clear Creek Corridor Technical Advisory Committee

Adams County Parks and Open Space
Aaron Clark
Greg McKenzie
Marc Pedrucci
Kurt Carlson

Adams County Public Works
Greg Labrie
Russ Nelson
Juliana Archuleta

Adams County Community and Economic Development
Kristin Sullivan

Adams County Regional Affairs
Rebecca Zamora

Clear Creek Watershed Foundation
Dave Holm
Diane Kielty

Urban Drainage & Flood Control District
Dave Skuodas

Hyland Hills Park & Recreation District
Terry Barnhart

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1 | PLANNING CLEAR CREEK - WHY NOW?

PLAN PURPOSE

Adams County is home to over seven miles of Clear Creek – one of the most historically significant and ecologically intact urban watersheds remaining in Colorado. The creek has been a resource for agriculture, industry, circulation and recreation for generations. Rapidly-changing development patterns have forever changed the face of Clear Creek throughout its history – first a pristine natural stream, then a heavily used industrial corridor, and in the future it has the potential to be an ecologically diverse recreational thoroughfare. The trail that runs along Clear Creek is part of the Rocky Mountain Greenway, a planned trail that connects three Denver-area National Wildlife Refuges with Rocky Mountain National Park, and the Peaks to Plains Trail, another trail that will eventually run along Clear Creek from the Eisenhower Tunnel to the South Platte River.

In 2012, Adams County created a new county-wide master plan for parks, recreation, and trails. The 2012 plan identified a need to locate infill park opportunities in the southwest corner of Adams County, near the Clear Creek Trail. Little attention was given to the recreational opportunities along the existing trail system, with the exception of a statement that the Clear Creek Trail needs to be cleaned up and maintained. In the years since the Open Space, Parks, and Trails Master Plan was created, citizens reported safety concerns throughout the corridor and safety issues necessitated the closure of an informal trailhead along Clear Creek. As Adams County worked to close the trailhead, it became clear that specific attention should be paid to the entire Clear Creek corridor to ensure current issues could be addressed and future improvements were in line with the community’s needs.

Results from Quality of Life surveys in 2012, 2014, and 2016 also demonstrated the importance of parks and recreation to Adams County’s residents. In the 2014 and 2016 Quality of Life surveys, the open space, parks, and trails system was listed as the most important service Adams County provides for maintaining and improving the quality of life of its residents.

Addressing existing challenges

Currently, there are a number of challenges to safety, access and maintenance along the corridor, limiting use along the trail and in the surrounding open spaces. Adams County Parks and Open Space staff

use of this report

The Clear Creek Corridor Plan is an amendment and update to the 2012 Open Space, Parks, and Trails Master Plan as well as the Comprehensive Plan. The plan is meant to be used as a guide in making improvements along the corridor, providing additional amenities, and addressing how adjacent development interacts with the trail.

Anticipating future development demands

Finally, planning and implementation strategies for Clear Creek have been refined through multiple workshopping efforts with Adams County Public Works and Adams County Community and Economic Development staff. This forward-thinking anticipation of the future of Clear Creek ensures the corridor will be enhanced by new growth and investment and celebrated as an asset for future development.
2 | INVENTORY OF EXISTING CONDITIONS

The Clear Creek Corridor is a highly complex riverway with a variety of adjacent land uses and a long history of gold panning, aggregate mining, landfills and industrial practices along its banks. Despite this history, the creek hosts a number of healthy wetland habitats, large stands of lush cottonwood groves, and many miles of riparian ecologies along its banks.

As a constantly-changing area that is seeing a surge in residential and commercial interests and a rapidly-changing transit network, it is difficult to paint a complete picture of the site at a given moment in time. However, the area has been extensively mapped by the County, Urban Drainage and Flood Control District and other entities. These maps provide critical insights into the floodway and surrounding floodplain, transit and trails, existing and past land uses and the various ecological conditions along the creek.

Additionally, first and secondhand observations from the planning team, Technical Advisory Committee (TAC) and members of the public revealed opportunities, challenges and areas of concern for maintenance, recreation and access routes. These were revealed during a number of planning meetings and cataloged, along with invaluable insights received from the public during public outreach efforts both in-person or via online surveys.

Finally, the planning team and TAC conducted a number of site visits over the course of the planning process, beginning with a group bike tour at the onset of the planning process.

It was concluded during this inventory process that the Clear Creek corridor is relatively unprotected from future development in terms of habitat preservation and would benefit from development standards that address the interface with the creek. Other areas were identified for more significant enhancement efforts as they are either blighted, perceived as unsafe, inaccessible or difficult to access, or otherwise underutilized.

Inventory of current zoning designations (ADCO), future rail connections (RTD) and known future development areas (2016 Adams County Making Connections Plan).
HISTORY OF THE ADAMS COUNTY CLEAR CREEK CORRIDOR

Clear Creek extends 66 miles from Loveland Ski Area, through mountain towns along Interstate 70, through Clear Creek Canyon and into the eastern plains where it meets the South Platte River in Adams County. Colorado’s history is deeply intertwined with the Clear Creek Corridor.

Clear Creek was originally boulder-laden, and as such was first labeled “Cannonball Creek” by the hunters and trappers that first camped along its edges. The name was soon changed to “Clear Creek” following the 1859 gold rush that began with the discovery of gold at the confluence of Clear Creek and Ralston Creek, immediately west of what is now Sheridan Boulevard.

The legacy of gold panning along Clear Creek is an important facet of the corridor’s identity, and prospectors from across the region continue to pan the streambed today. The gold rush quickly moved upstream and into the area now known as Golden and further into Clear Creek Canyon. Communities continued to grow along the creek as the surrounding lands began to be used for agriculture. Some of the agricultural ditches created at this time still exist along the creek, including Fisher Ditch which extends from 55th and Lowell to Copeland Lake just south west of Washington Street and 62nd Avenue.

Throughout much of the twentieth century, mining efforts continued upstream while industrial uses filled in along the Front Range. Gravel mining grew throughout Adams County as well, and a handful of gravel ponds began to emerge - most of which still remain and have been converted to publically or privately-owned open space amenities including Engineer Lake, within the project area.

Many of these early heavy industrial uses and landfill operations prompted concerns about contamination and misuse throughout the 1970s and 1980s.

In 1983 the EPA placed much of the Clear Creek river area upstream of Adams County on the National Priority Cleanup List, and study of the corridor and remediation began in the years to follow. Restoration efforts continued throughout the 1990s under the leadership of the Clear Creek Watershed Forum and the Clear Creek Watershed Improvement Initiative, later the Clear Creek Watershed Foundation.

These restoration efforts were largely successful in improving water quality along the river. (See Appendix 01 for April, 2017 water quality report and current CDPHE and EPA statuses and data). However, the water in Adams County’s reach of Clear Creek does not currently meet water quality standards for primary recreation uses. Today, industrial uses continue to dot the areas surrounding Clear Creek, ranging from shipping and light industrial to intensive aggregate mining operations.

Over the last four decades, Adams County Parks and Open Space completed a series of trail connections along the river to complete a continuous trail connection from the South Platte River to Ralston Creek. This was a tremendous milestone that dramatically increases access to recreation options along the trail and connects the Adams County Clear Creek Corridor to regionwide users.
SITE ANALYSIS

BICYCLE TOUR

The Planning Team and Technical Advisory Committee kicked off the Corridor planning process with a bicycle tour of the entire Adams County extent of Clear Creek, from Sheridan Boulevard to the South Platte River. The team made a number of stops to discuss areas of concern and opportunities and shed light on past improvements and current project areas. Members of the Parks and Open Space maintenance team described known issues.

Tour attendees were equipped with a tour map package that noted past and current improvement areas, ownership, floodplain and wetland areas, and known future development and station areas.

As the planning team examined the corridor, three distinctive character zones emerged, based on surrounding uses, ecological conditions, ownership types and roadway intersections.

Zone 1 extends from Sheridan Boulevard to Pecos Street, Zone 2 extends from Pecos Street to Washington Street, and Zone 3 extends from Washington Street to the S Platte River Confluence. (See left)
ZONE 1
(Sheridan Blvd to Pecos Street)

Zone 1 extends from Sheridan Boulevard (at the confluence of Clear Creek and Ralston Creek) to Zuni Street. An expanded open space area is already emerging from Tennyson Street to Lowell Boulevard adjacent to Lowell Pond State Wildlife Area. This is an ecologically vital area that lacks formal trails. The new Clear Creek Valley Park provides a number of recreation opportunities to this area.

There are a number of residential areas that surround Zone 1 and they provide an excellent opportunity for new users; however there are extensive tall fences that block access to the trail for these neighborhoods.

New development is planned around the light rail station at Federal Boulevard, but pedestrian access between these areas is still challenging due to surrounding rail lines and limited through-corridors within private property. Future development should be encouraged to increase access points and future roadway plans should include multi-use path extensions along Sheridan, Tennyson, Lowell, Federal and Pecos Streets.

- Between Lowell and Sheridan, expansive extents lack tree canopies that could otherwise provide shade and screen busy highways and rail lines.
- Extensive overgrowth blocks views from the trail to the creek between Lowell and Federal Boulevard.
- Wayfinding signage is limited and frequently vandalized. Future signage should examine alternative signage types that are less prone to graffiti.
- Underpasses at Federal and Pecos Street (particularly Pecos) are low-clearance and prone to flooding and sediment buildup.
- Federal Boulevard underpass is an extensive enclosure. Should be well-lit and overpass should sign roadway to help orient trail users, especially with new commuter users anticipated with light rail opening.
- River has been accessed by prospectors, visitors, and some illegal campers, but these access points are not formalized so are difficult to maintain and patrol.
- Industrial and transit adjacencies have limited or no tree cover. Future development should encourage new vegetation and habitat areas.
ZONE 2
(Pecos Street to Washington Street)

Land uses surrounding the central segment of the site area (Pecos Street to Washington Street) are extremely diverse and complex. Little Dry Creek provides a regional trail connection into Westminster and a number of playfields and picnic areas. However, ongoing mining operations and rail corridors limit connections and make wayfinding very difficult.

The Burlington Northern Santa Fe Railroad Structure (BNSF) drop structure is eight feet in height, which prohibits boating and can be a barrier to fish passage. Current discussions between Adams County, Burlington Northern Santa Fe Railroad, and the Urban Drainage and Flood Control District are focused on replacing the existing drop structure with several smaller drop structures upstream and incorporating recreational amenities south of Little Dry Creek Lake. A partnership between these entities would accomplish many complementary goals. Significant fundraising will be required to complete the project as currently envisioned and the timeline associated with replacing the drop structure are quickly approaching.

The county-owned Clear Creek Bottomlands hosts a number of different wetland ecologies, along with a potential future trail connection via Kalcevic Gulch. As a county-owned site, this is an excellent catalyst site for new restoration and improvement efforts. A new pedestrian crossing and improved trails make the area physically easy to traverse, but it can feel isolated and additional wayfinding signage is needed. Maintenance of the open space has been difficult due to thick concentrations of Russian Olive trees, which create barriers to access and opportunities for homeless camps. Ongoing efforts to remove Russian olive and other noxious species from this open space have made significant improvements, but more work remains. In addition, the trail in this area is located between an agricultural ditch and a hillside, which creates a narrow access point with many pedestrian bridges that can be a barrier for large machinery.

Further eastward, Twin Lakes Park is a popular park with a number of facilities including visitor parking, restrooms, picnic areas, and a playground. The park will be undergoing a major renovation in 2018. While these new resources are very near the trail, they may go unnoticed by trail users if adequate wayfinding signage is not provided.

• Future development of mining operations sites should relocate trail along river
• Signage and trail connections are lacking and trails are not intuitive at Little Dry Creek connection. Local and regional connections to Westminster trails are unclear
• Existing wetland and upland habitat areas at the Bottomlands are a unique resource and should be protected (minimum) or enhanced (preferred)
• Ongoing adjacent development at Midtown and Federal station will increase commuter users
ZONE 3
(Washington Street to S Platte River)

Most of the floodplain area between Washington and York Streets is owned by CDOT and is part of a critical transportation corridor adjacent to I-76. Extensive wetlands in this area were developed by CDOT as part of a wetland mitigation program the organization operates. As such, this area serves as an important corridor for wildlife migration. For pedestrians and cyclists this extent feels isolated and lacks emergency access, especially between the I-25 and I-270 overpasses.

Restoration improvements were recently completed at the open space that sits northeast of I-270 and south of 70th Avenue at the end of Gilpin Way.

Additional pedestrian access between the trail and roadways is planned at York Street by way of an underpass under Highway 224.

The area adjacent to the South Platte River and Clear Creek confluence, as seen on the left, houses a restroom and informational signage. Engineer Lake hosts a large picnic pavilion and the lake may be an opportunity for water recreation. It is a popular destination for remote-control boat users, but access is challenging for elderly and disabled users because of its distance from parking areas across the river.

- Many of the adjacent properties along this stretch of the Clear Creek Corridor Trail have intentionally limited access between surrounding streets and the trail. Future development should encourage new connections. Additionally areas that must be fenced should utilize vegetated screening to camouflage security fencing and barriers.

- Expansive turf lawns at the confluence and a small riparian zone adjacent to the river limits habitat areas. Future improvements should expand the riparian buffer, increase tree canopy and integrate locally-adapted vegetation rather than turf grass.

- This is a critical trailhead for both Clear Creek and South Platte River Trail users. Overpasses lack wayfinding to orient trail users.

- While the open space experience at the Confluence is fairly expansive, little of the land is actually owned by Adams County Parks & Open Space, and much of the land is held by private entities.
PUBLIC FEEDBACK PROCESS

The Planning Team relied upon Adams County community members throughout the entire planning process. Outreach efforts were multifaceted and spread across a number of sites in an effort to reach as many residents as possible. Spanish translation was available for all outreach efforts, and the team made additional appearances at neighborhood meetings and with a school parent group. Overall, these efforts reached hundreds of community members across the entire corridor, and fostered extensive insight into the future needs of Clear Creek.

Phase 1 Outreach was held on January 26, 2017 and included a public open house (held at Valley View Elementary School) and online survey to understand current corridor use, existing concerns and desires for future programming. Approximately 60 community members attended the meeting and 385 responded to the survey.

Phase 2 Outreach included a Saturday morning open house at Carl Park recreation center on April 22, 2017, a community “kite day” at Rotella Park on April 27, 2017 and an online survey that defined prioritization strategies for plan recommendations. A total of 54 people attended the two meetings and another 236 responded to the survey.

Phase 3 Outreach was again held at Valley View Elementary School on June 26, 2017, where plan recommendations were reviewed. Almost 50 people attended this session.
A total of 385 community members completed the first survey through a comprehensive, multi-faceted outreach effort. Questions included multiple-choice and open-ended recommendation forums and while the responses varied for each zone, a few overall themes were identified. Existing concerns are predominantly safety or maintenance-related. Users along the entire corridor called for improved wayfinding and signage, expanded police presence and an increase in waste pickup efforts. Improved access signage, safety lighting, safe water access, preserved gold panning activities and designated off-leash areas for dogs were among the top recommendations for future users corridor-wide. Recreation interests were largely consistent across all three zones.

1) How do you currently use the Clear Creek Corridor from Sheridan Boulevard to the South Platte River?

2) What would you like to see in the future along the Clear Creek Corridor from Sheridan Boulevard to the South Platte River?

3) If you’ve ever felt uneasy along the Clear Creek trail, please select your top three concerns that have made you feel unsafe.

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**GENERAL COMMENTS**

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**top areas of interest**

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<th>Maintenance concerns (13%)</th>
<th>Access / circulation (12%)</th>
<th>Gold panning (12%)</th>
<th>Parking (9%)</th>
<th>Wayfinding (6%)</th>
<th>Dog park (4%)</th>
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**10) How do you currently use the Clear Creek Corridor from Sheridan Boulevard to the South Platte River?**

- Walking / running
- Cycling
- Gold panning
- Wildlife viewing / photography
- Quiet contemplation
- I do not use the area around Clear Creek
- Socializing
- Fishing
- Other
- Horseback riding

**20) What would you like to see in the future along the Clear Creek Corridor from Sheridan Boulevard to the South Platte River?**

- Better access and signage for gold panning
- Clean up and reopen Lowell Ponds
- Off-leash dog park that has trees for shade
- Lighting
- Improvements to under-bridge paths for when they get flooded
- Parking and a portapotty
- Better safety and more police patrols in the area
- Fix cycling path, wide, add lanes and signage
- More trees, more wildlife habitat, safer access / ingress for non-human inhabitants needing water to survive
- Picnic spots, signage for recycling / trash bins
- Cyclocross racing venue
- Interpretive signing (history / ecosystems) coordinated among various jurisdictions

**30) If you’ve ever felt uneasy along the Clear Creek trail, please select your top three concerns that have made you feel unsafe.**

- Homeless / transient camping along the river and trail
- Not enough visibility / interconnection into neighborhoods
- Bicyclers disrespectful to other trail users
- Lack of wayfinding signage and not certain I am headed in the right direction. Lack of perceived safety and anxiety-inducing
- No bathrooms close to the river
- Lack of law enforcement presence
- Too much trash, after spring floods the paths take months to be cleared
- Lack of nearby public parking
- Needs more population density - additional use which creates more safety
- Dog off leash and dog waste, no enforcement
- Trash, tall weeds and grass

**INVENTORY + ANALYSIS**

**SURVEY #1**

A total of 385 community members completed the first survey through a comprehensive, multi-faceted outreach effort. Questions included multiple-choice and open-ended recommendation forums and while the responses varied for each zone, a few overall themes were identified.

Existing concerns are predominantly safety or maintenance-related. Users along the entire corridor called for improved wayfinding and signage, expanded police presence and an increase in waste pickup efforts. Improved access signage, safety lighting, safe water access, preserved gold panning activities and designated off-leash areas for dogs were among the top recommendations for future users corridor-wide. Recreation interests were largely consistent across all three zones.
5) What type of recreation would you most like to see in the Zone 1 Plan Area?

6) Which of the following potential improvements to the Zone 1 Plan Area are most important to you?

**ZONE 1 FEEDBACK**

Survey #1

66% of survey respondents have used the Zone 1 area.

Top recreation preferences were:

1. safe river access
2. expanded trail networks
3. active water recreation
4. off-leash areas for dogs
5. wildlife viewing areas
6. gold panning
7. overlooks

The majority of Zone 1 responses highlighted the opportunities presented by Lowell Ponds and Hyland Hills recreation center adjacencies. These areas emerged as natural and recreational resources, with potential for integrated programming, habitat enhancements and educational / interpretive signage.

Bicycle access remains a challenge in this section, and respondents recommended improved trailhead parking areas, bicycle access along roadways and trailside bike share stations.
72% of survey respondents had used the Zone 2 area trail.

Top recreation preferences were:
1. safe river access
2. expanded trail networks
3. off-leash areas for dogs
4. active water recreation
5. wildlife viewing areas
6. gold panning
7. nature-based children’s play areas

Feedback included a number of requests for improved access and integration with adjacent transit, Little Dry Creek Trail, Little Dry Creek Lake, Twin Lakes, Westminster Station, and the Midtown development area. This included broader area-wide connections, trail and underpass improvements, and linked retail and recreation areas.

### ZONE 2 FEEDBACK

#### SURVEY #1

72% of survey respondents had used the Zone 2 area trail.

#### Top recreation preferences were:
1. safe river access
2. expanded trail networks
3. off-leash areas for dogs
4. active water recreation
5. wildlife viewing areas
6. gold panning
7. nature-based children’s play areas

Feedback included a number of requests for improved access and integration with adjacent transit, Little Dry Creek Trail, Little Dry Creek Lake, Twin Lakes, Westminster Station, and the Midtown development area. This included broader area-wide connections, trail and underpass improvements, and linked retail and recreation areas.

#### ZONE 2

**Zuni Street to Washington Street**

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<td>Access/circulation (18%)</td>
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<td>Maintenance (13%)</td>
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<td>Parking (10%)</td>
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<td>Parking (7%)</td>
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<td>Gold panning (6%)</td>
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<td>Retail (6%)</td>
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8) What type of recreation would you most like to see in the Zone 2 Plan Area?

9) Which of the following potential improvements to the Zone 2 Plan Area are most important to you?

**ZONE 2 FEEDBACK**

**SURVEY #1**

72% of survey respondents had used the Zone 2 area trail.

Top recreation preferences were:
1. safe river access
2. expanded trail networks
3. off-leash areas for dogs
4. active water recreation
5. wildlife viewing areas
6. gold panning
7. nature-based children’s play areas

Feedback included a number of requests for improved access and integration with adjacent transit, Little Dry Creek Trail, Little Dry Creek Lake, Twin Lakes, Westminster Station, and the Midtown development area. This included broader area-wide connections, trail and underpass improvements, and linked retail and recreation areas.

7) Have you ever used the Clear Creek Corridor within the Zone 2 Plan Area (Zuni Street to Washington Street)?

| YES | 246 responses | 72.8% |
| NO  | 92 responses  | 27.2% |

Feedback included a number of requests for improved access and integration with adjacent transit, Little Dry Creek Trail, Little Dry Creek Lake, Twin Lakes, Westminster Station, and the Midtown development area. This included broader area-wide connections, trail and underpass improvements, and linked retail and recreation areas.

8) What type of recreation would you most like to see in the Zone 2 Plan Area?

9) Which of the following potential improvements to the Zone 2 Plan Area are most important to you?

**ZONE 2 FEEDBACK**

**SURVEY #1**

72% of survey respondents had used the Zone 2 area trail.

Top recreation preferences were:
1. safe river access
2. expanded trail networks
3. off-leash areas for dogs
4. active water recreation
5. wildlife viewing areas
6. gold panning
7. nature-based children’s play areas

Feedback included a number of requests for improved access and integration with adjacent transit, Little Dry Creek Trail, Little Dry Creek Lake, Twin Lakes, Westminster Station, and the Midtown development area. This included broader area-wide connections, trail and underpass improvements, and linked retail and recreation areas.

7) Have you ever used the Clear Creek Corridor within the Zone 2 Plan Area (Zuni Street to Washington Street)?

| YES | 246 responses | 72.8% |
| NO  | 92 responses  | 27.2% |

Feedback included a number of requests for improved access and integration with adjacent transit, Little Dry Creek Trail, Little Dry Creek Lake, Twin Lakes, Westminster Station, and the Midtown development area. This included broader area-wide connections, trail and underpass improvements, and linked retail and recreation areas.
ZONE 3
Washington Street to South Platte River Confluence

total recommendations 48

top areas of interest
Parking (19%)
Delinquency concerns (17%)
Maintenance (15%)
Access/circulation (8%)
Safe water access (8%)
Gold panning (6%)
Wayfinding (6%)

4) Have you ever used the Clear Creek Corridor within the Zone 3 Plan Area (Washington Street to the S Platte River)?

YES 181 responses 54.8%
NO 149 responses 45.2%

ZONE 3 FEEDBACK
SURVEY #1

55% of survey respondents had used the Zone 3 area trail.

Top recreation preferences were:
1. safe river access
2. expanded trail networks
3. active water recreation
4. gold panning
5. wildlife viewing areas
6. overlook areas
7. nature-based children’s play areas

Zone 3 was the least-familiar trail segment to survey respondents. Feedback called for more trailheads and adjacent parking, improved crossing at York Street, and an interest in access to Commerce City commuter rail. There was also support for amphitheaters and event spaces and removal of invasive species.
PUBLIC MEETING #1

The first public meeting, held Thursday, January 26, 2017 was well-attended with at least 60 attendees, all of whom were active and engaged participants in the planning process.

The meeting was conducted as an interactive open house. The first boards presented introduced the corridor and plan scope area and included precedent imagery illustrating a number of potential improvements in (1) Recreation Programs (2) Ecological Resources and (3) Urban Amenities.

Each Zone (1, 2, and 3) was presented on a separate table and programming stickers, pens and notepads for feedback were provided for all attendees.

The feedback was broad-ranging, constructive and highly informative, providing background details not able to be expressed through the survey.
PUBLIC MEETING #1
ZONE 1 FEEDBACK

Zone 1 feedback highlighted missed connection opportunities along Lowell and Tennyson Street. Crossing these streets is dangerous along both streets and wayfinding is unclear to adjacent destinations at Clear Creek Valley Park, Hyland Hills and Lowell Ponds.

Recommendations for new habitat areas and biodiversity enhancement were placed within wetland areas at Lowell Ponds and between Lowell and Federal. Recreation markers for both water-based and dryland activities are clustered at Tennyson Street and Federal Boulevard.

Attendees also highlighted the potential integration of Gold Strike Park and Ralston Creek, Lowell Ponds and the Station Area at Federal Boulevard.

Concerns about flooding, safety (due to encampment areas) and maintenance were raised along this segment.
PUBLIC MEETING #1
ZONE 2 FEEDBACK

Zone 2 feedback was largely focused on the Midtown and Little Dry Creek interface areas, including the future of the BNSF Drop Structure.

A number of amenities were requested that are not currently available at Midtown including an off-leash dog park with swimming integration, children’s play areas, and riverfront dining or retail. Connections to transit areas were noted as lacking and new links would increase trail use for these attendees.

Active river recreation was repeatedly recommended in this area. Attendees also suggested activities not previously mentioned, including tennis, sand volleyball and disc golf.

There is also interest in ecological restoration along this corridor, and strong interest in converting surface mining operations to open space areas when possible.
Zone 3 input emphasized concerns about access to this segment as trail-heads and parking areas are lacking. There was great interest in capitalizing upon the South Platte River confluence with improved trails, bicycle rental and outdoor picnic and event spaces.

Meeting attendees expressed concern about safe access in this area, due to delinquency, lack of maintenance and frequent flooding. It was also revealed that wayfinding has been very problematic for a number of users in this area, who would otherwise use the Clear Creek - South Platte connection to commute into Denver.

Commenters also requested emergency responder access, mile marker designations, as well as improved lighting along this segment.
Phase 2 Outreach focused on two outreach events. The first was a “Kite Day” at Rotella Park held on April 27th, 2017, and the second, was an open house at Carl Park Community Center on April 22nd, in which residents were encouraged to walk along the trail and submit their feedback via an online survey.

**WHAT WE HEARD FROM PHASE 2**

- **236 SURVEY RESPONSES**
- **54 PUBLIC MEETING GUESTS**
- **2 PUBLIC OUTREACH EVENTS**

The most important improvements are:

**BASIC NEEDS**

1. Improve regional trail and transportation connections
2. Increased security presence
3. More trailheads

**CIRCULATION + ACCESS**

1. Commerce City Station connection
2. Trail connections at Lowell Boulevard
3. South Platte River trail integration

**RECREATION PLANNING**

1. South Platte River Confluence Open Space
2. Clear Creek Ecological Area at Lowell Ponds
3. Ralston Creek Confluence Regional Open Space
PUBLIC ENGAGEMENT PHASE 3: PLAN UPDATE

The final outreach effort was held at Valley View Elementary School on June 26, 2017. The meeting informed the community of the preferred plan recommendations, the finalized list of Basic Needs, Circulation and Access Plan, Recreation and Program Plan and Development Guidelines. Responses were positive and comment cards were available for additional notes.

The comment cards received at Public Meeting #3 (6 cards received)
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3 | PLAN RECOMMENDATIONS:
BASIC NEEDS

Addressing existing challenges
At the project outset, members of the Technical Advisory Committee and Adams County Parks and Open Space staff identified insufficient wayfinding, limited emergency access locations, and limited recreational programs as the key known issues that limit feelings of safety, use and maintenance.

As the public engagement process kicked off, members of the community shared some of these concerns, and also identified a number of other issues that have limited their use of the creek to date.

Finally, the planning team has projected future needs along the creek and trail that will likely arise with the opening of future rail lines, new pedestrian and vehicular connections, and the transformation of formerly industrial or agricultural parcels into residential communities.

The Plan’s response to these existing and anticipated challenges arose as a series of critical corridor-wide improvements, and as such have been identified as “basic needs”.

Priority designations and estimated improvements costs for these recommendations are included in the Appendix.

Above: photos of some of the areas that lack “basic needs” as outlined in the following pages. From left: (1) Tennyson Street is the only river crossing between Lowell Boulevard and Sheridan Boulevard, but it lacks a safe pedestrian crossing over the river and lacks both a grade-separated crossing and/or signalized pedestrian crossing. (2) Informal social trails do not provide universal river access and are difficult to patrol and maintain. (3) Vandalism remains an ongoing maintenance concern and raises resident concerns about safety. (4) ADA access is limited or otherwise challenging in many locations, including Engineer Lake (above). (5) Regional trail systems are difficult to navigate without clear wayfinding, so informal signage has been painted on sidewalks in multiple locations. (6) Formal direct river access for recreationalists, gold panners and maintenance teams is limited so informal cut-throughs have been established which can threaten habitat corridors and create opportunities for misuse. (6) Trails can feel isolated and disorienting when set within large expanses of open space and light industrial uses, with many rail and highway crossings. Overhead wayfinding at overpasses and bridges are needed to help orient trail users.

Photos: Werk Associates
BASIC NEEDS

SAFETY

Above all other concerns, the perception of safety was among the top challenges identified that is limiting current trail use.

Busy at-grade crossings lack signalization and pose risks to pedestrians and cyclists, especially those with young children.

Expansive open spaces can feel isolated and lack clear landmarks, leaving users disoriented. Existing signage installations are often vandalized or rely on text-only content that limits multilingual reading.

A number of users expressed concern about deviant behavior along the trail, especially at underpass areas. This deviancy drives a number of residents to avoid the trails in fear for their safety.

Recommendations for alleviating these concerns include:

**Lighting**

Underpass lighting should be maintained and meet accessibility standards for brightness and light critical signage. Additional pedestrian and emergency lighting is recommended near all transit stations and street crossings for evening commuters, and from Zuni Street to Lowell Boulevard.

**Increased Security Presence**

Dedicated, trained trail officers can help with emergency concerns and provide onsite monitoring on a regular basis, in cooperation with the Adams County Sheriff’s Office. Future security strategies should investigate the feasibility of a dedicated trail monitoring staff and/or dedicated volunteer patrol.

**Integrated Signage Program**

Combine multiple wayfinding, regulatory, and educational signage programs into a cohesive, comprehensive corridor-wide signage family.

Signage should be standardized and maximize the use of universal iconography rather than text and/or both Spanish and English text translations. Thermoplastic, colored concrete or painted signage on the trail, graffiti-resistant materials and vandal-resistant sign structures should be used to minimize damage risk.

Potential signage partners include:

- Urban Drainage and Flood Control
- Adams County Public Works
- Clear Creek Watershed Foundation
- Hyland Hills Parks & Recreation
- Colorado Division of Parks and Wildlife
- Educational Stormwater Quality Program (MS4)
- ADCO Floodplain Management Program

**Pedestrian Street Safety**

Install signalized crossings at two at-grade trail intersections (Tennyson Street and Lowell Boulevard) using a human-activated crosswalk (“H.A.W.K.”) system.
Many residents attributed limited corridor use to limitations that they face in trail access and wayfinding.

**Trailhead Resources**

Insufficient parking areas and designated trailheads make picnicking, gold panning, and other activities challenging as users are forced to haul unwieldy equipment over long-distances. Parking areas may be easily implemented through strategic partnerships with local businesses if lots can be shared - used for trail access during evening and weekend hours when they are not needed for business hour use.

Residents explained that they would frequently access the trails from light-rail stations, but do not own bicycles or are otherwise unable to transport bicycles to the trail. A trail-wide bike share program or Denver BCycle integration at trailheads and transit stations, along with bike maintenance stations received overwhelming community support both for recreational users and local commuters, who don’t feel comfortable locking bicycles at transit stations.

**Basic trailhead resources include:**

- Wayfinding signage at trailhead (12 locations)
- Restroom facilities (every 1/2 mile)
  - (2 existing, 4 additional)
- Safety lighting at trailheads (12)
- ADA access

**Specialized trailhead resources include:**

- Bike share stations (7)
- Outdoor fitness equipment
- Bicycle racks
- Bike repair station every mile (7)

**Integrated Trail Programs**

Regional trail connections are currently in-place at Ralston Creek, Little Dry Creek and Confluence Park. However, these trail connections are not currently signed along the Clear Creek Corridor, and often go unnoticed. Through expanded wayfinding signage, a streamlined signage family and dedicated mile-markers, the Clear Creek Corridor can be better-integrated into a network of trails that connects to the entire Front Range.
BASIC NEEDS

STEWARDSHIP

The future success of the Clear Creek Corridor relies on a multi-faceted approach to activation, programming, maintenance and safety. Community stewardship broadens the sense of ownership over corridor open spaces and creates new and exciting programs, while increasing eyes on the trail.

Partnerships in education and maintenance programming are fundamental to the success of the Clear Creek Corridor Plan.

Potential Partnership Opportunities

- Hyland Hills Park and Recreation District
- Mapleton Public Schools
- Westminster Public Schools
- Clear Creek Watershed Foundation
- Colorado Division of Parks and Wildlife
- National Audubon Society
- Colorado Department of Transportation (CDOT)
- Local Neighborhood Groups and HOAs
- Local Gold Panning Community
- Ducks Unlimited
- Girl Scouts of America
- Boy Scouts of America

Partnership Spotlight: Regis University

During the planning process, Adams County Parks and Open Space staff met with representatives from recreation, community partnership strategies and transportation within the Regis University staff. These University representatives

ECOLOGICAL EDUCATIONAL PROGRAMS

SAFE RIVER ACCESS, INCLUDING AREAS FOR NON-MECHANIZED GOLD PANNING

EDUCATIONAL SIGNAGE SHOULD BE STANDARDIZED, USE CLEAR ICONOGRAPHY AND/OR ENGLISH AND SPANISH TEXT, AND BE INTEGRATED INTO A LARGER SIGNAGE STRATEGY

COOPERATIVE CLEANUP PROGRAMS WITH COMMUNITIES AND INTEREST GROUPS
Planning connections for the Clear Creek Corridor requires a clear understanding of both current and existing destinations, with special consideration for the current and planned transit network.

Connection types included in the plan are defined as:

**Regional Trail Hub**
A Regional Trail Hub defines the interface between the Clear Creek Trail and the regional transit network. These critical nodes will be frequented by recreational and commuter users alike, and are likely locations for future commercial activity and ongoing investment. They are critical locations for regional wayfinding and enhanced lighting for commuters. Bike share stations, restroom facilities, and bicycle racks are recommended at these locations.

**Regional Trail Connection**
A Regional Trail Connection is a connection between the Clear Creek Trail and an intersecting regional trail (Ralston Creek, Little Dry Creek and South Platte River). These areas should include adequate signage for all intersecting trails, including larger networks such as Peaks-to-Plains or the US-36 Bikeway. Bike share stations, restroom facilities, and bicycle racks are recommended at these locations.

**Residential Trail Connection**
A Residential Trail Connection is an existing or recommended localized trail connection to surrounding neighborhoods via protected, street-adjacent multi-use trail or other trail (Kacevsk Gulch). Multi-modal connections are recommended at transit stations, with facilities that support pedestrian and bicycle commuters including a bike share station, bicycle maintenance stations, water fountains, and bike racks.

**Emergency Access**
Emergency Access connections provide trail users with access to streets for emergency needs, and County maintenance and patrol teams additional access and reference points for dispatch needs. These do not require specialized amenities but should be at least 10’ wide to accommodate one-way emergency traffic and be clearly signed at both the trail and the roadway. Priority designations and estimated improvements costs for these recommendations are included in the Appendix.

**Trail Standards**
The following recommendations are intended to maximize safety and accessibility along Clear Creek trails, while providing a diverse array of experiences throughout the open spaces within the corridor.

- **Regional trail**
  Minimum 10’ wide ADA-accessible multi-use concrete path with additional 4’ soft surface parallel trail surface adjacent to regional trail and 3’ mowed shoulder. Roadway crossings should be grade-separated wherever possible, where street crossing should occur, crosswalk should be signalized with a human-activated crosswalk.

  (“HAWK”) system. Regional trail signage and mile markers should be provided at quarter-mile intervals.

- **Commuter trails**
  8’-10’ wide, ADA-accessible concrete multi-use path with 3’ mowed shoulder.

- **On-street cycling lane**
  5’ striped (protected) on-street bicycle lane, parallel with traffic flow.

- **Pedestrian walks**
  6’-8’ wide, ADA-accessible concrete walk, no bicycles.

- **Soft trails**
  4’-6’ soft trails - acceptable materials include stabilized crusher fines/decomposed granite, rock or wood mulch. ADA accessibility may not be possible on all soft trails but should be pursued wherever possible.
PLAN RECOMMENDATIONS:
CIRCULATION + ACCESS

- CLEAR CREEK BOTTOMLANDS
  - Residential Trail Connection and Trailhead

- PECOS STREET
  - Multi-Modal Residential Trail Connection

- LITTLE DRY CREEK LAKE
  - Regional Connection and Trailhead

- FEDERAL BOULEVARD
  - Multi-Modal Residential Trail Connection

- SHERIDAN BOULEVARD
  - Regional Trail Connection and Trailhead

- TENNISON STREET
  - Residential Trail Connection and Trailhead

LEGEND
- TRANSIT CENTER
- SCHOOL OR COMMUNITY CENTER
- CLEAR CREEK REGIONAL TRAIL
- EXISTING TRAIL
- TRAILHEAD / TRAIL ACCESS
- RAILWAY
- LIGHT RAIL CORRIDOR
- INTERSTATE HIGHWAY
- PLANNED / PROPOSED TRAIL
- PLANNED / PROPOSED STREET CROSSING
- REGIONAL TRAIL HUB
ACCESS PLANNING

ZONE 1 | SHERIDAN BOULEVARD TO ZUNI STREET

SHERIDAN BOULEVARD
Improved connection with Gold Strike Park, neighborhood trail signage, safe pedestrian and cyclist crossings. Preferred bike share location because of proximity to transit station.

TENNYSON STREET
Add safe pedestrian and bicycle connections to Arvada Gold Strike Station, Clear Creek Valley Park and Jim Baker Reservoir. Enhanced HAWK crossing at Clear Creek recommended, along with neighborhood signage.

56TH AVENUE AND 54TH AVENUE CYCLING LANES
Bicycle connections must be made to connect the Clear Creek Trail to the new Pecos Street Station. Recommend addition of two on-street bicycle lanes along on 54th Avenue (from Federal Boulevard to Lowell Boulevard) and 56th Avenue (from Pecos Street to Federal Boulevard). Wayfinding should include directional signage between trail and transit station at each intersection.

LOWELL BOULEVARD
Complete multi-use trail connections to Jim Baker Reservoir, Clear Creek Valley Park, Lowell Ponds and Carl Park Community Center. A partnership between Hyland Hills Park and Recreation District has been formed to create an off-street trail connection between the Clear Creek Trail and Carl Park Community Center. Neighborhood trail signage will help navigation from Westminster, Arvada and Aloha Beach, Berkeley and Regis University.

FEDERAL BOULEVARD
A pedestrian bridge should be installed east of the Federal Boulevard bridge to allow more direct access for commuters traveling east to the Clear Creek at Federal Station. Additional lighting and wayfinding for neighborhood cyclists recommended. Preferred bike share location because of proximity to transit station.
ACCESS PLANNING

ZONE 2 | Zuni Street to Washington Street

PECOS STREET
Long-term bridge replacement plans should accommodate a 10’ protected commuter trail along Pecos Street and increased clearance at underpass to accommodate a raised path, minimizing flooding that is currently limiting access and leading to sediment buildup. Short-term improvements include underpass lighting and interdepartmental coordination for ongoing sediment cleanup. Recommend extension of 10’ protected multi-use path along Pecos Street between transit station and trail and neighborhood trail signage for Pecos Street Station, Berkley/Zuni and Sonnyside neighborhoods.

CLEAR CREEK BOTTOMLANDS
Future trail connections from M. Scott Carpenter Middle School and Valley View Elementary along Kalsevic Gulch open up new outdoor learning environments in the Clear Creek Bottomlands. Limited soft trails provide access to these areas while preserving wildlife habitats. Recommend completing the Kalsevic Gulch connection (0.28 miles) from 68th-70th Avenue along the existing gulch easement to link M. Scott Carpenter Middle School and the Clear Creek Bottomlands.

LITTLE DRY CREEK LAKE
A county-owned parcel that connects the US-36 bikeway, Westminster Station, Arvada and Westminster. Recommend future expanded parking and trailhead amenities. Future connection along creek and across rail lines should be added. Wayfinding improvements at all trail connections are needed until trail connects alongside Clear Creek.
ACCESS PLANNING

ZONE 3 | WASHINGTON STREET TO THE SOUTH PLATTE RIVER

WASHINGTON STREET
Trail connections in this area are challenging as the adjacent Highway 224 (north of the trail) lacks any pedestrian access and the raised US-76 highway blocks access from the south. Maintenance and emergency access requires the addition of a drivable (10’ min.) trail access from 70th Avenue. Any long-term bridge improvements or replacement plans should accommodate a mixed-use trail along Washington Street to connect the North Washington and Welly neighborhoods.

SOUTH PLATTE RIVER CONFLUENCE
Parking, restroom, lighting, and pedestrian improvements are currently underway. Adams County is currently working to improve the parking area by creating a formal trailhead parking lot. The restroom at the confluence of Clear Creek and the South Platte River is a continual target for vandalism, but is also heavily used. Bathroom alternatives should be explored that would reduce maintenance costs and periods of inaccessibility. Signage and wayfinding should be added to the entire system, but particularly at the confluence. This area has many connecting trails with little guidance for the user as to which one leads in a particular direction. Additionally, there is a need for more direct ADA access to Engineer Lake.

Additional wayfinding is recommended to illustrate regional trail connections, clarify the South Platte crossing just north of Clear Creek, and illustrate trail connections to commuter rail. Bike share station recommended near Commerce City commuter rail station.

YORK STREET
Planned improvements include new sidewalks on the west side of York Street and an underpass under Highway 224 that connects to the Clear Creek Trail. Additional neighborhood signage recommended.

MAPPING
In the first Outreach phase, the Planning Team presented the community with many recreational options for the corridor, ranging from paddleboarding and kayaking to dog parks, bicycle pump-tracks and disc golf. Feedback was broad-ranging and highly imaginative, but one overwhelming common theme remained: any recommendations must first and foremost “protect the river habitat”.

There is little available information on biological and ecological conditions for the Adams County reach of Clear Creek. A comprehensive inventory of these conditions should be completed and used to prioritize future habitat improvements along the creek.

As development demands increase and the area becomes increasingly populated, the promise of a wildland respite within the county - as some of these areas currently provide - will be an invaluable resource to the community. As planning continued and the Technical Advisory Committee lent insight into implementation and maintenance of various programs, sites were identified that could support more intensive recreation (supported by strategic partnerships) while others were designated for conservation and restoration. This plan provides guidance for improvements that could take place over the next twenty years or more. Some of the recommendations in this plan include opportunities for water recreation in the creek. Implementation of water recreation recommendations would be subject to favorable water quality conditions or restrictions that protect potential users.

**TYPES OF RECREATIONAL AREAS**

**Regional Open Space**
A critical regional trail intersection and landmark for social activities such as special events, areas for lounging, picnicking, and educational engagement with the site history. There are three Regional Open Spaces proposed within the following plan and they vary in their program, but each offers a specialized habitat and program-based theme that will draw trail users county and city-wide. These open space areas are less intensively trafficked than a Station Area Park, but provide expanded open spaces and trail networks.

**Station Area Park**
A recreational destination with specialized land and water-based experiences that will draw users region-wide via light-rail access. These programs should be provided in partnership with local businesses, non-profits, or other governmental agencies whenever possible. Iconic landmarks such as public art and recreation-based retail define these zones as activity hubs. Station Area Parks are smaller in scale than Regional Open Spaces and they are more closely integrated with existing or anticipated development around transit areas.

**Ecological Area**
These “Ecological Areas” should support low-impact recreational programming only, in an effort to encourage restoration and ecological enhancement efforts. These protections will allow new uses to enter into these areas, including education programs, fishing, outdoor classrooms, and wildlife observation.

**Nature Preserve**
Limited access area that is designated for safe habitat movement and wetland and upland restoration. Educational signage can enlighten visitors but circulation is largely limited to the Clear Creek Trail. This has been planned at one location along the trail (designated as the “Clear Creek Wetlands”). At this location, regulatory wetland habitats have already been identified and surrounding highways, minimal maintenance access and ongoing industrial uses currently threaten the long-term health of the corridor.
5 | PLAN RECOMMENDATIONS:
RECREATION PLANNING

LEGEND
- TRANSIT CENTER
- SCHOOL OR COMMUNITY CENTER
- CLEAR CREEK REGIONAL TRAIL
- EXISTING TRAIL
- TRAILHEAD / TRAIL ACCESS
- RAILWAY
- LIGHT RAIL CORRIDOR
- INTERSTATE HIGHWAY
- PLANNED / PROPOSED TRAIL
- PLANNED / PROPOSED STREET CROSSING
- REGIONAL TRAIL HUB

CLEAR CREEK
STATION AREA PARK

ZONE 1

RALSTON CREEK CONFLUENCE
REGIONAL OPEN SPACE

LOWELL PONDS
WATER-FOCUSED ECOLOGICAL AREA

LITTLE DRY CREEK
REGIONAL OPEN SPACE

CLEAR CREEK BOTTOMLANDS
HABITAT-FOCUSED ECOLOGICAL AREA

ZONE 2

ZONE 3

CLEAR CREEK CONFLUENCE
REGIONAL OPEN SPACE

RECREATION TYPES
- WATER SPORTS
- FISHING AREAS
- SPORTS FIELDS
- PAVED CYCLING TRAILS
- MOUNTAIN BIKING
- NATURE-THEMED CHILDREN'S PLAY AREA
- FITNESS EQUIPMENT
- LOUNGING AREAS
- RESTAURANTS OR RECREATION RETAIL
- PUBLIC ART
- SAFE RIVER CROSSING
- RAIN OR SHADE SHELTER
- OPEN MEADOW
- ANIMAL HABITAT PROTECTION
- NATURE LEARNING
- EXPANDED WETLAND HABITAT
ZONE 1 RECREATION
RALSTON CREEK
CONFLUENCE
REGIONAL OPEN SPACE

An iconic connection between Arvada’s Gold Strike Park and Adams County Open Space, including pedestrian walks, soft trails, public art destination picnic areas, safe river access, nature learning and interpretive signage about gold panning and the history of Clear Creek.

* See page 26 for trail designations
ZONE 1 RECREATION
LOWELL PONDS

WATER-FOCUSED ECOLOGICAL AREA

A diverse wetland and aquatic habitat learning park that includes educational signage, formalized pedestrian walks and soft trails, bird-watching areas and stocked fishing ponds. The County has coordinated with Regis University staff to partner on the programming of the county-owned site at 55th and Lowell and student engagement in the land management and maintenance of the ponds and surrounding area.

This site is an opportunity for partnerships between Adams County, Colorado State Division of Parks and Wildlife, Audubon of the Rockies, the Colorado Department of Transportation, Urban Drainage and Flood Control District, Hyland Hills Park and Recreation District and Regis University.

* See page 26 for trail designations
Clear Creek Station Area will soon be a transit hub for recreationalists and commuters and a resource for Regis University students. This site provides an opportunity for specialized recreation and low-impact recreational retail such as rental and repair shops, coffee stands, etc. Wetland and floodway buffers areas are currently limited and should be restored.

- PAVED CYCLING TRAILS
- NATURE-THEMED CHILDREN’S PLAY AREA
- FITNESS EQUIPMENT
- LOUNGING AREAS
- RESTAURANTS AND RETAIL
- PUBLIC ART
- SAFE RIVER CROSSING
- RAIN OR SHADE SHELTER
- EXPANDED WETLAND HABITAT

*See page 26 for trail designations

Added multi-use crossings with iconic public art

Specialized recreation opportunities near 55th and Lowell with safe viewing and event areas

Nature-themed destination play areas
The intersection of the Little Dry Creek Trail and Clear Creek connects Jefferson and Adams counties and a number of transit areas nearby. River topography provides an opportunity for future development to incorporate water recreation such as tubing, kayaking and stand-up paddle boarding. Partnerships could be sought with the Burlington Northern Santa Fe Railroad and the Urban Drainage and Flood Control District to low-contact forms of water recreation in Clear Creek.

- WATER SPORTS
- FISHING AREAS
- PAVED CYCLING TRAILS
- MOUNTAIN BIKING
- NATURE-THEMED CHILDREN’S PLAY AREA
- LOUNGING AREAS
- RESTAURANTS AND RETAIL
- SAFE RIVER CROSSING
- RAIN OR SHADE SHELTER
- OPEN MEADOW

* See page 26 for trail designations
Twin Lakes Park is a developed park that serves as a gateway to the Clear Creek Bottomlands. The Bottomlands host diverse upland, riparian and aquatic habitats. Educational signage, formalized pedestrian and soft trails*, wildlife viewing areas provide an escape from urban life. With dense housing being built to the west, this area will become a protected “urban wild” with educational programming and places for reflection and low-impact recreation.

* See page 26 for trail designations
At the Clear Creek Wetlands, regulatory wetland habitats have already been identified and surrounding highways, minimal maintenance access and ongoing industrial uses currently threaten the long-term health of the corridor. Soft surface trails and educational signage guide visitors through a protected area with a restored floodway, enhanced wildlife and wetland habitats. County coordination with CDOT can increase management opportunities while partnerships with advocate groups such as the Nature Conservancy, Audubon of the Rockies and local schools can provide habitat insight and protection.
ZONE 3 RECREATION
CLEAR CREEK
CONFLUENCE
REGIONAL OPEN SPACE

An iconic destination that merges two regional trail corridors. Future development plans should engage both rivers and provide resources for specialized recreation and events.

The confluence area is difficult to access, with few parking options and significant distances between amenities for pedestrians. Improvements to existing parking area are underway. Access to and through this area should be improved, which could include land acquisition, additional pedestrian bridges, or other improvements. Programming and future development will be largely influenced by improvements to accessibility.

Because two major regional trails converge in this area, there are significant opportunities for activation and to use the pavilions that already exist at Engineer Lake. This is an area that could be a prime spot for festivals, bicycle-focused activities, or water-based activity (subject to favorable water quality).

Safe, ADA-accessible water access could be incorporated at Engineer Lake

Large outdoor performance area

Increased safe pedestrian crossings

Beach / lounging areas with picnic facilities

* See page 26 for trail designations
The following guidelines have been prepared in cooperation with Adams County staff with the intention of driving future development strategies to ensure the long-term success, health and vitality of the Clear Creek Corridor.

The recommendations are intended to expand upon existing standards established by other relevant regulatory agencies including Adams County, local municipalities and the Urban Drainage and Flood Control District.

Adams County Parks and Open Space envisions Clear Creek as a continuous habitat corridor that extends from the South Platte River to Ralston Creek. Attainment of this vision requires cooperation between public and private development who share the goal of establishing this vibrant system as an economic driver for future development and an amenity for residents, workers and visitors region-wide.

Some of these guidelines address risks and areas of concern observed throughout the site analysis process or presented by Adams County staff, or otherwise support the overall health and welfare of the Clear Creek corridor. Other recommendations address how private property interacts with the river in the hope of shifting attention toward Clear Creek as a unifying amenity for future commercial, residential or industrial development. Recommended guidelines should be translated into amendments to the Development Standards and Regulations.

The development guidelines proposed in this section should be incorporated into Adams County's Development Standards and Regulations, policies, and plans. To be incorporated, new regulation language must be crafted and adopted through a public hearing process with the Planning Commission and the Board of County Commissioners.

**Ongoing Restoration Efforts**

In addition to the best practices and habitat protection methods noted in the following pages, Adams County Parks and Open Space will continue to restore the existing open spaces to provide a visually and physically accessible corridor area with native trees and shrubs to fill the food and nesting needs of terrestrial animals, and support a healthy aquatic environment to support aquatic habitat food, nesting and migration needs in accordance with accepted best practices.
VEGETATED SCREENING AT FENCED BOUNDARIES
APPLICATIONS: existing parking lots, industrial, single-family residential

TERRACED SLOPES
APPLICATIONS: areas in which <4:1 slope is not possible

Vegetated Screening at Fenced Boundaries
Integrate low-maintenance vegetated screening along fencing to soften hard edges. Screen should include diverse canopies of overstory trees, tall shrubs, grasses and wildflowers. These screens must be well-maintained and comprised of locally-adapted plant species.

Fencing should be avoided altogether where possible for mixed-use and commercial developments, creating a second building face along the creek.

Terraced Slopes
Slopes steeper than 4:1 should be terraced, rather than graded to minimize erosion and maximize planted and/or programmable area. These terraces can support water quality planting areas (see page 47), occupiable decks or patios, trails or other functional elements, they are easier to maintain and less prone to erosion.

Materials should be aesthetically pleasing and reflect natural materials. In accordance with UDPFCD recommendations, gabion walls should not be used for extensive retention, but are acceptable for small terraces and seat walls.
**Enhancing Experience**

**Enhanced Creekside Visibility**

Future commercial and retail development should address the river area as an amenity and should not turn its back to the creek. Outdoor spaces should face the creek corridor.

Future commercial development should provide safe, public trail connections through sites from streets to the trail as part of their site development plans.

**Integrated Open Space Areas with Low Vegetation Buffer**

Future multi-family residential, schools, community centers and other public buildings should integrate open space areas with the corridor. This includes private or semi-private play areas, gardens, plazas and patios. These areas can be separated from the corridor if needed but that should be achieved with a vegetated buffer that includes tree canopy and healthy understory shrubs and not a solid fence.

Public, community and multi-family development should also provide safe, public trail connections from streets to the trail.

**Private / Public Open Space Area**

Outdoor cafe embraces creek views

A private garden at a multi-family community blurs the boundary between public open space and private development
200’ MINIMUM 3-ZONE BUFFER
APPLICATIONS: mid and high-impact development, stormwater outfall clusters, ecological areas and nature preserve areas.

ANIMAL FOODSOURCE PLANTINGS
APPLICATIONS: ecological areas and nature preserve, other areas as possible.

DEVELOPMENT GUIDELINES
EXPANDING HABITATS

200’-Minimum 3-Zone Buffer
In addition to existing development restrictions within floodplain areas, a standard 200’ minimum vegetated buffer should be consistently maintained at the floodway edge. This buffer includes three distinct vegetation zones, as designated by the Urban Drainage and Flood Control District. This buffer area applies to all development to ensure safe wildlife movement, a healthy riparian corridor and adequate stormwater quality treatment. Soft trails can traverse this corridor but regional trails should be kept beyond 200’ from river edge within ‘nature preserve’ and ‘habitat-based recreation areas’.

Animal Foodsource Plantings
Animal foodsource patches support wildlife habitat and encourage mammals (such as insects and pollinators, beavers, small rodents, deer, fox and coyote) and waterfowl to settle or feed safely within designated conservation areas - in “Ecological Areas” (at Lowell Ponds and Clear Creek Bottomlands) and the “Nature Preserve” at the Clear Creek Wetlands area. These plantings include spike sedges, clover species, smartweed, wild rice, wild mallow, bulrush, various grasses and safe fruit-producing trees.
EXPANDING HABITATS

**Ephemeral Ponding Areas**

Within “Ecological Areas” (at Lowell Ponds and Clear Creek Bottomlands) and the “Nature Preserve” at the Clear Creek Wetlands area, future restoration efforts should include grading strategies within the floodway that create seasonally inundated habitats that cultivate unique plant and animal growth. These can be integrated into existing seasonal wetland zones with defined inlet and outlet channels. These ephemeral habitats provide significant ecological value and educational opportunities.

**Safe Nesting Areas**

Land and waterfowl nesting structures should be provided within the floodway and upland areas at Ecological Areas and the Clear Creek Wetlands. These provide nesting space in these areas lacking a developed tree canopy. These must be properly located and sized for the target species, and provide safe protections against predators.
**DEVELOPMENT GUIDELINES**
**INTEGRATING RESILIENT INFRASTRUCTURE**

**Outfall Setback**
All future development should set outfalls outside of the 5-year floodplain.

**Integrated Stormwater Parks**
Within "Ecological Areas" (at Lowell Ponds and Clear Creek Bottomlands) and the "Nature Preserve" at the Clear Creek Wetlands area, and in other locations wherever possible, outfalls should be clustered and directed into linear stormwater park corridors. Water quality planting areas, well-draining soils and erosion control measures must be taken in these areas to convert outlet zones into open space amenities and improve overall water quality. Regulations for the design, installation and maintenance of these areas are available through the Urban Drainage and Flood Control District.
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Clear Creek is a major waterway and one of the most heavily used regional trails in Adams County. Improvements suggested by the community will enhance the trail experience, natural systems, and recreational opportunities throughout the corridor. The community's vision will create a vibrant, interesting experience that will be a benefit to all.

With projects ranging in size, location, and impact, prioritization of projects is very important. An implementation matrix was created to bring clarity to the implementation process. The matrix includes major components of the recommendations in Chapters 3, 4, and 5 of this plan. Projects are given a priority level of 'low', 'medium', or 'high', based on input received in public meetings and operations priorities of the Parks and Open Space Department. Projects that are already in progress are given a priority level of 'high' since effort and funding are already committed. Projects are also given an order of magnitude cost, which is intended to be a general idea of how much a project may cost to implement.

Potential funding sources for each project are listed. These are not meant to be an exhaustive list; rather, agencies listed are likely potential contributors to the project. Next steps for each project are listed as a jumping off point toward implementation.

### Strategic Partnerships and Implementation

In addition to the Clear Creek trail, Adams County operates and maintains the South Platte River trail, portions of the Little Dry Creek and Niver Canal trails, six parks including the Regional Park and Fairgrounds, and over seventeen hundred (1,700) acres of open space. A large portion of funding for operations, maintenance, and capital projects at the Regional Park and Fairgrounds is obtained from Adams County’s general fund (property tax). Adams County Parks and Open Space’s primary funding sources for capital improvements are the Conservation Trust Fund (Colorado Lottery proceeds) and the Adams County Open Space Sales Tax. In 2016, Adams County received $1.8 million from the Conservation Trust Fund and the direct shareback of the Adams County Open Space Sales Tax. Approximately thirty percent of that money is budgeted for maintenance each year, leaving $1.25 million to be spent on capital projects throughout the open space, parks, and trails system.

Throughout the Clear Creek Corridor planning process, the community outlined a wide variety of improvements to the current trail infrastructure and recreational opportunities along Clear Creek. The improvements identified by the community fit into one of three categories: basic needs, circulation and access, or recreation and programming. The estimated cost to implement the entire plan is $25,793,500.

With limited capital funding available, implementation of the Clear Creek Corridor Plan will heavily rely on grants and partnerships.

Adams County has a successful history in leveraging available funds with grants from Great Outdoors Colorado (Colorado Lottery proceeds), the Adams County Open Space Sales Tax grant program, the Fishing is Fun grant program, and the State Trails grant program. The Parks and Open Space Department also works with the Urban Drainage and Flood Control District to direct funding toward important projects that benefit flood control and have ancillary benefits for recreation. In addition to these programs, Adams County should seek out other funding for water quality, habitat, and recreational improvements to better leverage available funding.

A new partner, the Clear Creek Watershed Foundation, has recently worked with Adams County to improve the habitat along Clear Creek and obtain better information on water quality throughout the corridor. The Clear Creek Watershed Foundation seeks and distributes funding to maintain, preserve, restore, and improve the ecological, aesthetic, and recreational conditions of the watershed. The Clear Creek Watershed Foundation could secure third party funding for a wide variety of projects in the corridor. While they are not a direct funding partner, the Foundation is a key partner in the implementation of the Clear Creek Corridor Plan because of their ability to fundraise, project manage, and provide technical expertise.

Adams County has discussed potential partnerships with the City of Arvada, Hyland Hills Park and Recreation District, and the Burlington Northern Santa Fe Railroad. The county will also seek assistance from nearby property owners, developers, and businesses during the implementation process. These groups may be able to provide shared space for trailhead parking, trail connections, appropriate transitions between public and private lands, and other contributions that further the purposes in the plan.
RECOMMENDED FUTURE ANALYSIS EFFORTS

Given the significant interest and need for habitat restoration and the need for a healthy river corridor in the face of future development, additional analysis is recommended to establish detailed, comprehensive standards for stormwater management. This analysis is critical to the health and vitality of the Clear Creek Corridor but was not included as part of this planning effort scope of work. The following recommended analysis should be pursued as part of future development planning efforts, in coordination with the Urban Drainage and Flood Control District following upcoming updates to the Clear Creek Corridor Urban Drainage Master Plan.

Infrastructure Inventory

Create an inventory of infrastructure projects that are needed throughout the corridor. This inventory should build upon the Urban Drainage and Flood Control District’s master plans, stormwater improvement plans and road improvement projects that incorporate sidewalks near the trail or bridge replacements over Clear Creek. Identify criteria to use to rank the projects and create a prioritized list.

Comprehensive Maintenance Database

Complete a GIS analysis of existing data to create a list of maintenance issues. Use characteristics such as vegetated cover, soils, erosion, steep slopes, discharges, hard turns in the creek, silt under bridges, and scouring to identify maintenance issues. Cross check this list with county maintenance teams to ensure an accurate representation of actual conditions.

Establish a process involving Parks and Open Space, Stormwater, Floodplain Control, and Current or Long Range Planning staff to prioritize and address maintenance issues on a yearly basis.

Outfall Analysis

Look at size, flow, location and erosion associated with all of the outfalls along the corridor. Establish a process with Adams County Parks and Open Space and Adams County Stormwater staff to prioritize outfalls for either modification or replacement.
<table>
<thead>
<tr>
<th>RECOMMENDATIONS</th>
<th>PRIORITY LEVEL</th>
<th>ORDER OF MAGNITUDE OF COST</th>
<th>POTENTIAL FUNDING PARTNERS</th>
<th>NEXT STEPS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BASIC NEEDS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lighting</td>
<td>LOW MED HIGH</td>
<td>UNDER $100K</td>
<td>$ 2,065,500.00</td>
<td>Contact Public Works and CDOT to request improvements to or repair of lighting under bridges.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$100K - $500K</td>
<td>$ 125,000.00</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>$500K - $1M</td>
<td>$ 5,000.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$ 120,000.00</td>
<td>Open Space Sales Tax; Great Outdoors Colorado; Regis University</td>
<td>Determine whether power is accessible. Research solar lighting if no power available.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$ 1,445,500.00</td>
<td>Trailhead Resources</td>
<td>Convene cities and counties in north Denver to discuss implementation of a common system; Understand costs and pros/cons associated with each operator; Identify funding sources (if needed)</td>
<td></td>
</tr>
<tr>
<td>Gloucester College</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$ 40,000.00</td>
<td>Bike share stations at Regional Trail Hubs (3) and Transit Stations (4) or or stationless systems</td>
<td>Monitor Trailheads during peak use to identify capacity issues; Identify existing parking areas that could be expanded; Identify businesses with parking areas adjacent to the trail that could be targeted for shared use; Contact business owners.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$ 1,000,000.00</td>
<td>Trailhead Resources</td>
<td>Identify potential locations for portaloets; Contract with portaloet company for additional facilities.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$ 150,000.00</td>
<td>Restroom facilities at parking areas (7 total - 2 existing)</td>
<td>Research whether electrical service exists at trailhead locations; Research solar lighting; Identify best lighting choice for trailhead locations; Purchase and install lighting fixtures.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$ 240,000.00</td>
<td>Safety lighting at trailheads (12)</td>
<td>Research ride station manufacturers; Identify potential locations for bike repair stations; Determine design best suited to our system; Order and install stations.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$ 10,500.00</td>
<td>Bike share stations at Regional Trail Hubs (3) and Transit Stations (4)</td>
<td>Identify potential locations for bike repair stations;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$ 5,000.00</td>
<td>Wayfinding signage at trailheads (12)</td>
<td>Design signs; Purchase and install signs</td>
<td></td>
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<tr>
<td>Improved signage at known areas of concern (2 locations)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>$ 215,000.00</td>
<td>Improved signage at known areas of concern (2 locations)</td>
<td>Create inventory of decision points in need of signage; Design signs; Purchase and install signs</td>
<td></td>
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<tr>
<td>Little Dry Creek</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>$ 2,500.00</td>
<td>Little Dry Creek</td>
<td>Create inventory of decision points in need of signage; Design signs; Purchase and install signs</td>
<td></td>
</tr>
<tr>
<td>5 Platte Confluence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$ 2,500.00</td>
<td>5 Platte Confluence</td>
<td>Create RFP for sign design; Advertise and hire contractor to design signage program; Create signage program; Create inventory of decision points and sign locations; Purchase and install signs.</td>
<td></td>
</tr>
<tr>
<td>Improved regional-trail signage, integrated signage, and wayfinding within trail and at other locations to direct users toward Clear Creek (Peaks to Plains, US-36, RTD, Walk-ride Colorado, 5 Platte River Trail, Walk Ride Colorado)</td>
<td></td>
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<tr>
<td></td>
<td>$ 200,000.00</td>
<td>Neighborhood wayfinding signage to CC Trail</td>
<td>Create inventory of key sign locations; Design signs; Purchase and install signs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$ 10,000.00</td>
<td>Neighborhood wayfinding signage to CC Trail</td>
<td>Purchase and install signs</td>
<td></td>
</tr>
<tr>
<td>RECOMMENDATIONS</td>
<td>PRIORITY LEVEL</td>
<td>ORDER OF MAGNITUDE OF COST</td>
<td>POTENTIAL FUNDING PARTNERS</td>
<td>NEXT STEPS</td>
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<td>-----------------------------------------------------</td>
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<tr>
<td><strong>Increased Security Presence</strong></td>
<td></td>
<td></td>
<td></td>
<td>Begin discussions between Parks and Open Space and Sheriff's Office; Determine potential risks and benefits and additional resources that may be needed; Advocate for additional resources</td>
</tr>
<tr>
<td><strong>Dedicated patrol in partnership with Adams County Sheriff's office</strong></td>
<td>X</td>
<td>X</td>
<td>Open Space Tax, Conservation Trust Fund, Sheriff's Office</td>
<td>Begin discussions between Parks and Open Space and Sheriff's Office; Determine potential roles of volunteers in patrolling trails</td>
</tr>
<tr>
<td><strong>Volunteer-based patrol program</strong></td>
<td>X</td>
<td>X</td>
<td>Open Space Tax, Conservation Trust Fund, Sheriff's Office</td>
<td>Begin discussions between Parks and Open Space and Sheriff's Office; Determine potential roles of volunteers in patrolling trails</td>
</tr>
<tr>
<td><strong>Stewardship</strong></td>
<td></td>
<td></td>
<td></td>
<td>Assess corridor for educational opportunities (wetlands, management topics, wildlife, water resources, trail etiquette, etc.); Choose topics to address with interpretive signage; Hire professionals (as needed) to create content for signage; Design signs; Manufacture and install signs; Choose topics to address with staff and/or volunteers as programming opportunities; Design programming schedule; Train volunteers; Advertise; Hold educational program</td>
</tr>
<tr>
<td><strong>Education program(s)</strong></td>
<td>X</td>
<td>X</td>
<td>Open Space Tax, Conservation Trust Fund, Great Outdoors Colorado</td>
<td>Identify maintenance projects suitable for volunteers; Shift full-time maintenance staff schedules or designate/hire full time maintenance staff to lead volunteer projects; Schedule volunteer projects; Recruit volunteers; Purchase supplies; Execute volunteer projects</td>
</tr>
<tr>
<td><strong>Maintenance / volunteer program(s)</strong></td>
<td>X</td>
<td>X</td>
<td>Open Space Tax, Conservation Trust Fund, Great Outdoors Colorado</td>
<td></td>
</tr>
<tr>
<td>RECOMMENDATIONS</td>
<td>PRIORITY LEVEL</td>
<td>ORDER OF MAGNITUDE OF COST</td>
<td>POTENTIAL FUNDING PARTNERS</td>
<td>NEXT STEPS</td>
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<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>CIRCULATION AND ACCESS</td>
<td>LOW</td>
<td>MED</td>
<td>HIGH</td>
<td>UNDER $100K</td>
</tr>
<tr>
<td>Sheridan Boulevard</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Signage improvements</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
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<tr>
<td>Tennyson Street</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>HAWK crossing</td>
<td></td>
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<tr>
<td>36th Ave - Federal Boulevard to Pecos Street</td>
<td></td>
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<tr>
<td>Dedicated on-street bicycle lane</td>
<td>X</td>
<td></td>
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<tr>
<td>Lowell Boulevard</td>
<td>X</td>
<td></td>
<td></td>
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<tr>
<td>On-street trail connection to CE Valley Park and Jim Baker Reservoir</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Off-street trail connection to Carl Park Community Center</td>
<td>X</td>
<td></td>
<td></td>
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<tr>
<td>Federal Boulevard</td>
<td></td>
<td></td>
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<tr>
<td>Pedestrian bridge east of Federal (direct connection to station)</td>
<td>X</td>
<td></td>
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<tr>
<td>All-grade trail access on the east side of Federal</td>
<td>X</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Little Dry Creek Lake</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parking area expansion</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wayfinding improvements</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Future trail realignment along creek</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alternative to future trail realignment along creek: Construct a trail alignment</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL COST:** $11,680,000.00

**Remarks:**
- Create inventory of decision points in need of signage; Design signs; Purchase and install signs.
- Discussed signal choices with traffic engineers and narrowed to preferred solution; Identify funding; Bid and install signal for safe pedestrian/bicycle crossing.
- Determine whether current pavement width can accommodate bike lanes; If yes, stripe accordingly; If no, include widening in Transportation Plan updates for future prioritization.
- IN PROGRESS: Public Works is acquiring right-of-way for improvements to Lowell between 62nd Ave. and Clear Creek. Sidewalks will be installed on both sides of the road.
- IN PROGRESS. Work with Hyland Hills to create design and coordinate staff; Construct trail connection.
- Advertise for engineering consultant to design bridge, potential design partnership with Regis University.
- IN PROGRESS: Discuss trail alignment along creek with railroad and adjacent property owner.
<table>
<thead>
<tr>
<th>RECOMMENDATIONS</th>
<th>PRIORITY LEVEL</th>
<th>ORDER OF MAGNITUDE OF COST</th>
<th>POTENTIAL FUNDING PARTNERS</th>
<th>NEXT STEPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pecos Street</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Underpass improvements (to be considered if road bridge is replaced)</td>
<td>X</td>
<td>X</td>
<td>$500,000.00</td>
<td>Road and Bridge Fund, Open Space Sales Tax, Conservation Trust Fund, Great Outdoors Colorado; Advocate for redesign with additional clearance to allow for trail to be elevated in the future;</td>
</tr>
<tr>
<td>Alternative to Underpass improvements: Design/construct wall to prevent sediment deposition on trail (also reduces flooding closures)</td>
<td>X</td>
<td>X</td>
<td>$1,000,000.00</td>
<td>Open Space Sales Tax, Conservation Trust Fund</td>
</tr>
<tr>
<td>Dedicated multi-use path from Pecos Station to Clear Creek Trail</td>
<td>X</td>
<td>X</td>
<td>$300,000.00</td>
<td>Road and Bridge Fund, Open Space Sales Tax, Conservation Trust Fund, Great Outdoors Colorado; Discuss options with Public Works Department.</td>
</tr>
<tr>
<td>Dedicated wayfinding signage from Pecos Station to Clear Creek Trail</td>
<td>X</td>
<td>X</td>
<td>$5,000.00</td>
<td>Open Space Sales Tax, Conservation Trust Fund; Design, manufacture, and install signage prior to opening multi-use path.</td>
</tr>
<tr>
<td>Clear Creek Bottom Lands</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Katasevic Gulch trail connection to Scott Carpenter Middle School</td>
<td>X</td>
<td>X</td>
<td>$1,400,000.00</td>
<td>Open Space Sales Tax, Conservation Trust Fund, Great Outdoors Colorado, Urban Drainage and Flood Control, Stormwater Fee; Talk with neighboring property owners.</td>
</tr>
<tr>
<td>Additional soft-surface walking trails within Bottomlands area</td>
<td>X</td>
<td>X</td>
<td>$200,000.00</td>
<td>Open Space Sales Tax, Great Outdoors Colorado; Design trail connections.</td>
</tr>
<tr>
<td>2 Creek crossings to extend soft-surface trails to south side of river in trail loop</td>
<td>X</td>
<td>X</td>
<td>$200,000.00</td>
<td>Open Space Sales Tax, Great Outdoors Colorado; Design creek crossings.</td>
</tr>
<tr>
<td>Washington Street</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emergency services access (at grade trail connections)</td>
<td>X</td>
<td>X</td>
<td>$1,500,000.00</td>
<td>Open Space Sales Tax, Great Outdoors Colorado; Design trail connections.</td>
</tr>
<tr>
<td>Trailhead parking lot</td>
<td>X</td>
<td>X</td>
<td>$300,000.00</td>
<td>Open Space Sales Tax, Great Outdoors Colorado; Discussion creation of a parking lot with Colorado Department of Transportation (would be in right-of-way).</td>
</tr>
<tr>
<td>Trail connection to planned detached walk</td>
<td>X</td>
<td>X</td>
<td>$350,000.00</td>
<td>Open Space Sales Tax, Great Outdoors Colorado; Design trail connections.</td>
</tr>
<tr>
<td>York Street</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trail access (already planned / underway)</td>
<td>X</td>
<td>X</td>
<td>$900,000.00</td>
<td>Road and Bridge Fund, Open Space Sales Tax, Conservation Trust Fund, Great Outdoors Colorado, Conservation Trust Fund; Acquire right-of-way; finish design.</td>
</tr>
<tr>
<td>All grade trail connections</td>
<td>X</td>
<td>X</td>
<td>$1,000,000.00</td>
<td>Open Space Sales Tax, Great Outdoors Colorado; Design trail connections.</td>
</tr>
<tr>
<td>South Platte River Confluence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parking improvements (already planned / underway)</td>
<td>X</td>
<td>X</td>
<td>$325,000.00</td>
<td>Open Space Sales Tax, Great Outdoors Colorado, Conservation Trust Fund; Execute funding agreement with CDOT; finish design.</td>
</tr>
<tr>
<td>Safety lighting at Confluence area and parking</td>
<td>X</td>
<td>X</td>
<td>$20,000.00</td>
<td>Open Space Sales Tax, Great Outdoors Colorado; Finish design.</td>
</tr>
<tr>
<td>Enhanced wayfinding signage</td>
<td>X</td>
<td>X</td>
<td>$5,000.00</td>
<td>Open Space Sales Tax, Conservation Trust Fund, Great Outdoors Colorado; Create inventory of decision points in need of signage; Design signs; Purchase and install signs.</td>
</tr>
</tbody>
</table>
# Recommendations

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Priority Level</th>
<th>Order of Magnitude of Cost</th>
<th>Potential Funding Partners</th>
<th>Next Steps</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recreation &amp; Programming</strong></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Ralston Creek Confluence Regional Open Space</td>
<td>Low</td>
<td>Under $100k</td>
<td>City of Arvada, Hyland Hills Park &amp; Recreation District, Open Space Sales Tax, Conservation Trust Fund</td>
<td>Identify partners and funding opportunities; Begin discussions on overall improvements</td>
</tr>
<tr>
<td></td>
<td>Median</td>
<td>$100k-$500k</td>
<td>Great Outdoors Colorado, Clear Creek Watershed Foundation, Urban Drainage and Flood Control, U.S. Army Corps of Engineers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>Over $500k</td>
<td>U.S. Army Corps of Engineers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total (if known)</td>
<td>$1,990,000.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lowell Ponds Water-focused Ecological Area</td>
<td>Low</td>
<td>Under $100k</td>
<td>Regional Transportation District, Open Space Sales Tax, Conservation Trust Fund</td>
<td>For Gateway Plaza: Advertise for construction contractor; For other enhancements: Identify partners and scope of work.</td>
</tr>
<tr>
<td></td>
<td>Median</td>
<td>$100k-$500k</td>
<td>Great Outdoors Colorado, Clear Creek Watershed Foundation, U.S. Army Corps of Engineers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>Over $500k</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total (if known)</td>
<td>$985,000.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clear Creek Station Area Park (Gateway Plaza and surrounding area)</td>
<td>Low</td>
<td>Under $100k</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Median</td>
<td>$100k-$500k</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>Over $500k</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total (if known)</td>
<td>$18,635,000.00</td>
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<tr>
<td>RECOMMENDATIONS</td>
<td>PRIORITY LEVEL</td>
<td>ORDER OF MAGNITUDE OF COST</td>
<td>POTENTIAL FUNDING PARTNERS</td>
<td>NEXT STEPS</td>
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<td>-------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>LOW</td>
<td>MEDIUM</td>
<td>HIGH</td>
<td>UNDER $100K</td>
</tr>
<tr>
<td>Clear Creek Station Area Park (Gateway Plaza and surrounding area)</td>
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<td>Plaza, Seating Areas, and Shade</td>
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<tr>
<td>Restaurants and Retail</td>
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<tr>
<td>Public Art</td>
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</tr>
<tr>
<td>Safe River Crossing at Federal</td>
<td></td>
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<tr>
<td>Rain or Shade Shelter</td>
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</tr>
<tr>
<td>Expanded wetland Habitat</td>
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<tr>
<td>Regrading for access and program improvements</td>
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<tr>
<td>Park planting improvements</td>
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</tr>
<tr>
<td>Lighting</td>
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<td>Soft trails</td>
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<tr>
<td>Little Dry Creek Regional Open Space</td>
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<tr>
<td>Fishing Area</td>
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<tr>
<td>Nature-themed children’s play area</td>
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<td></td>
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<tr>
<td>Lounging areas</td>
<td></td>
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<tr>
<td>Restaurants and Retail</td>
<td></td>
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<tr>
<td>Rain or shade shelter</td>
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<tr>
<td>Regrading for access and program improvements</td>
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<td>Park planting improvements</td>
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<td>Clear Creek Bottomlands Habitat Focused Ecological Area</td>
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<td>Soft Trail Loop</td>
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<td>Safe River Crossing (2)</td>
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<tr>
<td>Animal Habitat Protection</td>
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<td>Outdoor Classroom</td>
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<td>Stormwater park habitat</td>
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<td>Kellysvich Gulch integration</td>
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<td>Regrading for access and program improvements</td>
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</tr>
<tr>
<td>Enhanced planting improvements</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
### Clear Creek Wetlands Nature Preserve
- Public Art: X
- Educational signage: X
- Expanded wetland habitat: X
- Enhanced parking improvements: X

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Art</td>
<td>$50,000.00</td>
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<tr>
<td>Educational signage</td>
<td>$150,000.00</td>
</tr>
<tr>
<td>Expanded wetland habitat</td>
<td>$200,000.00</td>
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<tr>
<td>Enhanced parking improvements</td>
<td>$100,000.00</td>
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</tbody>
</table>

### Clear Creek Confluence Regional Open Space
- Water sports: X
- Fishing areas: X
- Nature-themed children’s play area: X
- Amphitheater: X
- Lounging Areas: X
- Public art: X
- Open Meadow Habitat: X
- Animal Habitat Protection: X
- Expanded Wetland Habitat: X
- Regrading for access and program improvements: X
- Additional parking: X
- Shade structures/ existing areas: X
- Land acquisition (optional): X
- Park planting improvements: X

<table>
<thead>
<tr>
<th>Recommendation</th>
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<tbody>
<tr>
<td>Water sports</td>
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<tr>
<td>Fishing areas</td>
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<td>Nature-themed children’s play area</td>
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<td>Amphitheater</td>
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<tr>
<td>Lounging Areas</td>
<td>$30,000.00</td>
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<tr>
<td>Public art</td>
<td>$150,000.00</td>
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<tr>
<td>Open Meadow Habitat</td>
<td>$40,000.00</td>
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<td>Animal Habitat Protection</td>
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<td>Expanded Wetland Habitat</td>
<td>$200,000.00</td>
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<tr>
<td>Regrading for access and program improvements</td>
<td>$500,000.00</td>
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<tr>
<td>Additional parking</td>
<td>$500,000.00</td>
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<tr>
<td>Shade structures/ existing areas</td>
<td>$120,000.00</td>
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<tr>
<td>Land acquisition (optional)</td>
<td>$1,500,000.00</td>
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<tr>
<td>Park planting improvements</td>
<td>$150,000.00</td>
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**ESTIMATED TOTAL COST FOR ALL RECOMMENDATIONS** $32,360,500
This exhibit was prepared in response to public questions about overall water quality and concerns about health and safety for future water-based programming. The exhibit was included during Phase 2 and Phase 3 outreach events and illustrated a potential opportunity to allow water activities in the future. Future study and continuous monitoring would be necessary to determine whether the stream is healthy enough to encourage in-water recreation.

The data represented by the April 2017 report was not focused on meeting a state requirement or legal process. It was meant to be informative to foster a general understanding of the water quality in Clear Creek. Additional data was taken from Colorado Department of Public Health and Environment and Environmental Protection Agency reports, which track current uses, attainment status, and impairments of Clear Creek and other stream segments. The Adams County reach of Clear Creek is identified as COSPCL15 or COSPCL15_A. According to these sources, the water in this reach of Clear Creek is not currently suitable for aquatic life or recreation due to impairments caused by ammonia, sediment, temperatures, and E. coli.

As this master plan was not intended to gather or analyze water quality data, the plan relies on the above mentioned data to make recommendations on infrastructure and recreation improvements along the corridor.
Clear Creek Water Quality
Prepared by Clear Creek Watershed Foundation, April 2017

OVERVIEW

The Clear Creek watershed, in a 22,000-square-mile drainage basin located in central Colorado, has long been recognized as a significant waterbody due to its proximity to the Front Range metropolitan area. The Clear Creek Watershed Foundation is dedicated to protecting the health and integrity of the Clear Creek Watershed by monitoring water quality and advocating for effective water management policies.

Water Quality Standards and Beneficial Uses

Water quality standards are established to protect the physical, chemical, and biological integrity of waterbodies throughout the state and across the nation. These standards are established to ensure that water quality is adequate for all beneficial uses of water resources.

<table>
<thead>
<tr>
<th>Beneficial Uses</th>
<th>Water Quality Standards</th>
<th>Figure references</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Quality Standards</td>
<td>Water Quality Standards</td>
<td>Figure 1</td>
</tr>
<tr>
<td>Water Supply</td>
<td>Total Phosphorus Figure 7</td>
<td>Total Nitrogen Figure 5</td>
</tr>
<tr>
<td>Dissolved Oxygen</td>
<td>Total Nitrate Figure 6</td>
<td>Manganese &amp; Iron Figure 8</td>
</tr>
<tr>
<td>Aquatic Life</td>
<td>Nitrate &amp; Nitrite Figure 4</td>
<td>Zinc &amp; Copper Figure 9</td>
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<tr>
<td>Hardness &amp; Flow</td>
<td>Dissolved Oxygen Figure 4</td>
<td>Hardness &amp; Flow Figure 1</td>
</tr>
<tr>
<td>Recreation</td>
<td>E. Coli Bacteria Figure 2</td>
<td>pH Figure 3</td>
</tr>
</tbody>
</table>

Acknowledgements

This water-quality assessment was prepared by Dr. T.D. Steele, TDS Consulting, and J.D. Helm, CCWF. Executive Director, with GIS support by Diane Klafl, CCWF. Streamflow data were extracted from USGS and SDW. We gratefully acknowledge the City of Thornton, Denver’s Metropolitan Wastewater Reclamation District (MWRRD), and the U.S. Environmental Protection Agency (USEPA) for providing the water quality data used in this assessment.

Iron and Manganese

Iron and manganese are naturally present in rock and soil. However, these trace elements can be released into water bodies due to natural processes, such as weathering, or human activities, such as mining, agriculture, and industrial processes. High levels of iron and manganese can affect the color, taste, and odor of water, and can pose health risks if consumed.

Copper and Zinc

Copper and zinc are essential trace elements for human and animal health. However, excessive concentrations in water can be harmful to aquatic life, and can cause health problems if ingested by humans.

Dissolved Oxygen

Many species of aquatic organisms are especially sensitive to low dissolved oxygen concentrations. The U.S. standard of 5 mg/L is generally met in Clear Creek.


The following page is a selection from this document that refers to the Adams County segment of the Clear Creek Corridor, from document page C-5.

### REGULATION #38 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

**Clear Creek Basin**

<table>
<thead>
<tr>
<th>Designation</th>
<th>Agriculture</th>
<th>Physical and Biological</th>
<th>Inorganic (mg/L)</th>
<th>Metals (µg/L)</th>
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</thead>
<tbody>
<tr>
<td>C0SPCL15</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature °C</td>
<td>DM</td>
<td>MWAT</td>
<td>acute</td>
<td>chronic</td>
</tr>
</tbody>
</table>

#### Classifications
- **Agriculture**
- **Aquatic Life Warm 1**
- **Recreation**
- **Water Supply**

#### Qualifiers:
- **Other:**
  - **Metals:**
    - Aluminum
    - Arsenic
    - Barium
    - Zinc
  - **Inorganic:**
    - Chloride
    - Chlorine
    - Cyanide
    - Iron
    - Lead
    - Manganese
    - Molybdenum
    - Nickel
    - Phosphorus
    - Sulfate
    - Sulfide
    - Sulfur
    - Silver
    - Uranium

#### Physical and Biological
- **D.O. (mg/L):**
  - DM
  - MWAT
- **Temperature °C:**
  - DM
  - MWAT
- **Phosphorus (mg/L):**
  - DM
  - MWAT
- **E. Coli (per 100 mL):**
  - DM
  - MWAT

#### Inorganic (mg/L)
- **D.O.:**
  - DM
  - MWAT
- **Temperature °C:**
  - DM
  - MWAT
- **Phosphorus (mg/L):**
  - DM
  - MWAT
- **E. Coli (per 100 mL):**
  - DM
  - MWAT

#### Metals (µg/L)
- **Aluminum:**
- **Arsenic:**
- **Barium:**
- **Zinc:**
- **Chloride:**
- **Chlorine:**
- **Cyanide:**
- **Iron:**
- **Lead:**
- **Manganese:**
- **Molybdenum:**
- **Nickel:**
- **Phosphorus:**
- **Sulfate:**
- **Sulfide:**
- **Sulfur:**
- **Silver:**
- **Uranium:**

#### Water Quality Standards Tables

The 2016 Colorado Department of Public Health and Environment Water Quality Commission Stream Classification and Water Quality Report details the presence and concentration of contaminants in streams throughout Colorado.

The following page is a selection from this document that refers to the Adams County segment of the Clear Creek Corridor, from document page 57.
